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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2020

OR

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

Commission File Number	Exact Name of Registrant as Specified in its Charter, Principal Office Address and Telephone Number	State of Incorporation/Organization	I.R.S. Employer Identification No.
001-32427	Huntsman Corporation 10003 Woodloch Forest Drive The Woodlands, Texas 77380 (281) 719-6000	Delaware	42-1648585
333-85141	Huntsman International LLC 10003 Woodloch Forest Drive The Woodlands, Texas 77380 (281) 719-6000	Delaware	87-0630358

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

Registrant	Title of each class	Trading Symbol	Name of each exchange on which registered
Huntsman Corporation	Common Stock, par value $0.01 per share	HUN	New York Stock Exchange
Huntsman International LLC	NONE	NONE	NONE

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

Registrant	Title of each class
Huntsman Corporation/Huntsman International LLC	None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Huntsman Corporation	Yes	No
Huntsman International LLC	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 Exchange Act.

Huntsman Corporation/Huntsman International LLC	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 Exchange Act 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.

Huntsman Corporation/Huntsman International LLC	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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Huntsman Corporation/Huntsman International LLC	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 ĭ large accelerated filer, ĭ ĭ accelerated filer ĭ ĭ smaller reporting company, ĭ and ĭ emerging growth company ĭ in Rule 12b-2 of the Exchange .

Huntsman Corporation	Large accelerated filer	Accelerated filer	Non-accelerated filer	Smaller reporting company	Emerging Growth Companies
Huntsman International LLC	Large accelerated filer	Accelerated filer	Non-accelerated filer	Smaller reporting company	Emerging Growth Companies

Indicate by check mark whether the registrant has filed a report on and attestation to its management ĭ 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.

Huntsman Corporation	Yes	No
Huntsman International LLC	Yes	No

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 7(a)(2)(B) of the Securities Act.

Huntsman Corporation/Huntsman International LLC	Yes	No

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Huntsman Corporation/Huntsman International LLC	Yes	No

On June 30, 2020, the last business day of the registrants ĭ most recently completed second fiscal quarter, the aggregate market value of voting and non-voting common equity held by non-affiliates was as follows:

Registrant	Common Equity	Market Value Held by Nonaffiliates
Huntsman Corporation	Common Stock	$3,796,763,992(1)
Huntsman International LLC	Units of Membership Interest	NA(2)

(1) Based on the closing price of $17.97 per share of common stock as quoted on the New York Stock Exchange.
(2) All units of membership interest are held by Huntsman Corporation, an affiliate.

On February 1, 2021, the number of shares outstanding of each of the registrant ĭ s classes of common equity were as follows:

Registrant	Common Equity	Outstanding
Huntsman Corporation	Common Stock	221,000,456
Huntsman International LLC	Units of Membership Interest	2,728

This Annual Report on Form 10-K presents information for two registrants: Huntsman Corporation and Huntsman International LLC. Huntsman International LLC is a wholly owned subsidiary of Huntsman Corporation and is the principal operating company of Huntsman Corporation. The information reflected in this Annual Report on Form 10-K is equally applicable to both Huntsman Corporation and Huntsman International LLC, except where otherwise indicated.

Huntsman International LLC meets the conditions set forth in General Instructions (I)(1)(a) and (b) of Form 10-K and, to the extent applicable, is therefore filing this form with a reduced disclosure format.

Documents Incorporated by Reference

Part III: Proxy Statement for the 2021 Annual Meeting of Stockholders to be filed within 120 days of Huntsman Corporation ĭ s fiscal year ended December 31, 2020.

HUNTSMAN CORPORATION AND SUBSIDIARIES
HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
2020 ANNUAL REPORT ON FORM 10-K
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HUNTSMAN CORPORATION AND SUBSIDIARIES
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2020 ANNUAL REPORT ON FORM 10-K

This report includes information with respect to market share, industry conditions and forecasts that we obtained from internal industry research, publicly available information (including industry publications and surveys), and surveys and market research provided by consultants. The publicly available information and the reports, forecasts and other research provided by consultants generally state that the information contained therein has been obtained from sources believed to be reliable. We have not independently verified any of the data from third-party sources, nor have we ascertained the underlying economic assumptions relied upon therein. Similarly, our internal research and forecasts are based upon our management ï s understanding of industry conditions, and such information has not been verified by any independent sources.

For convenience in this report, the terms ï Company, ï ï our, ï ï us, ï or ï we ï may be used to refer to Huntsman Corporation and, unles requires, its subsidiaries and predecessors. In this report, ï Huntsman International ï refers to Huntsman International LLC (our wholly-owned subsidiary) and, unles the context otherwise requires, its subsidiaries; ï AAC ï refers to Arabian Amines Company, our consolidated manufacturing joint venture with the Zamil Group; ï refers to Huntsman Polyurethanes Shanghai Ltd. (our consolidated splitting joint venture with Shanghai Chlor-Alkali Chemical Company, Ltd); and ï SLIC ï refers to Shanghai Liengheng Isocyanate Investment BV (an unconsolidated manufacturing joint venture with BASF and three Chinese chemical companies).

In this report, we may use, without definition, the common names of competitors or other industry participants. We may also use the common names or abbreviations for certain chemicals or products. Many of these terms are defined in the Glossary of Chemical Terms found at the conclusion of ï Part I. Item 1. Business ï below.

Forward-Looking Statements

With respect to Huntsman Corporation, certain information set forth in this report contains ï forward-looking statements ï within the meaning the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than historical factual information are forward-looking statements, including without limitation statements regarding: projections of revenue, expenses, profit, profit margins, tax rates, tax provisions, cash flows, pension and benefit obligations and funding requirements, our liquidity position or other projected financial measures; projected impact of COVID-19 on our operations and future financial results; management ï s plans and strategies for future operations, including statements relating to anticipated operating performance, cost reductions, restructuring activities, new product and service developments, competitive strengths or market position, acquisitions, divestitures, spin-offs or other distributions, strategic opportunities, securities offerings, stock repurchases, dividends and executive compensation; growth, declines and other trends in markets we sell into; new or modified laws, regulations and accounting pronouncements; outstanding claims, legal proceedings, tax audits and assessments and other contingent liabilities; foreign currency exchange rates and fluctuations in those rates; general economic and capital markets conditions; the timing of any of the foregoing; assumptions underlying any of the foregoing; and any other statements that address events or developments that we intend or believe will or may occur in the future. In some cases, forward-looking statements can be identified by terminology such as ï believes, ï ï expects, ï ï may, ï ï ï anticipates ï or ï intends ï or the negative of such terms or other comparable terminology, or by discussions of strategy. We may also make additional forwar statements from time to time. All such subsequent forward-looking statements, whether written or oral, by us or on our behalf, are also expressly qualified by these cautionary statements.

All forward-looking statements, including without limitation management ï s examination of historical operating trends, are based upon our current expectations and various assumptions. Our expectations, beliefs and projections are expressed in good faith and we believe there is a reasonable basis for them, but there can be no assurance that management ï s expectations, beliefs and projections will result or be achieved. All forward-looking statements apply only as of the date made. We undertake no obligation to publicly update or revise forward-looking statements whether because of new information, future events or otherwise, except as required by securities and other applicable law.

There are a number of risks and uncertainties that could cause our actual results to differ materially from the forward-looking statements contained in or contemplated by this report. Any forward-looking statements should be considered in light of the risks set forth in ï Part I. Item 1A. Risk Factors ï and elsewhere in th report.

PART I

ITEM 1. BUSINESS

General

We are a global manufacturer of differentiated organic chemical products. Our Company, a Delaware corporation, was formed in 2004 to hold the Huntsman businesses, which were founded by Jon M. Huntsman. Mr. Huntsman founded the predecessor to our Company in 1970 as a small polystyrene plastics packaging company. Since then, we have grown through a series of acquisitions and now own a global portfolio of businesses.

We operate all of our businesses through Huntsman International, our wholly-owned subsidiary. Huntsman International is a Delaware limited liability company and was formed in 1999.

Our principal executive offices are located at 10003 Woodloch Forest Drive, The Woodlands, Texas 77380, and our telephone number at that location is (281) 719-6000.

Recent Developments

COVID-19 Update

The outbreak of the coronavirus disease (ĭ COVID-19 ĭ) has spread from China to many other countries, including the United States (ĭ U.S. ĭ). In Ma the World Health Organization characterized COVID-19 as a pandemic. As of December 31, 2020, there have not been any significant interruptions in our ability to provide our products and support to our customers. However, the COVID-19 pandemic has significantly impacted economic conditions throughout the U.S. and the world, including the markets in which we operate. Demand for our products declined at a rapid pace in the second quarter 2020, which led to a meaningful adverse impact on our revenues and financial results. Although we have experienced improved conditions in most of our core markets in the second half of 2020, there continues to be many uncertainties regarding the impact of the COVID-19 pandemic, including the scope of scientific and health issues, the anticipated duration of the pandemic and the extent of local, regional and worldwide economic, social and political disruption. Given such uncertainties, it is difficult to estimate the magnitude COVID-19 may impact our future business, but we expect any adverse impact to continue for some time.

In response to the impact of COVID-19, we have implemented, and may continue to implement, cost saving initiatives, including:

- suspended merit and general wage increases that customarily would have occurred at the end of the first quarter of 2020;
- implemented a temporary hiring freeze for all non-business critical positions;
- accelerated integration efforts related to the integration of Icynene-Lapolla and CVC Thermoset Specialties in order to more expeditiously capture related synergies;
- implemented restructuring programs in our Polyurethanes segment to reorganize our spray polyurethane foam business to better position this business for efficiencies and growth in coming years and to optimize our downstream footprint;
- implemented a restructuring program in our Performance Products segment, primarily related to workforce reductions, in response to the sale of our chemical intermediates businesses, which included PO/MTBE, and our surfactants businesses (collectively, "Chemical Intermediates Businesses" to Indorama Venture Holdings L.P. ("Indorama");
- implemented restructuring programs in our Advanced Materials segment, primarily related to workforce reductions in connection with our acquisition of CVC Thermoset Specialties and the alignment of the segment ĭ s commercial organization and optimization of the segment ĭ s manufacturing processes; and
- implemented restructuring programs in our Textile Effects segment to rationalize and realign structurally across various functions and certain locations within the segment.

For more information regarding our 2020 restructuring activities, see ĭ Note 13. Restructuring, Impairment and Plant Closing Costs (Credits) ĭ to our consolidated financial statements.

Redemption of the 2021 Senior Notes

On January 15, 2021, we redeemed in full ĭ 445 million (approximately $541 million) in aggregate principal amount of our 5.125% senior notes due 2021 ("2021 Senior Notes") at the redemption price equal to 100% of the principal amount of the notes, plus accrued and unpaid interest to, but not including, the redemption date. In connection with this redemption, we expect to incur an incremental cash tax liability of approximately $15 million in the first quarter of 2021 related to foreign currency exchange gains.

Acquisition of Gabriel Performance Products

On January 15, 2021, we completed the acquisition of Gabriel Performance Products ("Gabriel"), a North American specialty chemical manufacturer of specialty additives and epoxy curing agents for the coatings, adhesives, sealants and composite end-markets, from funds affiliated with Audax Private Equity in an all-cash transaction of approximately $250 million, subject to customary closing adjustments, funded from available liquidity. The acquired business will be integrated into our Advanced Materials segment.

Sale of Assets at our Basel, Switzerland Site

In November 2020, we entered into a sale and leaseback agreement to sell certain properties in Basel, Switzerland for approximately CHF 67 million (approximately $73 million) and to lease those properties back for five years. This transaction resulted in a pretax gain of approximately CHF 30 million (approximately $33 million).

Sale of India-Based Do-It-Yourself Consumer Adhesives Business

On November 3, 2020, we completed the sale of the India-based do-it-yourself consumer adhesives ("DIY") business, previously part of our Advanced Materials segment, to Pidilite Industries Ltd. and received cash of approximately $257 million. Under the terms of the agreement, we may receive up to approximately $28 million of additional cash under an earnout within 18 months if the business achieves certain sales revenue targets in line with the DIY business' 2019 performance. In connection with this sale, we recognized a pretax gain of $247 million in the fourth quarter of 2020, which was recorded in gain on sale of India-based DIY business in our consolidated statements of operations.

Sale of Venator Interest

On December 23, 2020, we completed the sale of approximately 42.4 million ordinary shares of Venator Materials PLC (ï Venator ï) to funds advised by SK Capital Partners, LP. We received approximately $99 million in cash, which included $8 million for a 30-month option described below. In addition to the cash proceeds received from the sale, we achieved immediate cash tax savings of approximately $150 million by offsetting the capital loss on the sale of Venator shares against the capital gain realized on the sale of our Chemical Intermediates Businesses. See ï Note 4. Discontinued Operations and Business Dispositions ï Separation and Deconsolidation of Venator ï to our consolidated financial statements.

Concurrently with the sale of Venator ordinary shares, we entered into an option agreement, pursuant to which we granted an option to funds advised by SK Capital Partners, LP to purchase the remaining approximate 9.7 million ordinary shares we hold in Venator at $2.15 per share. The option will expire on June 23, 2023 and will not be exercisable so long as such exercise would result in a default or an "Event of Default" under Venator ï s Term Loan Credit Agreement and Revolving Credit Agreement.

In connection with the 2017 initial public offering of Venator, we recorded a receivable of approximately $34 million related to certain income tax benefits that was reduced upon completion of the sale of Venator shares to SK Capital Partners, LP due to a change of control limitation on specific Venator tax attributes. Accordingly, we wrote off approximately $31 million of this receivable upon completion of the sale of the Venator ordinary shares in December 2020.

Other Significant Developments During 2020

Other significant developments that occurred during 2020 were as follows:

- In May 2020, we completed the acquisition of CVC Thermoset Specialties, a North American specialty chemical manufacturer serving the industrial composites, adhesives and coatings markets ("CVC Thermoset Specialties Acquisition".) CVC Thermoset Specialties operates two manufacturing facilities located in Akron, Ohio and Maple Shade, New Jersey. The acquired business was integrated into our Advanced Materials segment. For more information, see ï Note 3. Business Combinations and Acquisitions ï Acquisition of CVC Thermoset Specialties ï to our consolidated finan statements.

- In February 2020, we completed our acquisition of Icynene-Lapolla, a leading North American manufacturer and distributor of spray polyurethane foam insulation systems for residential and commercial applications (ï Icynene-Lapolla Acquisition ï). The acquired business was integrated into o Polyurethanes segment. For more information, see ï Note 3. Business Combinations and Acquisitions ï Acquisition of Icynene-Lapolla ï to our consolidated financial statements.

- In January 2020, we completed the sale of our Chemical Intermediates Businesses to Indorama Ventures Holdings L.P. (ï Indorama ï) in a transaction valued at approximately $2 billion, comprised of a cash purchase price of approximately $1.92 billion and the transfer of approximately $72 million in net underfunded pension and other post-employment benefit liabilities. For more information, see ï Note 4. Discontinued Operations and Business Dispositions ï Sale of Chemical Intermediates Businesses ï to our consolidated financial statements.

Overview

We are a global manufacturer of differentiated organic chemical products. Our products comprise a broad range of chemicals and formulations, which we market globally to a diversified group of consumer and industrial customers. Our products are used in a wide range of applications, including those in the adhesives, aerospace, automotive, construction products, durable and non-durable consumer products, electronics, insulation, medical, packaging, coatings and construction, power generation, refining, synthetic fiber, textile chemicals and dyes industries. We are a leading global producer in many of our key product lines, including MDI, amines, maleic anhydride, epoxy-based polymer formulations, textile chemicals and dyes. Our revenues for the years ended December 31, 2020, 2019 and 2018 were $6,018 million, $6,797 million and $7,604 million, respectively.

We operate in four segments: Polyurethanes, Performance Products, Advanced Materials and Textile Effects. In August 2017, we separated our Titanium Dioxide and Performance Additives business (the ï P&A Business ï) through an initial public offering (ï IPO ï) of ordinary shares of Venator. In December 202(to account for our remaining ownership of 9,688,761 Venator ordinary shares as an investment in equity securities that are marked to fair value with changes in fair value reported in earnings. For more information, see ï Note 4. Discontinued Operations and Business Disposition ï Separation and Deconsolidation of Venator ï to our consolidated financial statements. On January 3, 2020, we completed the sale of our Chemical Intermediates Businesses to Indorama, and beginning in the third quarter of 2019, we reported the results of our Chemical Intermediates Businesses as discontinued operations. For more information, see ï Note 4. Discontinued Operations and Business Dispositions ï Sale of Chemical Intermediates Businesses ï to our consolidated financial statements.

Our Products

All four of our segments produce differentiated organic chemical products. Growth in our differentiated products has been driven by the substitution of our products for other materials and by the level of global economic activity. Accordingly, the profitability of our differentiated products has been somewhat less influenced by the cyclicality that typically impacts the petrochemical industry.

(1) Percentage allocations in this chart do not give effect to Corporate and other unallocated items and eliminations. For a reconciliation of adjusted EBITDA to net income attributable to Huntsman Corporation and cash provided by operating activities, see ï Part II. Item 7. Management ï s Discussion and Analysis of Financial Condition and Results of Operations ï Results of Operations. ï

The following table identifies the key products, principal end markets and applications, representative customers, raw materials and representative competitors of each of our business segments:

Product Line		End Markets / Applications	Representative Customers	Raw Materials	Representative Competitors
Polyurethanes	MDI	Polyurethane chemicals are used to produce rigid and flexible foams, as well as coatings, adhesives, sealants and elastomers. They are also used in refrigeration and appliance insulation, construction products, automotive, footwear, furniture, cushioning and specialized engineering applications.	BMW, Electrolux, Firestone, Haier, Henkel, Lear, Louisiana Pacific, Norbord and Recticel	Benzene =>Nitrobenzene and Aniline	Wanhua Chemical Group, BASF, Dow and Covestro
	Polyols	Polyols are combined with MDI and other isocyanates to create a broad spectrum of polyurethane products, such as rigid foam, flexible foam and other non-foam applications.		PO, polyester polyols and EO	
	TPU	TPU is a high-quality, fully-formulated thermal plastic that can be tailored with unique qualities. It can be used in injection molding and small components for automotive and footwear. It is also extruded into films, wires and cables for use in the coatings, adhesives, sealants and elastomers markets.		Isocyanate (such as MDI) and a polyol	
Performance Products	Amines	Amines are a family of intermediate chemicals that are valued for their properties as a reactive agent, emulsifier, dispersant, detergent, solvent or corrosion inhibitor. Amines are used in polyurethane foam, fuel and lubricant additives, paints and coatings, composites, gas treatment, construction materials and semiconductors.	Afton, Bayer, Chevron Oronite, DuPont, Evonik, Hexion, Infineum, Ingevity, Lubrizol, Olin, PPG, Sherwin-Williams and Quadra	EO, PO, glycols, ethylene dichloride, caustic soda, ammonia, hydrogen, methylamines and acrylonitrile	BASF, Delamine, Dow, Eastman, Evonik, Nouryon and Tosoh
	Maleic anhydride	Maleic anhydride is an intermediate chemical used primarily to produce unsaturated polyester resins (UPRs). UPRs are mainly used in the production of fiberglass reinforced resins for marine, automotive and construction products. Maleic anhydride is also used in the production of lubricants, food additives and food acidulants.	Andercol, Chevron Oronite, Cranston, Dixie, Ingevity, Lubrizol, MFG Chemical, Polynt-Reichhold and Tate & Lyle	Normal butane	Lanxess, INEOS, Bartek and AOC
Advanced Materials	Technologically-advanced epoxy, acrylic and polyurethane and acrylonitrile-butadiene-based polymer formulations	Aerospace and industrial adhesives; composites for aerospace, automotive, oil and gas and wind power generation; electrical power transmission and electric vehicles; automotive industrial and consumer electronics; civil engineering.	Azelis, Bodo Moeller, Bosch, Freeman, Hilti, Schneider, Siemens, Speed Fair, Syngenta and Viasystems	BLR, epichlorohydrin, amines, polyols, isocyanates, acrylic materials, hardeners, fillers, butadiene and acrylonitrile	Henkel, Sika, 3M, DuPont, Hexion, Elantas, Olin, Xiongrum and Tayo
	High performance thermoset resins and curing agents and toughening agents, and carbon nanotubes additives	High performance chemical building blocks sold to formulators who develop formulations for aerospace, automotive, oil and gas, coatings, construction, electronics and electrical insulation applications.	Cytec, Hexcel and Toray	Epichlorohydrin, amines, phenols, aminophenols, fatty acids, butadiene and acrylonitrile	Hexion, Olin, Sumitomo, Evonik, BASF, Cardolite, and Kaneka
	Base liquid resins (BLR) and base solid resins	BLR is used internally and is the basic building block for many of our downstream products. Approximately 63% of what we produce is used internally and the rest is sold into the merchant market.	Akzo, Omya and Sherwin Williams	Epichlorohydrin, bisphenol A, BLR, MDA and phenol and aminophenols	Olin, Hexion, Kukdo and NanYa
Textile Effects	Chemicals and dyes	Textile dyes add color to textiles from cotton, polyester, wool, acrylic and nylon, while textile chemicals improve the performance characteristics of the textile. These are used in apparel, home and technical textiles. Apparel textiles includes performance apparel, casual wear, formal and intimate apparel. Home and institutional textiles include textiles that are used within the home or institutions such as hotels. Functional and technical textiles include automotive textiles, carpet, military fabrics protective wear, nonwoven and other technical fabrics.	Esquel Group, Fruit of the Loom, Guilford Mills, Hanesbrands, Kahatex, Nice Dyeing, Sage Automotive, Tencate, Toray Group, Welspun Group, Y.R.C. Textiles and Zaber and Zubair	Thousands of raw materials, with no one representing more than 5% of raw material costs	Dyes: Archroma, DyStar, Longsheng, Runtu and Jihua Chemicals: Archroma, Nicca, Transfar/Tannatex, CHT and Rudolf

Polyurethanes

General

We are a leading global manufacturer and marketer of a broad range of polyurethane chemicals, including MDI products, polyols and TPU (each discussed in more detail below under ï ï Products and Markets ï). Polyurethane chemicals are used to produce rigid and flexible foams, as well as coatings, adhesives, sealants elastomers. We focus on the higher-margin, higher-growth markets for specialty MDI and MDI-based polyurethane systems. Volume growth in our Polyurethanes segment has been driven primarily by global economic activity and the continued substitution of MDI-based products for other materials across a broad range of applications. We operate three major polyurethane manufacturing facilities in the U.S., Europe and China. We also operate 30 strategically located downstream facilities, 26 of them are polyurethane formulation facilities, commonly referred to in the chemical industry as ï systems houses, ï located in close proximity to our customers worldwide, which enables us to focus on customer support, technical service and a differentiated product offering. We also operate two specialty polyester polyol manufacturing facilities focused on the insulation market and three downstream TPU manufacturing facilities in the U.S., Europe and China.

Our customers produce polyurethane products through the combination of an isocyanate, such as MDI, with polyols, which are derived largely from PO and EO. We are able to produce over 2,500 distinct MDI-based polyurethane products by modifying the MDI molecule through varying the proportion and type of polyol used and by introducing other chemical additives to our MDI formulations. As a result, polyurethane products, especially those derived from MDI, are continuing to replace traditional products in a wide range of end-use markets, including insulation in construction and appliances, cushioning for automotive and furniture, coatings, adhesives, wood binders for construction and furniture, footwear and other specialized engineering applications.

We operate a world-scale integrated polyurethane formulations facility and a world-scale research and development campus in China to service our customers in the critical Chinese market, the largest MDI market in the world, and we will support the long-term demand growth that we believe this region will continue to experience. Additionally, we entered into an agreement with Sinopec to form a joint venture to build and operate a world-scale PO/MTBE plant in Nanjing, China utilizing proprietary PO/MTBE manufacturing technology. We own a 49% interest in the joint venture and account for our interest in the joint venture as an equity method investment.

In May 2020, we rebranded our leading spray polyurethane foam (ï SPF ï) business as Huntsman Building Solutions (ï HBS ï). HBS was formed throu acquisitions of Icynene-Lapolla in 2020 and Demilec in 2018. Our SPF products offer significant environmental benefits, as our proprietary manufacturing process transforms low quality PET plastic bottles into highly effective energy-saving polyurethane insulation. HBS offers attractive growth potential as the business turns our lower margin polymeric MDI, the other key ingredient in SPF formulations, into higher margin specialized SPF products.

Products and Markets

MDI is used primarily in rigid foam applications and in a wide variety of customized, higher-value flexible foam as well as coatings, adhesives, sealants and elastomers. Polyols, including polyether and polyester polyols, are used in conjunction with MDI in rigid foam, flexible foam and other non-foam applications. The following chart illustrates the range of product types and end uses for polyurethane chemicals. We produce MDI, polyols and TPU products and do not produce TDI products.

Polyurethane chemicals are sold to customers who combine the chemicals to produce polyurethane products. Depending on their needs, customers will use either component polyurethane chemicals produced for mass sales or polyurethane systems tailored for their specific requirements. By varying the blend, additives and specifications of the polyurethane chemicals, manufacturers are able to develop and produce a breadth and variety of polyurethane products.

Our strategy is focused on growing our differentiated product offering (specialty MDI and polyols, formulated MDI systems and TPU), which requires a greater emphasis on formulating capability to help our downstream customers to meet the desired effect required in their applications. These differentiated products tend to require technical solutions, offer higher margins, lower volatility and are less dependent on industry utilization rates compared to sales of component MDI or component polyols.

MDI. MDI has grown substantially over the past three decades, increasing by a factor of 6% CAGR, well in excess of global GDP. MDI has a substantially larger market size and a higher growth rate than other polyurethane isocyanates. This is primarily because MDI can be used to make polyurethanes with a broader range of properties and can therefore be used in a wider range of applications. We believe that MDI and formulated MDI systems, which combine MDI and polyols, will continue to grow at approximately double the rate of global GDP driven by the mega trends of energy management, food preservation, demographics and urbanization/transportation. MDI offers key products benefits of energy efficiency, comfort and durability aligned with these megatrends. We believe that MDI and formulated MDI systems will continue to substitute for alternative materials such as fiberglass in insulation, phenol formaldehyde in wood binders and TDI in automotive and furniture. Specialty cushioning and insulation applications, thermoplastic polyurethanes and adhesives and coatings will further contribute to the continued growth of MDI. MDI experiences some seasonality in its sales reflecting its exposure to seasonal construction-related end markets such as insulation and composite wood products. Sales generally peak during the spring and summer months in the northern hemisphere, resulting in greater sales volumes during the second and third quarters of the year.

TPU. TPU is a high-quality, fully formulated thermal plastic derived from the reaction of MDI or an aliphatic isocyanate with polyols to produce unique qualities such as durability, flexibility, strength, abrasion-resistance, shock absorbency and chemical resistance. We can tailor the performance characteristics of TPU to help meet the specific requirements of our customers. TPU is used in injection molding and small components for the automotive and footwear industries. It is also extruded into films for apparel, wires and cables for industrial use and in a wide variety of applications in the coatings, adhesives, sealants and elastomers markets.

Polyols. Polyols are combined with MDI and other isocyanates to create a broad spectrum of formulated polyurethane systems. Demand for specialty polyols has been growing at approximately the same rate at which MDI consumption has grown.

Aniline. Aniline is an intermediate chemical used primarily to manufacture MDI. The majority of our aniline is consumed internally with some sold to third parties. We believe that the lack of a significant spot market for aniline means that in order to remain competitive, MDI manufacturers must either be integrated with an aniline manufacturing facility or have a long-term, cost-competitive aniline supply contract.

Our strategic focus is on growing our differentiated (specialty MDI and polyols, formulated MDI-based systems and TPU) product offerings and the diagram below provides an overview of that focus with an approximation of the number of grades, formulations, products and stock keeping units which we produce and sell.

Sales and Marketing

We market our polyurethane chemicals to over 7,000 customers in more than 90 countries. Our sales, marketing and technical resources are organized to support major regional markets and key end-use markets, some of which require a coordinated global approach, such as key accounts across the automotive sector. These key end-use markets include the commercial and residential insulation, appliance, automotive, footwear, furniture and coatings, adhesives, sealants and elastomers industries. We sell both directly and indirectly to customers, the latter via a network of distributors and agents who in turn sell our products to customers who cannot be served as cost effectively by our internal sales groups.

We provide a wide variety of polyurethane solutions as components (i.e., the isocyanate or the polyol) or in the form of ï systems ï in which we provide the total isocyanate and polyol formulation to our customers. Our ability to deliver a range of polyurethane solutions and technical support, which can be tailored for the needs of our customers, is critical to our long-term success. We have strategically located our downstream polyurethane systems houses close to our customers, enabling us to focus on customer support and technical service. We believe this customer support and technical service system contributes to customer retention and also provides opportunities for identifying further product and service needs of customers.

Our strategy is to grow the number and capability of our downstream facilities both organically and inorganically. As a result, we have made a number of ï bolt-on ï acquisitions in recent years to expand our downstream footprint and align with our strategic intent.

We believe that the extensive market knowledge and industry experience of our sales teams and technical experts, in combination with our strong emphasis on customer relationships, have facilitated our ability to establish and maintain long-term customer supply positions. Our sales strategy is to continue to increase sales to existing customers and to attract new customers by providing innovative solutions, quality products, reliable supply, competitive prices and superior customer service.

Manufacturing and Operations

Our world-scale MDI production facilities are located in Geismar, Louisiana; Rotterdam, The Netherlands; and through our joint ventures in Caojing, China. These facilities receive aniline, which is a primary material used in the production of MDI, from our facilities located in Geismar, Louisiana; Wilton, U.K.; and Caojing, China. We believe that this relative scale and product integration of our large facilities is necessary to provide cost competitiveness in MDI production. The following table sets forth the annual production capacity of polyurethane chemicals at select polyurethanes facilities:

	MDI	Polyols	TPU	Aniline	Nitrobenzene
			(millions of pounds)		
Caojing, China	825(1)				
Geismar, Louisiana	1,060	160		706(2)	1,000(2)
Houston, Texas		168			
Jinshan, China			44		
Kuan Yin, Taiwan		49			
Osnabr ï ck, Germany		26	59		
Ringwood, Illinois			28		
Rotterdam, The Netherlands	1,036	190			
Wilton, U.K.				783	1,045
Total	2,921	593	131	1,489	2,045

(1) Represents our share of capacity from SLIC.

(2) Represents our approximately 78% share of capacity under our consolidated Rubicon LLC manufacturing joint venture with Lanxess AG.

At our Geismar, Rotterdam and Caojing facilities we utilize sophisticated proprietary technology to produce MDI. This technology contributes to our position as a low-cost MDI producer.

Joint Ventures

Rubicon Joint Venture. Lanxess AG (ï Lanxess ï) is our joint venture partner in Rubicon LLC, which owns aniline, nitrobenzene and DPA manufacturing facilities in Geismar, Louisiana. We are entitled to approximately 78% of the nitrobenzene and aniline production capacity of Rubicon LLC, and Lanxess is entitled to 100% of the DPA production. In addition to operating the joint venture ï s aniline, nitrobenzene and DPA facilities, Rubicon LLC operates our wholly-owned MDI, polyol and maleic anhydride facilities at Geismar and is responsible for providing other auxiliary services to the entire Geismar complex. As a result of this joint venture, we are able to achieve greater scale and lower costs for our products than we would otherwise have been able to obtain. Rubicon LLC is consolidated in our financial statements.

Chinese MDI Joint Ventures. We are involved in two related joint ventures which operate MDI production facilities in Caojing, China. SLIC, our manufacturing joint venture with BASF and three Chinese chemical companies, produces MNB, aniline and crude MDI. We effectively own 35% of SLIC and account for our investment under the equity method. HPS, our splitting joint venture with Shanghai Chlor-Alkali Chemical Company, Ltd, manufactures pure MDI, polymeric MDI, MDI variants and formulated MDI systems. We own 70% of HPS and it is consolidated in our financial statements. These projects have been funded by a combination of equity invested by the joint venture partners and borrowed funds. We completed capacity expansions of these facilities in the first quarter of 2018. The total production capacity of the SLIC facilities is 1,280 million pounds per year of MDI, of which HPS is entitled to 825 million pounds.

Chinese PO/MTBE Joint Venture. In November 2012, we entered into an agreement to form a joint venture with Sinopec. The joint venture involved the construction and operation of a PO/MTBE facility in China. Under the joint venture agreement, we hold a 49% interest in the joint venture and Sinopec holds a 51% interest. Beneficial commercial operations began during the second half of 2017.

Raw Materials

The primary raw materials for MDI-based polyurethane chemicals are benzene and PO. Benzene is a widely available commodity that is the primary feedstock for the production of MDI and aniline. Historically, benzene has been the largest component of our raw material costs. We purchase benzene from third parties to manufacture nitrobenzene and aniline, almost all of which we then use to produce MDI.

In connection with the sale of the Chemical Intermediates Businesses to Indorama, we entered into a strategic agreement for the supply of PO in North America. In China, the Chinese PO/MTBE joint venture supplies PO into our downstream China business. The strategic supply of PO gives us access to competitively priced PO and the opportunity to develop polyols that enhance our range of MDI products.

Competition

Our major competitors in the polyurethane chemicals market include BASF, Covestro, Dow and Wanhua Chemical Group. While these competitors and others produce various types and quantities of polyurethane chemicals, we focus on MDI and MDI-based formulated polyurethane systems. Our downstream business is fragmented with different competitors in various markets and regions. Our competitors in downstream markets include Kingspan, Carlisle and Coim. Our polyurethane chemicals business competes in two basic ways: (1) where price is the dominant element of competition, our polyurethane chemicals business differentiates itself by its high level of customer support, including cooperation on technical and safety matters; and (2) elsewhere, we compete on the basis of product performance, our ability to react quickly to changing customer needs and providing customers with innovative solutions to their needs.

Performance Products

General

Our Performance Products segment has leading global positions in the manufacture and sale of amines and maleic anhydride and serves a wide variety of consumer and industrial end markets. Our Performance Products segment is organized by region and product family: amines and maleic anhydride (including licensing).

We produce a wide range of amines, many of which are sold into specialty markets such as epoxy curing agents, oil exploration and production, agrochemicals, and fuel and lubricant additives. We believe we are the largest global producer of polyetheramines, one of the largest producers of 2-(2-amino ethoxy) ethanol, sold under our DGA ĭ brand, the largest global producer making the full range of ethyleneamines, the second largest producer of morpholine and a leading global producer of low emission polyurethane catalysts. We are the only producer and largest supplier of propylene carbonate and ethylene carbonate in North America. Many of the markets for these products have growth rates in excess of global GDP.

We believe we are the largest global producer of maleic anhydride, a highly versatile chemical intermediate that is used to produce UPRs, which are mainly used in the production of fiberglass reinforced resins for marine, automotive and construction products. Maleic anhydride is also used in the production of lubricants, food additives and artificial sweeteners. We are also the leading licensor of maleic anhydride manufacturing technology.

We produce a variety of products at 10 Performance Products manufacturing facilities in North America, Europe, the Middle East and Asia.

Products and Markets

Amines. Amines are a family of intermediate chemicals that are produced by reacting ammonia, or an alkylamine, with various ethylene and propylene derivatives. Generally, amines are valued for their properties as a reactive agent, emulsifier, dispersant, solvent or corrosion inhibitor. Growth in demand for amines is highly correlated with GDP growth. However, certain segments of the amines market, such as polyetheramines, have historically grown at rates in excess of GDP growth due to new product development, technical innovation and end-use substitution. As amines are generally sold based upon the performance characteristics that they provide to customer-specific end-use applications, pricing does not generally fluctuate directly with movements in underlying raw materials. Our amines business is organized around the following product groups:

Product Group	Applications
Polyetheramines	Epoxy composites, polyurethane foams and insulation, construction and flooring, paints and coatings, lubricant and fuel additives, adhesives, agrochemicals, oilfield chemicals, printing inks and pigment dispersion
Ethyleneamines	Chemical building block used in lubricant and fuel additives, epoxy hardeners, wet strength resins, chelating agents and fungicides
Specialty amines, including DGA ĭ Agent and JEFFCAT ĭ catalysts	Gas treating, agricultural chemicals, personal care, lubricant and fuel additives, polyurethane foams, fabric softeners, paints and coatings, refinery processing and water treating

Polyetheramines are produced by reacting polyol with ammonia. They provide sophisticated performance characteristics as an additive in the manufacture of highly customized epoxy formulations, enabling customers to penetrate new markets and substitute for traditional curing materials.

Our ethyleneamines are manufactured by reacting EDC and caustic soda with ammonia to produce a range of various ethyleneamines homologues having different molecular weights. Most other producers utilize a reductive amination process, which yields a light slate of ethyleneamines. We believe our heavier slate of homologues allows access to a greater range of markets.

Our amines are used in a wide variety of mainly industrial applications, including composites, paints and coatings, polyurethane foam, fuel and lubricant additives, and solvents. Our key amines customers include Afton, Bayer, Chevron Oronite, DuPont, Evonik, Hexion, Infineum, Ingevity, Lubrizol, Olin, PPG, Sherwin-Williams and Quadra.

Maleic Anhydride (including licensing). Maleic anhydride is a highly versatile chemical intermediate that is used to produce UPRs, which are the main ingredient in fiberglass reinforced resins used for marine and automotive applications and commercial and residential construction products. Maleic anhydride is also used in the production of lubricants, food additives and artificial sweeteners.

Product Group	Applications
Maleic anhydride	Boat hulls, automotive, construction, lubricant and fuel additives, countertops, agrochemicals, paper and food additives
Maleic anhydride and other technology licensing	Maleic anhydride and 1-4 butanediol (BDO) and other process technologies

Maleic anhydride is produced by oxidizing either benzene or normal butane through the use of a catalyst. Our maleic anhydride technology is a proprietary fixed bed butane-based process with a solvent recovery and refining system. We believe that our process is superior in the areas of feedstock and energy efficiency and solvent recovery. The maleic anhydride-based route to BDO manufacture is currently the preferred process technology and is favored over the other routes, which utilize PO, butadiene or acetylene as feedstocks. As a result, the growth in demand for BDO supports growing demand for our maleic anhydride technology. Generally, changes in price have resulted from a combination of changes in industry capacity utilization and underlying raw material costs.

We license our maleic anhydride technology and other technologies worldwide. Revenue from licensing comes from new plant commissioning, as well as current plant retrofits. Our licensing group also licenses technology on behalf of other Performance Products businesses and other segments.

Our key maleic anhydride customers include Andercol, Chevron Oronite, Cranston, Dixie, Ingevity, Lubrizol, MFG Chemical, Polynt-Reichhold and Tate & Lyle.

Sales and Marketing

We sell approximately 350 products to over 900 customers globally through our Performance Products regional sales and marketing organizations, which have extensive market knowledge, considerable chemical industry experience and well-established customer relationships.

In more specialty products for certain markets (e.g., lubricants, coatings, construction, agrochemicals, oilfield, automotive, gas treating and insulation), our marketing efforts are focused on how our product offerings perform in certain customer applications. We believe that this approach enhances the value of our product offerings and creates opportunities for ongoing differentiation in our development activities with our customers.

We provide extensive pre- and post-sales technical service support to our customers where our technical service professionals work closely with our research and development functions to tailor our product offerings to meet our customers unique and changing requirements. These technical service professionals interact closely with our marketing managers and business leadership teams to help guide future offerings and market approach strategies. In addition to our focused direct sales efforts, we maintain an extensive global network of distributors and agents that also sell our products. These distributors and agents typically promote our products to smaller end-use customers who cannot be served cost effectively by our direct sales forces.

Manufacturing and Operations

Our Performance Products segment has the capacity to produce a variety of products at 10 manufacturing locations in North America, EAME, and Asia. These production capacities are as follows:

Product Area	North America	EAME	APAC	Total
		(millions of pounds)		
Amines	705	227(1)	107	1,039(1)
Maleic anhydride	340	231	ĭ	571

(1) Includes 70 million pounds from AAC, our consolidated 50%-owned joint venture, located in Jubail, Saudi Arabia.

Our amines facilities are located globally. These facilities have a competitive cost base and use modern manufacturing units that allow for flexibility in production capabilities and technical innovation.

A number of our facilities are located within large integrated petrochemical manufacturing complexes. We believe this results in greater scale and lower costs for our products than we would be able to obtain if these facilities were stand-alone operations. These include our maleic anhydride facilities in Pensacola, Florida, Geismar, Louisiana and Moers, Germany and our ethyleneamines facility in Freeport, Texas.

Joint Venture

We consolidate the results of AAC, our 50%-owned joint venture with the Zamil Group. AAC operates an ethyleneamines manufacturing plant in Jubail, Saudi Arabia. The plant has an approximate annual capacity of 70 million pounds. We purchase and sell all of the production from this joint venture.

Raw Materials

The main raw materials used in the production of our amines are EO, PO, glycols, EDC, caustic soda, ammonia, hydrogen, methylamines and acrylonitrile. The majority of these raw materials are available from multiple sources in the merchant market at competitive prices.

Maleic anhydride is produced by the reaction of normal butane with oxygen. The principal raw material is normal butane, which is purchased pursuant to long-term contracts and delivered to our Pensacola, Florida site by barge, to our facility in Geismar, Louisiana via pipeline and to our Moers, Germany site by railcar.

Competition

There are a small number of competitors for many of our amines due to the considerable customization of product formulations, the proprietary nature of many of our product applications and manufacturing processes and the relatively high research and development and technical costs involved. Our global competitors include BASF, Delamine, Dow, Evonik, Nouryon and Tosoh. We compete primarily on the basis of product performance, new product innovation and, to a lesser extent, on the basis of price.

In our maleic anhydride market, we compete primarily on the basis of price, customer service, technical support and logistics management. Our competitors include Lanxess, INEOS, Bartek and AOC. In our maleic anhydride technology licensing market, our primary competitor is Conser. We compete primarily on the basis of technological performance and service.

Advanced Materials

General

Our Advanced Materials segment is a leading global manufacturer and marketer of technologically-advanced epoxy, acrylic and polyurethane and acrylonitrile butadiene-based polymer products. We focus on formulations and systems that are used to address customer-specific needs in a wide variety of industrial and consumer applications. Our products are used either as replacements for traditional materials or in applications where traditional materials do not meet demanding engineering specifications. For example, structural adhesives are used to replace metal rivets and advanced composites are used to replace traditional aluminum panels and other steel materials to lighten structures in aerospace, automotive and other transportation. Our Advanced Materials segment is characterized by the breadth of our product offering, our expertise in complex chemistry, our long-standing relationships with our customers, our ability to develop and adapt our technology and our applications expertise for new markets and new applications.

We operate synthesis, formulating and production facilities in North America, Europe, Asia and South America. We sell to over 2,000 customers in the following end markets: aerospace, automotive, oil and gas, liquid natural gas transport, coatings and construction, printed circuit boards, consumer, industrial and automotive electronics, consumer and industrial appliances, wind power generation, electrical power transmission and distribution, recreational sports equipment, medical appliances and food and beverage packaging.

Products and Markets

Aerospace. Our Advanced Materials segment is a leading global supplier of advanced, high-performance materials for the fabrication and repair of aircraft components. We supply leading aerospace companies with innovations in composites, adhesives, laminating and repair systems, alongside innovative carbon nanotube technologies.

We offer a wide range of materials to the aerospace market under the ARALDITE ï, EPIBOND ï, EPOCAST ï URALANE ï and MIRALON ï brands. Many of these products are qualified under the specification of major aerospace original equipment manufacturers (ï OEM ï), complying with appropriate regulations governin large civil aircraft.

Transportation and Industrial. We offer to the automotive, recreational sports equipment and industrial composite markets, including leading automotive OEM ï s and Tier 1 suppliers, high end composite formulations, specialty resins and toughening agents. Lightweight, strength, flexibility, shorter cycle time and fatigue resistance are key requirements of our industrial partners. Our Advanced Materials segment had numerous awards from the JEC Composite Association for innovation in the composite industry.

ARALDITE ï is an important brand in high-performance adhesive technologies. We offer formulation expertise in various chemistries, including epoxies, polyurethanes, methacrylates, phenolics and acrylonitrile butadiene based polymer products. Our materials address requirements such as long open times for large area applications, fast-curing adhesives for early removal and rapid through-put, resistance to high temperature, water and chemicals, thixotropy for gap-filling or vertical applications, and toughness, impact-resistance and elasticity to cope with different thermal expansions when bonding larger structures. Our adhesives are used in a large variety of industrial applications.

Electrical Engineering and Electronics. We are a leading global supplier of insulating materials for motors, generators, switchgears, distribution and instrument transformers, and insulators and bushings for utility and industrial applications. The products formulated by our Advanced Materials segment are designed to provide an extended service life and meet specific industry requirements for electrical insulation in indoor and outdoor environments.

In the field of electronics, our Advanced Materials segment has a long history delivering a wide range of solutions meeting stringent requirements for electronics applications, such as high temperature and chemical resistance, flame-retardancy and excellent mechanical and dielectric properties.

The strong global push for e-vehicles opens new opportunities in e-motor thermal management and battery performance enhancement with our innovative encapsulants, toughening agents and carbon materials.

Coatings and Construction. We offer expertise in curing and toughening technologies and a portfolio of specialized resins and additives to the manufacturers of paints and construction materials. Our specialty resins and additives, including epoxy hardeners, acrylonitrile butadiene reactive liquid polymers and high solid or water based components, enable customers to address challenging industry requirements such as resistance to aggressive chemicals and high temperature, adhesion to difficult substrates, excellent mechanical properties, high drying speed and easy re-coatability, low temperature and sub-zero cure. Our product technologies enhance performance and productivity at low VOC and environmental impact in several coatings and construction applications, like heavy duty protection, marine, transportation, food packaging, flooring and chemical anchoring.

Wind and Base Resins. Our products are used by leading wind blade manufacturers on a large range of applications from plugs to complete composite turbine blade production, as well as its assembly and repair. Our portfolio includes standard products as well as custom-made solutions formulated to meet specific customer requirements.

We also offer basic liquid and solid epoxy resins to the general formulators market.

Sales and Marketing

We maintain multiple routes to market to service our diverse and fragmented customer base throughout the world. These routes to market range from using our own direct sales force, technically-oriented distribution to mass distribution. Our direct sales force focuses on engineering solutions for our major customers who purchase significant amount of product. We use technically-oriented specialist distributors to augment our sales effort in niche markets and applications where we do not believe it is appropriate to develop direct sales resources. We use mass general distribution channels to sell our products into a wide range of general applications where technical expertise is less important, which reduces our overall selling expenses. We believe our use of multiple routes to market enables us to reach a broader customer base at an efficient cost.

We conduct sales activities through dedicated regional sales teams in EMEAI, Asia and the Americas. Our global customers are covered by key account managers who are familiar with the specific requirements of these customers. The management of long-standing customer relationships is critical to the sales and marketing process.

Manufacturing and Operations

We are a global business serving customers in three principal geographic regions: EAMEI, Asia and the Americas. To service our customers efficiently, we maintain manufacturing plants around the world with a strategy of global, regional and local manufacturing employed to optimize the level of service and minimize the cost to our customers. The following table summarizes the plants that we operate:

	Description of Facility	
Location	**Synthesis**	**Formulations**
Akron, Ohio		
Bad Säckingen, Germany		
Bergkamen, Germany		
Duxford, U.K.		
East Lansing, Michigan		
Ho Chi Minh City, Vietnam		
Los Angeles, California		
McIntosh, Alabama		
Maple Shade, New Jersey		
Monthey, Switzerland		
Pamplona, Spain		
Panyu, China(1)		
Taboão da Serra, Brazil		

(1) 95%-owned and consolidated manufacturing joint venture with Guangzhou Sheng ï an Package Company Limited.

Raw Materials

The principal raw materials we purchase for the manufacture of basic and advanced epoxy resins are epichlorohydrin, bisphenol A, MDA, phenol and aminophenols. We also purchase amines, polyols, isocyanates, acrylic materials, hardeners and fillers for the production of our formulated polymer systems and complex chemicals and additives. Raw material costs constitute a sizeable percentage of the costs for certain applications. We have supply contracts with a number of suppliers. The terms of our supply contracts vary, but, in general, these contracts contain provisions that set forth the quantities of product to be supplied and purchased. Formula pricing is sometimes used if advantageous for the business.

Additionally, we produce large volumes of some of our most important raw materials, such as BLR and its basic derivatives, which are the basic building blocks of many of our products. Approximately 63% of the BLR we produce is consumed internally in our downstream products. The balance of our BLR is sold in the merchant market, allowing us to increase the utilization of our production plants and lower our overall BLR production cost.

We consume certain amines produced by our Performance Products segment and isocyanates produced by our Polyurethanes segment, which we use to formulate Advanced Materials products.

Competition

The markets in which our Advanced Materials segment competes are diverse and require an appropriate human capital and asset footprint to compete effectively. The competitive intensity, capital investment and development of proprietary technology and maintenance of product research and development are all market specific. We operate dedicated technology centers in Basel, Switzerland; The Woodlands, Texas; Merrimack, New Hampshire, and Shanghai, China in support of our product and technology development. Among our competitors are some of the world ĭ s largest chemical companies with integrated raw material value chains to formulation companies that leverage intellectual and highly proprietary technology for problem solving.

Aerospace. Our leading market position is driven by our specialty resins, curing and toughening agents and formulations offerings backed by customer-specific certifications, quality and consistency. These products are value-added, and differentiated, backed by many years of reliable global supply and service. Our major competitors include Hexion, Sumitomo, Wakayama Seika, 3M, Henkel and Kaneka.

Transportation and Industrial. Our composite and adhesive markets are being driven by light weighting, cost effective production and assembling, and are serviced by our leading positions in systems formulations, curing and toughening technologies, backed by application and process manufacturing knowledge. Our product offering allows for reliable and competitive solutions, with a strong ARALDITE ĭ brand reputation, a robust supply chain and a specialized distribution channel to fulfill customers ĭ expectant demand for service & quality. Our major competitors include DuPont, Hexion, Henkel, Sika, 3M and Kaneka.

Electrical Engineering and Electronics. Our competitive position in these diverse markets is primarily based on formulations expertise, product reliability and performance, process expertise and technical support. Our competitive strengths result from our focus on defined market segment needs, our long-standing customer relationships, product reliability and technical performance, and reputation and recognition as a quality supplier. Our major competitors in these markets are Hexion, Hitachi, Nagase, Xiongrun, Peters, Taiyo, Elantas, 3M and Lord.

Coatings and Construction. Our long-standing position in these markets is served by our specialty resins and additives. Our additives and specialty resins offerings, including epoxy hardeners, acrylonitrile butadiene reactive liquid polymers and high solid or water based components, are value-added products that allow our customers to differentiate their own products. Our major competitors include Evonik, Allnex, Hexion, BASF, EMS, Nissan, Kukdo and Kaneka.

Wind and Base Resins. The wind market for thermoset resins is being driven by light weighting and energy efficiency and our product offering with standard products and custom-made formulations allows for competitively priced solutions backed by an effective supply chain. The market for basic liquid and solid epoxy resins is driven by global supply-and-demand and industry consolidation and rationalization continues as a trend as macro-economic factors affect profitability and supply balance. Our major competitors in these markets include OLIN, Hexion, NanYa, Kukdo, Chang Chun and Adytia Birla.

Textile Effects

Our Textile Effects segment is a major global solutions provider in the wet processing of textiles across pretreatment, coloration, printing and finishing and provides a diverse portfolio of textile chemicals and dyes. Our textile solutions provide color and enhance the aesthetic, durability and performance of finished textiles, including functionality such as wrinkle resistance and water and stain repellence. Our Textile Effects segment is characterized by the breadth of our product offering and long-standing relationships with our customers and downstream brands and retailers and OEMs (e.g., in the automotive sector).

We market products to customers in multiple end-markets, including consumer fashion apparel, sportswear, career and uniform apparel, military, automotive, home and institutional textiles and furnishings, carpet and other functional textiles. Competition within these markets is generally fragmented with few competitors who can offer complete solutions for each market. We develop and adapt our technology and our applications expertise for new markets and new applications to improve our competitive offering. Increased environmental regulations, particularly in many parts of Asia, and consumer awareness about the environmental impact of the apparel industry has resulted in increased demand for sustainably produced textiles. We are at the forefront of developing sustainable textiles with advanced technology such as non-fluorinated durable water repellence, and eco-friendly digital printing. Our award-winning AVITERA ĭ reactive dyeing technology meets global industry environmental standards and helps textile mills increase yield, improve productivity and reduce processing costs by significantly reducing water and energy consumption. We operate 11 synthesis and formulation production sites in Asia, Europe and the Americas.

Products and Markets

Textile Chemicals. Our product offering in textile chemicals covers process and effect chemicals for the entire wet processing of textiles, such as pretreatment, optical brightener, dyeing and printing processes and finishing effects such as UV-protection, flame-retardancy, wrinkle resistance, water and oil repellency, moisture management and enhanced textile comfort.

We own a portfolio of textile chemical brands such as PHOBOTEX ï, which is used in the sportswear sector and for outdoor textiles for products that provide non-fluorinated durable water repellency, UVITEX ï, which is used for products that provide lasting white in the apparel sector to T-shirts and formal shirts as well as in in the home textile sector for towels and bed sheeting, and PYROVATEX ï, which is used for products that provide non-halogenated flame-retardancy to functional textiles like protective workwear and textile insulation material used in the automotive sector.

Dyes. We provide dyes for all major fibers, including cotton, polyester, wool, nylon, silk and acrylic, each of which requires different dye chemistry for optimum results. We develop and offer processes for technological applications of dyes that enable our customers to improve their production yield and reduce their water and energy consumption. We focus on high-quality specialty dyes, which sets us apart from our Asian competitors who are primarily focused on commodity dyes. Because we provide dyes for all major fibers, we are able to differentiate ourselves from industry competitors by providing solutions for a broad range of fiber blended fabrics.

We own a portfolio of dye brands such as AVITERA ï, for dyes used in T-shirts, formal shirts and towels for achieving sustainability, NOVACRON ï, for dyes used widely across casual wear and home textiles, LANASOL ï, for dyes used in wool formal suits, TERASIL ï, for dyes used in sportswear, outerwear, home textiles and furnishings, ERIOFAST ï, for dyes used in high-end intimate apparel and lingerie, TERATOP ï, for dyes used across the automotive industry and NOVASOL ï, for dyes used across military, protective wear and other technical textiles.

Markets. Textiles generally involve a complex matrix of fibers, colors, effects and functionality, and the resulting products range from fashion apparel to bulletproof vests, home and institutional textiles to carpet, and upholstery to automotive interiors. Our broad range of dyes and chemicals enhance both the aesthetic appearance of these products and the functionality needed to ensure that they perform in their end-use markets. Since the requirements for these markets vary dramatically, our business strategy focuses on three major end markets ï apparel, home and institutional furnishings, and functional and technical textiles. We work to provide the right balance of products and service to meet the technical and environmental challenges in each of these markets.

The apparel market focuses on products that provide an aesthetic effect through colors, as well as comfort and performance effects. Our solutions also extend to improving the processing efficiency within the textile mill. We offer a complete range of colors for cotton, polyester, wool and nylon that cover the range of shades needed for casualwear, sportswear, intimate apparel, and formal wear. Our dyes have been developed to ensure that they offer the highest levels of color durability currently available in the market. The Textile Effects segment ï s AVITERA dyes meet global industry environmental standards and helps textile mills increase yield, improve productivity and reduce processing costs by reducing water and energy consumption. Pretreatment and dyeing auxiliaries ensure that these fabrics are processed efficiently and effectively ï cleaning the fabrics with fewer chemicals, less energy and less water and thereby minimizing the environmental footprint and reducing the processing costs. Silicone softeners may be used to enhance the feel of products. Textile Effects has developed advanced non-fluorinated durable water repellent technology that enhances the performance levels of sportswear and outdoor wear offering comfort and durability.

Home and institutional textiles include bed linen, towels, curtains, carpets, upholstery, mattress ticking and other textiles that are used within the home or institutions, such as hotels. Dyes and chemicals technology for these applications enhance color and shape durability, comfort, prevent color fading and enable limitless design possibilities for consumers. Optical brighteners and other pretreatment products provide ï bright white ï effects for towels and sheeting.

Functional and technical textiles include automotive textiles, carpet, military fabrics protective wear, nonwoven and other technical fabrics. Though the product groups may differ in their end uses, the articles must provide a high-level of functionality, durability and performance in their respective markets. High-lightfast dyes and UV absorbers are used in automotive interiors and outdoor furnishings to provide colors that do not fade when exposed to sunlight and heat. Powerful stain repellent and release technology imparts durable protection for upholstery, military and medical fabrics, without affecting the color, breathability or feel of the fabric. Specialized dyes and prints create unique camouflage patterns for military uniforms, backpacks and tarps that will not fade through wash and wear or during exposure to the elements.

Sales and Marketing

During 2020, approximately 62% of our sales were generated with approximately 1,400 direct customers through our global sales and technical services network and the remaining 38% is generated through our distribution partners. Our sales and technical services representatives work directly with our existing customers forming strong relationships and uncovering new opportunities. Demand for our products is subject to fabric trends and seasonal changes in connection with summer and winter fashion trends. Traditionally, sales generally peak in the second quarter of the year as textile mills prepare for the winter fashion trends which tend to use darker shades and heavier fabric, thereby using more of our products. However, in 2020, the seasonal tread was impacted by the COVID-19 pandemic when many countries around the world restricted people movement in the second quarter, resulting in the lowest sales quarter of the year.

In determining the markets on which we focus, we look at growth opportunity and value proposition. Consumption markets are primarily in developed economies, such as Europe and North America, while production markets are primarily in Asia, particularly China, India, Taiwan, Vietnam, Indonesia and Bangladesh. Our downstream marketing team engages with leading brands and retailers in developed economies while our sales force and manufacturing footprint are primarily in Asia, closer to the manufacturing and sourcing base for textiles. We believe that this set-up also enables us to take advantage of continuous demand growth due to demographic and lifestyle changes in emerging markets.

For our textile effects products, we focus on providing effect competence and process competence to our customers. Effect competence, which we define as delivering value-added effects to our customers ï products, enables us to capitalize on new and innovative technologies and to assist our customers in their efforts to differentiate themselves from competitors. Process competence, which we define as applying know-how and expertise to improve customers ï processes, allows us to utilize our technical service to reduce cost, enhance efficiency and offer recommendations to improve the ecological and environmental footprint in the wet processing of textiles.

We maintain strong customer relationships through the delivery of high levels of technical service and product innovation. There are 12 technical services laboratories in North America, South America, Europe and Asia that are close to our customers in these markets, which enables us to serve our customers with greater speed and flexibility.

Manufacturing and Operations

We are a global business serving customers in three principal geographic regions: EAME, the Americas and Asia. To service our customers efficiently, we maintain manufacturing plants around the world with a strategy of global, regional and local manufacturing employed to optimize the level of service and minimize the cost to our customers. The following table summarizes the capabilities of each of the plants that we operate:

	Description of Facility			
	Textile Chemicals		Textile Dyes	
Location	Synthesis	Formulation	Synthesis	Formulation
Atotonilquillo, Mexico				
Baroda, India				
Bogota, Colombia				
Charlotte, North Carolina				
Fraijanes, Guatemala				
Gandaria, Jakarta, Indonesia				
Hangzhou, China				
Langweid am Leich, Germany				
Panyu, China(1)				
Samutsakorn (Mahachai), Thailand				
Taboão da Serra, Brazil				

(1) 95%-owned and consolidated manufacturing joint venture with Guangzhou Sheng ĭ an Package Company Limited.

Raw Materials

The manufacture of textile effects products requires a wide selection of raw materials (approximately 1,000 different chemicals), including amines, ethoxylates, acrylics and sulfones. No one raw material represents greater than 5% of our textile effects raw material expenditures. Raw material costs constitute a sizeable percentage of sales for certain applications. We have tolling arrangements with several Chinese suppliers, but the majority of our raw materials are not purchased under long-term contracts. The terms of our supply contracts vary, but, in general, these contracts contain provisions that set forth the quantities of product to be supplied and purchased.

Competition

We are a major global solutions provider for textile chemicals and dyes in our chosen markets. Competition within the textile chemicals and dyes markets is generally fragmented with few competitors who can offer complete solutions for the entire textile markets. Key competitors within dyes include Archroma, Longsheng, Runtu, Jihua and DyStar. Key competitors within textile chemicals include Archroma, Nicca, Transfar/Tannatex, CHT and Rudolf.

We believe that our competitive strengths include our product offering, which is characterized by its broad and deep technology range, high quality, significant integration between products and service, reliable technical expertise, long-standing relationships with customers, and strong business infrastructure in Asia. We are a leader in environmentally sustainable chemistry with products that help customers enhance efficiency and reduce their environmental footprint. We believe that we have more customer service capability and account management capability than any of our competitors worldwide. In addition, we engage regularly with downstream brands and retailers on industry and sustainability issues.

RESEARCH AND DEVELOPMENT

We support our businesses with a major commitment to research and development, technical services and process engineering improvement. Our research and development centers are located in The Woodlands, Texas; Everberg, Belgium; and Shanghai, China. Other regional development/technical service centers are located in Auburn Hills, Michigan (polyurethanes for the automotive industry); Derry, New Hampshire, Shanghai, China, Deggendorf, Germany and Ternate, Italy (polyurethanes); Basel, Switzerland and Panyu, China (advanced materials and textile effects); and Mumbai, India (textile effects).

INTELLECTUAL PROPERTY RIGHTS

Proprietary protection of our processes, apparatuses and other technology and inventions is important to our businesses. We own approximately 2,960 unexpired patents and have approximately 1,040 patent applications (including provisionals) currently pending. While a presumption of validity exists with respect to issued U.S. patents, we cannot assure that any of our patents will not be challenged, invalidated, circumvented or rendered unenforceable. Furthermore, we cannot assure the issuance of any pending patent application, or that if patents do issue, that these patents will provide meaningful protection against competitors or against competitive technologies. Additionally, our competitors or other third parties may obtain patents that restrict or preclude our ability to lawfully produce or sell our products in a competitive manner.

We also rely upon unpatented proprietary know-how and continuing technological innovation and other trade secrets to develop and maintain our competitive position. There can be no assurance, however, that confidentiality and other agreements into which we enter and have entered will not be breached, that they will provide meaningful protection for our trade secrets or proprietary know-how, or that adequate remedies will be available in the event of an unauthorized use or disclosure of such trade secrets and know-how. In addition, there can be no assurance that others will not obtain knowledge of these trade secrets through independent development or other access by legal means.

In addition to our own patents and patent applications and proprietary trade secrets and know-how, we are a party to certain licensing arrangements and other agreements authorizing us to use trade secrets, know-how and related technology and/or operate within the scope of certain patents owned by other entities. We also have licensed or sub-licensed intellectual property rights to third parties.

We have associated brand names with a number of our products, and we have approximately 4,490 trademark registrations and 460 pending trademark applications globally. These registrations and applications include extensions of protection under the Madrid system for the international registration of marks. However, there can be no assurance that the trademark registrations will provide meaningful protection against the use of similar trademarks by competitors, or that the value of our trademarks will not be diluted.

Because of the breadth and nature of our intellectual property rights and our business, we do not believe that any single intellectual property right (other than certain trademarks for which we intend to maintain the applicable registrations) is material to our business. Moreover, we do not believe that the termination of intellectual property rights expected to occur over the next several years, either individually or in the aggregate, will materially adversely affect our business, financial condition or results of operations.

HUMAN CAPITAL MANAGEMENT

As of December 31, 2020, we employed approximately 9,000 associates in our operations around the world. Approximately 2,000 of these employees are located in the U.S., while approximately 7,000 are located in other countries.

We believe our employees are the foundation of our success. Our overall talent acquisition and retention strategy is designed to attract and retain diverse and qualified candidates to meet our performance goals on an ongoing basis and enable the success of our Company. Our key areas of focus include:

Health and Safety: Our global health and safety programs are designed around dedicated environmental, health and safety ("EHS") Standards and Procedures specifically tailored at the facility level to address the different jurisdictions and regulations, specific operating hazards and unique working environments. The Company ï s objectives focus on regulatory compliance and protection of people and the environment. Compliance with the EHS Standards and Procedures are evaluated through site self-audits as well as regularly scheduled Corporate EHS audits. In addition, other management systems applicable to many of our sites include third party verification of Responsible Care ï and ISO 14001. A key metric used to assess the safety performance of our operations is the OSHA Total Recordable Injury Rate (ï TRIR ï), which is based upon the number of recordable injuries per 100 employees. In the years ended December 31, 2020 and 2019, v had a TRIR of 0.28 and 0.49, respectively.

Ethics and Compliance: At Huntsman our commitment to our values of Honesty, Integrity, Respect and Responsibility unite us globally and fosters high ethical standards in our relationships with each other, with our customers and with all those we do business with. Our Business Conduct Guidelines, along with the policies and procedures referenced within the guidelines, provide guidance for all employees on topics such as anti-corruption and bribery, anti-trust and competition law, discrimination including our policy on harassment and retaliation, privacy, appropriate use of company assets, protecting confidential information and reporting concerns and violations. The guidelines are used to reinforce our commitment to operating in a fair, honest, responsible and ethical manner and to emphasize the importance of having an open and welcoming environment in which all employees feel empowered to do what is right. Should potential violations of the guidelines, policies, procedures or the law occur, employees are encouraged to voice concerns promptly and are reminded that we do not tolerate retaliation against anyone who reports a potential violation in good faith. All employees are required to complete the training on the Business Conduct Guidelines annually, and our Chief Compliance Officer reports matters related to the Business Conduct Guidelines to the Audit Committee of our Board of Directors on a quarterly basis.

Compensation and Benefits: Our policy is to competitively compensate our associates and to appropriately motivate associates to provide value to our shareholders. Our compensation philosophy is to align both short-term and long-term incentives with our strategic objectives and to take into account market forces, best practices, and the performance of our Company and the employee. We offer employees benefits that vary by country and are designed to meet or exceed local laws and to be competitive in the marketplace. Examples of benefits offered in the U.S. include a 401(k) plan with employer contributions; health benefits; business travel and life/disability insurance; supplemental voluntary insurance; and paid time off.

Training and Talent Development: We are committed to the continued development of our workforce. We provide technical and leadership training to our associates, customers and suppliers who work for or with our products and services. Training is provided in a number of formats to accommodate the learner ï s style, pace, location, technological knowledge and access.

ENVIRONMENTAL, HEALTH AND SAFETY MATTERS

General

We are subject to extensive federal, state, local and international laws, regulations, rules and ordinances relating to occupational health and safety, process safety, pollution, protection of the environment and natural resources, product management and distribution, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. In the ordinary course of business, we are subject to frequent environmental inspections and monitoring and occasional investigations by governmental enforcement authorities. In addition, our production facilities require operating permits that are subject to renewal, modification and, in certain circumstances, revocation. Actual or alleged violations of safety laws, environmental laws or permit requirements could result in restrictions or prohibitions on plant operations or product distribution, substantial civil or criminal sanctions, or injunctions limiting or prohibiting our operations altogether. In addition, some environmental laws may impose liability on a strict, joint and several basis. Moreover, changes in environmental regulations could inhibit or interrupt our operations, or require us to modify our facilities or operations and make significant environmental compliance expenditures. Accordingly, environmental or regulatory matters may cause us to incur significant unanticipated losses, costs or liabilities. Information related to EHS matters may also be found in other areas of this report including ï ï Item 1A. Risk Factors, ï ï Note 2. Summary of Significant Accounting Policies ï Environmental Expenditures ï to c financial statements and ï Note 22. Environmental Health and Safety Matters ï to our consolidated financial statements.

Environmental, Health and Safety Systems

We are committed to achieving and maintaining compliance with all applicable EHS legal requirements, and we have developed policies and management systems that are intended to identify the multitude of EHS legal requirements applicable to our operations, enhance compliance with applicable legal requirements, improve the safety of our employees, contractors, community neighbors and customers and minimize the production and emission of wastes and other pollutants. We cannot guarantee, however, that these policies and systems will always be effective or that we will be able to manage EHS legal requirements without incurring substantial costs. Although EHS legal requirements are constantly changing and are frequently difficult to comply with, these EHS management systems are designed to assist us in our compliance goals while also fostering efficiency and improvement and reducing overall risk to us. For the years ended December 31, 2020, 2019 and 2018, our capital expenditures for EHS matters totaled $28 million, $42 million and $32 million, respectively, and our estimated capital expenditures for 2021 is expected to be $47 million.

Environmental Remediation

We have incurred, and we may in the future incur, liabilities to investigate and clean up waste or contamination at our current or former facilities or facilities operated by third parties at which we may have disposed of waste or other materials. Similarly, we may incur costs for the cleanup of waste that was disposed of prior to the purchase of our businesses. Under some circumstances, the scope of our liabilities may extend to damages to natural resources.

In cases where our potential liabilities arise from historical contamination based on operations and other events occurring prior to our ownership of a business or specific facility, we frequently obtain an indemnity agreement from the prior owner addressing remediation liabilities arising from pre-closing conditions. We have successfully exercised our rights under these contractual covenants for a number of sites and, where applicable, mitigated our ultimate remediation liabilities. We cannot assure you, however, that the liabilities for all such matters subject to indemnity will be honored by the prior owner or that our existing indemnities will be sufficient to cover our liabilities for such matters.

Based on available information and the indemnification rights we believe are likely to be available, we believe that the costs to investigate and remediate known contamination will not have a material effect on our financial statements. However, if such indemnities are not honored or do not fully cover the costs of investigation and remediation or we are required to contribute to such costs, then such expenditures may have a material effect on our financial statements. At the current time, we are unable to estimate the total cost, exclusive of indemnification benefits, to remediate contaminated sites.

Regulatory Matters

Greenhouse Gas Regulation and Climate Change

Globally, our operations are increasingly subject to regulations that seek to reduce emissions of greenhouse gases (ĭ GHGs ĭ), such as carbon dioxide and methane, which may be contributing to changes in the earth ĭ s climate. At the Durban negotiations of the Conference of the Parties to the Kyoto Protocol in 2012, a limited group of nations, including the European Union (the ĭ EU ĭ), agreed to a second commitment period for the Kyoto Protocol, an international treaty that provides for reductions in GHG emissions. More significantly, the EU GHG Emissions Trading System (ĭ ETS ĭ), established pursuant to the Kyoto Protocol to reduc GHG emissions in the EU, continues in its fourth phase. The EU parliament has used a process to formalize ĭ backloading ĭ ĭ the withholding of GHG allowances during the trading period from 2014 to 2016 with additional allowances auctioned during 2019 to 2020 ĭ to prop up carbon prices. As backloading is only a temporary measure, a sustainable solution to the imbalance between supply and demand requires structural changes to the ETS. To that end, the European Commission established a market stability reserve to address the current surplus of allowances and improve the system ĭ s resilience that started operating in 2019. In addition, the EU has set a binding target to reduce domestic GHG emissions by at least 40% below the 1990 level by 2030 and a binding target to increase the share of renewable energy to at least 32% of the EU ĭ s energy consumption by 2030. The European Commission proposed to increase the greenhouse gas emission reduction target to at least 55% in September 2020, and expects to complete the associated legislative proposals by June 2021.

In addition, at the 2015 United Nations Framework Convention on Climate Change in Paris, the U.S. and nearly 200 other nations entered into an international climate agreement, which went into effect in November 2016 (the ĭ Paris Agreement ĭ). Although the agreement does not create any binding obligation for nations to limit their GHG emissions, it does include pledges to voluntarily limit or reduce future emissions. On June 1, 2017, President Trump announced that the U.S. would withdraw from the Paris Agreement, and the U.S. completed the process of withdrawing from the Paris Agreement on November 4, 2020. In response to the U.S. ĭ s withdrawal announcement, various corporations, investors, and U.S. state and local governments publicly pledged to further the goals of the Paris Agreement. On January 20, 2021, President Biden issued written notification to the United Nations of the U.S. ĭ s intention to rejoin the Paris Agreement, which will become effective in 30 days.

Domestic efforts to curb GHG emissions are being led by the U.S. Environmental Protection Agency ĭ s (the ĭ EPA ĭ) GHG regulations and similar progra certain states. To the extent that our domestic operations are subject to the EPA ĭ s GHG regulations, we may face increased capital and operating costs associated with new or expanded facilities. Significant expansions of our existing facilities or construction of new facilities may be subject to the Clean Air Act ĭ s (the ĭ CAA ĭ requirements for pollutants regulated under the Prevention of Significant Deterioration and Title V programs. Some of our facilities are also subject to the EPA ĭ s Mandatory Reporting of Greenhouse Gases rule, and any further regulation may increase our operational costs.

We are already managing and reporting GHG emissions, to varying degrees, as required by law for our sites in locations subject to U.S. federal and state requirements, Kyoto Protocol obligations and/or ETS requirements. Although these sites are subject to existing GHG legislation, few have experienced or anticipate significant cost increases as a result of these programs, although it is possible that GHG emission restrictions may increase over time. Potential consequences of such restrictions include capital requirements to modify assets to meet GHG emission restrictions and/or increases in energy costs above the level of general inflation, as well as direct compliance costs. Currently, however, it is not possible to estimate the likely financial impact of potential future regulation on any of our sites.

Finally, it should be noted that most scientists have concluded that increasing concentrations of GHGs in the earth ĭ s atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, droughts, and floods and other climatic events. If any of those effects were to occur, they could have an adverse effect on our assets and operations.

AVAILABLE INFORMATION

We maintain an internet website at http://www.huntsman.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports are available free of charge through our website as soon as reasonably practicable after we file these materials with the SEC. We also provide electronic or paper copies of our SEC filings free of charge upon request.

GLOSSARY OF CHEMICAL TERMS

BDO ï butane diol
BLR ï base liquid resin
DGA ï Agent ï DIGLYCOLAMINE® Agent
DPA ï diphenylamine
EDC ï ethylene dichloride
EG ï ethylene glycol
EO ï ethylene oxide
MDA ï methylene dioxy amphetamine
MDI ï methyl diphenyl diisocyanate
MNB ï mononitrobenzene
MTBE ï methyl tertiary-butyl ether
PBT ï polybutylene terephthalate
PO ï propylene oxide
Polyols ï a substance containing several hydroxyl groups. A diol, triol and tetrol contain two, three and four hydroxyl groups, respectively.
TDI ï toluene diisocyanate
TPU ï thermoplastic polyurethane
UPR ï unsaturated polyester resin

ITEM 1A. RISK FACTORS

Any of the following risks could materially and adversely affect our business, results of operations, financial condition and liquidity.

RISKS RELATED TO OUR BUSINESS AND OPERATIONS

Our results of operations and financial condition have been and, we believe, will in the future be adversely impacted by the COVID-19 pandemic, and the duration and extent of such impact remains uncertain.

The outbreak of the coronavirus disease (COVID-19) has adversely affected the global economies and financial markets. Throughout 2020, the global economic downturn caused by COVID-19 significantly impacted the demand for our products and contributed to volatile supply and demand conditions affecting volumes for our products. In particular, demand for our products deteriorated at a rapid pace in the second quarter 2020, which had a meaningful adverse impact on our revenues and financial results for the quarter. Although we have experienced improved conditions in most of our core markets in the third and fourth quarters of 2020, there continues to be many uncertainties regarding the impact of the COVID-19 pandemic. Additionally, several of our key end markets, including aerospace and consumer textile, have been disproportionally impacted by the effects of COVID-19 and have experienced relatively slow recoveries.

In the first quarter of 2021, the number of known COVID-19 cases in the U.S. and certain key parts of Europe remains elevated. Additionally, multiple variants of the virus that causes COVID-19 have begun circulating globally, and there is evidence that these variants appear to spread more easily and quickly, which may lead to more cases of COVID-19. It is not currently known what the effect of these variants will have on the effectiveness of existing and future therapies and vaccines.

The extent to which COVID-19 may continue to adversely impact our business depends on future developments, which are highly uncertain and unpredictable, including:

- the duration, scope, severity and geographic spread of the outbreak;
- governmental, business and individual actions that have been and continue to be taken in response to the outbreak, including social distancing, work-at-home, stay-at-home and shelter-in-place orders and shutdowns, travel restrictions and quarantines;
- the effect of the outbreak on our customers, suppliers, supply chain and other business partners;
- our ability during the outbreak to provide our products and protect the health and well-being of our employees;
- business disruptions caused by actual or potential plant, workplace and office closures, and an increased reliance on employees working from home, disruptions to or delays in ongoing product development, operations, staffing shortages, travel limitations, employee health issues, cyber security and data accessibility, or communication or mass transit disruptions, any of which could adversely impact our business operations or delay necessary interactions with local regulators, manufacturing sites and other important agencies and contractors;
- the risk that we could be exposed to liability, negative publicity or reputational harm related to any incidents of actual or perceived transmission of COVID-19 among employees at our facilities;
- the ability of our customers to pay for our products during and following the outbreak;
- the ability of our suppliers to provide raw materials;

- the impact of the outbreak on the financial markets and economic activity generally;
- our ability to access usual sources of liquidity on reasonable terms; and
- our ability to comply with the financial covenants in our debt agreements if a material and prolonged economic downturn results in increased indebtedness or substantially lower adjusted EBITDA.

Our industry is affected by global economic factors, including risks associated with volatile economic conditions.

Our financial results are substantially dependent on overall economic conditions in the U.S., Europe and Asia. Declining economic conditions in all or any of these locations ĭ or negative perceptions about economic conditions ĭ could result in a substantial decrease in demand for our products and could adversely affect ou business. The timing and extent of any changes to currently prevailing market conditions is uncertain, and supply and demand may be unbalanced at any time. Uncertain economic conditions and market instability make it particularly difficult for us to forecast demand trends. As a consequence, we may not be able to accurately predict future economic conditions or the effect of such conditions on our financial condition or results of operations. We can give no assurances as to the timing, extent or duration of the current or future economic cycles impacting the industries in which we operate.

Disruptions in production at our manufacturing facilities may have a material adverse impact on our business, results of operations and/or financial condition.

Manufacturing facilities in our industry are subject to planned and unplanned production shutdowns, turnarounds, outages and other disruptions. Any serious disruption at any of our facilities could impair our ability to use our facilities and have a material adverse impact on our revenues and increase our costs and expenses. Alternative facilities with sufficient capacity may not be available, may cost substantially more or may take a significant time to increase production or qualify with our customers, any of which could negatively impact our business, results of operations and/or financial condition. Long-term production disruptions may cause our customers to seek alternative supply which could further adversely affect our profitability.

Unplanned production disruptions may occur for external reasons including natural disasters, weather, disease, strikes, transportation interruption, government regulation, political unrest or terrorism, or internal reasons, such as fire, unplanned maintenance or other manufacturing problems. Any significant production disruption could have a material impact on our operations, operating results and financial condition.

In addition, we rely on a number of vendors, suppliers, and in some cases sole-source suppliers, service providers, toll manufacturers and collaborations with other industry participants to provide us with chemicals, feedstocks and other raw materials, along with energy sources and, in certain cases, facilities that we need to operate our business. If the business of these third parties is disrupted, some of these companies could be forced to reduce their output, shut down their operations or file for bankruptcy protection. If this were to occur, it could adversely affect their ability to provide us with the raw materials, energy sources or facilities that we need, which could materially disrupt our operations, including the production of certain of our products. Moreover, it could be difficult to find replacements for certain of our business partners without incurring significant delays or cost increases. All of these risks could have a material adverse effect on our business, results of operations, financial condition and liquidity.

While we maintain business recovery plans that are intended to allow us to recover from natural disasters or other events that could disrupt our business, we cannot provide assurances that our plans would fully protect us from the effects of all such disasters or from events that might increase in frequency or intensity due to climate change. In addition, insurance may not adequately compensate us for any losses incurred as a result of natural or other disasters. In areas prone to frequent natural or other disasters, insurance may become increasingly expensive or not available at all. Furthermore, some potential climate-driven losses, particularly inundation due to sea-level rise, may pose long-term risks to our physical facilities such that operations cannot be restored in their current locations.

The markets for many of our products are cyclical and volatile, and we may experience depressed market conditions for such products.

The cyclicality that the markets for many of our products experience occurs as a result of alternating periods of tight supply, causing prices and margins to increase, followed by periods of lower capacity utilization, resulting in oversupply and declining prices and margins. The volatility these markets experience occurs as a result of changes in the demand for products as a consequence of global economic activity, changes in energy prices and changes in customers ĭ requirements. For example, demand for our products depends in part on aerospace, housing and construction industries, which are cyclical in nature and have historically been impacted by downturns in the economy. The supply-demand balance is also impacted by capacity additions or reductions that result in changes in utilization rates. The cyclicality and volatility of our industry results in significant fluctuations in profits and cash flow from period to period and over the business cycle.

Our results of operations may be adversely affected by international business risks, including fluctuations in currency exchange rates, legal restrictions and taxes.

We conduct a majority of our business operations outside the U.S., and these operations are subject to risks normally associated with international operations. These risks include the need to convert currencies that may be received for our products into currencies in which we purchase raw materials or pay for services, which could result in a gain or loss depending on fluctuations in exchange rates. We transact business in many foreign currencies, including euros, Swiss francs, Chinese renminbi, Indian rupees, Brazilian reals and Thai bahts. We translate our local currency financial results into U.S. dollars based on average exchange rates prevailing during the reporting period or the exchange rate at the end of that period. During times of a strengthening U.S. dollar, our reported international sales and earnings may be reduced because the local currency may translate into fewer U.S. dollars. Because we currently have significant operations located outside the U.S., we are exposed to fluctuations in global currency rates which may result in gains or losses on our financial statements.

Other risks of international operations include trade barriers, tariffs, exchange controls, cash repatriation restrictions, national and regional labor strikes, social and political risks, general economic risks and required compliance with a variety of U.S. and foreign laws, including monetary policies, tax laws, the Foreign Corrupt Practices Act (and foreign equivalents), export controls and regulations administered by the Office of Foreign Assets Control. Any changes in tariffs or trade barriers could make our products less competitive compared to other producers not subject to the same tariffs or trade barriers. Any decision to repatriate cash as dividends could subject us to foreign and U.S. federal and state income taxes without any offsetting foreign tax credit relief. Although we maintain an anti-corruption compliance program throughout our company, violations of our compliance program may result in criminal or civil sanctions, including material monetary fines, penalties and other costs against us or our employees, and may have a material adverse effect on our business. Furthermore, in foreign jurisdictions where legal processes may vary from country to country, we may experience difficulty in enforcing agreements. In jurisdictions where bankruptcy laws and practices vary, we may experience difficulty collecting foreign receivables through foreign legal systems. The occurrence of these risks, among others, could disrupt the businesses of our international subsidiaries, which could significantly affect their ability to make distributions to us.

We operate in a significant number of jurisdictions, which contributes to the volatility of our effective tax rate. Changes in tax laws or the interpretation of tax laws in the jurisdictions in which we operate may affect our effective tax rate. In addition, generally accepted accounting principles in the U.S. (ĭ GAAP ĭ or ĭ U.S. GAAP ĭ) have required us to place valuation allowances against our net operating losses and other deferred tax assets in certain tax jurisdictions. These valuat allowances result from analysis of positive and negative evidence supporting the realization of tax benefits. Negative evidence includes a cumulative history of pre-tax operating losses in specific tax jurisdictions. Changes in valuation allowances have resulted in material fluctuations in our effective tax rate. Economic conditions or changes in tax laws may dictate the continued imposition of current valuation allowances and, potentially, the establishment of new valuation allowances. While significant valuation allowances remain, our effective tax rate will likely continue to experience significant fluctuations. Furthermore, certain foreign jurisdictions may take actions to delay our ability to collect value-added tax refunds.

Significant price volatility or interruptions in supply of our raw materials may result in increased costs that we may be unable to pass on to our customers, which could reduce our profitability.

We purchase a substantial portion of our raw materials from third-party suppliers and the cost of these raw materials represents a substantial portion of our operating expenses. The prices for a number of these raw materials generally follow price trends of, and vary with market conditions for, crude oil and natural gas feedstocks, which are highly volatile and cyclical. For example, the market for crude oil and natural gas feedstocks experienced depressed pricing throughout 2020, leading to favorable prices for the raw materials that we purchase from third parties. Lower raw material prices, however, can lead to downward pressure on selling prices for certain of our products leading to reduced revenue. Our supply agreements typically provide for market-based pricing and provide us only limited protection against price volatility. While we attempt to match cost increases with corresponding product price increases, we are not always able to raise product prices immediately or at all. Timing differences between raw material prices, which may change daily, and contract product prices, which in many cases are negotiated only monthly or less often, have had and may continue to have a negative effect on our cash flow. Any cost increase that we are not able to pass on to our customers could have a material adverse effect on our business, results of operations, financial condition and liquidity.

In general, the feedstocks and other raw materials we consume are organic chemical commodity products that are readily available at market prices. There are, however, several raw materials for which there are only a limited number of suppliers or a single supplier. To mitigate potential supply constraints, we frequently enter into supply agreements with particular suppliers, evaluate alternative sources of supply and evaluate alternative technologies to avoid reliance on limited or sole-source suppliers. In addition, where supply relationships are concentrated, particular attention is paid by the parties to ensure strategic intentions are aligned to facilitate long-term planning. If certain of our suppliers are unable to meet their obligations under present supply agreements, we may be forced to pay higher prices to obtain the necessary raw materials from other sources and we may not be able to increase prices for our finished products to recoup the higher raw materials costs. Any interruption in the supply of raw materials could increase our costs or decrease our revenues, which could reduce our cash flow. The inability of a supplier to meet our raw material needs could have a material adverse effect on our financial statements and results of operations.

The number of sources for and availability of certain raw materials is also specific to the particular geographical region in which a facility is located. Political and economic instability in the countries from which we purchase our raw material supplies could adversely affect their availability. In addition, if raw materials become unavailable within a geographic area from which they are now sourced, then we may not be able to obtain suitable or cost-effective substitutes. We may also experience higher operating costs such as energy costs, which could affect our profitability. We may not always be able to increase our selling prices to offset the impact of any higher production costs or reduced production levels, which could reduce our earnings and decrease our liquidity.

Our efforts to grow and transform our businesses may require significant investments; if our strategies are unsuccessful, our business, results of operations and/or financial condition may be materially adversely affected.

We continuously evaluate opportunities for growth and change. These initiatives may involve making acquisitions, entering into partnerships and joint ventures, divesting assets, restructuring our existing operations and assets, creating new financial structures and building new facilities ĭ any of which could require a significant investment and subject us to new kinds of risks. We have incurred indebtedness to finance these opportunities, and we may incur additional indebtedness to finance future initiatives. If our strategies for growth and change are not successful, we could face increased financial pressure, such as increased cash flow demands, reduced liquidity and diminished access to financial markets, and the equity value of our businesses could be diluted.

The implementation of strategies for growth and change may create additional risks, including:

- õ diversion of management time and attention away from existing operations;
- õ requiring capital investment that could otherwise be used for the operation and growth of our existing businesses;
- õ disruptions to important business relationships;
- õ increased operating costs;
- õ limitations imposed by various governmental entities; and
- õ difficulties due to lack of or limited prior experience in any new markets we may enter.

Our inability to mitigate these risks or other problems encountered in connection with our strategies for growth and change could have a material adverse effect on our business, results of operations and financial condition. In addition, we may fail to fully achieve the savings or growth projected for current or future initiatives notwithstanding the expenditure of substantial resources in pursuit thereof.

We may have difficulties integrating acquired businesses and as a result, our business, results of operations and/or financial condition may be materially adversely affected.

We have completed a number of acquisitions and we will continue to acquire additional businesses and enter into joint ventures as part of our business strategy. Growth through acquisitions and joint ventures involves risks, including:

- õ inability to efficiently operate new businesses or to integrate acquired businesses and products;
- õ inability to accurately predict delays in realizing the costs and benefits of acquisitions, partnerships, or joint ventures;
- õ unexpected losses of customers or suppliers of an acquired or existing business;
- õ difficulties in retaining key employees of acquired businesses;
- õ difficulties in realizing projected synergies;
- õ inability to efficiently operate new businesses or to integrate acquired businesses and products;
- õ inability to accurately predict delays in realizing the costs and benefits of acquisitions, partnerships, or joint ventures;
- õ unexpected losses of customers or suppliers of an acquired or existing business;
- õ difficulties in retaining key employees of acquired businesses;
- õ difficulties in realizing projected synergies; and
- õ exposure to unanticipated liabilities, including unexpected environmental exposures, product liability or illegal activities conducted by an acquired company or a joint venture partner.

Our inability to address these risks could cause us to fail to realize the anticipated benefits of such acquisitions or joint ventures and could have a material adverse effect on our business, results of operations and financial condition.

The industries in which we compete are highly competitive, and we may not be able to compete effectively with our competitors that have greater financial resources, which could have a material adverse effect on our business, results of operations and financial condition.

The industries in which we operate are highly competitive. Among our competitors are some of the world ĭ s largest chemical companies and major integrated petroleum companies that have their own raw material resources. Changes in the competitive landscape could make it difficult for us to retain our competitive position in various products and markets throughout the world. Some of the companies with whom we compete may be able to produce products more economically than we can. Furthermore, some of our competitors have greater financial resources, which may enable them to invest significant capital into their businesses, including expenditures for research and development.

While we are engaged in a range of research and development programs to develop new products and processes, to improve and refine existing products and processes, and to develop new applications for existing products, the failure to develop new products, processes or applications could make us less competitive. Moreover, if any of our current or future competitors develops proprietary technology that enables them to produce products at a significantly lower cost, our technology could be rendered uneconomical or obsolete.

Further, it is possible that we could abandon certain products, processes, or applications due to potential infringement of third party intellectual property rights or that we could be named in future litigation for the infringement or misappropriation of a competitor ĭ s or other third party ĭ s intellectual property rights, which could include a claim for injunctive relief and damages, and, if so, such adverse results could have a material adverse effect on our business, results of operations and financial position. In addition, certain of our competitors in various countries in which we do business, including China, may be owned by or affiliated with members of local governments and political entities.

These competitors may get special treatment with respect to regulatory compliance and product registration, while certain of our products, including those based on new technologies, may be delayed or even prevented from entering into the local market.

Certain of our businesses use technology that is widely available. Accordingly, barriers to entry, apart from capital availability, may be low in certain product segments of our business. The entrance of new competitors into any of our businesses may reduce our ability to maintain margins or capture improving margins in circumstances where capacity utilization in the industry is increasing. Further, petroleum-rich countries have become more significant participants in the petrochemical industry and may expand their roles significantly in the future. Increased competition in any of our businesses could compel us to reduce the prices of our products, which could result in reduced margins and loss of market share and have a material adverse effect on our business, results of operations, financial condition and liquidity.

We are subject to risks relating to our information technology systems, and any technology disruption or cybersecurity incident could negatively affect our operations.

We rely on information technology systems across our operations, including for management, supply chain and financial information and various other processes and transactions. Our ability to effectively manage our business depends on the security, reliability and capacity of these systems. Our technology systems or the technology systems of third parties on which we rely, are vulnerable to disruption from circumstances beyond our control including fire, natural disasters, power outages, system failures, security breaches, espionage, cyber-attacks, viruses, theft and inadvertent release of information. Any such disruption to these Information technology systems could disrupt our operations or result in the disclosure of proprietary information about our business or confidential information concerning our customers or employees which could result in negative publicity/brand damage, violation of privacy laws, potential liability, including litigation/investigation/remediation or other legal actions against us or the imposition of penalties, fines, fees or liabilities, which may not be covered by our insurance policies. Any or all the above would potentially cause delays or cancellations of customer orders or impede the manufacture or shipment of products, processing of transactions or reporting of financial results.

While we have invested and will continue to invest in technology security initiatives and disaster recovery plans, we may not be able to implement measures that will protect against all the significant risks to our information technology systems. We have put in place security measures designed to protect against the misappropriation or corruption of our systems, intentional or unintentional disclosure of confidential information, or disruption of our operations. Current employees have, and former employees may have, access to a significant amount of information regarding our operations which could be disclosed to our competitors or otherwise used to harm us. Moreover, our operations in certain locations, such as China, may be particularly vulnerable to security attacks or other problems. Any breach of our security measures could result in unauthorized access to and misappropriation of our information, corruption of data or disruption of operations or transactions, any of which could have a material adverse effect on our business. In addition, we could be required to expend significant additional efforts to respond to information technology issues or to protect against threatened or actual security breaches.

Finally, data privacy is subject to frequently changing rules and regulations in countries where we do business. For example, the EU adopted a new regulation that became effective in May 2018, the General Data Protection Regulation (ĭ GDPR ĭ), which requires companies to meet new regulations regarding the handling of personal data. Our failure to successfully implement or comply with appropriate processes to adhere to the GDPR requirements could result in substantial fines or penalties and legal liability which could tarnish our reputation.

Our operations involve risks that may increase our operating costs, which could reduce our profitability.

Although we take precautions to enhance the safety of our operations and minimize the risk of disruptions, our operations are subject to hazards inherent in the manufacturing and marketing of chemical and other products. These hazards include: chemical spills, pipeline leaks and ruptures, storage tank leaks, discharges or releases of toxic or hazardous substances or gases and other hazards incident to the manufacturing, processing, handling, transportation and storage of dangerous chemicals. We are also potentially subject to other hazards, including natural disasters and severe weather; explosions and fires; transportation problems, including interruptions, spills and leaks; mechanical failures; unscheduled downtimes; labor difficulties; remediation complications; and other risks. In addition, some equipment and operations at our facilities are owned or controlled by third parties who may not be fully integrated into our safety programs and over whom we are able to exercise limited control. Many potential hazards can cause bodily injury and loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties and liabilities. Furthermore, we are subject to present and future claims with respect to workplace exposure, exposure of contractors on our premises as well as other persons located nearby, workers ĭ compensation and other matters.

We maintain property, business interruption, products liability and casualty insurance policies which we believe are in accordance with customary industry practices, as well as insurance policies covering other types of risks, including pollution legal liability insurance, but we are not fully insured against all potential hazards and risks incident to our business. Each of these insurance policies is subject to customary exclusions, deductibles and coverage limits, in accordance with industry standards and practices. As a result of market conditions, premiums and deductibles for certain insurance policies can increase substantially and, in some instances, certain insurance may become unavailable or available only for reduced amounts of coverage. If we were to incur a significant liability for which we were not fully insured, it could have a material adverse effect on our business, results of operations, financial condition and liquidity.

In addition, we are subject to various claims and litigation in the ordinary course of business. We are a party to various pending lawsuits and proceedings. For more information, see ĭ ĭ Item 3. Legal Proceedings ĭ below.

Our results of operations and investment in Venator may fluctuate significantly depending upon the changes in market value of Venator shares.

We account for our remaining ownership of 9,686,761 Venator ordinary shares as an investment in equities securities that are marked to fair value with changes in fair value reported in earnings. Under this approach, our results of operations and investment in Venator could fluctuate significantly depending upon the changes in market value of Venator common stock. Specifically, the market price for Venator ĭ s ordinary shares has been highly volatile, and the market from time to time has experienced significant price fluctuations. For example, during the year ended December 31, 2020, Venator ĭ s stock price ranged from a low of $1.12 to high of $3.98. As result, the cyclicality and volatility of Venator ĭ s stock price can result in significant fluctuations in our results of operations and investment in Venator from quarter to quarter.

Our operations, financial condition and liquidity could be adversely affected by legal claims against us, including antitrust claims.

We face risks arising from various legal actions, including matters relating to antitrust, product liability, intellectual property and environmental claims. It is possible that judgments could be rendered against us in these cases or others for which we could be uninsured or not covered by indemnity, or which may be beyond the amounts that we currently have reserved or anticipate incurring for such matters. Over the past few years, antitrust claims have been made against chemical companies. In this type of litigation, the plaintiffs generally seek injunctive relief, treble damages or the maximum damages allowed by state law, costs of suit and attorneys ĭ fees, which may result in significant liabilities. An adverse outcome in any antitrust claim could be material and significantly impact our operations, financial condition, liquidity and business reputation.

Our business is exposed to risks associated with the creditworthiness of our suppliers, customers and business partners and the industries in which our suppliers, customers and business partners participate are cyclical in nature, both of which may adversely affect our business and results of operations.

Our business is exposed to risks associated with the creditworthiness of our key suppliers, customers and business partners and reductions in demand for our customers ĭ products. During periods of economic disruption, more of our customers than normal may experience financial difficulties, including bankruptcies, restructurings and liquidations, which could affect our business by reducing sales, increasing our risk in extending trade credit to customers and reducing our profitability. A significant adverse change in a customer relationship or in a customer ĭ s financial position could cause us to limit or discontinue business with that customer, require us to assume more credit risk relating to that customer ĭ s receivables or limit our ability to collect accounts receivable from that customer.

Our business is dependent on our intellectual property. If our intellectual property rights cannot be enforced or our trade secrets become known to our competitors, our ability to compete may be adversely affected.

Proprietary protection of our processes, apparatuses and other technology is important to our business. While a presumption of validity exists with respect to patents issued to us in the U.S., there can be no assurance that any of our patents will not be challenged, invalidated, circumvented or rendered unenforceable. Furthermore, if any pending patent application filed by us does not result in an issued patent, or if patents are issued to us, but such patents do not provide meaningful protection of our intellectual property, then our ability to compete may be adversely affected. Additionally, our competitors or other third parties may obtain patents that restrict or preclude our ability to lawfully produce or sell our products in a competitive manner, which could have a material adverse effect on our business, results of operations, financial condition and liquidity.

We also rely upon unpatented proprietary know-how and continuing technological innovation and other trade secrets to develop and maintain our competitive position. While it is our policy to enter into agreements imposing confidentiality obligations upon our employees and third parties to protect our intellectual property, these confidentiality obligations may be breached, may not provide meaningful protection for our trade secrets or proprietary know-how, or adequate remedies may not be available in the event of an unauthorized access, use or disclosure of our trade secrets and know-how. In addition, others could obtain knowledge of our trade secrets through independent development or other access by legal means.

We may have to rely on judicial enforcement of our patents and other proprietary rights. We may not be able to effectively protect our intellectual property rights from misappropriation or infringement in countries where effective patent, trademark, trade secret and other intellectual property laws and judicial systems may be unavailable, or may not protect our proprietary rights to the same extent as U.S. law.

The failure of our patents or confidentiality agreements to protect our processes, apparatuses, technology, trade secrets or proprietary know-how or the failure of adequate legal remedies for related actions could have a material adverse effect on our business, results of operations, financial condition and liquidity.

Conflicts, military actions, terrorist attacks, political events and general instability, along with increased security regulations related to our industry, could adversely affect our business.

Conflicts, military actions, terrorist attacks and political events have precipitated economic instability and turmoil in international commerce and the global economy. The uncertainty and economic disruption resulting from hostilities, military action or acts of terrorism may impact any or all of our facilities and operations or those of our suppliers or customers. Accordingly, any conflict, military action or terrorist attack that impacts us or any of our suppliers or customers, could have a material adverse effect on our business, results of operations, financial condition and liquidity. Furthermore, instability and turmoil, particularly in energy-producing nations, may result in raw material cost increases.

Changes in social, political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment in the territories and countries where we currently develop and sell products, could adversely affect our business. For example, a number of governments have instituted regulations attempting to increase the security of chemical plants and the transportation of hazardous chemicals, which could result in higher operating costs and could have a material adverse effect on our financial condition and liquidity.

Our pension and postretirement benefit plan obligations are currently underfunded, and under certain circumstances we may have to significantly increase the level of cash funding to some or all of these plans, which would reduce the cash available for our business.

We have unfunded and underfunded obligations under some of our domestic and foreign pension and postretirement benefit plans. The funded status of our pension plans is dependent upon many factors, including returns on invested assets, the level of certain market interest rates and the discount rates used to determine pension obligations. Unfavorable returns on the plan assets or unfavorable changes in applicable laws or regulations could materially change the timing and amount of required plan funding, which would reduce the cash available for our business. In addition, a decrease in the discount rate used to determine pension obligations could result in an increase in the valuation of pension obligations, which could affect the reported funding status of our pension plans and future contributions, as well as the periodic pension cost in subsequent fiscal years.

With respect to our domestic pension and postretirement benefit plans, the Pension Benefit Guaranty Corporation (ĭ PBGC ĭ) has the authority to terminate a underfunded tax-qualified pension plan under limited circumstances in accordance with the Employee Retirement Income Security Act of 1974, as amended. In the event our tax-qualified pension plans are terminated by the PBGC, we could be liable to the PBGC for the entire amount of the underfunding and, under certain circumstances, the liability could be senior to our notes. With respect to our foreign pension and postretirement benefit plans, the effects of underfunding depend on the country in which the pension and postretirement benefit plan is established. For example, in the U.K. and Germany semi-public pension protection programs have the authority in certain circumstances to assume responsibility for underfunded pension schemes, including the right to recover the amount of the underfunding from us.

RISKS RELATED TO REGULATION AND ENVIRONMENTAL ACTION

We are subject to many EHS regulations that may result in unanticipated costs or liabilities, which could reduce our profitability.

We are subject to extensive federal, state, local and foreign laws, regulations, rules and ordinances relating to pollution, protection of the environment and human health and safety, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. Actual or alleged violations of EHS laws or permit requirements could result in restrictions or prohibitions on plant operations and substantial civil or criminal sanctions, as well as, under some EHS laws, the assessment of strict liability and/or joint and several liability.

Many of our products and operations are subject to the chemical control laws of the countries in which they are located. These laws include the regulation of chemical substances and inventories under the Toxic Substances Control Act (ĭ TSCA ĭ) in the U.S. and the Registration, Evaluation and Authorization of Chemicals (ĭ REACH ĭ) and the Classification, Labeling and Packaging of substances and mixtures (ĭ CLP ĭ) regulations in Europe. Analogous regimes exist i parts of the world, including China, South Korea, and Taiwan. In addition, a number of countries where we operate, including the U.K., have adopted rules to conform chemical labeling in accordance with the globally harmonized system. Many of these foreign regulatory regimes are in the process of a multi-year implementation period for these rules.

Additional new laws and regulations may be enacted or adopted by various regulatory agencies globally. For example, in the U.S., the EPA finalized revisions to its Risk Management Program in January 2017. The revisions include new requirements for certain facilities to perform hazard analyses, third-party auditing, incident investigations and root cause analyses, emergency response exercises, and to publicly share chemical and process information. The EPA proposed to delay the rule ĭ s effect until February 2019; however, a ruling by the U.S. Court of Appeals for the D.C. Circuit on September 21, 2018 made the Risk Management Program rule amendment effective immediately. The EPA finalized a reconsideration rule on November 20, 2019 that rescinded several of the 2017 revisions to the Risk Management Program rule. Environmental organizations and attorneys general of fourteen states and the District of Columbia challenged the reconsideration rule in the D.C. Circuit. That litigation is pending and implementation of the reconsideration rule is unclear at this time. The U.S. Occupational Safety and Health Administration had previously announced that it was considering changes to its Process Safety Management standards that parallel EPA ĭ s Risk Management Program; but additional action appears unlikely at this time. In addition, TSCA reform legislation was enacted in June 2016, and the EPA has begun the process of issuing new chemical control regulations. EPA issued several final rules in 2017 and 2018 under the revised TSCA related to existing chemicals, including the following: (i) a rule to establish EPA ĭ s process and criteria for identifying chemicals for risk evaluation; (ii) a rule to establish EPA ĭ s process for evaluating high priority chemicals and their uses to determine whether or not they present an unreasonable risk to health or the environment; and (iii) a rule to require industry reporting of chemicals manufactured or processed in the U.S. over the past 10 years. In April 2020, EPA finalized revisions to its Chemical Data Reporting rule under TSCA, which changes reporting requirements. The EPA has also released its framework for approving new chemicals and new uses of existing chemicals. Under the framework, a new chemical or use presents an unreasonable risk if it exceeds set standards. Such a finding could result in either the issuance of rules restricting the use of the chemical being evaluated or in the need for additional testing. The costs of compliance with any new laws or regulations cannot be estimated until the manner in which they will be implemented has been more precisely defined.

Furthermore, governmental, regulatory and societal demands for increasing levels of product safety and environmental protection could result in increased pressure for more stringent regulatory control with respect to the chemical industry. In addition, these concerns could influence public perceptions regarding our products and operations, the viability of certain products, our reputation, the cost to comply with regulations, and the ability to attract and retain employees. Moreover, changes in EHS regulations could inhibit or interrupt our operations, or require us to modify our facilities or operations. Accordingly, environmental or regulatory matters may cause us to incur significant unanticipated losses, costs or liabilities, which could reduce our profitability. For example, several of our products are being evaluated under REACH and CLP regulations and actions thereunder could negatively impact sales.

We could incur significant expenditures in order to comply with existing or future EHS laws. Capital expenditures and costs relating to EHS matters will be subject to evolving regulatory requirements and will depend on the timing of the promulgation and enforcement of specific standards which impose requirements on our operations. Capital expenditures and costs beyond those currently anticipated may therefore be required under existing or future EHS laws.

Furthermore, we may be liable for the costs of investigating and cleaning up environmental contamination on or from our properties or at off-site locations where we disposed of or arranged for the disposal or treatment of hazardous materials, or from disposal activities that pre-dated our purchase of our businesses. We may therefore incur additional costs and expenditures beyond those currently anticipated to address all such known and unknown situations under existing and future EHS laws.

Regulatory requirements to reduce GHG emissions could have an adverse effect on our results of operations.

Our operations are increasingly subject to regulations that seek to reduce emissions of GHGs, such as carbon dioxide and methane, which may be contributing to changes in the Earth ĭ s climate. There are existing efforts to address GHG emissions at the international, national, and regional levels. For example, the Paris Agreement, which entered into force in November 2016, resulted in voluntary commitments by numerous countries to reduce their GHG emissions. On June 1, 2017, President Trump announced that the U.S. would withdraw from the Paris Agreement, and the U.S. completed the process of withdrawing on November 4, 2020. On January 20, 2021, President Biden issued written notification to the United Nations of the U.S. ĭ s intention to rejoin the Paris Agreement, which will become effective in 30 days. The EU also regulates GHGs under the EU ETS and China has established its own country-wide GHG cap and trade program. Domestically, the EPA issued its final Clean Power Plan rule in 2015 that established carbon pollution standards for power plants, called CO2 emission performance rates. This rule has been repealed and the litigation challenging the rule has been dismissed. On July 8, 2019, the EPA replaced the Clean Power Plan with the Affordable Clean Energy (ĭ ACE ĭ) rule, which established emission guidelines for states to develop plans to address GHG emissions from existing coal-fired power plants. The ACE rule was challenged by a coalition of states and environmental groups. On January 19, 2021, the D.C. Circuit struck down the ACE Rule and remanded it to the EPA; therefore, the regulation of GHG emissions is uncertain at this time. Such rules and agreements may affect the long-term price and supply of electricity and natural gas and demand for products that contribute to energy efficiency and renewable energy. These various regulations and agreements may result in increased costs to purchased energy, additional capital costs for installation or modification of GHG emitting equipment, and additional costs associated directly with GHG emissions (such as cap and trade systems or carbon taxes), which are primarily related to energy use. Compliance with these regulations and any more stringent restrictions in the future may increase our operational costs.

In addition, most scientists have concluded that increasing concentrations of GHGs in the Earth ĭ s atmosphere may produce climate changes, such as increased frequency and severity of storms, droughts, floods and other climatic events. If any such effects were to occur in areas where we or our clients operate, they could have an adverse effect on our assets and operations.

We could incur significant expenditures in order to comply with existing or future EHS laws. Capital expenditures and costs relating to EHS matters will be subject to evolving regulatory requirements and will depend on the timing of the promulgation and enforcement of specific standards which impose requirements on our operations. Capital expenditures and costs beyond those currently anticipated may therefore be required under existing or future EHS laws.

Furthermore, we may be liable for the costs of investigating and cleaning up environmental contamination on or from our properties or at off-site locations where we disposed of or arranged for the disposal or treatment of hazardous materials or from disposal activities that pre-dated our purchase of our businesses. We may therefore incur additional costs and expenditures beyond those currently anticipated to address all such known and unknown situations under existing and future EHS laws.

Changes in U.S. trade policies and other factors beyond our control may adversely impact our business, financial condition and results of operations.

Tariffs, retaliatory tariffs or other trade restrictions on products and materials that our customers export, including among others, textile, automotive and consumer products, could cause the prices of our customers ĭ products to increase which could reduce demand for such products, or reduce our customer margins, and adversely impact their revenues, financial results and ability to service debt; which, in turn, could adversely affect our financial condition and results of operations. Additionally, our products may become directly subject to future tariffs, which would in turn raise the cost to our customers and could adversely affect the demand for our products. Direct or unforeseen consequences of tariffs, retaliatory tariffs or other trade restrictions may also alter the competitive landscape of our products in one or more regions of the world.

It remains unclear how the U.S. Administration or foreign governments will act with respect to tariffs, international trade agreements and policies. For example, any future withdrawal or renegotiation of trade agreements, or the failure to reach agreement over trade agreements, or the imposition of new or increased tariffs, or the more aggressive prosecution of trade disputes with countries like China, may increase costs or reduce profitability, or adversely affect our ability to operate our business and execute our growth strategy. As result, a trade war or other governmental action related to tariffs or international trade agreements or policies has the potential to negatively impact ours and/or our customers' costs, demand for our customers ĭ products, and/or the global economy or certain sectors thereof and, thus, adversely impact our business, financial condition and results of operations.

RISKS RELATED TO INDEBTEDNESS

Our debt level, a portion of which is subject to variable interest rates, makes us vulnerable to downturns and may limit our ability to respond to market conditions, to obtain additional financing or to refinance our debt.

As of December 31, 2020, our total consolidated outstanding debt was $2,121 million (including current portion of debt); our debt to total capitalization ratio was approximately 37%; our combined outstanding variable rate borrowings were approximately $17 million; and our current portion of debt totaled $593 million. Additionally, future borrowings under our $1.2 billion senior unsecured revolving credit facility will be subject to variable interest rates. Our debt level and the fact that a portion of our cash flow is required to make payments on our debt could have important consequences for our business, including but not limited to the following:

- we may be more vulnerable to business, industry or economic downturns, making it more difficult to respond to market conditions;
- cash flow available for other purposes, including the growth of our business, may be reduced;
- our ability to refinance or obtain additional financing may be constrained, particularly during periods when the capital markets are unsettled;
- our competitors with lower debt levels may have a competitive advantage relative to us; and
- part of our debt is subject to variable interest rates, which makes us more vulnerable to increases in interest rates.

Our debt level also impacts our credit ratings. Any decision by credit rating agencies to downgrade our debt ratings could restrict our ability to obtain additional financing and could result in increased interest and other costs.

Agreements governing our debt may restrict our ability to engage in certain business activities or to obtain additional financing.

The agreements governing our debt arrangements contain certain restrictive covenants. These covenants may limit or prohibit our ability to among other things, incur additional indebtedness; make investments; create liens; enter into transactions with affiliates; enter into sale and leaseback transactions; merge or consolidate; and transfer or sell assets. Some of our strategies may necessitate receiving consents or waivers under our debt arrangements, which could be withheld.

Our failure to comply with any of our debt covenants, or our failure to make payments of principal or interest on our debt, could result in a default, or trigger cross-default or acceleration provisions, under our debt agreements. An event of default could result in our debt obligations becoming immediately due and payable, cause our creditors to terminate their lending commitments. Any of the foregoing occurrences could have a material adverse effect on our business, results of operations and financial condition. For more information regarding our debt covenants, see ĭ Note 15. Debt ĭ Compliance with Covenants ĭ to our consolidated financial statements.

If our subsidiaries do not make sufficient distributions to us, then we will not be able to make payment on our debts.

Our debt is generally the exclusive obligation of Huntsman International. Our subsidiaries are separate legal entities and have no obligation, contingent or otherwise, to pay any amounts due on our debt or to make any funds available for those amounts, whether by dividends, loans, distributions or other payments, and do not guarantee the payment of interest on, or principal of, our debt. Any right that we have to receive any assets of any of our subsidiaries upon the liquidation or reorganization of any such subsidiary, and the consequent right of holders of notes to realize proceeds from the sale of their assets, will be structurally subordinated to the claims of that subsidiary ĭ s creditors, including trade creditors and holders of debt issued by that subsidiary.

GENERAL RISK FACTORS

Certain provisions contained in our certificate of incorporation and bylaws could discourage a takeover attempt, which may reduce or eliminate the likelihood of a change of control transaction and, therefore, limit your ability to sell our common stock at a price higher than the current market value.

Certain provisions contained in our certificate of incorporation and bylaws, as well as certain provisions of Delaware law, could make it more difficult for a third party to acquire control of our Company, even if some of our stockholders were to consider such a change of control to be beneficial. Our certificate of incorporation also authorizes our Board of Directors to issue preferred stock without stockholder approval. Therefore, our Board of Directors could elect to issue preferred stock that has special voting or other rights that could make it even more difficult for a third party to acquire us, which may reduce or eliminate your ability to sell our common stock at a price higher than the current market value.

We have purchased, and may continue to purchase, a portion of our equity and debt securities, which could impact the market for our equity and debt securities and likely would negatively affect our liquidity.

Consistent with past practices, we may from time to time seek to repurchase or redeem our equity and debt securities in open market purchases, accelerated repurchase programs, privately negotiated transactions, tender offers, partial or full calls for redemption or otherwise. Any such repurchases or redemptions and the timing and amount thereof would depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. Such transactions could negatively affect our liquidity.

ITEM 1B. UNRESOLVED STAFF COMMENTS

As of the date of this filing, we did not have any unresolved comments from the staff of the SEC.

ITEM 2. PROPERTIES

We own or lease chemical manufacturing and research facilities in the locations indicated in the list below, which we believe are adequate for our short-term and anticipated long-term needs. We own or lease office space and storage facilities throughout the U.S. and in many foreign countries. Our principal executive offices are located at 10003 Woodloch Forest Drive, The Woodlands, Texas 77380. The following is a list of our principal physical properties where manufacturing, research and main office facilities are located.

Location	Business Segment	Description of Facility
The Woodlands, Texas(1)	Various	Executive Offices, Operating Headquarters, Global Technology Center and Shared Services Center
Kuala Lumpur, Malaysia(1)	Various	Shared Services Center
Mumbai, India(1)	Various	Technology Center, Administrative Offices, Labs and Shared Services Center
Sao Paulo, Brazil(1)	Various	Administrative Offices and Accounting Shared Services Center
Geismar, Louisiana(2)	Polyurethanes and Performance Products	MDI, Nitrobenzene(2), Aniline(2), Polyols and Maleic Anhydride Manufacturing Facilities, Polyurethane Systems House
Rotterdam, The Netherlands(1)	Polyurethanes and other various	MDI Manufacturing Facility, Polyols Manufacturing Facilities, Polyurethane Systems House and Accounting Shared Services Center
Caojing, China	Polyurethanes	MDI Finishing Facilities
Caojing, China(3)	Polyurethanes	Precursor MDI Manufacturing Facility
Jinshan, China(1)	Polyurethanes	TPU Manufacturing Facility
Deer Park, Australia(1)	Polyurethanes	Polyurethane Systems House
Cartagena, Colombia	Polyurethanes	Polyurethane Systems House
Deggendorf, Germany	Polyurethanes	Polyurethane Systems House and Technology Center
Ternate, Italy	Polyurethanes	Polyurethane Systems House and Technology Center
Shanghai, China(1)	Polyurethanes, Performance Products and Advanced Materials	Polyurethane Systems House, Global Technology Center, Performance Products Regional Headquarters and Shared Services Center
Azeglio, Italy	Polyurethanes	Polyurethane Systems House
Pune, India(1)	Polyurethanes	Polyurethane Systems House
Buenos Aires, Argentina(1)	Polyurethanes	Polyurethane Systems House
Samutprakarn, Thailand(1)	Polyurethanes	Polyurethane Systems House
Istanbul, Turkey(8)	Polyurethanes	Polyurethane Systems House
Kuan Yin, Taiwan	Polyurethanes	Polyurethane Systems House
Tlalnepantla, Mexico	Polyurethanes	Polyurethane Systems House
Mississauga, Canada	Polyurethanes	Polyurethane Systems House
Obninsk, Russia	Polyurethanes	Polyurethane Systems House
Dammam, Saudi Arabia(4)	Polyurethanes	Polyurethane Systems House
Georgsmarienh ĭ tte, Germany	Polyurethanes	Polyurethane Systems House
Castelfranco Emilia, Italy	Polyurethanes	Polyurethane Systems House
Dubai, United Arab Emirates	Polyurethanes	Polyurethane Systems House
Arlington, Texas	Polyurethanes	Polyurethane Systems House
Boisbriand, Canada	Polyurethanes	Polyurethane Systems House
King ĭ s Lynn, U.K.	Polyurethanes	Polyurethane Systems House
Ho Chi Minh City, Vietnam(1)	Polyurethanes and Advanced Materials	Polyurethane Systems House and Formulating Facility
Auburn Hills, Michigan(1)	Polyurethanes	Polyurethane Research Facility
Everberg, Belgium	Polyurethanes and Performance Products	Polyurethane and Performance Products Regional Headquarters, Global Technology Center and Shared Service Center
Houston, Texas(1)	Polyurethanes	Polyols Manufacturing Facility
Derry, New Hampshire(1)	Polyurethanes	TPU Research Facility
Ringwood, Illinois(1)	Polyurethanes	TPU Manufacturing Facility
Osnabr ĭ ck, Germany	Polyurethanes	TPU Manufacturing Facility
Wilton, U.K.	Polyurethanes and other various	Aniline and Nitrobenzene Manufacturing Facilities
Nanjing, China(5)	Polyurethanes	PO and MTBE Manufacturing Facilities
Tianjin, China(1)	Polyurethanes	Polyurethane Systems House
Port Neches, Texas	Performance Products	Amines Manufacturing Facility
Conroe, Texas	Performance Products	Amines Manufacturing Facility
Petfurdo, Hungary	Performance Products	Amines Manufacturing Facility
Llanelli, U.K.	Performance Products	Amines Manufacturing Facility
Freeport, Texas(1)	Performance Products	Amines Manufacturing Facility

Jurong Island, Singapore(1)	Performance Products	Amines Manufacturing Facility
Jubail, Saudi Arabia(6)	Performance Products	Amines Manufacturing Facility
Pensacola, Florida(1)	Performance Products	Maleic Anhydride Manufacturing Facility
Moers, Germany(1)	Performance Products	Maleic Anhydride Manufacturing Facility
Akron, Ohio	Advanced Materials	Synthesis Facility
Bergkamen, Germany	Advanced Materials	Synthesis Facility
Monthey, Switzerland	Advanced Materials	Formulating and Synthesis Facility
Pamplona, Spain	Advanced Materials	Synthesis Facility
McIntosh, Alabama	Advanced Materials	Formulating and Synthesis Facility
Maple Shade, New Jersey	Advanced Materials	Synthesis Facility
Bad Saeckingen, Germany	Advanced Materials	Formulating Facility
Duxford, U.K.	Advanced Materials	Formulating and Synthesis Facility
Taboão da Serra, Brazil	Advanced Materials, Polyurethanes and Textile Effects	Formulating Facility, Labs, Polyurethane Systems House and Chemicals Formulations Facility
Panyu, China(7)	Advanced Materials and Textile Effects	Formulating and Synthesis Facility, Technology Center and Shared Services Center
East Lansing, Michigan	Advanced Materials	Formulating Facility
Los Angeles, California	Advanced Materials	Formulating Facility
Merrimack, New Hampshire(1)	Advanced Materials	Research Facility
Basel, Switzerland(1)	Advanced Materials and Textile Effects	Advanced Materials Regional Headquarters, Technology Center
Langweid am Leich, Germany	Textile Effects	Chemicals Synthesis and Formulations Facility
Charlotte, North Carolina	Textile Effects	Chemicals Formulations Facility
Samutsakorn (Mahachai), Thailand	Textile Effects	Textiles Dyes Synthesis and Formulations Facility
Atotonilquillo, Mexico	Textile Effects	Textile Dyes and Chemicals Synthesis and Formulations Facility
Baroda, India	Textile Effects	Textile Dyes Synthesis and Dyes and Chemicals Formulations Facility
Gandaria, Jakarta, Indonesia	Textile Effects and Polyurethanes	Textile Dyes and Chemicals Formulations Facility and Polyurethane Systems House
Fraijanes, Guatemala	Textile Effects	Chemicals Formulations Facility
Bogota, Colombia	Textile Effects	Chemicals Formulations Facility
Hangzhou, China(1)	Textile Effects	Chemicals Formulations Facility
Singapore(1)	Textile Effects and other various	Textile Effects Headquarters and Administrative Offices
Wynyard, U.K.(1)	Various	Administrative Offices

(1) Leased land and/or building.
(2) The ownership of the Geismar facility is as follows: we own 100% of the MDI, polyol and maleic anhydride facilities, and Rubicon LLC, a consolidated manufacturing joint venture with Lanxess in which we own a 50% interest, owns the aniline and nitrobenzene facilities. Rubicon LLC is a separate legal entity that operates both the assets that we own jointly with Lanxess and our wholly owned assets at Geismar.
(3) 35% interest in SLIC, our unconsolidated manufacturing joint venture with BASF and three Chinese chemical companies.
(4) 51%-owned consolidated manufacturing joint venture with Basic Chemicals Industries Ltd.
(5) 49% interest in Nanjing Jinling Huntsman New Material Co., Ltd., our unconsolidated manufacturing joint venture with Sinopec. Beneficial commercial operations began during the second half of 2017.
(6) 50% interest in AAC, our consolidated manufacturing joint venture with the Zamil Group.
(7) 95%-owned consolidated manufacturing joint venture with Guangzhou Sheng ĭ an Package Company Limited.
(8) On September 18, 2019, we experienced a fire at our polyurethane systems house in Istanbul, Turkey, and it is currently not operational.

ITEM 3. LEGAL PROCEEDINGS

Rockwood Litigation

On February 6, 2017, we filed a lawsuit in New York state court against Rockwood Holdings, Inc. (ĭ Rockwood ĭ), Albemarle Corporation (as Rockwood ĭ s successor) and certain former Rockwood executives to recover damage for fraud and breach of contract. During the commissioning of a new Venator production facility in Augusta, Georgia (the ĭ Augusta Facility ĭ) for the synthesis of iron oxide pigments, the Augusta Facility experienced delays producing products at the expected specifications and quantities, raising questions regarding the capabilities of the technology we acquired from Rockwood in October 2014. In May 2018, Venator implemented a plan to cease using certain portions of the Augusta Facility and incurred significant restructuring expenses. The case is currently in arbitration, with the evidentiary hearing scheduled for May 2021, and we are seeking various forms of legal remedy, including compensatory damages, punitive damages, expectation damages, consequential damages and restitution. Venator is not party to the suit.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following is information concerning our executive officers and significant employees as of the date of this report.

Peter R. Huntsman, age 57, is Chairman of the Board, President and Chief Executive Officer of our Company. Peter R. Huntsman has served as Chairman of the Board since January 2018 and as a director of our company and affiliated companies since 1994. Prior to his appointment in July 2000 as Chief Executive Officer, Mr. Huntsman had served as President and Chief Operating Officer since 1994. In 1987, Mr. Huntsman joined Huntsman Polypropylene Corporation as Vice President before serving as Senior Vice President and General Manager. Mr. Huntsman has also served as President of Olympus Oil, as Senior Vice President of Huntsman Chemical Corporation and as a Senior Vice President of Huntsman Packaging Corporation, a former subsidiary of our Company. Mr. Huntsman is a director or manager, as applicable, of Huntsman International and certain of our other subsidiaries. Mr. Huntsman currently serves as a director of Venator Materials PLC, which separated from our Company in 2017.

Sean Douglas, age 56, is Executive Vice President and Chief Financial Officer. Mr. Douglas was appointed to this position in January 2017. Mr. Douglas was previously Vice President, Corporate Development and Treasurer from July 2015 to July 2016. Mr. Douglas left the Company in July 2012 to perform charitable services and rejoined the Company in July 2015. He previously served as our Vice President, Corporate Development from December 2009 until July 2012. Mr. Douglas served as Vice President and Treasurer from 2002 to December 2009, Vice President, Finance from July 2001 to 2002 and Vice President, Administration from January 1997 to July 2001. Prior to joining Huntsman in 1990, Mr. Douglas worked for the accounting firm of PricewaterhouseCoopers.

David Stryker, age 62, is Executive Vice President, General Counsel and Secretary. Mr. Stryker was appointed to this position in June 2013. Prior to joining Huntsman, Mr. Stryker served as Senior Vice President, General Counsel, Secretary and Chief Compliance Officer of the BASF Corporation since 2004. Previously, he was Associate General Counsel and Chief Compliance Officer at Siemens Corporation and, prior to that, a partner at the law firm of Kirkland & Ellis. Mr. Stryker started his legal career as a judicial clerk to the Honorable Robert H. Bork on the U.S. Court of Appeals for the D.C. Circuit.

Anthony P. Hankins, age 63, is Division President, Polyurethanes and Chief Executive Officer, Asia-Pacific. Mr. Hankins was appointed to these positions in March 2004 and February 2011, respectively. From May 2003 to February 2004, Mr. Hankins served as President, Performance Products, from January 2002 to April 2003, he served as Global Vice President, Rigids Division for our Polyurethanes segment, from October 2000 to December 2001, he served as Vice President ĭ Americas for our Polyurethanes segment, and from March 1998 to September 2000, he served as Vice President ĭ Asia-Pacific for our Polyurethanes segment. Mr. Hankins worked for ICI from 1980 to February 1998, when he joined our Company. At ICI, Mr. Hankins held numerous management positions in the plastics, fibers and polyurethanes businesses. He has extensive international experience, having held senior management positions in Europe, Asia and the U.S.

Rohit Aggarwal, age 53, is Division President, Textile Effects. Mr. Aggarwal was appointed to this position in July 2016. Mr. Aggarwal was previously Vice President and Managing Director of Indian Subcontinent for Huntsman from July 2015 to July 2016 and served in various positions within Huntsman ĭ s Advanced Materials and Textile Effects segments from 2005 to 2013. In 2013, Mr. Aggarwal left Huntsman to join Louis Dreyfus Commodities B.V. as Chief Executive Officer of Asia Region, a position he held until his return to our Company in 2015.

Chuck Hirsch, age 53, is Senior Vice President, Performance Products. Prior to his appointment to this position in July 2020, Mr. Hirsch served as Vice President ĭ Commercial, Textile Effects based in Singapore since April 2014. Mr. Hirsch joined Huntsman in July 2009 and has served in multiple roles of increasing responsibility in the Textile Effects division. Prior to joining Huntsman, Mr. Hirsch held numerous positions with International Textile Group, Ciba Specialty Chemicals and Milliken & Company.

Scott J. Wright, age 49, is Division President, Advanced Materials. Mr. Wright was appointed to this position in June 2016. Prior to that time, Mr. Wright served as Vice President of Huntsman Advanced Materials ĭ Europe, Middle East & Africa since 2011. Before joining Huntsman ĭ s Advanced Materials segment, Mr. Wright spent 15 years in Huntsman ĭ s former P&A Business in a number of roles of increasing responsibility including product development, business planning, marketing and sales. Prior to joining Huntsman in July 1999, Mr. Wright worked with ICI.

Brittany Benko, age 46, is Senior Vice President, Environmental, Health & Safety and Manufacturing Excellence. Prior to joining Huntsman in August 2020, Ms. Benko served as Vice President, Health, Safety, Environment and Regulatory at Southwestern Energy Company. Previously, Ms. Benko served in a variety of EHS roles with increasing responsibility at several companies including Anadarko Petroleum Corporation, Chesapeake Energy Corporation and BP.

R. Wade Rogers, age 55, is Senior Vice President, Global Human Resources and Chief Compliance Officer. Mr. Rogers has held the position of Senior Vice President, Global Human Resources since August 2009. From May 2004 to August 2009, Mr. Rogers served as Vice President, Global Human Resources, from October 2003 to May 2004, Mr. Rogers served as Director, Human Resources ĭ Americas and from August 2000 to October 2003, he served as Director, Human Resources for our Polymers and Base Chemicals businesses. From the time he joined Huntsman in 1994 to August 2000, Mr. Rogers served as Area Manager, Human Resources ĭ Jefferson County Operations. Prior to joining Huntsman, Mr. Rogers held a variety of positions with Texaco Chemical Company.

Randy W. Wright, age 62, is Vice President and Controller. Prior to his appointment to this position in February 2012, Mr. Wright served as Assistant Controller and Director of Financial Reporting since July 2004. Prior to joining Huntsman in 2004, Mr. Wright held various positions with Georgia-Pacific Corporation, Riverwood International, Johns Manville and PricewaterhouseCoopers. Mr. Wright is a Certified Public Accountant.

Twila Day, age 59, is Vice President and Chief Information Officer. Ms. Day was appointed to this position upon joining Huntsman in November 2018. Prior to joining Huntsman, Ms. Day was Managing Director, National Practice Lead for Technology Services, and a member of the executive committee at Alvarez & Marsal. Previously, Ms. Day served at SYSCO Corporation for more than 20 years in a variety of positions, culminating in her appointment as Senior Vice President Information Technology and Chief Information Officer.

Kevin C. Hardman, age 57, is Vice President, Tax. Mr. Hardman served as Chief Tax Officer from 1999 until he was appointed to his current position in 2002. Prior to joining Huntsman in 1999, Mr. Hardman was a tax Senior Manager with the accounting firm of Deloitte & Touche LLP, where he worked for 10 years. Mr. Hardman is a Certified Public Accountant and holds a master ĭ s degree in tax accounting.

Phil Lister, age 48, is Vice President, Corporate Development. Mr. Lister was appointed to this position effective May 2019. From April 2011, Mr. Lister served in Huntsman ï s Polyurethanes division as Vice President, Global Finance and Controller, a role including divisional leadership of strategic planning as well as mergers and acquisitions. Prior to that, Mr. Lister served in numerous financial and business roles in Polyurethanes both in Europe and in the United States. Mr. Lister joined Huntsman in July 1999 with the ICI acquisition. Mr. Lister is a U.K. Chartered Management Accountant.

Ivan Marcuse, age 44, is Vice President, Investor Relations. Prior to joining Huntsman in April 2017, Mr. Marcuse served as Director, Equity Research, Specialty Chemicals for KeyBanc Capital Markets Inc. from August 2011 to February 2017. Previously, he was Vice President, Equity Research, Building Products and Materials, for Northcoast Research. Mr. Marcuse is a CFA charterholder and holds a master ï s degree in business administration.

Claire Mei, age 46, is Vice President and Treasurer. Ms. Mei was appointed to this role upon joining Huntsman in August of 2018. Prior to joining Huntsman, Ms. Mei served as Vice President and Treasurer at Chobani Global Holdings since November 2016. Previously, Ms. Mei served in a variety of treasury and financial roles with increasing responsibility at several companies including Kraft Foods, PepsiCo, and Hyatt Corporation. Ms. Mei was also a management consultant with McKinsey & Company in Shanghai, China. Ms. Mei holds a master ï s degree in business administration.

Pierre Poukens, age 58, is Vice President, Internal Audit, a position he has held since February 2012. Mr. Poukens was Director of Internal Audit from April 2005 to January 2012 and joined Huntsman as Internal Audit Manager in January 2000. Prior to joining Huntsman, Mr. Poukens held various accounting and auditing positions with European companies in Belgium. Mr. Poukens is a Certified Internal Auditor.

Nooshin Vaughn, age 46, is Vice President, Financial Planning and Analysis. Ms. Vaughn was appointed to this position effective June 2018. Ms. Vaughn previously served as Director, Investor Relations. Prior to that, Ms. Vaughn held numerous roles in finance, accounting and information technology. Prior to joining Huntsman in 1997, Ms. Vaughn worked for the accounting firm of Deloitte & Touche LLP. Ms. Vaughn is a Certified Public Accountant.

PART II

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

Market Information and Holders

Our common stock is listed on the New York Stock Exchange under the symbol ï HUN. ï As of February 1, 2021, there were approximately 76 stockholders of record and the closing price of our common stock on the New York Stock Exchange was $27.08 per share.

Dividends

The payment of dividends is a business decision made by our Board of Directors from time to time based on our earnings, financial position and prospects, and such other considerations as our Board of Directors considers relevant. Accordingly, while management currently expects that the Company will continue to pay the quarterly cash dividend, its dividend practice may change at any time.

Securities Authorized for Issuance Under Equity Compensation Plans

See ï Part III. Item 11. Executive Compensation ï for information relating to our equity compensation plans.

Purchases of Equity Securities by the Company

The following table provides information with respect to shares of our common stock that we repurchased as part of our share repurchase program and shares of restricted stock granted under our stock incentive plans that we withheld upon vesting to satisfy our tax withholding obligations during the three months ended December 31, 2020.

	Total number of shares purchased	Average price paid per share(1)	Total number of shares purchased as part of publicly announced plans or programs(2)	Maximum number (or approximate dollar value) of shares that may yet be purchased under the plans or programs(2)
October	ï	$ ï	ï	$ 420,000,000
November	522	24.29	ï	420,000,000
December	947	25.14	ï	420,000,000
Total	1,469	24.84	ï	

(1) Represents net purchase price per share, exclusive of any fees or commissions.

(2) On February 7, 2018 and on May 3, 2018, our Board of Directors authorized our Company to repurchase up to an additional $950 million in shares of our common stock in addition to the $50 million remaining under our September 2015 share repurchase authorization. The share repurchase program will be supported by our free cash flow generation. Repurchases may be made in the open market, including through accelerated share repurchase programs, or in privately negotiated transactions, and repurchases may be commenced or suspended from time to time without prior notice. Shares of common stock acquired through the repurchase program are held in treasury at cost. During the first quarter of 2020, we repurchased 5,364,519 shares of our common stock for approximately $96 million, excluding commissions, under the repurchase program. Subsequent to the end of the first quarter of 2020, we suspended share repurchases under our existing share repurchase program in order to enhance our liquidity position in response to COVID-19.

ITEM 6. SELECTED FINANCIAL DATA

Not applicable.

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

RECENT DEVELOPMENTS

See "Part I. Item 1. Business ĭ Recent Developments ĭ for important updates that occurred in our businesses for the year ended December 31, 2020.

OUTLOOK

We expect the following factors to impact our operating segments:

Polyurethanes:

- õ First quarter 2021 adjusted EBITDA projected to be slightly more than double first quarter 2020 results, including turnaround-related headwinds
- õ Positive trends in construction (including spray polyurethane foam), automotive and elastomer markets
- õ Continued strength in China, but lower margins in China component MDI and polymeric systems for first quarter 2021 compared to fourth quarter 2020

Performance Products:

- õ First quarter 2021 adjusted EBITDA to be up approximately 10%-15% compared to first quarter 2020
- õ Improving volumes in the Americas and Asia regions in first quarter 2021 compared to first quarter 2020
- õ Positive volume trends across the portfolio from fourth quarter 2020 to first quarter 2021

Advanced Materials:

- õ First quarter 2021 adjusted EBITDA to be up approximately 40% compared to fourth quarter 2020
- õ Improving trends from fourth quarter 2020 to first quarter 2021 across all markets, including aerospace
- õ Synergy capture from acquisitions on track

Textile Effects:

- õ First quarter 2021 adjusted EBITDA to be up slightly compared to first quarter 2020
- õ Favorable trends in sustainable solutions
- õ First quarter 2021 orders returning to 2019 levels

In 2020, our adjusted effective tax rate was 19%. For 2021, our adjusted effective tax rate is expected to be approximately 22% to 24%. For further information, see ĭ ĭ Non-GAAP Financial Measures ĭ and ĭ Note 20. Income Taxes ĭ to our consolidated financial statements.

Higher Insurance Costs in 2021

During 2020, we saw a deterioration in insurance markets in which we participate, particularly for property and excess/umbrella liability insurance. Rates increased significantly for these coverages, terms and conditions were restricted and some insurers either reduced their available capital or stopped underwriting accounts in the chemical sector. As a result, our annual insurance expense will increase from $32 million in 2020 to $52 million in 2021. We customarily prepay our insurance expense and, accordingly, we prepaid our 2021 insurance expense in December 2020. This prepaid expense will be recognized ratably in our statements of operations in 2021.

Refer to ĭ Item 1A. Risk Factors ĭ for a discussion of the factors that may impact our business, results of operations, financial condition or liquidity and ĭ Forward-Looking Statements ĭ for a discussion of our use of forward-looking statements.

RESULTS OF OPERATIONS

For each of our Company and Huntsman International, the following tables set forth our consolidated results of operations for the years ended December 31, 2020, 2019 and 2018 (dollars in millions, except per share amounts).

Huntsman Corporation

	December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Revenues	$ 6,018	$ 6,797	$ 7,604	(11)%	(11)%
Cost of goods sold	4,918	5,415	5,840	(9)%	(7)%
Gross profit	1,100	1,382	1,764	(20)%	(22)%
Operating expenses	618	954	942	(35)%	1%
Restructuring, impairment and plant closing costs (credits)	49	(41)	(7)	NM	486%
Merger costs	ĭ	ĭ	2	ĭ	(100)%
Operating income	433	469	827	(8)%	(43)%
Interest expense, net	(86)	(111)	(115)	(23)%	(3)%
Equity in income of investment in unconsolidated affiliates	42	54	55	(22)%	(2)%
Fair value adjustments to Venator investment and related loss on disposal	(88)	(18)	(62)	389%	(71)%
Loss on early extinguishment of debt	ĭ	(23)	(3)	(100)%	667%
Other income, net	36	20	32	80%	(38)%
Income from continuing operations before income taxes	337	391	734	(14)%	(47)%
Income tax (expense) benefit	(46)	38	(45)	NM	NM
Income from continuing operations	291	429	689	(32)%	(38)%
Income (loss) from discontinued operations, net of tax	775	169	(39)	359%	NM
Net income	1,066	598	650	78%	(8)%
Reconciliation of net income to adjusted EBITDA:					
Net income attributable to noncontrolling interests	(32)	(36)	(313)	(11)%	(88)%
Interest expense, net from continuing operations	86	111	115	(23)%	(3)%
Interest expense, net from discontinued operations	ĭ	ĭ	36	ĭ	(100)%
Income tax expense (benefit) from continuing operations	46	(38)	45	NM	NM
Income tax expense from discontinued operations	242	35	86	591%	(59)%
Depreciation and amortization of continuing operations	283	270	255	5%	6%
Depreciation and amortization of discontinued operations	ĭ	61	88	(100)%	(31)%
Other adjustments:					
Business acquisition and integration expenses and purchase accounting inventory adjustments	31	5	9		
Merger costs	ĭ	ĭ	2		
EBITDA from discontinued operations(2)	(1,017)	(265)	(171)		
Noncontrolling interest of discontinued operations	ĭ	ĭ	232		
Fair value adjustments to Venator investment and related loss on disposal	88	18	62		
Loss on early extinguishment of debt	ĭ	23	3		
Certain legal and other settlements and related expenses	5	6	1		
(Gain) loss on sale of businesses/assets	(280)	21	ĭ		
Income from transition services arrangements	(7)	ĭ	ĭ		
Certain nonrecurring information technology project implementation costs	6	4	ĭ		
Amortization of pension and postretirement actuarial losses	76	66	67		
Plant incident remediation costs	2	8	ĭ		
Restructuring, impairment and plant closing and transition costs (credits)(3)	52	(41)	(6)		
Adjusted EBITDA(1)	$ 647	$ 846	$ 1,161	(24)%	(27)%
Net cash provided by operating activities from continuing operations	$ 277	$ 656	$ 704	(58)%	(7)%
Net cash provided by (used in) investing activities from continuing operations	1,462	(201)	(615)	NM	(67)%
Net cash used in financing activities	(655)	(450)	(424)	46%	6%
Capital expenditures from continuing operations	(249)	(274)	(251)	(9)%	9%

Huntsman International

	December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Revenues	$ 6,018	$ 6,797	$ 7,604	(11)%	(11)%
Cost of goods sold	4,918	5,415	5,837	(9)%	(7)%
Gross profit	1,100	1,382	1,767	(20)%	(22)%
Operating expenses	612	949	937	(36)%	1%
Restructuring, impairment and plant closing costs (credits)	49	(41)	(7)	NM	486%
Merger costs	ĭ	ĭ	2	ĭ	(100)%
Operating income	439	474	835	(7)%	(43)%
Interest expense, net	(88)	(126)	(136)	(30)%	(7)%
Equity in income of investment in unconsolidated affiliates	42	54	55	(22)%	(2)%
Fair value adjustments to Venator investment and related loss on disposal	(88)	(18)	(62)	389%	(71)%
Loss on early extinguishment of debt	ĭ	(23)	(3)	(100)%	667%
Other income, net	33	16	27	106%	(41)%
Income from continuing operations before income taxes	338	377	716	(10)%	(47)%
Income tax (expense) benefit	(46)	41	(41)	NM	NM
Income from continuing operations	292	418	675	(30)%	(38)%
Income (loss) from discontinued operations, net of tax	775	169	(39)	359%	NM
Net income	1,067	587	636	82%	(8)%
Reconciliation of net income to adjusted EBITDA:					
Net income attributable to noncontrolling interests	(32)	(36)	(313)	(11)%	(88)%
Interest expense, net from continuing operations	88	126	136	(30)%	(7)%
Interest expense, net from discontinued operations	ĭ	ĭ	36	ĭ	(100)%
Income tax expense (benefit) from continuing operations	46	(41)	41	NM	NM
Income tax expense from discontinued operations	242	35	86	591%	(59)%
Depreciation and amortization of continuing operations	283	270	252	5%	7%
Depreciation and amortization of discontinued operations	ĭ	61	88	(100)%	(31)%
Other adjustments:					
Business acquisition and integration expenses and purchase accounting inventory adjustments	31	5	9		
Merger costs	ĭ	ĭ	2		
EBITDA from discontinued operations[2]	(1,017)	(265)	(171)		
Noncontrolling interest of discontinued operations	ĭ	ĭ	232		
Fair value adjustments to Venator investment and related loss on disposal	88	18	62		
Loss on early extinguishment of debt	ĭ	23	3		
Certain legal and other settlements and related expenses	5	6	1		
(Gain) loss on sale of businesses/assets	(280)	21	ĭ		
Income from transition services arrangements	(7)	ĭ	ĭ		
Certain nonrecurring information technology project implementation costs	6	4	ĭ		
Amortization of pension and postretirement actuarial losses	79	70	71		
Plant incident remediation costs	2	8	ĭ		
Restructuring, impairment and plant closing and transition costs (credits)[3]	52	(41)	(6)		
Adjusted EBITDA[1]	$ 653	$ 851	$ 1,165	(23)%	(27)%
Net cash provided by operating activities from continuing operations	$ 279	$ 645	$ 687	(57)%	(6)%
Net cash provided by (used in) investing activities from continuing operations	1,736	(202)	(630)	NM	(68)%
Net cash used in financing activities	(933)	(438)	(390)	113%	12%
Capital expenditures from continuing operations	(249)	(274)	(251)	(9)%	9%

Huntsman Corporation

	Year ended December 31, 2020			Year ended December 31, 2019			Year ended December 31, 2018		
	Gross	Tax and other[4]	Net	Gross	Tax and other[4]	Net	Gross	Tax and other[4]	Net
Reconciliation of net income to adjusted net income									
Net income			$ 1,066			$ 598			$ 650
Net income attributable to noncontrolling interests			(32)			(36)			(313)
Business acquisition and integration expenses and purchase accounting inventory adjustments	$ 31	$ (6)	25	$ 5	$ ĭ	5	$ 9	$ (3)	6
Merger costs	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	2	ĭ	2
Income from discontinued operations[2][6]	(1,017)	242	(775)	(265)	96	(169)	(171)	210	39
Noncontrolling interest of discontinued operations	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	232	ĭ	232
Fair value adjustments to Venator investment and related loss on disposal	88	(9)	79	18	ĭ	18	62	ĭ	62
Loss on early extinguishment of debt	ĭ	ĭ	ĭ	23	(5)	18	3	(1)	2
Certain legal and other settlements and related expenses	5	(1)	4	6	(1)	5	1	(1)	ĭ
(Gain) loss on sale of businesses/assets	(280)	31	(249)	21	(5)	16	ĭ	ĭ	ĭ
Income from transition services arrangements	(7)	2	(5)	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ
Certain nonrecurring information technology project implementation costs	6	(1)	5	4	(1)	3	ĭ	ĭ	ĭ
Amortization of pension and postretirement actuarial losses	76	(17)	59	66	(16)	50	67	(13)	54
Significant activities related to deferred tax assets and liabilities[5]	ĭ	ĭ	ĭ	ĭ	(128)	(128)	ĭ	(119)	(119)
U.S. Tax Reform Act impact on income tax expense	ĭ	ĭ	ĭ	ĭ	(1)	(1)	ĭ	32	32
Plant incident remediation costs	2	ĭ	2	8	(2)	6	ĭ	ĭ	ĭ
Restructuring, impairment and plant closing and transition costs (credits)[3]	52	(13)	39	(41)	9	(32)	(6)	1	(5)
Adjusted net income[1]			$ 218			$ 353			$ 642
Weighted average shares-basic			220.6			228.9			238.1
Weighted average shares-diluted			221.9			230.6			241.6
Basic net income (loss) attributable to Huntsman Corporation per share:									
Income from continuing operations			$ 1.18			$ 1.72			$ 2.55
Income (loss) from discontinued operations			3.51			0.74			(1.13)
Net income			$ 4.69			$ 2.46			$ 1.42
Diluted net income (loss) attributable to Huntsman Corporation per share:									
Income from continuing operations			$ 1.17			$ 1.70			$ 2.52
Income (loss) from discontinued operations			3.49			0.74			(1.13)
Net income			$ 4.66			$ 2.44			$ 1.39
Other non-GAAP measures:									
Diluted adjusted net income per share[1]			$ 0.98			$ 1.53			$ 2.66
Net cash provided by operating activities from continuing operations			$ 277			$ 656			$ 704
Capital expenditures from continuing operations			(249)			(274)			(251)
Free cash flow from continuing operations[1]			$ 28			$ 382			$ 453
Other cash flow measure:									
Taxes paid on sale of businesses[7]			$ 257			$ ĭ			$ ĭ

NM ĭ Not meaningful

(1) See ĭ ĭ Non-GAAP Financial Measures. ĭ

(2) Includes the gain on the sale of our Chemical Intermediates Businesses in 2020.

(3) Includes costs associated with transition activities relating to the acquisition of CVC Thermoset Specialties in 2020 and transition activities in 2018 relating to the transition of our Textile Effects segment ĭ s production from Basel, Switzerland to a tolling facility. These transition costs were included in either selling, general and administrative expenses or cost of sales on our consolidated statements of operations.

(4) The income tax impacts, if any, of each adjusting item represent a ratable allocation of the total difference between the unadjusted tax expense and the total adjusted tax expense, computed without consideration of any adjusting items using a with and without approach.

(5) During the year ended December 31, 2019, we recorded $153 million of tax benefit relating to the outside basis difference in our investment in Venator, we recorded $18 million of tax benefit relating to realized tax losses on our remaining interest in Venator, we established $11 million of significant income tax valuation allowance in Australia and we recorded $32 million of deferred tax expense due to the reduction of tax rates in Switzerland. During the year ended December 31, 2018, we released $119 million of significant income tax valuation allowances in Switzerland, the U.K. and Luxembourg. We eliminated the effect of these significant changes in tax valuation allowances and deferred tax assets and liabilities from our presentation of adjusted net income to allow investors to better compare our ongoing financial performance from period to period.

(6) In addition to income tax impacts, this adjusting item is also impacted by depreciation and amortization expense and interest expense.

(7) Represents the taxes paid in connection with the sale of the Chemical Intermediates Businesses and the sale of the India-based DIY business. For more information, see ĭ Note 4. Discontinued Operations and Business Disposition ĭ to our consolidated financial statements.

Non-GAAP Financial Measures

Our consolidated financial statements are prepared in accordance with U.S. GAAP, which we supplement with certain non-GAAP financial information. These non-GAAP measures should not be considered in isolation or as a substitute for the related U.S. GAAP measures, and other companies may define such measures differently. We encourage investors to review our financial statements and the reconciliation of the non-GAAP financial measures to the most directly comparable U.S. GAAP financial measures in their entirety and not to rely on any single financial measure. These non-GAAP measures exclude the impact of certain expenses that we do not believe are indicative of our core operating results.

Adjusted EBITDA

Our management uses adjusted EBITDA to assess financial performance. Adjusted EBITDA is defined as net income of Huntsman Corporation or Huntsman International, as appropriate, before interest, income tax, depreciation and amortization, net income attributable to noncontrolling interests and certain Corporate and other items, as well as eliminating the following adjustments: (a) business acquisition and integration expenses and purchase accounting inventory adjustments; (b) merger costs; (c) EBITDA from discontinued operations; (d) noncontrolling interest of discontinued operations; (e) fair value adjustments to Venator investment and related loss on disposal; (f) loss on early extinguishment of debt; (g) certain legal and other settlements and related expenses; (h) (gain) loss on sale of businesses/assets; (i) income from transition services arrangements related to the sale of our Chemical Intermediates Businesses to Indorama; (j) certain nonrecurring information technology project implementation costs; (k) amortization of pension and postretirement actuarial losses; (l) plant incident remediation costs; and (m) restructuring, impairment and plant closing and transition costs (credits). We believe that net income of Huntsman Corporation or Huntsman International, as appropriate, is the performance measure calculated and presented in accordance with U.S. GAAP that is most directly comparable to adjusted EBITDA.

We believe adjusted EBITDA is useful to investors in assessing the businesses ĭ ongoing financial performance and provides improved comparability between periods through the exclusion of certain items that management believes are not indicative of the businesses ĭ operational profitability and that may obscure underlying business results and trends. However, this measure should not be considered in isolation or viewed as a substitute for net income of Huntsman Corporation or Huntsman International, as appropriate, or other measures of performance determined in accordance with U.S. GAAP. Moreover, adjusted EBITDA as used herein is not necessarily comparable to other similarly titled measures of other companies due to potential inconsistencies in the methods of calculation. Our management believes this measure is useful to compare general operating performance from period to period and to make certain related management decisions. Adjusted EBITDA is also used by securities analysts, lenders and others in their evaluation of different companies because it excludes certain items that can vary widely across different industries or among companies within the same industry. For example, interest expense can be highly dependent on a company ĭ s capital structure, debt levels and credit ratings. Therefore, the impact of interest expense on earnings can vary significantly among companies. In addition, the tax positions of companies can vary because of their differing abilities to take advantage of tax benefits and because of the tax policies of the various jurisdictions in which they operate. As a result, effective tax rates and tax expense can vary considerably among companies. Finally, companies employ productive assets of different ages and utilize different methods of acquiring and depreciating such assets. This can result in considerable variability in the relative costs of productive assets and the depreciation and amortization expense among companies.

Nevertheless, our management recognizes that there are material limitations associated with the use of adjusted EBITDA in the evaluation of our Company as compared to net income of Huntsman Corporation or Huntsman International, as appropriate, which reflects overall financial performance. For example, we have borrowed money in order to finance our operations and interest expense is a necessary element of our costs and ability to generate revenue. Our management compensates for the limitations of using adjusted EBITDA by using this measure to supplement U.S. GAAP results to provide a more complete understanding of the factors and trends affecting the business rather than U.S. GAAP results alone.

Adjusted Net Income

Adjusted net income is computed by eliminating the after tax amounts related to the following from net income attributable to Huntsman Corporation: (a) business acquisition and integration expenses and purchase accounting inventory adjustments; (b) merger costs; (c) loss (income) from discontinued operations; (d) noncontrolling interest of discontinued operations; (e) fair value adjustments to Venator investment and related loss on disposal; (f) loss on early extinguishment of debt; (g) certain legal and other settlements and related expenses; (h) gain on sale of businesses/assets; (i) income from transition services arrangements related to the sale of our Chemical Intermediates Businesses to Indorama; (j) certain nonrecurring information technology project implementation costs; (k) amortization of pension and postretirement actuarial losses; (l) significant activities related to deferred tax assets and liabilities; (m) U.S. Tax Reform Act impact on income tax expense; (n) plant incident remediation costs; and (o) restructuring, impairment and plant closing and transition costs (credits). Basic adjusted net income per share excludes dilution and is computed by dividing adjusted net income by the weighted average number of shares outstanding during the period. Adjusted diluted net income per share reflects all potential dilutive common shares outstanding during the period and is computed by dividing adjusted net income by the weighted average number of shares outstanding during the period increased by the number of additional shares that would have been outstanding as dilutive securities. Adjusted net income and adjusted net income per share amounts are presented solely as supplemental information.

We believe adjusted net income is useful to investors in assessing the businesses ĭ ongoing financial performance and provides improved comparability between periods through the exclusion of certain items that management believes are not indicative of the businesses ĭ operational profitability and that may obscure underlying business results and trends.

Free Cash Flow

We believe free cash flow is an important indicator of our liquidity as it measures the amount of cash we generate. Management internally uses a free cash flow measure: (a) to evaluate our liquidity, (b) evaluate strategic investments, (c) plan stock buyback and dividend levels and (d) evaluate our ability to incur and service debt. We have historically defined free cash flow as cash flows provided by operating activities and used in investing activities, excluding acquisition/disposition activities and including non-recurring separation costs. Starting with the quarter ended March 31, 2020, we updated our definition of free cash flow to a presentation more consistent with today ĭ s market standard of net cash provided by operating activities less capital expenditures. Free cash flow is not a defined term under U.S. GAAP, and it should not be inferred that the entire free cash flow amount is available for discretionary expenditures.

Adjusted Effective Tax Rate

We believe that the effective tax rate of Huntsman Corporation or Huntsman International, as appropriate, is the performance measure calculated and presented in accordance with U.S. GAAP that is most directly comparable to adjusted effective tax rate. We believe our adjusted effective tax rate provides improved comparability between periods through the exclusion of certain items that management believes are not indicative of the businesses ongoing operational profitability and that may obscure underlying business results and trends. We do not provide reconciliations for adjusted effective tax rate on a forward-looking basis because we are unable to provide a meaningful or accurate calculation or estimation of reconciling items and the information is not available without unreasonable effort. This is due to the inherent difficulty of forecasting the timing and amounts of certain items, such as business acquisition and integration expenses and purchase accounting inventory adjustments, merger costs, certain legal and other settlements and related expenses, gains on sale of businesses/assets and amortization of pension and postretirement actuarial losses. Each of such adjustments have not yet occurred, is out of our control and/or cannot be reasonably predicted. For the same reasons, we are unable to address the probable significance of the unavailable information.

Year Ended December 31, 2020 Compared with Year Ended December 31, 2019

As discussed in "Note 4. Discontinued Operations and Business Dispositions—Sale of Chemical Intermediates Businesses" and "Note 4. Discontinued Operations and Business Dispositions—Separation and Deconsolidation of Venator" to our consolidated financial statements, the results from continuing operations presented exclude primarily the results of our Chemical Intermediates Businesses for all periods presented and the results of Venator for 2018. The decrease of $134 million in net income attributable to Huntsman Corporation and the decrease of $122 million in net income attributable to Huntsman International from continuing operations was the result of the following items:

- Revenues for the year ended December 31, 2020 decreased by $779, or 11%, as compared with the 2019 period. The decrease was primarily due to lower sales volumes in all our segments and lower average selling prices in all our segments, except for our Advanced Materials segment. See "—Segment Analysis" below.

- Gross profit for the year ended December 31, 2020 decreased by $282 million, or 20%, as compared with the 2019 period. The decrease resulted from lower gross profits in all our segments. See "—Segment Analysis" below.

- Our operating expenses and the operating expenses of Huntsman International for the year ended December 31, 2020 decreased by $336 million and $337 million, respectively, or 35% and 36%, respectively, as compared with the 2019 period, primarily related to lower selling, general and administrative costs resulting from cost suppression measures and actions taken to address the economic impacts of COVID-19 as well as gains related to the sale of the India-based DIY business and the sale of assets at our Basel, Switzerland site, partially offset by an increase in selling, general and administrative costs incurred in our newly acquired businesses of Icynene-Lapolla and CVC Thermoset Specialties.

- Restructuring, impairment and plant closing costs (credits) for the year ended December 31, 2020 was a cost of $49 million compared to a credit of $41 million in the 2019 period. For more information on restructuring activities, see "Note 13. Restructuring, Impairment and Plant Closing Costs (Credits)" to our consolidated financial statements.

- Our interest expense, net and the interest expense, net of Huntsman International for the year ended December 31, 2020 decreased by $25 million and $38 million, respectively, or 23% and 30%, respectively, as compared with the 2019 period, primarily related to repayments of outstanding borrowings on our $1.2 billion senior revolving credit facility ("Revolving Credit Facility") and other prepayable debt.

- Equity in income of investment in unconsolidated affiliates for the year ended December 31, 2020 decreased to $42 million from $54 million in the 2019 period. The decrease was primarily attributable to a decrease in income at our PO/MTBE joint venture with Sinopec, of which we hold a 49% interest.

- We recorded a loss of $88 million in fair value adjustments to our investment in Venator and related loss on disposal for the year ended December 31, 2020 compared to a loss of $18 million in the 2019 period. For more information, see "Note 4. Discontinued Operations and Business Dispositions—Separation and Deconsolidation of Venator" to our consolidated financial statements.

- Loss on early extinguishment of debt for the year ended December 31, 2020 was nil compared to $23 million in the 2019 period due to the early repayment in full of our 2020 Senior Notes in the first quarter of 2019. See "Note. 15. Debt—Notes" to our consolidated financial statements.

- Our income tax expense for the year ended December 31, 2020 increased to $46 million from an income tax benefit of $38 million in the 2019 period. The income tax expense of Huntsman International for the year ended December 31, 2020 increased to $46 million from an income tax benefit of $41 million in the 2019 period. The increase in income tax expense was primarily due to fewer discrete benefit items in 2020 than in 2019. In 2020, discrete items include tax benefits related to the sale of the India-based DIY business, partially offset by foreign withholding tax on repatriated earnings. In 2019, discrete items include tax benefits related to built-in capital losses and realized tax losses both on our remaining interest in Venator, partially offset by tax expense related to the establishment of valuation allowances in Australia and the change in tax rate in Switzerland. Our income tax expense is significantly affected by the mix of income and losses in the tax jurisdictions in which we operate, as impacted by the presence of valuation allowances in certain tax jurisdictions. For further information concerning income taxes, see "Note 20. Income Taxes" to our consolidated financial statements.

Segment Analysis

Year Ended December 31, 2020 Compared with Year Ended December 31, 2019

(Dollars in millions)	Year ended December 31, 2020	Year ended December 31, 2019	Percent Change Favorable (Unfavorable)
Revenues			
Polyurethanes	$ 3,584	$ 3,911	(8)%
Performance Products	1,023	1,158	(12)%
Advanced Materials	839	1,044	(20)%
Textile Effects	597	763	(22)%
Corporate and eliminations	(25)	(79)	NM
Total	$ 6,018	$ 6,797	(11)%
Huntsman Corporation			
Segment adjusted EBITDA(1)			
Polyurethanes	$ 472	$ 548	(14)%
Performance Products	164	168	(2)%
Advanced Materials	130	201	(35)%
Textile Effects	42	84	(50)%
Corporate and other	(161)	(155)	(4)%
Total	$ 647	$ 846	(24)%
Huntsman International			
Segment adjusted EBITDA(1)			
Polyurethanes	$ 472	$ 548	(14)%
Performance Products	164	168	(2)%
Advanced Materials	130	201	(35)%
Textile Effects	42	84	(50)%
Corporate and other	(155)	(150)	(3)%
Total	$ 653	$ 851	(23)%

NM ï Not meaningful

(1) For more information, including reconciliation of segment adjusted EBITDA to net income of Huntsman Corporation or Huntsman International, as appropriate, see ï Note 27. Operating Segment Information ï to our consolidated financial statements.

	Year ended December 31, 2020 vs 2019			
	Average Selling Prices(1)			
	Local Currency	Foreign Currency Translation Impact	Mix & Other	Sales Volumes(2)
Period-Over-Period (Decrease) Increase				
Polyurethanes	(3)%	ï	ï	(5)%
Performance Products	(4)%	ï	3%	(11)%
Advanced Materials	2%	(1)%	(2)%	(19)%
Textile Effects	(3)%	(1)%	(2)%	(16)%

	Fourth Quarter 2020 vs Third Quarter 2020			
	Average Selling Prices(1)			
	Local Currency	Foreign Currency Translation Impact	Mix & Other	Sales Volumes(2)
Period-Over-Period (Decrease) Increase				
Polyurethanes	10%	2%	1%	(3)%
Performance Products	2%	1%	(8)%	16%
Advanced Materials	1%	1%	1%	1%
Textile Effects	1%	1%	ï	20%

(1) Excludes revenues from tolling arrangements, byproducts and raw materials.

(2) Excludes sales volumes of byproducts and raw materials.

Polyurethanes

The decrease in revenues in our Polyurethanes segment for 2020 compared to 2019 was due to lower MDI average selling prices and lower overall polyurethanes sales volumes. MDI average selling prices decreased across most major markets in relation to the global economic slowdown resulting from the COVID-19 pandemic. Overall polyurethanes sales volumes decreased primarily in relation to the global economic slowdown and the resulting decrease in demand across most major markets, partially offset by additional sales volumes in connection with the Icynene-Lapolla Acquisition. The decrease in segment adjusted EBITDA was primarily due to lower component and polymeric systems margins largely driven by lower MDI pricing and lower polyurethanes sales volumes, partially offset by lower raw material costs and lower fixed costs.

Performance Products

The decrease in revenues in our Performance Products segment for 2020 compared to 2019 was due to lower sales volumes and lower average selling prices. Sales volumes decreased primarily in relation to the global economic slowdown resulting from the COVID-19 pandemic. Average selling prices decreased primarily related to lower raw material costs. The decrease in segment adjusted EBITDA was primarily due to lower sales volumes, mostly offset by lower fixed costs.

Advanced Materials

The decrease in revenues in our Advanced Materials segment for 2020 compared to 2019 was due to lower sales volumes, slightly offset by higher average selling prices. Sales volumes decreased significantly across all markets, except in our global power market, primarily in relation to the global economic slowdown resulting from the COVID-19 pandemic, partially offset by additional sales volumes related to the CVC Thermoset Specialties Acquisition. Average selling prices increased in response to cost increases, partially offset by the impact of a stronger U.S. dollar against major international currencies. The decrease in segment adjusted EBITDA was primarily due to lower sales volumes, partially offset by lower fixed costs.

Textile Effects

The decrease in revenues in our Textile Effects segment for 2020 compared to 2019 was due to lower average selling prices and lower sales volumes. Average selling prices decreased as a result of product mix change, competitive market pressures and the impact of a stronger U.S. dollar against major international currencies. Sales volumes decreased primarily due to significantly weaker demand in relation to the global economic slowdown resulting from the COVID-19 pandemic. The decrease in segment adjusted EBITDA was primarily due to lower sales revenues and lower capitalization of indirect costs because of reduced production, partially offset by lower raw material costs and lower fixed costs.

Corporate and other

Corporate and other includes unallocated corporate overhead, unallocated foreign currency exchange gains and losses, LIFO inventory valuation reserve adjustments, loss on early extinguishment of debt, unallocated restructuring, impairment and plant closing costs, nonoperating income and expense and gains and losses on the disposition of corporate assets. For 2020, adjusted EBITDA from Corporate and other for Huntsman Corporation decreased by $6 million to a loss of $161 million from a loss of $155 million for 2019. For 2020, adjusted EBITDA from Corporate and other for Huntsman International decreased by $5 million to a loss of $155 million from a loss of $150 million for 2019. The decrease in adjusted EBITDA from Corporate and other resulted primarily from a charge from a LIFO inventory reserve adjustment, partially offset by an increase in unallocated foreign currency exchange gains.

Year Ended December 31, 2019 Compared with Year Ended December 31, 2018

For a comparison of our results of operations for the fiscal years ended December 31, 2019 and 2018, see "Part II. Item 7. Management ĭ s Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC on February 13, 2020.

Liquidity and Capital Resources

The following is a discussion of our liquidity and capital resources and generally does not include separate information with respect to Huntsman International in accordance with General Instruction I of Form 10-K.

Cash Flows For Year Ended December 31, 2020 Compared with Year Ended December 31, 2019

Net cash provided by operating activities from continuing operations for 2020 and 2019 was $277 million and $656 million, respectively. The decrease in net cash provided by operating activities from continuing operations during 2020 compared with 2019 was primarily attributable to decreased operating income as described in ĭ ĭ Results of Operations ĭ above, including $257 million of cash paid for taxes in connection with the sale of the Chemical Intermediates Businesses and the sale the India-based DIY business, partially offset by a $338 million unfavorable variance in operating assets and liabilities for 2020 as compared with 2019.

Net cash provided by (used in) investing activities from continuing operations for 2020 and 2019 was $1,462 million and $(201) million, respectively. During 2020 and 2019, we paid $249 million and $274 million, respectively, for capital expenditures, including $54 million and $13 million during 2020 and 2019, respectively, on a new MDI splitter in Geismar, Louisiana. In January 2020, we received approximately $1.92 billion for the sale of our Chemical Intermediates Businesses. Additionally, in November 2020, we received approximately $257 million for the sale of the India-based DIY business. See "Note 4. Discontinued Operations and Business Dispositions ĭ Sale of Chemical Intermediates Businesses" and "Note 4. Discontinued Operations and Business Dispositions ĭ Sale of India-Based Do-It-Yourself Consumer Adhesives Business" to our consolidated financial statements. In December 2020, we completed the sale of approximately 42.4 million ordinary shares of Venator and received approximately $99 million. See "Note 4. Discontinued operations and Business Dispositions ĭ Separation and Deconsolidation of Venator" to our consolidated financial statements. During 2020, we paid approximately $650 million for the acquisition of businesses, net of cash acquired. See "Note 3. Business Combinations and Acquisitions" to our consolidated financial statements. During the year ended December 31, 2020, we entered into a sale and leaseback agreement to sell certain properties in Basel, Switzerland, for which we received approximately $73 million in proceeds from the sale of assets. During the year ended December 31, 2019, we received approximately $49 million in proceeds from the sale of assets in connection with the closure of certain Textile Effects facilities and offices in Basel, Switzerland. During 2019, we received $16 million in proceeds from the settlement of the December 3, 2018 sale of Venator ordinary shares to Bank of America N.A.

Net cash used in financing activities for 2020 and 2019 was $655 million and $450 million, respectively. The increase in net cash used in financing activities was primarily due to the increase in repayments on our Revolving Credit Facility during 2020 as compared with 2019, the repayment in full of our 364-day term loan facility ("2019 Term Loan") in the third quarter of 2020 and the proceeds from the issuance of our 2029 Senior Notes in the first quarter of 2019, partially offset by a decrease in repurchases of common stock during 2020 as compared with 2019 and cash paid in the third quarter of 2019 to acquire the 50% noncontrolling interest that we did not own in the Sasol-Huntsman joint venture.

Free cash flow from continuing operations for 2020 and 2019 were proceeds of cash of $28 million and $382 million, respectively. The reduction in free cash flow was primarily attributable to the decrease in cash provided by operating activities from continuing operations, partially offset by a decrease in cash used for capital expenditures during 2020 as compared with 2019.

Cash Flows For Year Ended December 31, 2019 Compared with Year Ended December 31, 2018

For a comparison of our cash flows for the fiscal years ended December 31, 2019 and 2018, see "Part II. Item 7. Management ĭ s Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC on February 13, 2020.

Changes in Financial Condition

The following information summarizes our working capital (dollars in millions):

	December 31, 2020	Less Acquisitions(1)	Subtotal	December 31, 2019	Increase (Decrease)	Percent Change
Cash and cash equivalents	$ 1,593	$ (7)	$ 1,586	$ 525	$ 1,061	202%
Accounts and notes receivable, net	910	(48)	862	953	(91)	(10)%
Inventories	848	(69)	779	914	(135)	(15)%
Other current assets	217	(1)	216	155	61	39%
Current assets held for sale(2)	ĭ	ĭ	ĭ	1,208	(1,208)	(100)%
Total current assets	3,568	(125)	3,443	3,755	(312)	(8)%
Accounts payable	876	(20)	856	822	34	4%
Accrued liabilities	458	(11)	447	420	27	6%
Current portion of debt	593	ĭ	593	212	381	180%
Current operating lease liabilities	52	ĭ	52	42	10	24%
Current liabilities held for sale(2)	ĭ	ĭ	ĭ	512	(512)	(100)%
Total current liabilities	1,979	(31)	1,948	2,008	(60)	(3)%
Working capital	$ 1,589	$ (94)	$ 1,495	$ 1,747	$ (252)	(14)%

(1) Represents combined amounts related to the Icynene-Lapolla Acquisition and the CVC Thermoset Specialties Acquisition. For more information, see ĭ Note 3. Business Combinations and Acquisitions ĭ to our consolidated financial statements.

(2) Represents amounts related to the sale of our Chemical Intermediates Businesses. The assets and liabilities held for sale were classified as current as of December 31, 2019 because we completed the sale of our Chemical Intermediates Businesses on January 3, 2020. For more information, see ĭ Note 4. Discontinued Operations and Business Dispositions ĭ Sale of Chemical Intermediates Businesses ĭ to our consolidated financial statements.

Our working capital decreased by $252 million as a result of the net impact of the following significant changes:

- õ The increase in cash and cash equivalents of $1,061 million resulted from the matters identified on our consolidated statements of cash flows. See also ĭ ĭ Cash Flows Year Ended December 31, 2020 Compared with Year Ended December 31, 2019. ĭ
- õ Accounts and notes receivable decreased by $91 million primarily due to improved days sales outstanding and reduction of overdue accounts receivable year-over-year, despite slightly higher revenues in the fourth quarter of 2020 compared to the fourth quarter of 2019.
- õ Inventories decreased by $135 million primarily due to lower inventory costs and volumes.
- õ Other current assets increased by $61 million primarily due to an increase in current income tax receivable and in prepaid insurance.
- õ Accounts payable increased by $34 million primarily due to an increase in days payable outstanding year-over-year and higher capital expenditures in the fourth quarter of 2020 compared to the fourth quarter of 2019.
- õ Current portion of debt increased by $381 million primarily due to the current classification of our 2021 Senior Notes, offset in part by our repayment of the 2019 Term Loan in full at maturity.

DIRECT AND SUBSIDIARY DEBT

See ï Note 15. Debt ï Direct and Subsidiary Debt ï to our consolidated financial statements.

Debt Issuance Costs

See ï Note 15. Debt ï Direct and Subsidiary Debt ï Debt Issuance Costs ï to our consolidated financial statements.

Revolving Credit Facility

See ï Note 15. Debt ï Direct and Subsidiary Debt ï Revolving Credit Facility ï to our consolidated financial statements.

Term Loan Credit Facility

See ï Note 15. Debt ï Direct and Subsidiary Debt ï Term Loan Credit Facility ï to our consolidated financial statements.

A/R Programs

See ï Note 15. Debt ï Direct and Subsidiary Debt ï A/R Programs ï to our consolidated financial statements.

Notes

See ï Note 15. Debt ï Direct and Subsidiary Debt ï Notes ï to our consolidated financial statements.

Variable Interest Entity Debt

See ï Note 15. Debt ï Direct and Subsidiary Debt ï Variable Interest Entity Debt ï to our consolidated financial statements.

Note Payable from Huntsman International to Huntsman Corporation

See ï Note 15. Debt ï Direct and Subsidiary Debt ï Note Payable from Huntsman International to Huntsman Corporation ï to our consolidated financial statements.

COMPLIANCE WITH COVENANTS

See ï Note 15. Debt ï Compliance with Covenants ï to our consolidated financial statements.

MATURITIES

See ï Note 15. Debt ï Maturities ï to our consolidated financial statements.

SHORT-TERM LIQUIDITY

We depend upon our cash, Revolving Credit Facility, U.S. accounts receivable securitization program (ï U.S. A/R Program ï) and European accounts receival securitization program (ï EU A/R Program ï and collectively with the U.S. A/R Program, ï A/R Programs ï) and other debt instruments to provide liquidity for o operations and working capital needs. As of December 31, 2020, we had $2,952 million of combined cash and unused borrowing capacity, consisting of $1,593 million in cash, $1,194 million in availability under our Revolving Credit Facility and $165 million in availability under our A/R Programs. Our liquidity can be significantly impacted by various factors. The following matters had, or are expected to have, a significant impact on our liquidity:

- Cash proceeds from our accounts receivable and inventory, net of accounts payable, were approximately $277 million for 2020, as reflected in our consolidated statements of cash flows. We expect volatility in our working capital components to continue.
- During 2021, we expect to spend between approximately $320 million to $330 million on capital expenditures, including spending of approximately $80 million on a new MDI splitter in Geismar, Louisiana. We expect to fund spending on all capital expenditures with cash provided by operations, including proceeds received from the sale of the Basel, Switzerland properties. See "Note 1. General ï Recent Developments ï Sale of Assets at our Basel, Switzerland Site" to our consolidated financial statements.
- During 2020, we made contributions to our pension and postretirement benefit plans of $101 million. During 2021, we expect to contribute an additional amount of approximately $60 million to these plans.
- On February 7, 2018 and on May 3, 2018, our Board of Directors authorized our Company to repurchase up to an additional $950 million in shares of our common stock in addition to the $50 million remaining under our September 2015 share repurchase authorization. Repurchases may be made through the open market, including through accelerated share repurchase programs, or in privately negotiated transactions, and repurchases may be commenced or suspended from time to time without prior notice. Shares of common stock acquired through the repurchase program are held in treasury at cost. During the first quarter of 2020, we repurchased 5,364,519 shares of our common stock for approximately $96 million, excluding commissions, under the repurchase program. Subsequent to the end of the first quarter of 2020, we suspended share repurchases under our existing share repurchase program in order to enhance our liquidity position in response to COVID-19.
- During 2020, management implemented cost realignment and synergy plans. In connection with these plans, we expect to achieve annualized cost savings and synergy benefits of more than $120 million by the end of 2023 with associated net cash restructuring and integration costs of approximately $100 million. See "Note 13. Restructuring, Impairment and Plant Closing Costs (Credits)" to our consolidated financial statements.
- In November 2020, we entered into a sale and leaseback agreement to sell certain properties in Basel, Switzerland for approximately CHF 67 (approximately $73 million) and to lease those properties back for five years.
- On November 3, 2020, we completed the sale of the India-based DIY business, part of the Advanced Materials segment, to Pidilite Industries Ltd. and received cash of approximately $257 million. Under the terms of the agreement, we may receive up to approximately $28 million of additional cash under an earnout within 18 months if the business achieves certain sales revenue targets in line with the DIY business' 2019 performance.
- On December 23, 2020, we completed the sale of approximately 42.4 million ordinary shares of Venator and received approximately $99 million in cash, which includes $8 million for a 30-month option for the sale of the remaining approximate 9.7 million ordinary shares we hold in Venator at $2.15 per share. See ï Part I. Item 1. Business ï Recent Developments ï Sale of Venator Interest. ï
- On January 15, 2021, we redeemed in full ï 445 million (approximately $541 million) in aggregate principal amount of our 2021 Senior Notes at the redemption price equal to 100% of the principal amount of the notes, plus accrued and unpaid interest to, but not including, the redemption date. Upon the redemption of the 2021 Senior Notes, we expect to incur an incremental cash tax liability of approximately $15 million in the first quarter of 2021 due to the U.S. tax foreign currency exchange gains recognized at redemption of the notes.
- On January 15, 2021, we completed the acquisition of Gabriel, a North American specialty chemical manufacturer of specialty additives and epoxy curing agents for the coatings, adhesives, sealants and composite end-markets, from funds affiliated with Audax Private Equity in an all-cash transaction of approximately $250 million, subject to customary closing adjustments, funded from available liquidity. The acquired business will be integrated into our Advanced Materials segment.

LONG-TERM LIQUIDITY

- We have deferred a portion of capital spending on a new MDI splitter in Geismar, Louisiana leaving approximately $115 million in 2021 and 2022. We expect to fund spending on all capital expenditures with cash provided by operations.

As of December 31, 2020, we had $593 million classified as current portion of debt, including $545 million on our 2021 Senior Notes, which we redeemed in full on January 15, 2021, debt at our variable interest entities of $47 million and certain other short-term facilities and scheduled amortization payments totaling $1 million. We intend to renew, repay or extend the majority of these short-term facilities in the next twelve months.

As of December 31, 2020, we had approximately $491 million of cash and cash equivalents, including restricted cash, held by our foreign subsidiaries, including our variable interest entities. With the exception of certain amounts that we expect to repatriate in the foreseeable future, we intend to use cash held in our foreign subsidiaries to fund our local operations. Nevertheless, we could repatriate additional cash as dividends and the repatriation of cash as a dividend would generally not be subject to U.S. taxation. However, such repatriation may potentially be subject to limited foreign withholding taxes.

RESTRUCTURING, IMPAIRMENT AND PLANT CLOSING COSTS

For a discussion of restructuring plans and the costs involved, see ï Note 13. Restructuring, Impairment and Plant Closing Costs ï to our consolidated financ statements.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

For a discussion of recently issued accounting pronouncements, see ï Note 2. Summary of Significant Accounting Policies" to our consolidated financial statements.

CRITICAL ACCOUNTING ESTIMATES

This discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of financial statements requires us to make judgments, estimates and assumptions that involve a significant level of estimation and uncertainty and are reasonably likely to have a material impact on our financial condition and/or results of operations. Summarized below are our critical accounting estimates.

Income Taxes

Deferred income taxes reflect the net effects of temporary differences between assets and liabilities for financial and tax reporting purposes. We evaluate deferred tax assets to determine whether it is more likely than not that they will be realized; valuation allowances are recorded to offset deferred tax assets unlikely to be realized. Valuation allowances are reviewed on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets. These conclusions require significant judgments. In evaluating the objective evidence that historical results provide, we consider the cyclicality of businesses and cumulative income or losses. Cumulative historical losses incurred over periods of time limit our ability to consider more subjective projections of future taxable income. Changes in expected future taxable income and tax planning strategies in applicable jurisdictions affect our assessment of the realization of deferred tax assets. Our judgments regarding valuation allowances are also influenced by factors outside of business results that could impact our ability to utilize a deferred tax asset. As of December 31, 2020, we had total valuation allowances of $206 million, which represents a decrease of $25 million from the prior year, and we have recognized net deferred tax assets of $76 million. See ï Note 20. Income Taxes ï to our consolidated financial statements fo more information regarding our deferred tax assets and valuation allowances.

Employee Benefit Programs

We sponsor several contributory and non-contributory defined benefit plans, covering employees primarily in the U.S., the U.K., The Netherlands, Belgium and Switzerland, but also covering employees in a number of other countries. We fund the material plans through trust arrangements (or local equivalents) where the assets are held separately from us. We also sponsor unfunded postretirement plans which provide medical and, in some cases, life insurance benefits covering certain employees in the U.S. and Canada. Amounts recorded in our consolidated financial statements are recorded based upon actuarial valuations performed by various independent actuaries. Inherent in these valuations are numerous assumptions regarding expected long-term rates of return on plan assets, discount rates, compensation increases, mortality rates and health care cost trends. Each of these critical estimates are subject to uncertainty and are assessed by us using historical data, as well as projections of future conditions. These assumptions and changes during the period are described in ï Note 19. Employee Benefit Plans ï to our consolidated financial statements.

We retain third party actuaries to assist us with judgments necessary to make assumptions on which our employee pension and postretirement benefit plan obligations and expenses are based. The effect of a 1% change in three key assumptions is summarized as follows (dollars in millions):

Assumptions	Statement of Operations(1)	Balance Sheet Impact(2)
Discount rate		
ï 1% increase	$ (36)	$ (545)
ï 1% decrease	44	622
Expected long-term rates of return on plan assets		
ï 1% increase	(21)	ï
ï 1% decrease	21	ï
Rate of compensation increase		
ï 1% increase	10	54
ï 1% decrease	(6)	(61)

(1) Estimated (decrease) increase on 2020 net periodic benefit cost
(2) Estimated (decrease) increase on December 31, 2020 pension and postretirement liabilities and accumulated other comprehensive loss

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks, such as changes in interest rates, foreign exchange rates and commodity prices. From time to time, we enter into transactions, including transactions involving derivative instruments, to manage certain of these exposures. We also hedge our net investment in certain European operations. Changes in the fair value of the hedge in the net investment of certain European operations are recorded in accumulated other comprehensive loss.

Interest Rate Risks

See ï Note 16. Derivative Instruments and Hedging Activities ï Interest Rate Risk ï to our consolidated financial statements.

Foreign Exchange Rate Risk

See ï Note 16. Derivative Instruments and Hedging Activities ï Foreign Exchange Rate Risk ï to our consolidated financial statements.

Commodity Prices Risk

See ï Note 16. Derivative Instruments and Hedging Activities ï Commodity Prices Risk ï to our consolidated financial statements.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our consolidated financial statements required by this item are included on the pages immediately following the Index to Consolidated Financial Statements appearing on page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There have been no changes in our independent accountants, Deloitte & Touche LLP, or disagreements with them on matters of accounting or financial disclosure.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2020. Based on this evaluation, our chief executive officer and chief financial officer have concluded that, as of December 31, 2020, our disclosure controls and procedures were effective, in that they ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the SEC ï s rules and forms, and (2) accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

No changes to our internal control over financial reporting occurred during the quarter ended December 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

Management ï Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control framework and processes for our Company and Huntsman International are designed to provide reasonable assurance to management, Huntsman International ï s Board of Managers and our Board of Directors regarding the reliability of financial reporting and the preparation of our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America.

Our internal control over financial reporting for our Company and Huntsman International includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of our Company and Huntsman International;
- provide reasonable assurance that transactions are recorded properly to allow for the preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of our Company and Huntsman International are being made only in accordance with authorizations of management and Directors of our Company and Huntsman International;
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our consolidated financial statements; and
- provide reasonable assurance as to the detection of fraud.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changing conditions, effectiveness of internal control over financial reporting may vary over time.

Our management assessed the effectiveness of our internal control over financial reporting for our Company and Huntsman International and concluded that, as of December 31, 2020, such internal control is effective. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control ï Integrated Framework (2013)*

Our independent registered public accounting firm, Deloitte & Touche LLP, with direct access to our Board of Directors through our Audit Committee, have audited our consolidated financial statements prepared by our Company and have issued attestation reports on internal control over financial reporting for our Company.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of Huntsman Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Huntsman Corporation and subsidiaries (the ï Company ï) as of December 31, 2020, based on criteria established in *Internal Control ï 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, 2020, based on criteria established in *Internal Control ï 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, 2020, of the Company and our report dated February 12, 2021, expressed an unqualified opinion on those financial statements.

Basis for Opinion

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

Houston, Texas
February 12, 2021

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information relating to our Directors (including identification of our Audit Committee ĭ s financial expert(s)) and executive officers will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference. See also the information regarding executive officers of the registrant set forth in Part I under the caption ĭ Executive Officers of the Registrant ĭ in reliance on General Instruction G to Form 10-K.

Code of Ethics

We have adopted a code of ethics, as defined by Item 406(b) of Regulation S-K under the Exchange Act, that applies to our principal executive officer, principal financial officer and principal accounting officer or controller. A copy of the code of ethics is posted on our website, at www.huntsman.com. We intend to disclose any amendments to, or waivers from, our code of ethics on our website.

ITEM 11. EXECUTIVE COMPENSATION

Information relating to executive compensation and our equity compensation plans will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

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

Information with respect to beneficial ownership of our common stock by each Director and all Directors and officers of our Company as a group will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

Information relating to any person who beneficially owns in excess of five percent of the total outstanding shares of our common stock will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

Information with respect to compensation plans under which equity securities are authorized for issuance will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

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

Information with respect to certain relationships and related transactions will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information with respect to principal accountant fees and services, and the disclosure of the Audit Committee ĭ s pre-approval policies and procedures are contained in the definitive Proxy Statement for our Annual Meeting of Stockholders and are incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed with this report.

1. Consolidated Financial Statements:

See Index to Consolidated Financial Statements on page F-1

2. Financial Statement Schedules:

Other than as stated on the Index to Consolidated Financial Statements on page F-1 with respect to Schedule I, financial statement schedules are omitted because they are not required or are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

3. Exhibits:

The exhibits to this report are listed on the Exhibit Index below.

(b) Description of exhibits.

EXHIBIT INDEX

		Incorporated by Reference		
Number	**Description**	**Form**	**Exhibit**	**Filing Date**
3.1	Amended and Restated Certificate of Incorporation of Huntsman Corporation	8-K	3.1	May 12, 2014
3.2*	Sixth Amended and Restated Bylaws of Huntsman Corporation dated as of June 16, 2020 (as amended by Amendment to Sixth Amended and Restated Bylaws of Huntsman Corporation, effective as of October 28, 2020)			
4.2	Form of stock certificate of Huntsman Corporation	S-1	4.68	February 8, 2005
4.3	Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants prior to February 6, 2008	S-8	4.8	February 10, 2006
4.4	Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants from February 6, 2008 to September 21, 2010	10-K	4.32	February 22, 2008
4.5	Indenture, dated as of November 13, 2014, by and among Huntsman International LLC, the guarantors named therein, and Wilmington Trust, National Association, as trustee	8-K	4.1	November 17, 2014
4.6	Form of 5.125% Senior Note (included as Exhibit A to Exhibit 4.11)	8-K	4.1	November 17, 2014
4.7	Indenture, dated as of March 31, 2015, by and among Huntsman International LLC, the guarantors named therein, Citibank, N.A., London Branch, as paying agent, transfer agent, registrar and authenticating agent, and Wilmington Trust, National Association, as trustee	8-K	4.1	April 2, 2015
4.8	Form of 4.25% Senior Notes due 2025 (included as Exhibit A to Exhibit 4.14)	8-K	4.2	April 2, 2015
4.9	Indenture, dated as of March 13, 2019, by and between Huntsman International LLC and Wilmington Trust, National Association, as trustee.	8-K	4.1	March 13, 2019
4.10	First Supplemental Indenture, dated as of March 13, 2019, by and between Huntsman International LLC and Wilmington Trust, National Association, as trustee.	8-K	4.2	March 13, 2019
4.11	Form of 4.500% Senior Notes due 2029 (included as Exhibit A to Exhibit 4.12)	8-K	4.3	March 13, 2019
4.12	Description of Securities	10-K	4.14	February 13, 2020
10.1	Employment Agreement with Anthony Hankins	S-1/A	10.27	January 28, 2005
10.2	Form of Indemnification Agreement	S-1/A	10.25	February 8, 2005
10.3	Amended and Restated Huntsman Supplemental Executive Retirement Plan (File No. 001-32427)	8-K	10.1	December 30, 2005
10.4	Huntsman Supplemental Executive MPP Plan (File No. 001-32427)	8-K	10.2	December 30, 2005
10.5	Amended and Restated Huntsman Supplemental Savings Plan (File No. 001-32427)	8-K	10.3	December 30, 2005
10.6	Huntsman Outside Directors Elective Deferral Plan (File No. 001-32427)	8-K	10.4	December 30, 2005
10.7	Form of Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants prior to February 6, 2008	S-8	4.8	February 10, 2006
10.8	Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants from February 6, 2008 to September 21, 2010	10-K	4.32	February 22, 2008
10.9	First Amendment to Huntsman Supplemental Executive Retirement Plan (File No. 001-32427)	10-K	10.32	February 22, 2008
10.10	First Amendment to Huntsman Supplemental Executive MPP Plan (File No. 001-32427)	10-K	10.33	February 22, 2008
10.11	First Amendment to Huntsman Supplemental Savings Plan (File No. 001-32427)	10-K	10.34	February 22, 2008
10.12	Second Amendment to Huntsman Supplemental Savings Plan (File No. 001-32427)	10-K	10.35	February 22, 2008
10.13	First Amendment to Huntsman Outside Directors Elective Deferral Plan (File No. 001-32427)	10-K	10.36	February 22, 2008

10.14	U.S. Receivables Loan Agreement dated as of October 16, 2009 (File No. 001-32427)	8-K	10.1	October 22, 2009
10.15	U.S. Contribution Agreement dated as of October 16, 2009 between Huntsman International LLC and Huntsman Receivables Finance II LLC (File No. 001-32427)	8-K	10.2	October 22, 2009
10.16	Second Amendment to Huntsman Supplemental Executive Retirement Plan (File No. 001-32427)	10-K	10.38	February 17, 2011
10.17	Third Amendment to Huntsman Supplemental Executive Retirement Plan (File No. 001-32427)	10-K	10.39	February 17, 2011
10.18	Form of Nonqualified Stock Option Agreement effective for grants from February 2, 2011 to May 5, 2016 (File No. 001-32427)	10-K	10.42	February 17, 2011
10.19	Form of Restricted Stock Unit Agreement for Outside Directors effective for grants from February 2, 2011 to May 5, 2016 (File No. 001-32427)	10-K	10.43	February 17, 2011
10.20	Master Amendment No. 2 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents dated as of April 18, 2011 (File No. 001-32427)	8-K	10.1	April 20, 2011
10.21	Second Amendment to Huntsman Outside Directors Elective Deferral Plan (File No. 001-32427)	10-Q	10.5	May 5, 2011
10.22	Third Amendment to Huntsman Outside Directors Elective Deferral Plan (File No. 001-32427)	10-Q	10.6	May 5, 2011
10.23	Huntsman Corporation Stock Incentive Plan (amended and restated) (File No. 001-32427)	S-8	4.1	May 10, 2011
10.24	First Amendment to the Huntsman Corporation Stock Incentive Plan (as amended and restated) (File No. 001-32427)	10-K	10.56	February 12, 2013
10.25	Master Amendment No. 3 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents dated as of April 29, 2013	8-K	10.1	May 2, 2013
10.26	Huntsman Corporation Stock Incentive Plan (amended and restated)	8-K	10.1	May 12, 2014
10.27	Amendment to the Huntsman Corporation Stock Incentive Plan Nonqualified Stock Option Agreement effective for grants through May 5, 2016	10-K	10.66	February 18, 2015
10.28	Master Amendment No. 4 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents and Waiver, dated as of March 30, 2015	8-K	10.2	April 2, 2015
10.29	Huntsman Corporation 2016 Stock Incentive Plan	8-K	10.1	May 11, 2016
10.30	Form of Nonqualified Stock Option Agreement effective for grants from May 5, 2016 to January 31, 2017	S-8	99.1	May 31, 2016
10.31	Form of Phantom Share Agreement	10-K	10.66	February 15, 2017
10.32	Form of Performance Share Unit Award Agreement	10-K	10.67	February 15, 2017
10.33	Form of Nonqualified Stock Option Agreement	10-K	10.68	February 15, 2017
10.34	Form of Restricted Stock Agreement	10-K	10.69	February 15, 2017
10.35	Form of Stock Unit Agreement for Outside Directors	10-K	10.70	February 15, 2017
10.36	Form of Notice of Award of Common Stock	10-K	10.71	February 15, 2017
10.37	Master Amendment No. 6 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement, U.S Receivables Purchase Agreement and Transaction Documents dated as of April 21, 2017	10-Q	10.2	April 26, 2017
10.38	Credit Agreement, dated May 21, 2018, between Huntsman International LLC, JPMorgan Chase Bank, N.A., as administrative agent, Bank of America, N.A. and Citibank, N.A. as co-syndication agents, and Goldman Sachs Bank USA and PNC Bank, National Association, as co-documentation agents, and the lenders thereto.	8-K	10.1	May 23, 2018
10.39	Master Amendment No. 7 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement, U.S. Receivables Purchase Agreement and Transaction Documents, dated as of April 18, 2019	8-K	10.1	April 24, 2019
10.40	Amended and Restated European Receivables Loan Agreement, dated as of April 18, 2019	8-K	10.2	April 24, 2019
10.41*	Amended and Restated European Contribution Agreement, dated as of April 18, 2019			
10.42	Master Amendment No. 8 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement, U.S. Receivables Purchase Agreement and Transaction Documents, dated as of December 3, 2019	10-K	10.52	February 13, 2020
10.43	Huntsman Executive Severance Plan (as amended and restated effective February 19, 2020)	8-K	10.1	February 19, 2020
10.44	Second Amended and Restated Severance Agreement dated February 19, 2020, between Huntsman Corporation and Peter R. Huntsman	8-K	10.2	February 19, 2020
10.45*	Master Amendment No. 9 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement, U.S. Receivables Purchase Agreement and Transaction Documents and Waiver, dated as of October 30, 2020			
21.1*	Subsidiaries of Huntsman Corporation			
23.1*	Consent of Independent Registered Public Accounting Firm			
23.2*	Consent of Independent Registered Public Accounting Firm			
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002			
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002			
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002			
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002			
101.INS*	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.			
101.SCH*	Inline XBRL Taxonomy Extension Schema			
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase			
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase			
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase			
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase			
104*	The cover page from this Annual Report on Form 10-K, formatted in Inline XBRL and contained in Exhibit 101			

* Filed herewith.

SIGNATURES

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

Dated: February 12, 2021

HUNTSMAN CORPORATION
HUNTSMAN INTERNATIONAL LLC

By: /s/ SEAN DOUGLAS
Sean Douglas
Executive Vice President and Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Huntsman Corporation in the capacities indicated on the 12th day of February 2021.

/s/ PETER R. HUNTSMAN
Peter R. Huntsman
Chairman, President and Chief Executive Officer (Principal Executive Officer)

/s/ SEAN DOUGLAS
Sean Douglas
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

/s/ RANDY W. WRIGHT
Randy W. Wright
Vice President and Controller (Authorized Signatory and Principal Accounting Officer)

/s/ WAYNE A. REAUD
Wayne A. Reaud
Chairman of the Litigation Committee and Director

/s/ NOLAN D. ARCHIBALD
Nolan D. Archibald
Vice Chairman, Chairman of the Nominating and Corporate Governance Committee and Lead Independent Director

/s/ M. ANTHONY BURNS
M. Anthony Burns
Chairman of the Audit Committee and Director

/s/ SIR ROBERT J. MARGETTS
Sir Robert J. Margetts
Director

/s/ DR. MARY C. BECKERLE
Dr. Mary C. Beckerle
Director

/s/ DANIELE FERRARI
Daniele Ferrari
Director

/s/ VICE ADMIRAL (RET) JAN E. TIGHE
Vice Admiral (ret) Jan E. Tighe
Director

/s/ SONIA DULÁ
Sonia Dulá
Director

/s/ CYNTHIA L. EGAN
Cynthia L. Egan
Director

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Huntsman International LLC in the capacities indicated on the 12th day of February 2021.

/s/ PETER R. HUNTSMAN
Peter R. Huntsman
President, Chief Executive Officer and Manager (Principal Executive Officer)

/s/ SEAN DOUGLAS
Sean Douglas
Executive Vice President, Chief Financial Officer and Manager (Principal Financial Officer)

/s/ RANDY W. WRIGHT
Randy W. Wright
Vice President and Controller (Authorized Signatory and Principal Accounting Officer)

/s/ DAVID M. STRYKER
David M. Stryker
Executive Vice President, General Counsel, Secretary and Manager

HUNTSMAN CORPORATION AND SUBSIDIARIES
HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of Huntsman Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Huntsman Corporation and subsidiaries (the ï Company ï) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows, for each of the three years in the period ended December 31, 2020, and the related notes and the schedule listed in the Index on page F-1 (collectively referred to as the ï financial statements ï). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, 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 ï s internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control ï Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 12, 2021, expressed an unqualified opinion on the Company ï s internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 2 to the financial statements, effective January 1, 2019, the Company adopted the Financial Accounting Standards Board Accounting Standards Update No. 2016-02, Leases (Topic 842).

Basis for Opinion

These financial statements are the responsibility of the Company ï s management. Our responsibility is to express an opinion on the Company ï 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

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

Income Taxes ĭ Realizability of Deferred Tax Assets ĭ Refer to Notes 2 and 20 to the financial statements

Critical Audit Matter Description

The Company recognizes deferred income taxes for tax attributes and for differences between the financial statement and tax carrying amounts of assets and liabilities at enacted statutory tax rates in effect for the years in which the deferred tax liability or asset are expected to be settled or realized. A valuation allowance is provided to offset deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The Company files tax returns in multiple jurisdictions with complex tax laws and regulations. Valuation allowances are evaluated on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets for each jurisdiction. In evaluating the objective evidence that historical results provide, the Company considers the cyclicality of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limits the Company ĭ s ability to consider other subjective evidence such as taxable income for the future. The Company ĭ s valuation allowances as of December 31, 2020, were $206 million.

We identified management ĭ s determination that it is not more likely than not that sufficient taxable income will be generated in the future to realize some of its deferred tax assets as a critical audit matter because of the significant judgments and estimates management makes related to future taxable income. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our income tax specialists, when performing audit procedures to evaluate the reasonableness of management ĭ s estimates of future taxable income.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to estimated future taxable income and the determination of whether it is more likely than not that the deferred tax assets will be realized included the following, among others:

- ĭ We tested the effectiveness of controls over the valuation allowance for income taxes, including management ĭ s controls over the estimates of future taxable income and the determination of whether it is more likely than not that the deferred tax assets will be realized.
- ĭ With the assistance of our income tax specialists, we considered (1) the appropriateness of qualifying tax planning strategies, including that they were prudent, feasible and would more likely than not result in the realization of deferred tax assets and (2) the following sources of management ĭ s estimated future taxable income:
  - ĭ Estimates of future taxable income
  - ĭ Future reversals of existing temporary differences
  - ĭ Taxable income in historical periods (where carryback is permitted under the tax law)
- ĭ We tested the reasonableness of management ĭ s estimates of future taxable income by comparing the estimates to:
  - ĭ Historical taxable income
  - ĭ Internal communications to management and the Board of Directors
  - ĭ Forecasted information included in Company press releases as well as in analyst and industry reports for the Company and certain of its peer companies
- ĭ We evaluated whether the taxable income in prior carryback years was of the appropriate character and available under the tax law.
- ĭ We evaluated the reasonableness of the methods, assumptions, and judgments used by management to determine whether a valuation allowance was necessary.

/s/ DELOITTE & TOUCHE LLP

Houston, Texas
February 12, 2021

We have served as the Company ĭ s auditor since 1984.

HUNTSMAN CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In Millions, Except Share Amounts)

	December 31, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents(a)	$ 1,593	$ 525
Accounts and notes receivable (net of allowance for doubtful accounts of $26 and $19, respectively), ($198 and $221 pledged as collateral, respectively)(a)	902	940
Accounts receivable from affiliates	8	13
Inventories(a)	848	914
Other current assets	217	155
Current assets held for sale	ĭ	1,208
Total current assets	3,568	3,755
Property, plant and equipment, net(a)	2,505	2,383
Investment in unconsolidated affiliates	373	535
Intangible assets, net	453	197
Goodwill	533	276
Deferred income taxes	288	292
Notes receivable from affiliate	ĭ	34
Operating lease right-of-use assets	445	396
Other noncurrent assets(a)	548	452
Total assets	$ 8,713	$ 8,320
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable(a)	$ 842	$ 765
Accounts payable to affiliates	34	57
Accrued liabilities(a)	458	420
Current portion of debt(a)	593	212
Current operating lease liabilities(a)	52	42
Current liabilities held for sale	ĭ	512
Total current liabilities	1,979	2,008
Long-term debt(a)	1,528	2,177
Deferred income taxes	212	29
Noncurrent operating lease liabilities(a)	411	384
Other noncurrent liabilities(a)	910	898
Total liabilities	5,040	5,496
Commitments and contingencies (Notes 21 and 22)		
Equity		
Huntsman Corporation stockholders ĭ equity:		
Common stock $0.01 par value, 1,200,000,000 shares authorized, 258,520,411 and 257,405,496 shares issued and 220,046,262 and 224,295,868 shares outstanding, respectively	3	3
Additional paid-in capital	4,048	4,008
Treasury stock, 38,477,091 and 33,112,572 shares, respectively	(731)	(635)
Unearned stock-based compensation	(19)	(17)
Retained earnings	1,564	690
Accumulated other comprehensive loss	(1,346)	(1,362)
Total Huntsman Corporation stockholders ĭ equity	3,519	2,687
Noncontrolling interests in subsidiaries	154	137
Total equity	3,673	2,824
Total liabilities and equity	$ 8,713	$ 8,320

(a) At December 31, 2020 and December 31, 2019, respectively, $2 and nil of cash and cash equivalents, $6 and $13 of accounts and notes receivable (net), $38 and $35 of inventories, $167 and $180 of property, plant and equipment (net), $23 and $20 of other noncurrent assets, $119 and $100 of accounts payable, $13 and $10 of accrued liabilities, $47 and $36 of current portion of debt, $5 and $4 of current operating lease liabilities, $3 and $29 of long-term debt, $17 and $11 of noncurrent operating lease and $82 and $87 of other noncurrent liabilities from consolidated variable interest entities are included in the respective Balance Sheets captions above. See ĭ Note 8. Variable Interest Entities. ĭ

See accompanying notes to consolidated financial statements.

HUNTSMAN CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(In Millions, Except Share and Per Share Amounts)

	Year ended December 31,		
	2020	**2019**	**2018**
Revenues:			
Trade sales, services and fees, net	$ 5,903	$ 6,664	$ 7,451
Related party sales	115	133	153
Total revenues	6,018	6,797	7,604
Cost of goods sold	4,918	5,415	5,840
Gross profit	1,100	1,382	1,764
Operating expenses:			
Selling, general and administrative	775	786	789
Research and development	135	137	145
Restructuring, impairment and plant closing costs (credits)	49	(41)	(7)
Merger costs	ĭ	ĭ	2
Gain on sale of India-based DIY business	(247)	ĭ	ĭ
Other operating (income) expense, net	(45)	31	8
Total operating expenses	667	913	937
Operating income	433	469	827
Interest expense, net	(86)	(111)	(115)
Equity in income of investment in unconsolidated affiliates	42	54	55
Fair value adjustments to Venator investment and related loss on disposal	(88)	(18)	(62)
Loss on early extinguishment of debt	ĭ	(23)	(3)
Other income, net	36	20	32
Income from continuing operations before income taxes	337	391	734
Income tax (expense) benefit	(46)	38	(45)
Income from continuing operations	291	429	689
Income (loss) from discontinued operations, net of tax	775	169	(39)
Net income	1,066	598	650
Net income attributable to noncontrolling interests	(32)	(36)	(313)
Net income attributable to Huntsman Corporation	$ 1,034	$ 562	$ 337
Basic income (loss) per share:			
Income from continuing operations attributable to Huntsman Corporation common stockholders	$ 1.18	$ 1.72	$ 2.55
Income (loss) from discontinued operations attributable to Huntsman Corporation common stockholders, net of tax	3.51	0.74	(1.13)
Net income attributable to Huntsman Corporation common stockholders	$ 4.69	$ 2.46	$ 1.42
Weighted average shares	220.6	228.9	238.1
Diluted income (loss) per share:			
Income from continuing operations attributable to Huntsman Corporation common stockholders	$ 1.17	$ 1.70	$ 2.52
Income (loss) from discontinued operations attributable to Huntsman Corporation common stockholders, net of tax	3.49	0.74	(1.13)
Net income attributable to Huntsman Corporation common stockholders	$ 4.66	$ 2.44	$ 1.39
Weighted average shares	221.9	230.6	241.6
Amounts attributable to Huntsman Corporation common stockholders:			
Income from continuing operations	$ 259	$ 393	$ 608
Income (loss) from discontinued operations, net of tax	775	169	(271)
Net income	$ 1,034	$ 562	$ 337

See accompanying notes to consolidated financial statements.

HUNTSMAN CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Net income	$ 1,066	$ 598	$ 650
Other comprehensive loss, net of tax:			
Foreign currency translations adjustments	41	2	(192)
Pension and other postretirement benefits adjustments	(19)	(37)	(39)
Other, net	ĭ	(1)	(9)
Other comprehensive loss, net of tax	22	(36)	(240)
Comprehensive income	1,088	562	410
Comprehensive income attributable to noncontrolling interests	(38)	(31)	(266)
Comprehensive income attributable to Huntsman Corporation	$ 1,050	$ 531	$ 144

See accompanying notes to consolidated financial statements.

HUNTSMAN CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(In Millions, Except Share Amounts)

	Huntsman Corporation Stockholders ĭ Equity								
	Shares Common stock	Common stock	Additional paid-in capital	Treasury stock	Unearned stock-based compensation	Retained earnings	Accumulated other comprehensive loss	Noncontrolling interests in subsidiaries	Total equity
Beginning balance, January 1, 2018	240,213,606	$ 3	$ 3,889	$ (150)	$ (15)	$ 161	$ (1,268)	$ 751	$ 3,371
Cumulative effect of changes in fair value of equity investments	ĭ	ĭ	ĭ	ĭ	ĭ	10	(10)	ĭ	ĭ
Net income	ĭ	ĭ	ĭ	ĭ	ĭ	337	ĭ	313	650
Other comprehensive loss	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	(198)	(42)	(240)
Issuance of nonvested stock awards	ĭ	ĭ	14	ĭ	(14)	ĭ	ĭ	ĭ	ĭ
Vesting of stock awards	1,135,003	ĭ	11	ĭ	ĭ	ĭ	ĭ	ĭ	11
Recognition of stock-based compensation	ĭ	ĭ	8	ĭ	13	ĭ	ĭ	ĭ	21
Repurchase and cancellation of stock awards	(259,643)	ĭ	ĭ	ĭ	ĭ	(30)	ĭ	ĭ	(30)
Stock options exercised	2,310,663	ĭ	46	ĭ	ĭ	(29)	ĭ	ĭ	17
Treasury stock repurchased	(10,405,457)	ĭ	ĭ	(277)	ĭ	ĭ	ĭ	ĭ	(277)
Disposition of a portion of Venator	ĭ	ĭ	18	ĭ	ĭ	ĭ	ĭ	ĭ	18
Costs of the secondary offering of Venator	ĭ	ĭ	(2)	ĭ	ĭ	ĭ	ĭ	ĭ	(2)
Noncontrolling interest from partial disposal of Venator	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	27	27
Deconsolidation of Venator	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	160	(751)	(591)
Accrued and unpaid dividends	ĭ	ĭ	ĭ	ĭ	ĭ	(1)	ĭ	ĭ	(1)
Dividends paid to noncontrolling interests	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	(69)	(69)
Dividends declared on common stock ($0.65 per share)	ĭ	ĭ	ĭ	ĭ	ĭ	(156)	ĭ	ĭ	(156)
Balance, December 31, 2018	232,994,172	3	3,984	(427)	(16)	292	(1,316)	229	2,749
Net income	ĭ	ĭ	ĭ	ĭ	ĭ	562	ĭ	36	598
Other comprehensive loss	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	(46)	10	(36)
Issuance of nonvested stock awards	ĭ	ĭ	17	ĭ	(17)	ĭ	ĭ	ĭ	ĭ
Vesting of stock awards	1,643,368	ĭ	7	ĭ	ĭ	ĭ	ĭ	ĭ	7
Recognition of stock-based compensation	ĭ	ĭ	7	ĭ	16	ĭ	ĭ	ĭ	23
Repurchase and cancellation of stock awards	(488,441)	ĭ	ĭ	ĭ	ĭ	(12)	ĭ	ĭ	(12)
Stock options exercised	246,661	ĭ	4	ĭ	ĭ	(2)	ĭ	ĭ	2
Treasury stock repurchased	(10,099,892)	ĭ	ĭ	(208)	ĭ	ĭ	ĭ	ĭ	(208)
Acquisition of noncontrolling interests, net of tax	ĭ	ĭ	(11)	ĭ	ĭ	ĭ	ĭ	(73)	(84)
Dividends declared to noncontrolling interests	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	(65)	(65)
Dividends declared on common stock ($0.65 per share)	ĭ	ĭ	ĭ	ĭ	ĭ	(150)	ĭ	ĭ	(150)
Balance, December 31, 2019	224,295,868	3	4,008	(635)	(17)	690	(1,362)	137	2,824
Net income	ĭ	ĭ	ĭ	ĭ	ĭ	1,034	ĭ	32	1,066
Other comprehensive loss	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	16	6	22
Issuance of nonvested stock awards	ĭ	ĭ	18	ĭ	(18)	ĭ	ĭ	ĭ	ĭ
Vesting of stock awards	960,406	ĭ	5	ĭ	ĭ	ĭ	ĭ	ĭ	5
Recognition of stock-based compensation	ĭ	ĭ	7	ĭ	16	ĭ	ĭ	ĭ	23
Repurchase and cancellation of stock awards	(287,247)	ĭ	ĭ	ĭ	ĭ	(8)	ĭ	ĭ	(8)
Stock options exercised	441,754	ĭ	10	ĭ	ĭ	(7)	ĭ	ĭ	3
Treasury stock repurchased	(5,364,519)	ĭ	ĭ	(96)	ĭ	ĭ	ĭ	ĭ	(96)
Dividends declared to noncontrolling interests	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ	(21)	(21)
Dividends declared on common stock ($0.65 per share)	ĭ	ĭ	ĭ	ĭ	ĭ	(145)	ĭ	ĭ	(145)
Balance, December 31, 2020	220,046,262	$ 3	$ 4,048	$ (731)	$ (19)	$ 1,564	$ (1,346)	$ 154	$ 3,673

See accompanying notes to consolidated financial statements.

HUNTSMAN CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Operating Activities:			
Net income	$ 1,066	$ 598	$ 650
Less: (Income) loss from discontinued operations, net of tax	(775)	(169)	39
Income from continuing operations	291	429	689
Adjustments to reconcile income from continuing operations to net cash provided by operating activities from continuing operations:			
Equity in income of investment in unconsolidated affiliates	(42)	(54)	(55)
Unrealized losses on fair value adjustments to Venator investment and related loss on disposal	88	19	62
Cash received from return on investment in unconsolidated subsidiary	19	24	ĭ
Depreciation and amortization	283	270	255
Noncash lease expense	63	55	ĭ
(Gain) loss on disposal of businesses/assets	(281)	(49)	3
Loss on early extinguishment of debt	ĭ	23	3
Noncash restructuring and impairment charges (credits)	7	3	(22)
Deferred income taxes	172	(93)	(167)
Stock-based compensation	27	29	27
Other, net	8	20	3
Changes in operating assets and liabilities:			
Accounts and notes receivable	100	138	(22)
Inventories	145	77	(80)
Prepaid expenses	(10)	(27)	(9)
Other current assets	(55)	53	59
Other noncurrent assets	(55)	(90)	(41)
Accounts payable	32	21	12
Accrued liabilities	(126)	(50)	44
Taxes paid on Chemical Intermediates Businesses	(231)	ĭ	ĭ
Other noncurrent liabilities	(158)	(142)	(57)
Net cash provided by operating activities from continuing operations	277	656	704
Net cash (used in) provided by operating activities from discontinued operations	(24)	241	503
Net cash provided by operating activities	253	897	1,207
Investing Activities:			
Capital expenditures	(249)	(274)	(251)
Cash received from sale of businesses	2,181	ĭ	ĭ
Cash received from the sale of Venator shares	99	ĭ	ĭ
Acquisition of businesses, net of cash acquired	(650)	ĭ	(366)
Proceeds from sale of assets	75	50	ĭ
Cash received from forward swap contract related to the sale of investment in Venator	ĭ	16	3
Other	6	7	(1)
Net cash provided by (used in) investing activities from continuing operations	1,462	(201)	(615)
Net cash provided by (used in) investing activities from discontinued operations	1	(59)	(358)
Net cash provided by (used in) investing activities	1,463	(260)	(973)

(continued)

HUNTSMAN CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Financing Activities:			
Net (repayments) borrowings on revolving loan facilities	$ (203)	$ (89)	$ 125
Repayments of long-term debt	(21)	(676)	(68)
Proceeds from issuance of long-term debt	ĭ	742	ĭ
Repayments of short-term debt	(109)	ĭ	(8)
Borrowings on short-term debt	ĭ	102	6
Repayments of notes payable	(32)	(27)	(29)
Borrowings on note payable	ĭ	37	27
Debt issuance costs paid	ĭ	(8)	(4)
Costs of early extinguishment of debt	ĭ	(21)	ĭ
Dividends paid to common stockholders	(144)	(150)	(156)
Dividends paid to noncontrolling interests	(44)	(41)	(69)
Cash paid for noncontrolling interest	ĭ	(101)	ĭ
Repurchase of common stock	(96)	(208)	(277)
Repurchase and cancellation of stock awards	(8)	(12)	(30)
Proceeds from issuance of common stock	3	2	17
Proceeds from the secondary offering of Venator	ĭ	ĭ	44
Other	(1)	ĭ	(2)
Net cash used in financing activities	(655)	(450)	(424)
Effect of exchange rate changes on cash	7	(2)	(35)
Increase (decrease) in cash, cash equivalents and restricted cash	1,068	185	(225)
Cash, cash equivalents and restricted cash from continuing operations at beginning of period	525	340	481
Cash, cash equivalents and restricted cash from discontinued operations at beginning of period	ĭ	ĭ	238
Deconsolidation of cash, cash equivalents and restricted cash from Venator	ĭ	ĭ	(154)
Cash, cash equivalents and restricted cash at end of period	$ 1,593	$ 525	$ 340
Supplemental cash flow information:			
Cash paid for interest	$ 90	$ 111	$ 163
Cash paid for income taxes	316	100	179

As of December 31, 2020, 2019 and 2018, the amount of capital expenditures in accounts payable was $74 million, $64 million and $66 million, respectively. For the year ended of December 31, 2019, the amounts of cash interest and cash income taxes included in our supplemental cash flow information related to cash paid for interest and cash paid for income taxes that was paid by Venator was $46 million and $38 million, respectively. For the year ended December 31, 2020, the amounts of cash paid for taxes in connection with the sale of the Chemical Intermediates Businesses and the India-based DIY business were $231 million and $26 million, respectively.

See accompanying notes to consolidated financial statements.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Members and Board of Managers of Huntsman International LLC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Huntsman International LLC and subsidiaries (ï Huntsman International ï) as of December 31, 202 and 2019, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows, for each of the three years in the period ended December 31, 2020, and the related notes and the schedule listed in the Index on page F-1 (collectively referred to as the ï financial statements ï). In our opinion, the financial statements present fairly, in all material respects, the financial position of Huntsman International as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

Change in Accounting Principle

As discussed in Note 2 to the financial statements, effective January 1, 2019, Huntsman International adopted the Financial Accounting Standards Board Accounting Standards Update No. 2016-02, Leases (Topic 842).

Basis for Opinion

These financial statements are the responsibility of Huntsman International ï s management. Our responsibility is to express an opinion on Huntsman International ï 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 Huntsman International in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Huntsman International is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of Huntsman International ï s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

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

Income Taxes ĭ Realizability of Deferred Tax Assets ĭ Refer to Notes 2 and 20 to the financial statements

Critical Audit Matter Description

Huntsman International recognizes deferred income taxes for tax attributes and for differences between the financial statement and tax carrying amounts of assets and liabilities at enacted statutory tax rates in effect for the years in which the deferred tax liability or asset are expected to be settled or realized. A valuation allowance is provided to offset deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Huntsman International files tax returns in multiple jurisdictions with complex tax laws and regulations. Valuation allowances are evaluated on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets for each jurisdiction. In evaluating the objective evidence that historical results provide, Huntsman International considers the cyclicality of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limits Huntsman International ĭ s ability to consider other subjective evidence such as taxable income for the future. Huntsman International ĭ s valuation allowances as of December 31, 2020, were $206 million.

We identified management ĭ s determination that it is not more likely than not that sufficient taxable income will be generated in the future to realize some of its deferred tax assets as a critical audit matter because of the significant judgments and estimates management makes related to future taxable income. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our income tax specialists, when performing audit procedures to evaluate the reasonableness of management ĭ s estimates of future taxable income.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to estimated future taxable income and the determination of whether it is more likely than not that the deferred tax assets will be realized included the following, among others:

- ĭ We tested the effectiveness of controls over the valuation allowance for income taxes, including management ĭ s controls over the estimates of future taxable income and the determination of whether it is more likely than not that the deferred tax assets will be realized.
- ĭ With the assistance of our income tax specialists, we considered (1) the appropriateness of qualifying tax planning strategies, including that they were prudent, feasible and would more likely than not result in the realization of deferred tax assets and (2) the following sources of management ĭ s estimated future taxable income:
  - ĭ Estimates of future taxable income
  - ĭ Future reversals of existing temporary differences
  - ĭ Taxable income in historical periods (where carryback is permitted under the tax law)
- ĭ We tested the reasonableness of management ĭ s estimates of future taxable income by comparing the estimates to:
  - ĭ Historical taxable income
  - ĭ Internal communications to management and the Board of Managers
  - ĭ Forecasted information included in Huntsman International ĭ s press releases as well as in analyst and industry reports for Huntsman International and certain of its peer companies
- ĭ We evaluated whether the taxable income in prior carryback years was of the appropriate character and available under the tax law.
- ĭ We evaluated the reasonableness of the methods, assumptions, and judgments used by management to determine whether a valuation allowance was necessary.

/s/ DELOITTE & TOUCHE LLP

Houston, Texas
February 12, 2021

We have served as Huntsman International ĭ s auditor since 1984.

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In Millions, Except Unit Amounts)

	December 31, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents(a)	$ 1,591	$ 525
Accounts and notes receivable (net of allowance for doubtful accounts of $26 and $19, respectively), ($198 and $221 pledged as collateral, respectively)(a)	902	940
Accounts receivable from affiliates	47	410
Inventories(a)	848	914
Other current assets	223	161
Current assets held for sale	ĭ	1,208
Total current assets	3,611	4,158
Property, plant and equipment, net(a)	2,505	2,383
Investment in unconsolidated affiliates	373	535
Intangible assets, net	453	197
Goodwill	533	276
Deferred income taxes	288	292
Notes receivable from affiliate	ĭ	34
Operating lease right-of-use assets	445	396
Other noncurrent assets(a)	548	452
Total assets	$ 8,756	$ 8,723
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable(a)	$ 842	$ 765
Accounts payable to affiliates	36	143
Accrued liabilities(a)	455	417
Notes payable to affiliates	ĭ	100
Current portion of debt(a)	593	212
Current operating lease liabilities(a)	52	42
Current liabilities held for sale	ĭ	512
Total current liabilities	1,978	2,191
Long-term debt(a)	1,528	2,177
Notes payable to affiliates	ĭ	280
Deferred income taxes	214	29
Noncurrent operating lease liabilities(a)	411	384
Other noncurrent liabilities(a)	900	890
Total liabilities	5,031	5,951
Commitments and contingencies (Notes 21 and 22)		
Equity		
Huntsman International LLC members ĭ equity:		
Members ĭ equity, 2,728 units issued and outstanding	3,701	3,675
Retained earnings	1,203	312
Accumulated other comprehensive loss	(1,333)	(1,352)
Total Huntsman International LLC members ĭ equity	3,571	2,635
Noncontrolling interests in subsidiaries	154	137
Total equity	3,725	2,772
Total liabilities and equity	$ 8,756	$ 8,723

(a) At December 31, 2020 and December 31, 2019, respectively, $2 and nil of cash and cash equivalents, $6 and $13 of accounts and notes receivable (net), $38 and $35 of inventories, $167 and $180 of property, plant and equipment (net), $23 and $20 of other noncurrent assets, $119 and $100 of accounts payable, $13 and $10 of accrued liabilities, $47 and $36 of current portion of debt, $5 and $4 of current operating lease liabilities, $3 and $29 of long-term debt, $17 and $11 of noncurrent operating lease liabilities and $82 and $87 of other noncurrent liabilities from consolidated variable interest entities are included in the respective Balance Sheet captions above. See ĭ Note 8. Variable Interest Entities. ĭ

See accompanying notes to consolidated financial statements.

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Revenues:			
Trade sales, services and fees, net	$ 5,903	$ 6,664	$ 7,451
Related party sales	115	133	153
Total revenues	6,018	6,797	7,604
Cost of goods sold	4,918	5,415	5,837
Gross profit	1,100	1,382	1,767
Operating expenses:			
Selling, general and administrative	769	781	784
Research and development	135	137	145
Restructuring, impairment and plant closing costs (credits)	49	(41)	(7)
Merger costs	ĭ	ĭ	2
Gain on sale of India-based DIY business	(247)	ĭ	ĭ
Other operating (income) expense, net	(45)	31	8
Total operating expenses	661	908	932
Operating income	439	474	835
Interest expense, net	(88)	(126)	(136)
Equity in income of investment in unconsolidated affiliates	42	54	55
Fair value adjustments to Venator investment and related loss on disposal	(88)	(18)	(62)
Loss on early extinguishment of debt	ĭ	(23)	(3)
Other income, net	33	16	27
Income from continuing operations before income taxes	338	377	716
Income tax (expense) benefit	(46)	41	(41)
Income from continuing operations	292	418	675
Income (loss) from discontinued operations, net of tax	775	169	(39)
Net income	1,067	587	636
Net income attributable to noncontrolling interests	(32)	(36)	(313)
Net income attributable to Huntsman International LLC	$ 1,035	$ 551	$ 323

See accompanying notes to consolidated financial statements.

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Net income	$ 1,067	$ 587	$ 636
Other comprehensive loss, net of tax:			
Foreign currency translations adjustment	41	2	(194)
Pension and other postretirement benefits adjustments	(16)	(35)	(37)
Other, net	ĭ	(1)	(6)
Other comprehensive loss, net of tax	25	(34)	(237)
Comprehensive income	1,092	553	399
Comprehensive income attributable to noncontrolling interests	(38)	(31)	(266)
Comprehensive income attributable to Huntsman International LLC	$ 1,054	$ 522	$ 133

See accompanying notes to consolidated financial statements.

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(In Millions, Except Unit Amounts)

	Huntsman International LLC Members					
	Members ĭ equity		(Accumulated deficit) retained earnings	Accumulated other comprehensive loss	Noncontrolling interests in subsidiaries	Total equity
	Units	Amount				
Beginning balance, January 1, 2018	2,728	$ 3,616	$ (270)	$ (1,263)	$ 751	$ 2,834
Cumulative effect of changes in fair value of equity investments	ĭ	ĭ	10	(10)	ĭ	ĭ
Net income	ĭ	ĭ	323	ĭ	313	636
Other comprehensive loss	ĭ	ĭ	ĭ	(195)	(42)	(237)
Dividends paid to parent	ĭ	ĭ	(154)	ĭ	ĭ	(154)
Contribution from parent	ĭ	26	ĭ	ĭ	ĭ	26
Dividends paid to noncontrolling interests	ĭ	ĭ	ĭ	ĭ	(69)	(69)
Disposition of a portion of Venator	ĭ	18	ĭ	ĭ	ĭ	18
Costs of secondary offering of Venator	ĭ	(2)	ĭ	ĭ	ĭ	(2)
Noncontrolling interest from partial disposal of Venator	ĭ	ĭ	ĭ	ĭ	27	27
Deconsolidation of Venator	ĭ	ĭ	ĭ	160	(751)	(591)
Balance, December 31, 2018	2,728	3,658	(91)	(1,308)	229	2,488
Net income	ĭ	ĭ	551	ĭ	36	587
Other comprehensive loss	ĭ	ĭ	ĭ	(44)	10	(34)
Dividends paid to parent	ĭ	ĭ	(148)	ĭ	ĭ	(148)
Contribution from parent	ĭ	28	ĭ	ĭ	ĭ	28
Dividends declared to noncontrolling interests	ĭ	ĭ	ĭ	ĭ	(65)	(65)
Acquisition of noncontrolling interests, net of tax	ĭ	(11)	ĭ	ĭ	(73)	(84)
Balance, December 31, 2019	2,728	3,675	312	(1,352)	137	2,772
Net income	ĭ	ĭ	1,035	ĭ	32	1,067
Other comprehensive loss	ĭ	ĭ	ĭ	19	6	25
Dividends paid to parent	ĭ	ĭ	(144)	ĭ	ĭ	(144)
Contribution from parent	ĭ	26	ĭ	ĭ	ĭ	26
Dividends declared to noncontrolling interests	ĭ	ĭ	ĭ	ĭ	(21)	(21)
Balance, December 31, 2020	2,728	$ 3,701	$ 1,203	$ (1,333)	$ 154	$ 3,725

See accompanying notes to consolidated financial statements.

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Operating Activities:			
Net income	$ 1,067	$ 587	$ 636
Less: (Income) loss from discontinued operations, net of tax	(775)	(169)	39
Income from continuing operations	292	418	675
Adjustments to reconcile income from continuing operations to net cash provided by operating activities from continuing operations:			
Equity in income of investment in unconsolidated affiliates	(42)	(54)	(55)
Unrealized losses on fair value adjustments to Venator investment and related loss on disposal	88	19	62
Cash received from return on investment in unconsolidated subsidiary	19	24	ĭ
Depreciation and amortization	283	270	252
Noncash lease expense	63	55	ĭ
(Gain) loss on disposal of businesses/assets	(281)	(49)	3
Loss on early extinguishment of debt	ĭ	23	3
Noncash restructuring and impairment charges (credits)	7	3	(22)
Deferred income taxes	172	(91)	(172)
Noncash compensation	26	28	26
Other, net	8	36	26
Changes in operating assets and liabilities:			
Accounts and notes receivable	100	138	(23)
Inventories	145	77	(80)
Prepaid expenses	(9)	(27)	(8)
Other current assets	(56)	48	59
Other noncurrent assets	(55)	(90)	(41)
Accounts payable	30	7	(9)
Accrued liabilities	(126)	(51)	44
Taxes paid on sale of Chemical Intermediates Businesses	(231)	ĭ	ĭ
Other noncurrent liabilities	(154)	(139)	(53)
Net cash provided by operating activities from continuing operations	279	645	687
Net cash (used in) provided by operating activities from discontinued operations	(24)	241	503
Net cash provided by operating activities	255	886	1,190
Investing Activities:			
Capital expenditures	(249)	(274)	(251)
Cash received from sale of businesses	2,181	ĭ	ĭ
Cash received from the sale of Venator shares	99	ĭ	ĭ
Acquisition of businesses, net of cash acquired	(650)	ĭ	(366)
Increase in receivable from affiliate	273	(1)	(16)
Proceeds from sale of businesses/assets	75	50	ĭ
Cash received from forward swap contract related to the sale of investment in Venator	ĭ	16	3
Other, net	7	7	ĭ
Net cash provided by (used in) investing activities from continuing operations	1,736	(202)	(630)
Net cash provided by (used in) investing activities from discontinued operations	1	(59)	(358)
Net cash provided by (used in) investing activities	1,737	(261)	(988)

(continued)

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
(In Millions)

	Year ended December 31,		
	2020	2019	2018
Financing Activities:			
Net (repayments) borrowings on revolving loan facilities	$ (203)	$ (89)	$ 125
Repayments of long-term debt	(21)	(676)	(68)
Proceeds from issuance of long-term debt	ĭ	742	ĭ
Repayments of short-term debt	(109)	ĭ	(8)
Borrowings on short-term debt	ĭ	102	6
Repayments of notes payable to affiliate	(380)	(207)	(255)
Repayments of notes payable	(32)	(27)	(29)
Borrowings on notes payable	ĭ	37	27
Debt issuance costs paid	ĭ	(8)	(4)
Costs of early extinguishment of debt	ĭ	(21)	ĭ
Dividends paid to parent	(144)	(148)	(154)
Dividends paid to noncontrolling interests	(44)	(41)	(69)
Cash paid for noncontrolling interest	ĭ	(101)	ĭ
Proceeds from the secondary offering of Venator	ĭ	ĭ	44
Other	ĭ	(1)	(5)
Net cash used in financing activities	(933)	(438)	(390)
Effect of exchange rate changes on cash	7	(2)	(35)
Increase (decrease) in cash, cash equivalents and restricted cash	1,066	185	(223)
Cash, cash equivalents and restricted cash from continuing operations at beginning of period	525	340	479
Cash, cash equivalents and restricted cash from discontinued operations at beginning of period	ĭ	ĭ	238
Deconsolidation of cash, cash equivalents and restricted cash of Venator	ĭ	ĭ	(154)
Cash, cash equivalents and restricted cash at end of period	$ 1,591	$ 525	$ 340
Supplemental cash flow information:			
Cash paid for interest	$ 90	$ 111	$ 163
Cash paid for income taxes	316	100	179

As of December 31, 2020, 2019 and 2018 the amount of capital expenditures in accounts payable was $74 million, $64 million and $66 million, respectively. For the year ended December 31, 2019, the amount of cash interest and cash income taxes included in our supplemental cash flow information related to cash paid for interest and cash paid for income taxes that was paid by Venator was $46 million and $38 million, respectively. For the year ended December 31, 2020, the amounts of cash paid for taxes in connection with the sale of the Chemical Intermediates Businesses and the India-based DIY business were $231 million and $26 million, respectively.

See accompanying notes to consolidated financial statements.

HUNTSMAN CORPORATION AND SUBSIDIARIES
HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. GENERAL

Definitions

For convenience in this report, the terms ǐ Company, ǐ ǐ our ǐ or ǐ we ǐ may be used to refer to Huntsman Corporation and, unless the context c its subsidiaries and predecessors. In this report, ǐ Huntsman International ǐ refers to Huntsman International LLC (our wholly-owned subsidiary) and, unless the cont otherwise requires, its subsidiaries; ǐ AAC ǐ refers to Arabian Amines Company, our consolidated manufacturing joint venture with the Zamil Group; ǐ HPS ǐ r Huntsman Polyurethanes Shanghai Ltd. (our consolidated splitting joint venture with Shanghai Chlor-Alkali Chemical Company, Ltd); and ǐ SLIC ǐ refers to Shanghai Liengheng Isocyanate Company (our unconsolidated manufacturing joint venture with BASF and three Chinese chemical companies).

In this report, we may use, without definition, the common names of competitors or other industry participants. We may also use the common names or abbreviations for certain chemicals or products.

Description of Business

We are a global manufacturer of differentiated organic chemical products. We operate in four segments: Polyurethanes, Performance Products, Advanced Materials and Textile Effects. Our products comprise a broad range of chemicals and formulations, which we market globally to a diversified group of consumer and industrial customers. Our products are used in a wide range of applications, including those in the adhesives, aerospace, automotive, construction products, durable and non-durable consumer products, electronics, insulation, medical, packaging, coatings and construction, power generation, refining, synthetic fiber, textile chemicals and dye industries. We are a leading global producer in many of our key product lines, including MDI, amines, maleic anhydride, epoxy-based polymer formulations, textile chemicals and dyes.

Company

Our Company, a Delaware corporation, was formed in 2004 to hold the Huntsman businesses, which were founded by Jon M. Huntsman. Mr. Huntsman founded the predecessor to our Company in 1970 as a small polystyrene plastics packaging company. Since then, we have grown through a series of acquisitions and now own a global portfolio of businesses.

Currently, we operate all of our businesses through Huntsman International, our wholly-owned subsidiary. Huntsman International is a Delaware limited liability company and was formed in 1999.

Recent Developments

COVID-19 Update

The outbreak of the COVID-19 has spread from China to many other countries, including the U.S. In March 2020, the World Health Organization characterized COVID-19 as a pandemic. As of December 31, 2020, there have not been any significant interruptions in our ability to provide our products and support to our customers. However, the COVID-19 pandemic has significantly impacted economic conditions throughout the U.S. and the world, including the markets in which we operate. Demand for our products declined at a rapid pace in the second quarter 2020, which led to a meaningful adverse impact on our revenues and financial results. Although we have experienced improved conditions in most of our core markets in the second half of 2020, there continues to be many uncertainties regarding the impact of the COVID-19 pandemic, including the scope of scientific and health issues, the anticipated duration of the pandemic and the extent of local, regional and worldwide economic, social and political disruption. Given such uncertainties, it is difficult to estimate the magnitude COVID-19 may impact our future business, but we expect any adverse impact to continue for some time.

In response to the impact of COVID-19, we have implemented, and may continue to implement, cost saving initiatives, including:

- suspended merit and general wage increases that customarily would have occurred at the end of the first quarter of 2020;
- implemented a temporary hiring freeze for all non-business critical positions;
- accelerated integration efforts related to the Icynene-Lapolla and CVC Thermoset Specialties acquisitions in order to more expeditiously capture related synergies;
- implemented restructuring programs in our Polyurethanes segment to reorganize our spray polyurethane foam business to better position this business for efficiencies and growth in coming years and to optimize our downstream footprint;
- implemented a restructuring program in our Performance Products segment, primarily related to workforce reductions, in response to the sale of our Chemical Intermediates Businesses to Indorama;
- implemented restructuring programs in our Advanced Materials segment, primarily related to workforce reductions in connection with the CVC Thermoset Specialties Acquisition and the alignment of the segment ǐ s commercial organization and optimization of the segment ǐ s manufacturing processes; and
- implemented restructuring programs in our Textile Effects segment to rationalize and realign structurally across various functions and certain locations within the segment.

For more information regarding our 2020 restructuring activities, see ǐ Note 13. Restructuring, Impairment and Plant Closing Costs (Credits). ǐ

Redemption of the 2021 Senior Notes

On January 15, 2021, we redeemed in full ï 445 million (approximately $541 million) in aggregate principal amount of our 2021 Senior Notes at the redemption price equal to 100% of the principal amount of the notes, plus accrued and unpaid interest to, but not including, the redemption date.

Acquisition of Gabriel Performance Products

On January 15, 2021, we completed the acquisition of Gabriel, a North American specialty chemical manufacturer of specialty additives and epoxy curing agents for the coatings, adhesives, sealants and composite end-markets, from funds affiliated with Audax Private Equity in an all-cash transaction of approximately $250 million, subject to customary closing adjustments, funded from available liquidity. The acquired business will be integrated into our Advanced Materials segment.

Sale of Assets at our Basel, Switzerland Site

In November 2020, we entered into a sale and leaseback agreement to sell certain properties in Basel, Switzerland for approximately CHF 67 million (approximately $73 million) and to lease those properties back for five years. This transaction resulted in a pretax gain of approximately CHF 30 million (approximately $33 million).

Sale of India-Based Do-It-Yourself Consumer Adhesives Business

On November 3, 2020, we completed the sale of the India-based DIY business, previously part of our Advanced Materials segment, to Pidilite Industries Ltd. and received cash of approximately $257 million. Under the terms of the agreement, we may receive up to approximately $28 million of additional cash under an earnout within 18 months if the business achieves certain sales revenue targets in line with the DIY business' 2019 performance. In connection with this sale, we recognized a pretax gain of $247 million in the fourth quarter of 2020, which was recorded in gain on sale of India-based DIY business in our consolidated statements of operations.

Sale of Venator Interest

On December 23, 2020, we completed the sale of approximately 42.4 million ordinary shares of Venator to funds advised by SK Capital Partners, LP. We received approximately $99 million in cash, which included $8 million for a 30-month option as described below. In addition to the cash proceeds received from the sale, we achieved immediate cash tax savings of approximately $150 million by offsetting the capital loss on the sale of Venator shares against the capital gain realized on the sale of our Chemical Intermediates Businesses. See ï Note 4. Discontinued Operations and Business Dispositions ï Separation and Deconsolidation of Venator. ï

Concurrently with the sale of Venator ordinary shares, we entered into an option agreement, pursuant to which we granted an option to funds advised by SK Capital Partners, LP to purchase the remaining approximate 9.7 million ordinary shares we hold in Venator at $2.15 per share. The option will expire on June 23, 2023 and will not be exercisable so long as such exercise would result in a default or an "Event of Default" under Venator ï s Term Loan Credit Agreement and Revolving Credit Agreement.

In connection with the 2017 initial public offering of Venator, we recorded a receivable of approximately $34 million related to certain income tax benefits that was reduced upon completion of the sale of Venator shares to SK Capital Partners, LP due to a change of control limitation on specific Venator tax attributes. Accordingly, we wrote off approximately $31 million of this receivable upon completion of the sale of the Venator ordinary shares in December 2020.

Other Significant Developments During 2020

Other significant developments that occurred during 2020 were as follows:

- In May 2020, we completed the CVC Thermoset Specialties Acquisition. For more information, see ï Note 3. Business Combinations and Acquisitions ï Acquisition of CVC Thermoset Specialties."
- In February 2020, we completed the Icynene-Lapolla Acquisition. For more information, see ï Note 3. Business Combinations and Acquisitions ï Acquisition of Icynene-Lapolla. ï
- In January 2020, we completed the sale of our Chemical Intermediates Businesses to Indorama in a transaction valued at approximately $2 billion, comprised of a cash purchase price of approximately $1.92 billion and the transfer of approximately $72 million in net underfunded pension and other post-employment benefit liabilities. For more information, see ï Note 4. Discontinued Operations and Business Dispositions ï Sale of Chemical Intermediates Businesses. ï

HUNTSMAN CORPORATION AND HUNTSMAN INTERNATIONAL FINANCIAL STATEMENTS

Except where otherwise indicated, these notes relate to the consolidated financial statements for both our Company and Huntsman International. The differences between our consolidated financial statements and Huntsman International ï s consolidated financial statements relate primarily to the following:

- purchase accounting recorded at our Company for the 2003 step-acquisition of Huntsman International Holdings LLC, the former parent company of Huntsman International that was merged into Huntsman International in 2005;
- the different capital structures; and
- a note payable from Huntsman International to us, which was repaid in full during the first quarter of 2020.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Carrying Value of Long-Lived Assets

We review long-lived assets and all amortizable intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. Recoverability is based upon current and anticipated undiscounted cash flows, and we recognize an impairment when such estimated cash flows are less than the carrying value of the asset. Measurement of the amount of impairment, if any, is based upon the difference between carrying value and fair value. Fair value is generally estimated by discounting estimated future cash flows using a discount rate commensurate with the risks involved or selling price of assets held for sale.

Cash and Cash Equivalents

We consider cash in checking accounts and cash in short-term highly liquid investments with original maturities of three months or less at the date of purchase, to be cash and cash equivalents.

Cost of Goods Sold

We classify the costs of manufacturing and distributing our products as cost of goods sold. Manufacturing costs include variable costs, primarily raw materials and energy, and fixed expenses directly associated with production. Manufacturing costs also include, among other things, plant site operating costs and overhead (including depreciation), production planning and logistics costs, repair and maintenance costs, plant site purchasing costs, and engineering and technical support costs. Distribution, freight and warehousing costs are also included in cost of goods sold.

Derivatives and Hedging Activities

All derivatives, whether designated in hedging relationships or not, are recorded on our balance sheets at fair value. If the derivative is designated as a fair value hedge, the changes in the fair value of the derivative and the hedged items are recognized in earnings. If the derivative is designated as a cash flow hedge, changes in the fair value of the derivative are recorded in accumulated other comprehensive loss, to the extent effective, and will be recognized in the income statement when the hedged item affects earnings. Changes in the fair value of the hedge in the net investment of certain international operations are recorded in other comprehensive income (loss), to the extent effective. The effectiveness of a cash flow hedging relationship is established at the inception of the hedge, and after inception we perform effectiveness assessments at least every three months. A derivative designated as a cash flow hedge is determined to be effective if the change in value of the hedge divided by the change in value of the hedged item is within a range of 80% to 125%. Hedge ineffectiveness in a cash flow hedge occurs only if the cumulative gain or loss on the derivative hedging instrument exceeds the cumulative change in the expected future cash flows on the hedged transaction. For a derivative that does not qualify or has not been designated as a hedge, changes in fair value are recognized in earnings.

Environmental Expenditures

Environmental related restoration and remediation costs are recorded as liabilities when site restoration and environmental remediation and clean-up obligations are either known or considered probable and the related costs can be reasonably estimated. Other environmental expenditures that are principally maintenance or preventative in nature are recorded when expended and incurred and are expensed or capitalized as appropriate. See ï Note 22. Environmental, Health and Safety Matters. ï

Equity Method Investments

We account for our equity investments where we own a non-controlling interest, but exercise significant influence, under the equity method of accounting. Under the equity method of accounting, our original cost of the investment is adjusted for our share of equity in the earnings of the equity investee and reduced by dividends and distributions of capital received, unless the fair value option is elected, in which case the investment balance is marked to fair value each reporting period and the impact of changes in fair value of the equity investment are reported in earnings.

Foreign Currency Translation

The accounts of our operating subsidiaries outside of the U.S., unless they are operating in highly inflationary economic environments, consider the functional currency to be the currency of the economic environment in which they operate. Accordingly, assets and liabilities are translated at rates prevailing at the balance sheet date. Revenues, expenses, gains and losses are translated at a weighted average rate for the period. Cumulative translation adjustments are recorded to equity as a component of accumulated other comprehensive loss.

If a subsidiary operates in an economic environment that is considered to be highly inflationary (100% cumulative inflation over a three-year period), the U.S. dollar is considered to be the functional currency and gains and losses from remeasurement to the U.S. dollar from the local currency are included in the statement of operations. Where a subsidiary ï s operations are effectively run, managed, financed and contracted in U.S. dollars, such as certain finance subsidiaries outside of the U.S., the U.S. dollar is considered to be the functional currency.

Foreign currency transaction gains and losses are recorded in other operating (income) expense, net in our consolidated statements of operations and were (losses) gains of $2 million, $(8) million and $3 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Income Taxes

We use the asset and liability method of accounting for income taxes. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial and tax reporting purposes. We evaluate deferred tax assets to determine whether it is more likely than not that they will be realized. Valuation allowances are reviewed on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets for each jurisdiction. These conclusions require significant judgment. In evaluating the objective evidence that historical results provide, we consider the cyclicality of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limits our ability to consider other subjective evidence such as our projections for the future. Changes in expected future income in applicable jurisdictions could affect the realization of deferred tax assets in those jurisdictions.

On December 22, 2017, the U.S. Tax Reform Act was signed into law. The U.S. Tax Reform Act significantly revised the U.S. corporate income tax regime by, among other things, lowering the U.S. corporate tax rate from 35% to 21%, (effective January 1, 2018), creation of the base erosion anti-abuse tax provision (ĭ BEAT ĭ) a new provision designed to tax global intangible low-taxed income (ĭ GILTI ĭ) (effective January 1, 2018) and imposing a repatriation tax on deemed repatriated earnin of foreign subsidiaries.

In 2017, we booked provisional amounts for the remeasurements of U.S. deferred tax assets and liabilities and the transitional tax on deemed repatriation of deferred foreign income related to the enactment of the U.S. Tax Reform Act. During the remeasurement period in 2018, we recorded a net tax expense of $32 million. We did not make the election to reclassify the income tax effects of the U.S. Tax Reform Act from accumulated other comprehensive income to retained earnings.

Accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The application of income tax law is inherently complex. We are required to determine if an income tax position meets the criteria of more-likely-than-not to be realized based on the merits of the position under tax law, in order to recognize an income tax benefit. This requires us to make significant judgments regarding the merits of income tax positions and the application of income tax law. Additionally, if a tax position meets the recognition criteria of more-likely-than-not we are required to make judgments and apply assumptions to measure the amount of the tax benefits to recognize. These judgments are based on the probability of the amount of tax benefits that would be realized if the tax position was challenged by the taxing authorities. Interpretations and guidance surrounding income tax laws and regulations change over time. As a consequence, changes in assumptions and judgments can materially affect amounts recognized in our consolidated financial statements. See ĭ Note 20. Income Taxes. ĭ

Intangible Assets and Goodwill

Intangible assets are stated at cost (fair value at the time of acquisition) and are amortized using the straight-line method over the estimated useful lives or the life of the related agreement as follows:

	In Years
Patents and technology	5 - 30
Trademarks	9 - 30
Licenses and other agreements	5 - 15
Other intangibles	5 - 20

Goodwill represents costs in excess of fair values assigned to the underlying net assets of acquired businesses. Goodwill is not subject to any method of amortization, but is tested for impairment annually (at the beginning of the third quarter) and when events and circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. When the fair value is less than the carrying value of the related reporting unit, we are required to reduce the amount of goodwill through a charge to earnings. Fair value is estimated using the market approach, as well as the income approach based on discounted cash flow projections. Goodwill has been assigned to reporting units for purposes of impairment testing.

During 2020, goodwill increased by approximately $259 million due to the addition of our acquired businesses, partially offset by a net decrease of approximately $2 million due to changes in foreign currency exchange rates. See ĭ Note 3. Business Combinations and Acquisitions. ĭ During 2019, goodwill decrease by approximately $2 million due to the finalization of the valuation of the assets and liabilities of an acquisition, partially offset by a net increase of approximately $1 million due to changes in foreign currency exchange rates.

Inventories

Inventories are stated at the lower of cost or market, with cost determined using LIFO, first-in first-out, and average costs methods for different components of inventory.

Leases

On January 1, 2019, we adopted the new lease standard using the optional transition method provided under ASU No. 2018-11, which allowed us to initially apply the amendments of the new lease standard at the adoption date. Upon adoption of the new lease standard, we elected the package of three practical expedient permitted under the transition guidance within the new lease standard, which among other things, allowed us to carry forward the historical lease classification on existing leases at adoption. In addition, we elected the practical expedient related to land easements, which allowed us to carry forward our accounting treatment for land easements on existing agreements. We also elected the hindsight practical expedient to determine the lease term for existing leases.

The determination of whether a contract is or contains a lease is performed at the lease inception date. Lease right-of-use assets and lease liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term, using incremental borrowing rates as the implicit rates are not readily determinable for our leases. The incremental borrowing rates are determined on a collateralized basis and vary from lease to lease depending on the country where the leased asset exists and the term of the lease arrangement. We combine lease components with non-lease components and account for them as a single lease component for all classes of underlying assets, except for leases of manufacturing and research facilities and administrative offices. For these assets, non-lease components are separated from lease components and accounted for as normal operating expenses. See ĭ Note 9. Leases. ĭ

Legal Costs

We expense legal costs, including those legal costs incurred in connection with a loss contingency, as incurred.

Net Income Per Share Attributable to Huntsman Corporation

Basic income per share excludes dilution and is computed by dividing net income attributable to Huntsman Corporation common stockholders by the weighted average number of shares outstanding during the period. Diluted income per share reflects all potential dilutive common shares outstanding during the period and is computed by dividing net income available to Huntsman Corporation common stockholders by the weighted average number of shares outstanding during the period increased by the number of additional shares that would have been outstanding as dilutive securities.

Basic and diluted income per share is determined using the following information (in millions):

	Year ended December 31,		
	2020	2019	2018
Numerator:			
Basic and diluted income from continuing operations:			
Income from continuing operations attributable to Huntsman Corporation	$ 259	$ 393	$ 608
Basic and diluted net income:			
Net income attributable to Huntsman Corporation	$ 1,034	$ 562	$ 337
Denominator:			
Weighted average shares outstanding	220.6	228.9	238.1
Dilutive shares:			
Stock-based awards	1.3	1.7	3.5
Total weighted average shares outstanding, including dilutive shares	221.9	230.6	241.6

Additional stock-based awards of 4.3 million, 3.0 million and 0.8 million weighted average equivalent shares of stock were outstanding during the years ended December 31, 2020, 2019 and 2018, respectively. However, these stock-based awards were not included in the computation of diluted earnings per share for the respective periods mentioned because the effect would be anti-dilutive.

Other Noncurrent Assets

Periodic maintenance and repairs applicable to major units of manufacturing facilities (a ĭ turnaround ĭ) are accounted for on the deferral basis by capitalizing the costs of the turnaround and amortizing the costs over the estimated period until the next turnaround.

Principles of Consolidation

Our consolidated financial statements include the accounts of our wholly owned and majority owned subsidiaries and any variable interest entities for which we are the primary beneficiary. All intercompany accounts and transactions have been eliminated.

Property, Plant and Equipment

Property, plant and equipment is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives or lease term as follows:

	In Years
Buildings and equipment	5 - 50
Plant and equipment	3 - 30
Furniture, fixtures and leasehold improvements	5 - 20

Interest expense capitalized as part of plant and equipment was $7 million, $4 million and $4 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Normal maintenance and repairs of plant and equipment are charged to expense as incurred. Renewals, betterments and major repairs that materially extend the useful life of the assets are capitalized, and the assets replaced, if any, are retired.

Revenue Recognition

We generate substantially all of our revenue through product sales in which revenue is recognized at a point in time. We recognize revenue when control of the promised goods is transferred to our customers. Control of goods usually passes to the customer at the time shipment is made. Revenue is measured as the amount that reflects the consideration that we expect to be entitled to in exchange for those goods.

We generate substantially all of our revenues through sales in the open market and long-term supply agreements. We recognize revenue when control of the promised goods is transferred to our customers. Control of goods usually passes to the customer at the time shipment is made. Revenue is measured as the amount that reflects the consideration that we expect to be entitled to in exchange for those goods. Sales, value add, and other taxes we collect concurrent with revenue-producing activities are excluded from revenue. Incidental items that are immaterial in the context of the contract are recognized as expense. We have elected to account for all shipping and handling activities as fulfillment costs. We have also elected to expense commissions when incurred as the amortization period of the commission asset that we would have otherwise recognized is less than one year.

Substantially all of our revenue is generated through product sales in which revenue is recognized at a point in time. At contract inception, we assess the goods and services, if any, promised in our contracts and identify a performance obligation for each promise to transfer to the customer a good or service that is distinct. In substantially all cases, a contract has a single performance obligation to deliver a promised good to the customer. Revenue is recognized when control of the product is transferred to the customer (i.e., when our performance obligation is satisfied), which typically occurs at shipment. Further, in determining whether control has transferred, we consider if there is a present right to payment and legal title, along with risks and rewards of ownership having transferred to the customer.

The amount of consideration we receive and revenue we recognize is based upon the terms stated in the sales contract, which may contain variable consideration such as discounts or rebates. We allocate the transaction price to each distinct product based on their relative standalone selling price. The product price as specified on the purchase order or in the sales contract is considered the standalone selling price as it is an observable input that depicts the price as if sold to a similar customer in similar circumstances. In order to estimate the applicable variable consideration, we use historical and current trend information to estimate the amount of discounts or rebates to which customers are likely to be entitled. Historically, actual discount or rebate adjustments relative to those estimated and included when determining the transaction price have not materially differed. Payment terms vary but are generally less than one year. As our standard payment terms are less than one year, we have elected to not assess whether a contract has a significant financing component. In the normal course of business, we do not accept product returns unless the item is defective as manufactured. We establish provisions for estimated returns based on an analysis of historical experience. See ï Note 18. Revenue Recognition. ï

SECURITIZATION OF ACCOUNTS RECEIVABLE

Under our A/R Programs, we grant an undivided interest in certain of our trade receivables to the special purpose entities (ï SPE ï) in the U.S. and EU. This undivided interest serves as security for the issuance of debt. The A/R Programs provide for financing in both U.S. dollars and euros. The amounts outstanding under our A/R Programs are accounted for as secured borrowings. See ï Note 15. Debt ï Direct and Subsidiary Debt ï A/R Programs. ï

STOCK-BASED COMPENSATION

We measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost, net of estimated forfeitures, will be recognized over the period during which the employee is required to provide services in exchange for the award. See ï Note 24. Stock-Based Compensation Plan. ï

USE OF ESTIMATES

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

ACCOUNTING PRONOUNCEMENTS ADOPTED DURING 2020

We adopted the following accounting pronouncements during 2020, which did not have a significant impact on our consolidated financial statements:

- Financial Accounting Standards Board (ï FASB ï) Accounting Standards Update (ï ASU ï) No. 2016-13, *Financial Instruments ï Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments;*
- FASB ASU No. 2018-14, *Compensation ï Retirement Benefits ï Defined Benefit Plans ï General (Topic 715-20): Disclosure Framework ï Changes Disclosure Requirements for Defined Benefit Plans.*
- FASB ASU No. 2018-15, *Intangibles ï Goodwill and Other ï Internal-Use Software (Subtopic 350-40): Customer ï s Accounting for Implementation Incurred in a Cloud Computing Arrangement That Is a Service Contract;* and
- FASB ASU No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting.*

ACCOUNTING PRONOUNCEMENTS PENDING ADOPTION IN FUTURE PERIODS

The following accounting pronouncement becomes effective subsequent to fiscal year 2020, and we do not expect it to have a significant impact on our consolidated financial statements upon adoption:

- FASB ASU No. 2021-01, *Reference Rate Reform (Topic 848): Scope.*

3. BUSINESS COMBINATIONS AND ACQUISITIONS

Acquisition of CVC Thermoset Specialties

On May 18, 2020, we completed the CVC Thermoset Specialties Acquisition, a North American specialty chemical manufacturer serving the industrial composites, adhesives and coatings markets. We acquired the business for $304 million from Emerald Performance Materials LLC, which is majority owned by affiliates of American Securities LLC, in an all-cash transaction funded from available liquidity. The acquired business is being integrated into our Advanced Materials segment. Transaction costs related to this acquisition were approximately $5 million for the year ended December 31, 2020, and were recorded in other operating (income) expense, net in our consolidated statements of operations.

We have accounted for the CVC Thermoset Specialties Acquisition using the acquisition method. As such, we analyzed the fair value of tangible and intangible assets acquired and liabilities assumed. The preliminary allocation of acquisition cost to the assets acquired and liabilities assumed is summarized as follows (dollars in millions):

Fair value of assets acquired and liabilities assumed:	
Cash paid for the CVC Thermoset Specialties Acquisition	$ 304
Accounts receivable	$ 12
Inventories	37
Property, plant and equipment	67
Intangible assets	117
Goodwill	120
Accounts payable	(7)
Accrued liabilities	(1)
Deferred income taxes	(41)
Total fair value of net assets acquired	$ 304

The acquisition cost allocation is preliminary pending final determination of the fair value of assets acquired and liabilities assumed, primarily relating to the final valuation of intangible assets and deferred taxes. As a result of this preliminary valuation of the assets and liabilities, reallocations were made in certain inventory, property, plant and equipment, intangible asset, goodwill and deferred tax balances during the fourth quarter of 2020. Intangible assets acquired included in this preliminary allocation consist primarily of trademarks, trade secrets and customer relationships, which are predominantly being amortized over a period of 20 years. For purposes of this preliminary allocation of fair value, we have assigned any excess of the acquisition cost over the estimated preliminary fair value to goodwill. The estimated goodwill recognized is attributable primarily to projected future profitable growth in our Advanced Materials specialty portfolio and synergies. We expect that none of the estimated goodwill arising from the acquisition will be deductible for income tax purposes. It is possible that material changes to this preliminary allocation of acquisition cost could occur.

The acquired business had revenues and net loss of $43 million and $6 million, respectively, for the period from the date of acquisition to December 31, 2020.

Acquisition of Icynene-Lapolla

On February 20, 2020, we completed the Icynene-Lapolla Acquisition. We acquired the business from an affiliate of FFL Partners, LLC for $353 million in an all-cash transaction funded from available liquidity. The acquired business was integrated into our Polyurethanes segment. Transaction costs related to this acquisition were approximately $14 million for the year ended December 31, 2020, and were recorded in other operating (income) expense, net in our consolidated statements of operations.

We have accounted for the Icynene-Lapolla Acquisition using the acquisition method. As such, we analyzed the fair value of tangible and intangible assets acquired and liabilities assumed. The preliminary allocation of acquisition cost to the assets acquired and liabilities assumed is summarized as follows (dollars in millions):

Fair value of assets acquired and liabilities assumed:	
Cash paid for the Icynene-Lapolla Acquisition	$ 353
Cash	$ 7
Accounts receivable	36
Inventories	32
Prepaid expenses and other current assets	1
Property, plant and equipment	7
Intangible assets	165
Goodwill	139
Other noncurrent assets	3
Accounts payable	(13)
Accrued liabilities	(10)
Deferred income taxes	(14)
Total fair value of net assets acquired	$ 353

The acquisition cost allocation is preliminary pending final determination of the fair value of assets acquired and liabilities assumed, including final valuation of certain liabilities, property, plant and equipment, intangible assets, leases and deferred taxes. Intangible assets acquired included in this preliminary allocation consist primarily of trademarks, trade secrets and customer relationships. The applicable amortization periods are still being assessed. For purposes of this preliminary allocation of fair value, we have assigned any excess of the acquisition cost over the estimated preliminary fair value to goodwill. The estimated goodwill recognized is attributable primarily to projected future profitable growth, penetration into downstream markets and synergies. We expect that none of the estimated goodwill arising from the acquisition will be deductible for income tax purposes. It is possible that material changes to this preliminary allocation of acquisition cost could occur.

The acquired business had revenues and net income of $199 million and $12 million, respectively, for the period from the date of acquisition to December 31, 2020.

Pro Forma Information for Acquisitions Occurring in 2020

If the CVC Thermoset Specialties Acquisition and the Icynene-Lapolla Acquisition were to have occurred on January 1, 2019, the following estimated pro forma revenues, net income and net income attributable to Huntsman Corporation and Huntsman International would have been reported (dollars in millions):

	Pro Forma (Unaudited) Year ended December 31,	
	2020	2019
Revenues	$ 6,080	$ 7,140
Net income	1,063	616
Net income attributable to Huntsman Corporation	1,031	580

	Pro Forma (Unaudited) Year ended December 31,	
	2020	2019
Revenues	$ 6,080	$ 7,140
Net income	1,064	605
Net income attributable to Huntsman International	1,032	569

Acquisition of Remaining Interest in Sasol-Huntsman Joint Venture

On September 30, 2019, we acquired from Sasol, our former joint venture partner, the 50% noncontrolling interest that we did not own in the Sasol-Huntsman maleic anhydride joint venture. We paid Sasol $101 million, which included acquired cash, net of any debt. The purchase price was funded from the 2019 Term Loan. See ï Note 15. Debt ï Direct and Subsidiary Debt ï Term Loan Credit Facility. ï In connection with this acquisition, we recorded an adjustment to additional paid-in c net of tax, of $11 million. Prior to acquiring the 50% noncontrolling interest that we did not own, we accounted for Sasol-Huntsman as a variable interest entity. See ï Note 8. Variable Interest Entities. ï

The effects of changes in our ownership interest in Sasol-Huntsman on the equity attributable to Huntsman Corporation and Huntsman International are as follows (dollars in millions):

	Year ended December 31,	
	2019	2018
Net income attributable to Huntsman Corporation shareholders	$ 562	$ 337
Decrease in Huntsman Corporation ï s paid-in capital for purchase of 50% interest in Sasol-Huntsman	(11)	ï
Net transfers to noncontrolling interest	(11)	ï
Change from net income attributable to Huntsman Corporation shareholders and transfers to noncontrolling interest	$ 551	$ 337

	Year ended December 31,	
	2019	2018
Net income attributable to Huntsman International shareholders	$ 551	$ 323
Decrease in Huntsman International ï s paid-in capital for purchase of 50% interest in Sasol-Huntsman	(11)	ï
Net transfers to noncontrolling interest	(11)	ï
Change from net income attributable to Huntsman International shareholders and transfers to noncontrolling interest	$ 540	$ 323

Acquisition of Demilec

On April 23, 2018, we acquired 100% of the outstanding equity interests of Demilec (USA) Inc. and Demilec Inc. (collectively, "Demilec") for approximately $353 million, including working capital adjustments, in an all-cash transaction ("Demilec Acquisition"), which was funded from our Prior Credit Facility and our U.S. A/R Program. Demilec is a leading North American manufacturer and distributor of spray polyurethane foam formulations for residential and commercial applications. The acquired business was integrated into our Polyurethanes segment. Transaction costs charged to expense related to this acquisition were approximately $5 million in 2018 and were recorded in other operating (income) expense, net in our consolidated statements of operations. The Demilec Acquisition was aligned with our stated strategy to grow our downstream polyurethanes business and leverage our global platform to expand Demilec ï s portfolio of spray polyurethane foam formulations into international markets.

We have accounted for the Demilec Acquisition using the acquisition method. As such, we determined the fair value of tangible and intangible assets acquired and liabilities assumed. The allocation of acquisition cost to the assets acquired and liabilities assumed is summarized as follows (dollars in millions):

Fair value of assets acquired and liabilities assumed:	
Cash paid for the Demilec Acquisition	$ 353
Cash	$ 1
Accounts receivable	31
Inventories	23
Prepaid expenses and other current assets	1
Property, plant and equipment	21
Intangible assets	177
Goodwill	140
Accounts payable	(16)
Accrued liabilities	(3)
Deferred income taxes	(22)
Total fair value of net assets acquired	$ 353

Intangible assets acquired consist primarily of trademarks, trade secrets and customer relationships, all of which are being amortized over 15 years. We have assigned any excess of the acquisition cost of the fair values to goodwill. During the third quarter of 2018, we received $4 million related to the settlement of certain purchase price adjustments. The goodwill recognized is attributable primarily to projected future profitable growth, penetration into downstream markets and synergies.

The acquired business had revenues and net income of $142 million and $5 million, respectively, for the period from the date of acquisition to December 31, 2018.

If this acquisition were to have occurred on January 1, 2018, the following estimated pro forma revenues, net income, net income attributable to Huntsman Corporation and Huntsman International and income per share for Huntsman Corporation would have been reported (dollars in millions):

	Pro Forma (Unaudited) Year ended December 31, 2018
Revenues	$ 7,662
Net income	639
Net income attributable to Huntsman Corporation	326

	Pro Forma (Unaudited) Year ended December 31, 2018
Revenues	$ 7,662
Net income	625
Net income attributable to Huntsman International	312

4. DISCONTINUED OPERATIONS AND BUSINESS DISPOSITIONS

Sale of Chemical Intermediates Businesses

On January 3, 2020, we completed the sale of our Chemical Intermediates Businesses to Indorama in a transaction valued at approximately $2 billion, comprised of a cash purchase price of approximately $1.92 billion and the transfer of approximately $72 million in net underfunded pension and other post-employment benefit liabilities. In connection with this sale, we received proceeds of approximately $1.92 billion and recognized a net after-tax gain of $748 million in 2020. Additionally, in connection with this sale, we entered into long-term supply agreements with Indorama for certain raw materials at market prices supplied by our former Chemical Intermediates Businesses. In connection with this sale, we recognized approximately $19 million of income as a result of a liquidation of LIFO inventory.

During the year ended December 31, 2020, we paid $231 million of income taxes with respect to the gain on the sale of our Chemical Intermediates Businesses. With the sale of approximately 42.4 million ordinary shares we held in Venator to SK Capital Partners, LP completed on December 23, 2020, we offset the capital loss on the sale of the Venator shares against the capital gain realized on the sale of our Chemical Intermediates Businesses. For more information on the sale of ordinary shares we hold in Venator to SK Capital Partners, LP, see ĭ Note 1. Recent Developments ĭ Sale of Venator Interest. ĭ

The following table reconciles the carrying amounts of major classes of assets and liabilities of discontinued operations to total assets and liabilities of discontinued operations that were classified as held for sale in our consolidated balance sheets (dollars in millions):

	December 31, 2019
Carrying amounts of major classes of assets held for sale:	
Accounts receivable	$ 145
Inventories	105
Property, plant and equipment, net	720
Operating lease right-of-use assets	69
Deferred income taxes	4
Other noncurrent assets	165
Total assets held for sale(1)	$ 1,208
Carrying amounts of major classes of liabilities held for sale:	
Accounts payable	$ 152
Accrued liabilities	26
Current operating lease liabilities	20
Deferred income taxes	135
Noncurrent operating lease liabilities	51
Other noncurrent liabilities	128
Total liabilities held for sale(1)	$ 512

(1) The assets and liabilities held for sale are classified as current as of December 31, 2019 because the sale of our Chemical Intermediates Businesses was completed on January 3, 2020.

The following table reconciles major line items constituting pretax income of discontinued operations to after-tax income (loss) of discontinued operations as presented in our consolidated statements of operations (dollars in millions):

	Year ended December 31,		
	2020	2019	2018
Major line items constituting pretax income of discontinued operations(1):			
Trade sales, services and fees, net(2)	$ 7	$ 1,545	$ 3,923
Cost of goods sold(2)	(37)	1,287	2,847
Gain on sale of the Chemical Intermediates Businesses	978	ĭ	ĭ
Other expense items, net that are not major	5	54	332
Income from discontinued operations before income taxes	1,017	204	744
Income tax expense	(242)	(35)	(86)
Loss on disposal	ĭ	ĭ	(427)
Valuation allowance	ĭ	ĭ	(270)
Income (loss) from discontinued operations, net of tax	775	169	(39)
Net income attributable to noncontrolling interests	ĭ	ĭ	(6)
Net income (loss) attributable to discontinued operations	$ 775	$ 169	$ (45)

(1) Discontinued operations primarily include our Chemical Intermediates Businesses for all periods presented. We began accounting for our investment in Venator as an equity method investment on December 3, 2018. Therefore, the summarized financial data only includes the results of Venator applicable to the period from January 1, 2017 through December 2, 2018.

(2) Includes eliminations of trade sales, services and fees, net and cost of sales between continuing operations and discontinued operations.

Separation and Deconsolidation of Venator

In August 2017, we separated our Titanium Dioxide and Performance Additives business and conducted an initial public offering of ordinary shares of Venator. Beginning in December 2018, following a series of public offerings and sales of Venator ordinary shares, our ownership in Venator decreased to approximately 49%, and we began accounting for our remaining interest in Venator as an equity method investment using the fair value option. On December 23, 2020, we completed the sale of approximately 42.4 million ordinary shares of Venator and received approximately $99 million in cash. See ï Note 1. General ï Recent Developments ï Sale of Venator Interest. ï Subsequent to this sale of ordinary shares of Venator, we no longer account for our current remaining ownership interest in Venator as an equity method investment, but rather as an investment in equity securities that are marked to fair value with changes in fair value reported in earnings. For the years ended December, 2020, 2019 and 2018, we recorded a loss of $55 million, $19 million and $62 million, respectively. The loss of $88 million for the year ended December 31, 2020 primarily includes the marked to fair value adjustment of $43 million for the Venator ordinary shares we hold, a loss of $12 million related to the sale of approximately 42.4 million Venator ordinary shares and a loss of $31 million on the write off of a receivable related to certain income tax benefits that were reduced upon the completion of the sale of Venator shares to SK Capital Partners, LP. These gains and losses were recorded in ï Fair value adjustments to Venator investment and related loss on disposal ï on our consolidated statements of operations.

Sale of India-Based Do-It-Yourself Consumer Adhesives Business

On November 3, 2020, we completed the sale of the India-based DIY business, previously part of our Advanced Materials segment, to Pidilite Industries Ltd. and received cash of approximately $257 million. Under the terms of the agreement, we may receive up to approximately $28 million of additional cash under an earnout within 18 months if the business achieves certain sales revenue targets in line with the DIY business' 2019 performance. In connection with this sale, we recognized a pretax gain of $247 million in the fourth quarter of 2020, which was recorded in gain on sale of India-based DIY business in our consolidated statements of operations.

5. INVENTORIES

Inventories consisted of the following (dollars in millions):

	December 31,	
	2020	2019
Raw materials and supplies	$ 180	$ 175
Work in progress	44	49
Finished goods	651	718
Total	875	942
LIFO reserves	(27)	(28)
Net inventories	$ 848	$ 914

For December 31, 2020 and 2019, approximately 7% and 9% of inventories were recorded using the LIFO cost method, respectively.

6. PROPERTY, PLANT AND EQUIPMENT

The cost and accumulated depreciation of property, plant and equipment were as follows (dollars in millions):

Huntsman Corporation

	December 31,	
	2020	2019
Land	$ 97	$ 103
Buildings	540	605
Plant and equipment	5,039	4,695
Construction in progress	357	285
Total	6,033	5,688
Less accumulated depreciation	(3,528)	(3,305)
Net	$ 2,505	$ 2,383

Depreciation expense for Huntsman Corporation for 2020, 2019 and 2018 was $242 million, $245 million and $239 million, respectively.

Huntsman International

	December 31,	
	2020	2019
Land	$ 97	$ 103
Buildings	540	605
Plant and equipment	5,127	4,749
Construction in progress	357	285
Total	6,121	5,742
Less accumulated depreciation	(3,616)	(3,359)
Net	$ 2,505	$ 2,383

Depreciation expense for Huntsman International for 2020, 2019 and 2018 was $242 million, $245 million and $236 million, respectively.

7. INVESTMENT IN UNCONSOLIDATED AFFILIATES

Our ownership percentage and investment in unconsolidated affiliates were as follows (dollars in millions):

	December 31,	
	2020	2019
Equity Method:		
Venator Materials PLC(1)	$ ĭ	$ 200
BASF Huntsman Shanghai Isocyanate Investment BV (50%)(2)	111	112
Nanjing Jinling Huntsman New Material Co., Ltd. (49%)	229	196
Jurong Ningwu New Material Development Co., Ltd. (30%)	33	27
Total investments	$ 373	$ 535

(1) On December 23, 2020, we completed the sale of approximately 42.4 million ordinary shares of Venator, and we no longer account for our current remaining ownership interest in Venator as an equity method investment, but rather as an investment in equity securities that are marked to fair value with changes in fair value reported in earnings. As of December 31, 2020, our investment in Venator was $32 million and was included in other noncurrent assets on our consolidated balance sheets.

(2) We own 50% of BASF Huntsman Shanghai Isocyanate Investment BV. BASF Huntsman Shanghai Isocyanate Investment BV owns a 70% interest in SLIC, thus giving us an indirect 35% interest in SLIC.

SUMMARIZED FINANCIAL INFORMATION OF UNCONSOLIDATED AFFILIATES

Summarized financial information of our unconsolidated affiliates as of December 31, 2020 and 2019 and for the years ended December 31, 2020, 2019 and 2018 is as follows (dollars in millions):

	December 31,	
	2020	2019
Current assets	$ 1,544	$ 1,439
Non-current assets	2,317	2,436
Current liabilities	574	688
Non-current liabilities	1,804	1,614
Noncontrolling interests	6	7

	Year ended December 31,		
	2020	2019	2018(1)
Revenues	$ 3,544	$ 4,025	$ 2,181
Gross profit	338	454	221
(Loss) income from continuing operations	(2)	99	124
Net (loss) income	(2)	99	124

(1) We began accounting for our investment in Venator as an equity method investment on December 3, 2018 and then as an investment in equity securities on December 23, 2020 and thereafter. Therefore, the summarized financial data only includes information for Venator for the years ended December 31, 2020 and 2019 and the period from December 3, 2018 through December 31, 2018.

8. VARIABLE INTEREST ENTITIES

We evaluate our investments and transactions to identify variable interest entities for which we are the primary beneficiary. We hold a variable interest in the following joint ventures for which we are the primary beneficiary:

- Rubicon LLC is our 50%-owned joint venture with Lanxess that manufactures products for our Polyurethanes and Performance Products segments. The structure of the joint venture is such that the total equity investment at risk is not sufficient to permit the joint venture to finance its activities without additional financial support. By virtue of the operating agreement with this joint venture, we purchase a majority of the output, absorb a majority of the operating costs and provide a majority of the additional funding.

- AAC is our 50%-owned joint venture with Zamil group that manufactures products for our Performance Products segment. As required in the operating agreement governing this joint venture, we purchase all of AAC ĭ s production and sell it to our customers. Substantially all of the joint venture ĭ s activi are conducted on our behalf.

Sasol-Huntsman was our 50%-owned joint venture with Sasol that owned and operated a maleic anhydride facility in Moers, Germany. On September 30, 2019, we acquired the 50% noncontrolling interest that we did not own in the Sasol-Huntsman. As such, as of September 30, 2019, Sasol-Huntsman became our wholly-owned subsidiary and was no longer accounted for as a variable interest entity.

During the year ended December 31, 2020, there were no changes in our variable interest entities.

Creditors of our variable interest entities have no recourse to our general credit. See ĭ Note 15. Debt ĭ Direct and Subsidiary Debt. ĭ As the primary benefi of these variable interest entities at December 31, 2020, the joint ventures ĭ assets, liabilities and results of operations are included in our consolidated financial statements.

The following table summarizes the carrying amount of our variable interest entities ĭ assets and liabilities included in our consolidated balance sheets as of December 31, 2020 and 2019 (dollars in millions):

	December 31,	
	2020	2019
Current assets	$ 49	$ 50
Property, plant and equipment, net	167	180
Operating lease right-of-use assets	22	16
Other noncurrent assets	138	132
Deferred income taxes	30	30
Total assets	$ 406	$ 408
Current liabilities	$ 183	$ 151
Long-term debt	3	29
Noncurrent operating lease liabilities	17	11
Other noncurrent liabilities	82	87
Deferred income taxes	1	ĭ
Total liabilities	$ 286	$ 278

The revenues, income from continuing operations before income taxes and net cash provided by operating activities for our variable interest entities are as follows (dollars in millions):

	Year ended December 31,		
	2020	2019(1)	2018
Revenues	$ ĭ	$ 95	$ 154
Income from continuing operations before income taxes	4	17	40
Net cash provided by operating activities	10	81	65

(1) As of September 30, 2019, Sasol-Huntsman was no longer accounted for as a variable interest entity. Therefore, this financial data only includes information for Sasol-Huntsman applicable to the period from January 1, 2019 through September 30, 2019.

9. LEASES

We primarily lease manufacturing and research facilities, administrative offices, land, tanks, railcars and equipment. Leases with an initial term of 12 months or less are not recognized on the balance sheets; we recognize lease expense for these leases on a straight-line basis over the lease term. Our variable lease cost was approximately nil for each of the years ended December 31, 2020 and 2019, respectively. Our leases have remaining lives from one month to 37 years. Certain lease agreements include one or more options to renew, at our discretion, with renewal terms that can extend the lease term by approximately one year to 30 years or more. Renewal and termination options that we are reasonably certain to exercise have been included in the calculation of the lease right-of-use assets and lease liabilities. None of our lease agreements contain material residual value guarantees or material restrictions or covenants.

The components of operating lease expense, cash flows and supplemental noncash information from continuing operations are as follows (dollars in millions):

	Years Ended December 31,	
	2020	2019
Operating lease expense:		
Cost of goods sold	$ 34	$ 35
Selling, general and administrative	26	15
Research and development	6	6
Total operating lease expense[1][2]	$ 66	$ 56
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 74	$ 53
Supplemental noncash information:		
Leased assets obtained in exchange for new operating lease liabilities	$ 91	$ 416

(1) Total operating lease expense includes short-term lease expense of approximately $3 million and $1 million for the years ended December 31, 2020 and 2019, respectively.
(2) Total operating lease expense for the year ended December 31, 2018 was $55 million.

The weighted-average lease term and discount rate for our operating leases from continuing operations are as follows:

	Years Ended December 31,	
	2020	2019
Weighted-average remaining lease term (in years)	11	11
Weighted-average discount rate	4.0%	4.1%

The undiscounted future cash flows of operating lease liabilities from continuing operations as of December 31, 2020 are as follows (dollars in millions):

Year ending December 31,	
2021	$ 68
2022	62
2023	58
2024	55
2025	51
Thereafter	276
Total lease payments	570
Less imputed interest	(107)
Total	$ 463

As of December 31, 2020, we have additional leases, primarily for leases of office and manufacturing facilities and rail cars, that have not yet commenced of approximately $9 million. These leases will commence in 2021 with lease terms of up to seven years.

During November 2020, we entered into a sale and leaseback agreement to sell certain properties in Basel, Switzerland for approximately CHF 67 million (approximately $73 million) and to lease those properties back for five years. This transaction resulted in a gain of approximately CHF 30 million (approximately $33 million).

10. INTANGIBLE ASSETS

The gross carrying amount and accumulated amortization of intangible assets were as follows (dollars in millions):

Huntsman Corporation

	December 31, 2020			December 31, 2019		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Patents, trademarks and technology	$ 316	$ 237	$ 79	$ 314	$ 230	$ 84
Licenses and other agreements	140	61	79	140	48	92
Non-compete agreements	3	2	1	3	2	1
Other intangibles(1)	349	55	294	61	41	20
Total	$ 808	$ 355	$ 453	$ 518	$ 321	$ 197

Amortization expense was $33 million, $16 million and $6 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Huntsman International

	December 31, 2020			December 31, 2019		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Patents, trademarks and technology	$ 316	$ 237	$ 79	$ 314	$ 230	$ 84
Licenses and other agreements	140	61	79	140	48	92
Non-compete agreements	3	2	1	3	2	1
Other intangibles(1)	357	63	294	70	50	20
Total	$ 816	$ 363	$ 453	$ 527	$ 330	$ 197

Amortization expense was $33 million, $16 million and $6 million for the years ended December 31, 2020, 2019 and 2018, respectively.

(1) Includes provisional intangible asset fair values related to the CVC Thermoset Specialties Acquisition and the Icynene-Lapolla Acquisition. For more information, see ĭ Note 3. Business Combinations and Acquisitions."

Our and Huntsman International ĭ s estimated future amortization expense for intangible assets over the next five years is as follows (dollars in millions):

Year ending December 31,	
2021	$ 30
2022	34
2023	34
2024	34
2025	34

11. OTHER NONCURRENT ASSETS

Other noncurrent assets consisted of the following (dollars in millions):

	December 31,	
	2020	2019
Capitalized turnaround costs, net	$ 250	$ 223
Investment in Venator	32	ĭ
Catalyst assets, net	27	24
Other	239	205
Total	$ 548	$ 452

Amortization expense of catalyst assets for the years ended December 31, 2020, 2019 and 2018 was $8 million, $9 million and $10 million, respectively.

12. ACCRUED LIABILITIES

Accrued liabilities consisted of the following (dollars in millions):

Huntsman Corporation

	December 31,	
	2020	2019
Payroll and related accruals	$ 97	$ 100
Income taxes	73	59
Taxes other than income taxes	56	64
Volume and rebate accruals	55	53
Other miscellaneous accruals	177	144
Total	$ 458	$ 420

Huntsman International

	December 31,	
	2020	2019
Payroll and related accruals	$ 97	$ 100
Income taxes	73	59
Taxes other than income taxes	56	64
Volume and rebate accruals	55	53
Other miscellaneous accruals	174	141
Total	$ 455	$ 417

13. RESTRUCTURING, IMPAIRMENT AND PLANT CLOSING COSTS (CREDITS)

As of December 31, 2020, 2019 and 2018, accrued restructuring costs by type of cost and initiative consisted of the following (dollars in millions):

	Workforce reductions	Demolition and decommissioning	Non-cancelable lease and contract termination costs	Other restructuring costs	Total
Accrued liabilities as of January 1, 2018	$ 5	$ 2	$ 41	$ 5	$ 53
2018 charges for 2017 and prior initiatives	ĭ	ĭ	2	ĭ	2
2018 charges for 2018 initiatives	5	ĭ	ĭ	10	15
2018 payments for 2017 and prior initiatives	(2)	(1)	(2)	ĭ	(5)
2018 payments for 2018 initiatives	(1)	ĭ	ĭ	(5)	(6)
Reversal of reserves no longer required	(2)	ĭ	(29)	ĭ	(31)
Accrued liabilities as of December 31, 2018	5	1	12	10	28
2019 (credits) charges for 2018 and prior initiatives	2	(1)	2	3	6
2019 charges for 2019 initiatives	7	ĭ	ĭ	1	8
2019 payments for 2018 and prior initiatives	(4)	ĭ	(7)	(9)	(20)
2019 payments for 2019 initiatives	ĭ	ĭ	ĭ	(1)	(1)
Reversal of reserves no longer required	(2)	ĭ	ĭ	(2)	(4)
Accrued liabilities as of December 31, 2019	8	ĭ	7	2	17
2020 charges for 2019 and prior initiatives	ĭ	ĭ	2	3	5
2020 charges for 2020 initiatives	35	ĭ	ĭ	3	38
2020 payments for 2019 and prior initiatives	(5)	ĭ	(7)	(4)	(16)
2020 payments for 2020 initiatives	(10)	ĭ	ĭ	(3)	(13)
Reversal of reserves no longer required	ĭ	ĭ	ĭ	(1)	(1)
Foreign currency effect on liability balance	1	ĭ	ĭ	ĭ	1
Accrued liabilities as of December 31, 2020	$ 29	$ ĭ	$ 2	$ ĭ	$ 31

Details with respect to our reserves for restructuring, impairment and plant closing costs are provided below by segment and initiative (dollars in millions):

	Polyurethanes	Performance Products	Advanced Materials	Textile Effects	Corporate and other	Total
Accrued liabilities as of January 1, 2018	$ 1	$ 1	$ 3	$ 47	$ 1	$ 53
2018 charges (credits) for 2017 and prior initiatives	ĭ	1	ĭ	(4)	5	2
2018 charges for 2018 initiatives	ĭ	2	3	ĭ	10	15
2018 payments for 2017 and prior initiatives	(1)	(1)	ĭ	ĭ	(3)	(5)
2018 payments for 2018 initiatives	ĭ	(1)	ĭ	ĭ	(5)	(6)
Reversal of reserves no longer required	ĭ	(1)	ĭ	(29)	(1)	(31)
Accrued liabilities as of December 31, 2018	ĭ	1	6	14	7	28
2019 charges for 2018 and prior initiatives	ĭ	ĭ	ĭ	2	4	6
2019 charges for 2019 initiatives	ĭ	ĭ	7	ĭ	1	8
2019 payments for 2018 and prior initiatives	ĭ	(1)	(2)	(9)	(8)	(20)
2019 payments for 2019 initiatives	ĭ	ĭ	(1)	ĭ	ĭ	(1)
Reversal of reserves no longer required	ĭ	ĭ	ĭ	(4)	ĭ	(4)
Accrued liabilities as of December 31, 2019	ĭ	ĭ	10	3	4	17
2020 charges (credits) for 2019 and prior initiatives	ĭ	1	(1)	1	4	5
2020 charges for 2020 initiatives	16	4	9	7	2	38
2020 payments for 2019 and prior initiatives	(1)	ĭ	(5)	(2)	(8)	(16)
2020 payments for 2020 initiatives	(3)	(3)	(3)	(2)	(2)	(13)
Reversal of reserves no longer required	ĭ	ĭ	(1)	ĭ	ĭ	(1)
Foreign currency effect on liability balance	ĭ	ĭ	ĭ	1	ĭ	1
Accrued liabilities as of December 31, 2020	$ 12	$ 2	$ 9	$ 8	$ ĭ	$ 31
Current portion of restructuring reserves	$ 12	$ 2	$ 6	$ 6	$ ĭ	$ 26
Long-term portion of restructuring reserves	ĭ	ĭ	3	2	ĭ	5

Details with respect to cash and noncash restructuring charges for the years ended December 31, 2020, 2019 and 2018 by initiative are provided below (dollars in millions):

Cash charges:	
2020 charges for 2019 and prior initiatives	$ 5
2020 charges for 2020 initiatives	38
Reversal of reserves no longer required	(1)
Noncash charges:	
Accelerated depreciation	7
Total 2020 restructuring, impairment and plant closing costs	$ 49

Cash charges:	
2019 charges for 2018 and prior initiatives	$ 6
2019 charges for 2019 initiatives	8
Reversal of reserves no longer required	(4)
Noncash charges:	
Gain on sale of assets	(49)
Other noncash credits	(2)
Total 2019 restructuring, impairment and plant closing costs	$ (41)

Cash charges:	
2018 charges for 2017 and prior initiatives	$ 2
2018 charges for 2018 initiatives	15
Noncash charges:	
Reversal of reserves no longer required	(31)
Other noncash charges	7
Total 2018 restructuring, impairment and plant closing costs	$ (7)

2020 Restructuring Activities

Beginning in the second quarter of 2020, our Polyurethanes segment implemented a restructuring program to reorganize its spray polyurethane foam business to better position this business for efficiencies and growth in coming years. In connection with this restructuring program, we recorded restructuring expense of approximately $9 million for the year ended December 31, 2020, primarily related to workforce reductions and accelerated depreciation recorded as restructuring, impairment and plant closing costs. We expect to record additional restructuring expenses of approximately $4 million through 2021.

Beginning in the third quarter of 2020, our Polyurethanes segment implemented a restructuring program to optimize its downstream footprint. In connection with this restructuring program, we recorded restructuring expense of approximately $12 million for the year ended December 31, 2020, and we expect to record further restructuring expenses of between approximately $15 million and $20 million through 2021.

Beginning in the second quarter of 2020, our Performance Products segment implemented a restructuring program, primarily related to workforce reductions, in response to the sale of our Chemical Intermediates Businesses to Indorama. In connection with this restructuring program, we recorded restructuring expense of approximately $4 million for the year ended December 21, 2020.

Beginning in the second quarter of 2020, our Advanced Materials segment implemented restructuring programs, primarily related to workforce reductions and accelerated depreciation in connection with the CVC Thermoset Specialties Acquisition, the alignment of the segment ĭ s commercial organization and optimization of the segment ĭ s manufacturing processes. In connection with these restructuring programs, we recorded restructuring expense of approximately $10 million for the year ended December 31, 2020.

During 2020, our Textile Effects segment implemented restructuring programs to rationalize and realign structurally across various functions and certain locations within the segment. In connection with these restructuring programs, we recorded restructuring expense of approximately $7 million for the year ended December 31, 2020 related primarily to workforce reductions.

2019 Restructuring Activities

In September 2011, we initiated a restructuring program in our Textile Effects segment to close its production facilities and business support offices in Basel, Switzerland. In July 2019, we sold the production and business support offices in Basel. Accordingly, during the third quarter of 2019, we received proceeds of $49 million related to this sale and recognized a corresponding gain on disposal of assets of $49 million. This gain was recorded as a credit to restructuring, impairment and plant closing costs during the third quarter of 2019.

2018 Restructuring Activities

In 2011, we implemented a significant restructuring of our Textile Effects segment (the ĭ Textile Effects Restructuring Plan ĭ), including the closure of our production facilities and business support offices in Basel, Switzerland. In connection with this plan, we recorded restructuring reserves covering, among other things, a non-cancelable long-term service agreement. In the fourth quarter of 2018, we settled this agreement in exchange for the payment of $10 million, $8 million of which was paid in 2019 and $2 million will be paid in 2023. In connection with this settlement, we reversed the related restructuring reserve and recorded a net credit of $29 million in the fourth quarter of 2018. In addition, during 2018, we recorded a credit of $4 million primarily related to a gain on the sale of land at the Basel, Switzerland site.

Our Corporate and other segment recorded restructuring expense of $15 million in 2018 related to corporate initiatives.

14. OTHER NONCURRENT LIABILITIES

Other noncurrent liabilities consisted of the following (dollars in millions):

Huntsman Corporation

	December 31,	
	2020	**2019**
Pension liabilities	$ 680	$ 650
Other postretirement benefits	59	55
Employee benefit accrual	44	38
Other	127	155
Total	$ 910	$ 898

Huntsman International

	December 31,	
	2020	**2019**
Pension liabilities	$ 680	$ 650
Other postretirement benefits	59	55
Employee benefit accrual	44	38
Other	117	147
Total	$ 900	$ 890

15. DEBT

Outstanding debt, net of debt issuance costs, of consolidated entities consisted of the following (dollars in millions):

Huntsman Corporation

	December 31, 2020	December 31, 2019
Senior Credit Facilities:		
Revolving facility	$ ĭ	$ 40
Amounts outstanding under A/R programs	ĭ	167
Term loan	ĭ	103
Senior notes	2,047	1,963
Variable interest entities	50	65
Other	24	51
Total debt	$ 2,121	$ 2,389
Total current portion of debt	$ 593	$ 212
Long-term portion of debt	1,528	2,177
Total debt	$ 2,121	$ 2,389

Huntsman International

	December 31, 2020	December 31, 2019
Senior Credit Facilities:		
Revolving facility	$ ĭ	$ 40
Amounts outstanding under A/R programs	ĭ	167
Term loan	ĭ	103
Senior notes	2,047	1,963
Variable interest entities	50	65
Other	24	51
Total debt, excluding debt to affiliates	$ 2,121	$ 2,389
Total current portion of debt	$ 593	$ 212
Long-term portion of debt	1,528	2,177
Total debt, excluding debt to affiliates	$ 2,121	$ 2,389
Notes payable to affiliates-current	ĭ	100
Notes payable to affiliates-noncurrent	ĭ	280
Total debt	$ 2,121	$ 2,769

DIRECT AND SUBSIDIARY DEBT

Substantially all of our debt, including the facilities described below, has been incurred by our subsidiaries (primarily Huntsman International); Huntsman Corporation is not a guarantor of such subsidiary debt.

Certain of our subsidiaries have third-party debt agreements. These debt agreements contain certain restrictions with regard to dividends, distributions, loans or advances. In certain circumstances, the consent of a third party would be required prior to the transfer of any cash or assets from these subsidiaries to us.

Debt Issuance Costs

We record debt issuance costs related to a debt liability on the balance sheets as a reduction in the face amount of that debt liability. As of December 31, 2020 and 2019, the amount of debt issuance costs directly reducing the debt liability was $9 million and $11 million, respectively. We record the amortization of debt issuance costs as interest expense.

Revolving Credit Facility

On May 21, 2018, Huntsman International entered into the Revolving Credit Facility. Borrowings under the Revolving Credit Facility will bear interest at the rates specified in the credit agreement governing the Revolving Credit Facility, which will vary based on the type of loan and Huntsman International ĭ s debt ratings. Unless earlier terminated, the Revolving Credit Facility will mature in May 2023. Huntsman International may increase the Revolving Credit Facility commitments up to an additional $500 million, subject to the satisfaction of certain conditions.

In connection with entering into the Revolving Credit Facility, Huntsman International terminated all commitments and repaid all obligations under our previous $650 million senior secured revolving credit facility. In addition, we recognized a loss of early extinguishment of debt of $3 million. As of December 31, 2020, our Revolving Credit Facility was as follows (dollars in millions):

Facility	Committed Amount	Principal Outstanding	Unamortized Discounts and Debt Issuance Costs	Carrying Value	Interest Rate(2)	Maturity
Revolving Credit Facility	$ 1,200	$ ĭ (1)	$ ĭ (1)	$ ĭ (1)	USD LIBOR plus 1.50%	2023

(1) On December 31, 2020, we had an additional $6 million (U.S. dollar equivalents) of letters of credit and bank guarantees issued and outstanding under our Revolving Credit Facility.
(2) Interest rates on borrowings under the Revolving Credit Facility vary based on the type of loan and Huntsman International ĭ s debt ratings. The then applicable interest rate as of December 31, 2020 was 1.50% above LIBOR.

Term Loan Credit Facility

On September 24, 2019, Huntsman International entered into the 2019 Term Loan, pursuant to which Huntsman International borrowed an aggregate principal amount of ĭ 92 million (or $101 million equivalent). We used the net proceeds from the 2019 Term Loan to finance our acquisition of the 50% noncontrolling interest that we did not own in the Sasol-Huntsman maleic anhydride joint venture. On September 22, 2020 we repaid the 2019 Term Loan in full at maturity.

A/R Programs

Our A/R Programs are structured so that we transfer certain of our trade receivables to the U.S. special purpose entity (ĭ U.S. SPE ĭ) and the European specia purpose entity (ĭ EU SPE ĭ) in transactions intended to be true sales or true contributions. The receivables collateralize debt incurred by the U.S. SPE and the EU SPE.

In April 2019, we entered into amendments to the EU A/R Program (the ĭ European Amendment ĭ) and the U.S. A/R Program (the ĭ U.S. Amendment ĭ) European Amendment, among other things, extended the scheduled commitment termination date of the loan facility to April 2022, reduced the facility maximum funding availability from ĭ 150 million to ĭ 100 million and made certain other amendments. The U.S. Amendment, among other things, extended the scheduled commitment termination date of the loan facility to April 2022 and made certain other amendments.

In December 2019, we entered into amendments to the U.S. A/R Program and the EU A/R Program. The European amendment allowed the removal of pledged obligors related to the Chemical Intermediates Businesses sold to Indorama. The U.S. amendment allowed the removal of pledged obligors related to the Chemical Intermediates Businesses sold to Indorama as well as reduced the maximum funding capacity from $250 million to $150 million upon completion of the sale on January 3, 2020.

In October 2020, we entered into an amendment to the U.S. A/R Program to account for certain internal reorganization activities related to CVC Thermoset Specialties Acquisition.

Information regarding our A/R Programs as of December 31, 2020 was as follows (monetary amounts in millions):

Facility	Maturity	Maximum Funding Availability(1)	Amount Outstanding	Interest Rate(2)
U.S. A/R Program	April 2022	$ 150	$ ĭ (3)	Applicable rate plus 0.90%
EU A/R Program	April 2022	ĭ 100	ĭ ĭ	Applicable rate plus 1.30%
		(or approximately $123)	(or approximately $0)	

(1) The amount of actual availability under our A/R Programs may be lower based on the level of eligible receivables sold, changes in the credit ratings of our customers, customer concentration levels and certain characteristics of the accounts receivable being transferred, as defined in the applicable agreements.
(2) The applicable rate for our U.S. A/R Program is defined by the lender as USD LIBOR. The applicable rate for our EU A/R Program is either GBP LIBOR, USD LIBOR or EURIBOR.
(3) As of December 31, 2020, we had approximately $4 million (U.S. dollar equivalents) of letters of credit issued and outstanding under our U.S. A/R Program.

As of December 31, 2020 and December 31, 2019, $198 million and $221 million, respectively, of accounts receivable were pledged as collateral under our A/R Programs.

Notes

As of December 31, 2020, we had outstanding the following notes (monetary amounts in millions):

Notes	Maturity	Interest Rate	Amount Outstanding	Unamortized Premiums, Discounts and Debt Issuance Costs
2021 Senior Notes	April 2021	5.125%	ĭ 445 (ĭ 445 carrying value $(545))	$ ĭ
2022 Senior Notes	November 2022	5.125%	$400 ($399 carrying value)	1
2025 Senior Notes	April 2025	4.250%	ĭ 300 (ĭ 298 carrying value $(366))	2
2029 Senior Notes	February 2029	4.500%	$750 ($737 carrying value)	13

The 2021, 2022, 2025 and 2029 Senior Notes are general unsecured senior obligations of Huntsman International. The indentures impose certain limitations on the ability of Huntsman International and its subsidiaries to, among other things, incur additional indebtedness secured by any principal properties, incur indebtedness of nonguarantor subsidiaries, enter into sale and leaseback transactions with respect to any principal properties and consolidate or merge with or into any other person or lease, sell or transfer all or substantially all of its properties and assets. Upon the occurrence of certain change of control events, holders of the 2021, 2022, 2025 and 2029 Senior Notes will have the right to require that Huntsman International purchase all or a portion of such holder ĭ s notes in cash at a purchase price equal to 101% of the principal amount thereof plus accrued and unpaid interest to the date of repurchase.

On March 13, 2019, Huntsman International completed a $750 million offering of its 4.50% senior notes due 2029 (ĭ 2029 Senior Notes ĭ). On March 27, 2019, Huntsman International applied the net proceeds of the offering of the 2029 Senior Notes to redeem in full $650 million in aggregate principal amount of its 4.875% senior notes due 2020 (ĭ 2020 Senior Notes ĭ) and also paid associated costs and accrued interest of $21 million and $12 million, respectively. In addition, we recognized a los on early extinguishment of debt of $23 million.

The 2029 Senior Notes bear interest at 4.50% per year, payable semi-annually on May 1 and November 1, and will mature on May 1, 2029. Huntsman International may redeem the 2029 Senior Notes in whole or in part at any time prior to February 1, 2029 at a price equal to 100% of the principal amount thereof plus a ĭ make-whole ĭ premium and accrued and unpaid interest. Huntsman International may redeem the 2029 Senior Notes at any time, in whole or from time to time in part, or after February 1, 2029 at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest.

Redemption of the 2021 Senior Notes

On January 15, 2021, we redeemed in full ĭ 445 million (approximately $541 million) in aggregate principal amount of our 2021 Senior Notes at the redemption price equal to 100% of the principal amount of the notes, plus accrued and unpaid interest to, but not including, the redemption date.

Variable Interest Entity Debt

As of December 31, 2020, AAC, our consolidated 50%-owned joint venture, had $50 million outstanding under its loan commitments and debt financing arrangements. As of December 31, 2020, we have $47 million classified as current debt and $3 million as long-term debt on our consolidated balance sheets. We do not guarantee these loan commitments, and AAC is not a guarantor of any of our other debt obligations.

Note Payable from Huntsman International to Huntsman Corporation

During the first quarter of 2020, our loan of $380 million to our subsidiary Huntsman International was repaid to us in full.

Compliance With Covenants

Our Revolving Credit Facility contains a financial covenant regarding the leverage ratio of Huntsman International and its subsidiaries. The Revolving Credit Facility also contains other customary covenants and events of default for credit facilities of this type. Upon an event of default that is not cured or waived within any applicable cure periods, in addition to other remedies that may be available to the lenders, the obligations under the Revolving Credit Facility may be accelerated.

The agreements governing our A/R Programs also contain certain receivable performance metrics. Any material failure to meet the applicable A/R Programs ĭ metrics could lead to an early termination event under the A/R Programs, which could require us to cease our use of such facilities, prohibiting us from additional borrowings against our receivables or, at the discretion of the lenders, requiring that we repay the A/R Programs in full. An early termination event under the A/R Programs would also constitute an event of default under our Revolving Credit Facility, which could require us to pay off the balance of the Revolving Credit Facility in full and could result in the loss of our Revolving Credit Facility.

We believe that we are in compliance with the covenants governing our material debt instruments, including our Revolving Credit Facility, our A/R Programs and our notes.

Maturities

The scheduled maturities of our debt (excluding debt to affiliates) by year as of December 31, 2020 are as follows (dollars in millions):

Year ending December 31,		
2021	$	593
2022		403
2023		1
2024		2
2025		369
Thereafter		753
	$	2,121

16. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We are exposed to market risks, such as changes in interest rates, foreign exchange rates and commodity prices. From time to time, we enter into transactions, including transactions involving derivative instruments, to manage certain of these exposures. We also hedge our net investment in certain European operations. Changes in the fair value of the hedge in the net investment of certain European operations are recorded in accumulated other comprehensive loss.

Interest Rate Risks

Through our borrowing activities, we are exposed to interest rate risk. Such risk arises due to the structure of our debt portfolio, including the mix of fixed and floating interest rates. Actions taken to reduce interest rate risk include managing the mix and rate characteristics of various interest-bearing liabilities, as well as entering into interest rate derivative instruments.

From time to time, we may purchase interest rate swaps and/or other derivative instruments to reduce the impact of changes in interest rates on our floating-rate exposures. Under interest rate swaps, we agree with other parties to exchange, at specified intervals, the difference between fixed-rate and floating-rate interest amounts calculated by reference to an agreed notional principal amount. On January 9, 2019, we entered into a six-year $17 million notional value interest rate hedge with a fixed rate of 2.66%. This swap was designated as a cash flow hedge and the effective portion of the changes in the fair value of the swap was recorded in other comprehensive (loss) income. In November 2019, we terminated this swap and paid $1 million to our counterparties. This $1 million settlement will be amortized from accumulated other comprehensive loss to earnings.

During 2020, there were no other reclassifications from accumulated other comprehensive loss to earnings. The actual amount that will be reclassified to earnings over the next twelve months may vary from this amount due to changing market conditions. We would be exposed to credit losses in the event of nonperformance by a counterparty to our derivative financial instruments. We anticipate, however, that the counterparties will be able to fully satisfy their obligations under the contracts. Market risk arises from changes in interest rates.

Foreign Exchange Rate Risk

Our cash flows and earnings are subject to fluctuations due to exchange rate variation. Our revenues and expenses are denominated in various currencies. We enter into foreign currency derivative instruments to minimize the short-term impact of movements in foreign currency rates. Where practicable, we generally net multicurrency cash balances among our subsidiaries to help reduce exposure to foreign currency exchange rates. Certain other exposures may be managed from time to time through financial market transactions, principally through the purchase of spot or forward foreign exchange contracts (generally with maturities of three months or less). We do not hedge our currency exposures in a manner that would eliminate the effect of changes in exchange rates on our cash flows and earnings. As of December 31, 2020 and 2019, we had approximately $145 million and $135 million, respectively, notional amount (in U.S. dollar equivalents) outstanding in foreign currency contracts with a term of approximately one month.

A portion of our debt is denominated in euros. We also finance certain of our non-U.S. subsidiaries with intercompany loans that are, in many cases, denominated in currencies other than the entities ĭ functional currency. We manage the net foreign currency exposure created by this debt through various means, including cross-currency swaps, the designation of certain intercompany loans as permanent loans because they are not expected to be repaid in the foreseeable future and the designation of certain debt and swaps as net investment hedges.

Foreign currency transaction gains and losses on intercompany loans that are not designated as permanent loans are recorded in earnings. Foreign currency transaction gains and losses on intercompany loans that are designated as permanent loans are recorded in other comprehensive income (loss). From time to time, we review such designation of intercompany loans.

We review our non-U.S. dollar denominated debt and derivative instruments to determine the appropriate amounts designated as hedges. As of December 31, 2020, we have designated approximately ĭ 523 million (approximately $641 million) of euro-denominated debt as a hedge of our net investment. For the years ended December 31, 2020, 2019 and 2018, the amounts recognized on the hedge of our net investment were a loss of $66 million, a gain of $14 million and a gain of $35 million, respectively, and were recorded in other comprehensive (loss) income.

Commodity Prices Risk

Inherent in our business is exposure to price changes for several commodities. However, our exposure to changing commodity prices is somewhat limited since the majority of our raw materials are acquired at posted or market related prices, and sales prices for many of our finished products are at market related prices which are largely set on a monthly or quarterly basis in line with industry practice. Consequently, we do not generally hedge our commodity exposures.

17. FAIR VALUE

The fair values of our financial instruments were as follows (dollars in millions):

	December 31, 2020		December 31, 2019	
	Carrying Value	Estimated Fair Value	Carrying Value	Estimated Fair Value
Non-qualified employee benefit plan investments	$ 26	$ 26	$ 28	$ 28
Option agreement for remaining Venator shares	11	11	ĭ	ĭ
Long-term debt (including current portion)	(2,121)	(2,334)	(2,389)	(2,544)

The carrying amounts reported in the balance sheets of cash and cash equivalents, accounts receivable and accounts payable approximate fair value because of the immediate or short-term maturity of these financial instruments. Our investment in Venator is marked to fair value, which is obtained through market observable pricing using prevailing market prices (Level 1). Additionally, the estimated fair value of the option agreement related to the remaining ordinary shares we hold in Venator is based on a valuation technique using market observable inputs (Level 2). See ĭ Note 4. Discontinued Operations and Business Dispositions ĭ Separation and Deconsolidation of Venator. ĭ The fair values of non-qualified employee benefit plan investments are obtained through market observable pricing using prevailing market prices (Level 1). The estimated fair values of our long-term debt are based on quoted market prices for the identical liability when traded in an active market (Level 1). The fair value estimates presented herein are based on pertinent information available to management as of December 31, 2020 and 2019. Although management is not aware of any factors that would significantly affect the estimated fair value amounts, such amounts have not been comprehensively revalued for purposes of these financial statements since December 31, 2020, and current estimates of fair value may differ significantly from the amounts presented herein.

During the years ended December 31, 2020 and 2019, there were no instruments measured at fair value on a recurring basis using significant unobservable inputs (Level 3), and there were no gains or losses (realized or unrealized) included in earnings for instruments categorized as Level 3 within the fair value hierarchy.

18. REVENUE RECOGNITION

The following table disaggregates our revenue by major source for the years ended December 31, 2020, 2019 and 2018 (dollars in millions):

2020	Polyurethanes	Performance Products	Advanced Materials	Textile Effects	Corporate and Eliminations	Total
Primary Geographic Markets(1)						
U.S. and Canada	$ 1,362	$ 447	$ 217	$ 48	$ (23)	$ 2,051
Europe	961	252	319	98	(1)	1,629
Asia Pacific	997	260	224	360	ĭ	1,841
Rest of world	264	64	79	91	(1)	497
	$ 3,584	$ 1,023	$ 839	$ 597	$ (25)	$ 6,018
Major Product Groupings						
MDI urethanes	$ 3,584					$ 3,584
Differentiated		$ 1,023				1,023
Specialty			$ 746			746
Non-specialty			93			93
Textile chemicals and dyes				$ 597		597
Eliminations					$ (25)	(25)
	$ 3,584	$ 1,023	$ 839	$ 597	$ (25)	$ 6,018

2019	Polyurethanes	Performance Products	Advanced Materials	Textile Effects	Corporate and Eliminations	Total
Primary Geographic Markets(1)						
U.S. and Canada	$ 1,475	$ 531	$ 289	$ 62	$ (64)	$ 2,293
Europe	1,051	316	410	128	(9)	1,896
Asia Pacific	1,078	248	269	446	(2)	2,039
Rest of world	307	63	76	127	(4)	569
	$ 3,911	$ 1,158	$ 1,044	$ 763	$ (79)	$ 6,797
Major Product Groupings						
MDI urethanes	$ 3,911					$ 3,911
Differentiated		$ 1,158				1,158
Specialty			$ 891			891
Non-specialty			153			153
Textile chemicals and dyes				$ 763		763
Eliminations					$ (79)	(79)
	$ 3,911	$ 1,158	$ 1,044	$ 763	$ (79)	$ 6,797

2018	Polyurethanes	Performance Products	Advanced Materials	Textile Effects	Corporate and Eliminations	Total
Primary Geographic Markets(1)						
U.S. and Canada	$ 1,426	$ 586	$ 285	$ 68	$ 122	$ 2,487
Europe	1,277	368	445	135	(16)	2,209
Asia Pacific	1,236	278	301	485	(24)	2,276
Rest of world	343	69	85	136	(1)	632
	$ 4,282	$ 1,301	$ 1,116	$ 824	$ 81	$ 7,604
Major Product Groupings						
MDI urethanes	$ 4,282					$ 4,282
Differentiated		$ 1,301				1,301
Specialty			$ 932			932
Non-specialty			184			184
Textile chemicals and dyes				$ 824		824
Eliminations					$ 81	81
	$ 4,282	$ 1,301	$ 1,116	$ 824	$ 81	$ 7,604

(1) Geographic information for revenues is based upon countries into which product is sold.

19. EMPLOYEE BENEFIT PLANS

DEFINED BENEFIT AND OTHER POSTRETIREMENT BENEFIT

We provide a trusteed, non contributory defined benefit pension plan (the ĭ Plan ĭ) that covers the majority of our U.S. employees. Effective July 1, 2004, the Plan formula for employees not covered by a collective bargaining agreement was converted to a cash balance design. For represented employees, participation in the cash balance design was subject to the terms of negotiated contracts. For participating employees, benefits accrued under the prior formula were converted to opening cash balance accounts. The cash balance benefit formula provides annual pay credits from 6% to 12% of eligible pay, depending on age and service, plus accrued interest. The conversion to the cash balance plan did not have a significant impact on the accrued benefit liability, the funded status or ongoing pension expense.

Beginning July 1, 2014, the Huntsman Defined Benefit Pension Plan was closed to new non-union entrants and as of April 1, 2015, it was closed to new union entrants. In addition, as of January 1, 2015, Rubicon LLC closed its defined benefit plan to new entrants. Following the closure of these plans, new hires have been provided with a defined contribution plan with a non-discretionary employer contribution of 6% of pay and a company match of up to 4% of pay, for a total company contribution of up to 10% of pay. We also sponsor unfunded postretirement benefit plans other than pensions, which provide medical and life insurance benefits. Effective August 1, 2015, the post retirement benefit plans were closed to new entrants.

Our postretirement benefit plans provide access to two fully insured Medicare Part D plans including prescription drug benefits affected by the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the ĭ Act ĭ). We cannot determine whether the medical benefits provided by our postretirement bene plans are actuarially equivalent to those provided by the Act. We do not collect a subsidy and our net periodic postretirement benefits cost, and related benefit obligation, do not reflect an amount associated with the subsidy. We do not subsidize the premium cost of these plans; the premiums are entirely paid by the retirees.

We sponsor defined benefit plans in a number of countries outside of the U.S. The availability of these plans, and their specific design provisions, are consistent with local competitive practices and regulations.

The following table sets forth the funded status of the plans for us and Huntsman International and the amounts recognized in our consolidated balance sheets at December 31, 2020 and 2019 (dollars in millions):

	Defined Benefit Plans				Other Postretirement Benefit Plans			
	2020		2019		2020		2019	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Change in benefit obligation								
Benefit obligation at beginning of year	$ 1,024	$ 2,377	$ 956	$ 2,157	$ 60	$ ĭ	$ 59	$ ĭ
Service cost	21	31	20	30	1	ĭ	1	ĭ
Interest cost	37	25	41	37	2	ĭ	3	ĭ
Participant contributions	ĭ	6	ĭ	6	2	ĭ	2	ĭ
Plan amendments	ĭ	ĭ	ĭ	(9)	ĭ	ĭ	ĭ	ĭ
Foreign currency exchange rate changes	ĭ	200	ĭ	7	ĭ	ĭ	ĭ	ĭ
Settlements/curtailments/divestitures	(2)	(10)	20	(2)	ĭ	ĭ	1	ĭ
Actuarial (gain) loss	87	116	65	224	9	ĭ	ĭ	ĭ
Benefits paid	(76)	(74)	(78)	(73)	(9)	ĭ	(6)	ĭ
Benefit obligation at end of year	$ 1,091	$ 2,671	$ 1,024	$ 2,377	$ 65	$ ĭ	$ 60	$ ĭ
Change in plan assets								
Fair value of plan assets at beginning of year	$ 790	$ 1,960	$ 697	$ 1,751	$ ĭ	$ ĭ	$ ĭ	$ ĭ
Actual return on plan assets	99	143	107	224	ĭ	ĭ	ĭ	ĭ
Foreign currency exchange rate changes	ĭ	161	ĭ	11	ĭ	ĭ	ĭ	ĭ
Participant contributions	ĭ	6	ĭ	6	2	ĭ	2	ĭ
Settlement/transfers/divestitures	(1)	(11)	19	(2)	ĭ	ĭ	ĭ	ĭ
Company contributions	54	40	45	43	7	ĭ	4	ĭ
Benefits paid	(76)	(74)	(78)	(73)	(9)	ĭ	(6)	ĭ
Fair value of plan assets at end of year	$ 866	$ 2,225	$ 790	$ 1,960	$ ĭ	$ ĭ	$ ĭ	$ ĭ
Funded status								
Fair value of plan assets	$ 866	$ 2,225	$ 790	$ 1,960	$ ĭ	$ ĭ	$ ĭ	$ ĭ
Benefit obligation	1,091	2,671	1,024	2,377	65	ĭ	60	ĭ
Accrued benefit cost	$ (225)	$ (446)	$ (234)	$ (417)	$ (65)	$ ĭ	$ (60)	$ ĭ
Amounts recognized in balance sheet:								
Noncurrent asset	$ ĭ	$ 20	$ ĭ	$ 10	$ ĭ	$ ĭ	$ ĭ	$ ĭ
Current liability	(5)	(6)	(5)	(6)	(6)	ĭ	(5)	ĭ
Noncurrent liability	(220)	(460)	(229)	(421)	(59)	ĭ	(55)	ĭ
Total	$ (225)	$ (446)	$ (234)	$ (417)	$ (65)	$ ĭ	$ (60)	$ ĭ

Huntsman Corporation

	Defined Benefit Plans				Other Postretirement Benefit Plans			
	2020		2019		2020		2019	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Amounts recognized in accumulated other comprehensive loss:								
Net actuarial loss	$ 363	$ 874	$ 394	$ 840	$ 26	$ ĭ	$ 20	$ ĭ
Prior service credit	(9)	(27)	(11)	(32)	(25)	ĭ	(33)	ĭ
Total	$ 354	$ 847	$ 383	$ 808	$ 1	$ ĭ	$ (13)	$ ĭ

Huntsman International

	Defined Benefit Plans				Other Postretirement Benefit Plans			
	2020		2019		2020		2019	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Amounts recognized in accumulated other comprehensive loss:								
Net actuarial loss	$ 363	$ 877	$ 395	$ 846	$ 26	$ ĭ	$ 20	$ ĭ
Prior service credit	(9)	(27)	(11)	(31)	(25)	ĭ	(33)	ĭ
Total	$ 354	$ 850	$ 384	$ 815	$ 1	$ ĭ	$ (13)	$ ĭ

During 2020, the overall increases in our U.S. pension and other postretirement benefit plan obligations were primarily due to decreases in discount rates. The overall increase in our non-U.S. pension plan obligation was primarily due to decreases in discount rates in Switzerland, Germany, The Netherlands and the U.K., as well as foreign currency exchange rate changes in Switzerland, The Netherlands, Germany and Belgium.

During 2019, the overall increases in our U.S. pension and other postretirement benefit plan obligations were primarily due to decreases in discount rates. The overall increase in our non-U.S. pension plan obligation was primarily due to decreases in discount rates in Switzerland, Germany, The Netherlands and the U.K.

Components of net periodic benefit costs of continuing operations for the years ended December 31, 2020, 2019 and 2018 were as follows (dollars in millions):

Huntsman Corporation

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Service cost	$ 21	$ 20	$ 23	$ 31	$ 30	$ 32
Interest cost	37	41	39	25	37	37
Expected return on plan assets	(59)	(53)	(54)	(114)	(102)	(109)
Amortization of prior service credit	(2)	(2)	(2)	(5)	(4)	(5)
Amortization of actuarial loss	28	23	31	53	45	38
Settlement loss	ĭ	ĭ	2	ĭ	1	ĭ
Net periodic benefit cost (credit)	$ 25	$ 29	$ 39	$ (10)	$ 7	$ (7)

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Service cost	$ 1	$ 1	$ 2	$ ĭ	$ ĭ	$ ĭ
Interest cost	2	3	2	ĭ	ĭ	ĭ
Amortization of prior service credit	(5)	(5)	(5)	ĭ	ĭ	ĭ
Amortization of actuarial loss	1	1	2	ĭ	ĭ	ĭ
Net periodic benefit (credit) costs	$ (1)	$ ĭ	$ 1	$ ĭ	$ ĭ	$ ĭ

Huntsman International

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Service cost	$ 21	$ 20	$ 23	$ 31	$ 30	$ 32
Interest cost	37	41	39	25	37	37
Expected return on plan assets	(59)	(53)	(54)	(114)	(102)	(109)
Amortization of prior service credit	(2)	(2)	(2)	(5)	(4)	(5)
Amortization of actuarial loss	28	23	31	57	48	41
Settlement loss	ĭ	ĭ	2	ĭ	1	ĭ
Net periodic benefit cost (credit)	$ 25	$ 29	$ 39	$ (6)	$ 10	$ (4)

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Service cost	$ 1	$ 1	$ 2	$ ĭ	$ ĭ	$ ĭ
Interest cost	2	3	2	ĭ	ĭ	ĭ
Amortization of prior service credit	(5)	(5)	(5)	ĭ	ĭ	ĭ
Amortization of actuarial loss	1	1	2	ĭ	ĭ	ĭ
Net periodic benefit (credit) costs	$ (1)	$ ĭ	$ 1	$ ĭ	$ ĭ	$ ĭ

The amounts recognized in net periodic benefit cost and other comprehensive income (loss) as of December 31, 2020, 2019 and 2018 were as follows (dollars in millions):

Huntsman Corporation

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Current year actuarial loss	$ 40	$ 19	$ 18	$ 87	$ 101	$ 117
Amortization of actuarial loss	(28)	(26)	(34)	(53)	(45)	(38)
Current year prior service (credits) cost	ĭ	ĭ	ĭ	ĭ	(10)	4
Amortization of prior service credit	2	2	2	5	4	5
Settlements	(42)	ĭ	(2)	ĭ	1	ĭ
Total recognized in other comprehensive income (loss)	(28)	(5)	(16)	39	51	88
Amounts related to discontinued operations	17	9	(4)	ĭ	ĭ	ĭ
Total recognized in other comprehensive income (loss) in continuing operations	(11)	4	(20)	39	51	88
Net periodic benefit cost	25	29	39	(10)	7	(7)
Total recognized in net periodic benefit cost and other comprehensive income (loss)	$ 14	$ 33	$ 19	$ 29	$ 58	$ 81

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Current year actuarial loss (gain)	$ 9	$ ĭ	$ (10)	$ ĭ	$ ĭ	$ ĭ
Amortization of actuarial loss	(1)	(1)	(2)	ĭ	ĭ	ĭ
Current year prior service credit	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ
Amortization of prior service credit	5	5	6	ĭ	ĭ	ĭ
Settlements	(1)	ĭ	ĭ	ĭ	ĭ	ĭ
Curtailment (gain) loss	2	ĭ	ĭ	ĭ	ĭ	ĭ
Total recognized in other comprehensive income (loss)	14	4	(6)	ĭ	ĭ	ĭ
Amounts related to discontinued operations	ĭ	(6)	ĭ	ĭ	ĭ	ĭ
Total recognized in other comprehensive income (loss) in continuing operations	14	(2)	(6)	ĭ	ĭ	ĭ
Net periodic benefit cost	(1)	ĭ	1	ĭ	ĭ	ĭ
Total recognized in net periodic benefit cost and other comprehensive income (loss)	$ 13	$ (2)	$ (5)	$ ĭ	$ ĭ	$ ĭ

Huntsman International

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Current year actuarial loss	$ 40	$ 19	$ 18	$ 87	$ 101	$ 117
Amortization of actuarial loss	(28)	(26)	(34)	(57)	(48)	(41)
Current year prior service credit	ĭ	ĭ	ĭ	ĭ	(10)	4
Amortization of prior service credit	2	2	2	5	4	5
Settlements	(42)	ĭ	(2)	ĭ	1	ĭ
Curtailment (gain)/loss	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ
Total recognized in other comprehensive income (loss)	(28)	(5)	(16)	35	48	85
Amounts related to discontinued operations	17	9	(4)	ĭ	ĭ	ĭ
Total recognized in other comprehensive income (loss) in continuing operations	(11)	4	(20)	35	48	85
Net periodic benefit cost	25	29	39	(6)	10	(4)
Total recognized in net periodic benefit cost and other comprehensive income (loss)	$ 14	$ 33	$ 19	$ 29	$ 58	$ 81

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Current year actuarial loss	$ 9	$ ĭ	$ (10)	$ ĭ	$ ĭ	$ ĭ
Amortization of actuarial loss	(1)	(1)	(2)	ĭ	ĭ	ĭ
Current year prior service credit	ĭ	ĭ	ĭ	ĭ	ĭ	ĭ
Amortization of prior service credit	5	5	6	ĭ	ĭ	ĭ
Settlements	(1)	ĭ	ĭ	ĭ	ĭ	ĭ
Curtailment (gain)/loss	2	ĭ	ĭ	ĭ	ĭ	ĭ
Total recognized in other comprehensive income (loss)	14	4	(6)	ĭ	ĭ	ĭ
Amounts related to discontinued operations	ĭ	(6)	ĭ	ĭ	ĭ	ĭ
Total recognized in other comprehensive income (loss) in continuing operations	14	(2)	(6)	ĭ	ĭ	ĭ
Net periodic benefit cost	(1)	ĭ	1	ĭ	ĭ	ĭ
Total recognized in net periodic benefit cost and other comprehensive income (loss)	$ 13	$ (2)	$ (5)	$ ĭ	$ ĭ	$ ĭ

The following weighted-average assumptions were used to determine the projected benefit obligation at the measurement date and the net periodic pension cost for the year:

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Projected benefit obligation						
Discount rate	2.82%	3.59%	4.39%	0.69%	1.07%	1.75%
Rate of compensation increase	4.09%	4.09%	4.10%	2.59%	2.65%	2.95%
Interest credit rate	5.15%	5.15%	5.15%	0.33%	0.49%	1.04%
Net periodic pension cost						
Discount rate	3.59%	4.39%	3.74%	1.07%	1.75%	1.65%
Rate of compensation increase	4.09%	4.07%	4.10%	2.65%	2.64%	3.38%
Expected return on plan assets	7.52%	7.52%	7.52%	5.89%	5.89%	5.88%
Interest credit rate	5.15%	5.15%	5.15%	0.49%	1.04%	0.88%

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2020	2019	2018	2020	2019	2018
Projected benefit obligation						
Discount rate	2.63%	3.46%	4.26%	2.30%	2.90%	3.50%
Net periodic pension cost						
Discount rate	3.46%	4.26%	3.58%	2.90%	3.50%	3.30%

The projected benefit obligation and fair value of plan assets for the defined benefit plans with projected benefit obligations in excess of plan assets as of December 31, 2020 and 2019 were as follows (dollars in millions):

	U.S. plans		Non-U.S. plans	
	2020	2019	2020	2019
Projected benefit obligation in excess of plan assets				
Projected benefit obligation	$ 1,091	$ 1,024	$ 2,017	$ 2,203
Fair value of plan assets	866	790	1,551	1,777

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for the defined benefit plans with an accumulated benefit obligation in excess of plan assets as of December 31, 2020 and 2019 were as follows (dollars in millions):

	U.S. plans		Non-U.S. plans	
	2020	2019	2020	2019
Accumulated benefit obligation in excess of plan assets				
Projected benefit obligation	$ 1,091	$ 1,024	$ 1,203	$ 1,066
Accumulated benefit obligation	1,073	1,019	1,116	991
Fair value of plan assets	866	790	746	664

Expected future contributions and benefit payments related to continuing operations are as follows (dollars in millions):

	U.S. Plans		Non-U.S. Plans	
	Defined Benefit Plans	Other Postretirement Benefit Plans	Defined Benefit Plans	Other Postretirement Benefit Plans
2021 expected employer contributions				
To plan trusts	$ 14	$ 6	$ 40	$ ĭ
Expected benefit payments				
2021	59	6	86	ĭ
2022	65	6	87	ĭ
2023	70	5	92	ĭ
2024	66	5	90	ĭ
2025	100	5	92	ĭ
2026 - 2030	316	24	493	ĭ

Our investment strategy with respect to pension assets is to pursue an investment plan that, over the long term, is expected to protect the funded status of the plan, enhance the real purchasing power of plan assets, and not threaten the plan ĭ s ability to meet currently committed obligations. Additionally, our investment strategy is to achieve returns on plan assets, subject to a prudent level of portfolio risk. Plan assets are invested in a broad range of investments. These investments are diversified in terms of domestic and international equities, both growth and value funds, including small, mid and large capitalization equities; short-term and long-term debt securities; real estate; and cash and cash equivalents. The investments are further diversified within each asset category. The portfolio diversification provides protection against a single investment or asset category having a disproportionate impact on the aggregate performance of the plan assets.

Our pension plan assets are managed by outside investment managers. The investment managers value our plan assets using quoted market prices, other observable inputs or unobservable inputs. For certain assets, the investment managers obtain third-party appraisals at least annually, which use valuation techniques and inputs specific to the applicable property, market, or geographic location. During 2020, there was a transfer into Level 3 assets of approximately $11 million due to a change in the significance of unobservable inputs for one investment, which is immaterial. This investment is included within the real estate/other category.

We have established target allocations for each asset category. Our pension plan assets are periodically rebalanced based upon our target allocations.

The fair value of plan assets for the pension plans was $3.1 billion and $2.8 billion at December 31, 2020 and 2019, respectively. The following plan assets are measured at fair value on a recurring basis (dollars in millions):

		Fair Value Amounts Using		
Asset category	**December 31, 2020**	**Quoted prices in active markets for identical assets (Level 1)**	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**
U.S. pension plans:				
Equities	$ 481	$ 315	$ 166	$ ĭ
Fixed income	323	242	81	ĭ
Real estate/other	62	ĭ	ĭ	62
Cash	ĭ	ĭ	ĭ	ĭ
Total U.S. pension plan assets	$ 866	$ 557	$ 247	$ 62
Non-U.S. pension plans:				
Equities	$ 564	$ 229	$ 335	$ ĭ
Fixed income	971	610	361	ĭ
Real estate/other	628	93	459	76
Cash	62	59	3	ĭ
Total Non-U.S. pension plan assets	$ 2,225	$ 991	$ 1,158	$ 76

		Fair Value Amounts Using		
Asset category	**December 31, 2019**	**Quoted prices in active Markets for identical assets (Level 1)**	**Significant other Observable inputs (Level 2)**	**Significant Unobservable inputs (Level 3)**
U.S. pension plans:				
Equities	$ 422	$ 283	$ 139	$ ĭ
Fixed income	301	220	81	ĭ
Real estate/other	67	ĭ	ĭ	67
Cash	ĭ	ĭ	ĭ	ĭ
Total U.S. pension plan assets	$ 790	$ 503	$ 220	$ 67
Non-U.S. pension plans:				
Equities	$ 535	$ 228	$ 307	$ ĭ
Fixed income	847	560	287	ĭ
Real estate/other	505	99	349	57
Cash	73	72	1	ĭ
Total Non-U.S. pension plan assets	$ 1,960	$ 959	$ 944	$ 57

The following table reconciles the beginning and ending balances of plan assets measured at fair value using unobservable inputs (Level 3) (dollars in millions):

	Real Estate/Other	
	Year ended December 31,	
	2020	2019
Fair Value Measurements of Plan Assets Using Significant Unobservable Inputs (Level 3)		
Balance at beginning of period	$ 124	$ 121
Return on pension plan assets	5	4
Purchases, sales and settlements	(2)	(1)
Transfers into (out of) Level 3	11	ĭ
Balance at end of period	$ 138	$ 124

Based upon historical returns, the expectations of our investment committee and outside advisors, the expected long-term rate of return on the pension assets is estimated to be between 5.68% and 7.53%. The asset allocation for our pension plans at December 31, 2020 and 2019 and the target allocation for 2021, by asset category are as follows:

	Target Allocation	Allocation at December 31,	
Asset category	2021	2020	2019
U.S. pension plans:			
Equities	54%	56%	54%
Fixed income	39%	37%	38%
Real estate/other	4%	7%	8%
Cash	3%	ĭ %	ĭ %
Total U.S. pension plans	100%	100%	100%
Non-U.S. pension plans:			
Equities	26%	25%	27%
Fixed income	48%	44%	43%
Real estate/other	14%	28%	26%
Cash	12%	3%	4%
Total non-U.S. pension plans	100%	100%	100%

Equity securities in our pension plans did not include any direct investments in equity securities of our Company or our affiliates at the end of 2020.

DEFINED CONTRIBUTION PLANS ĭ U.S.

We had a money purchase pension plan that covered substantially all of our domestic employees who were hired prior to January 1, 2004. Employer contributions were made based on a percentage of employees ĭ earnings (ranging up to 8%). During 2014, we closed this plan to non-union participants, and in 2015, we closed this plan to union associates. We continue to provide equivalent benefits to those who were covered under this plan into their salary deferral account.

We have a salary deferral plan covering substantially all U.S. employees. Plan participants may elect to make voluntary contributions to this plan up to a specified amount of their compensation. We contribute an amount equal to the participant ĭ s contribution, not to exceed 4 % of the participant ĭ s compensation. For n hires who are not eligible for the cash balance plan, and associates who were covered by the money purchase pension plan prior to its closure, we contribute an additional amount into their salary deferral accounts, not to exceed 6% of the participant ĭ s compensation.

Our total combined expense for the above defined contribution plans for each of the years ended December 31, 2020, 2019 and 2018 was $17 million, $17 million and $16 million, respectively.

Defined Contribution Plans ï Non-U.S

We have defined contribution plans in a variety of non-U.S. locations.

All UK associates are eligible to participate in the Huntsman UK Pension Plan, a contract-based arrangement with a third party. Company contributions vary by business during a five-year transition period. Plan participants elect to make voluntary contributions to this plan up to a specified amount of their compensation. We contribute a matching amount not to exceed 12% of the participant ï s salary for new hires and 15% of the participant ï s salary for all other participants.

Our total combined expense for these defined contribution plans for the years ended December 31, 2020, 2019 and 2018 was $3 million, $4 million and $4 million, respectively, primarily related to the Huntsman UK Pension Plan.

Supplemental Salary Deferral Plan and Supplemental Executive Retirement Plan

The Huntsman Supplemental Savings Plan (the ï SSP ï) is a non-qualified plan covering key management employees and allows participants to defer amount that would otherwise be paid as compensation. The participant can defer up to 75% of their salary and bonus each year. This plan also provides benefits that would be provided under the Huntsman Salary Deferral Plan if that plan were not subject to legal limits on the amount of contributions that can be allocated to an individual in a single year. The SSP was amended and restated effective as of January 1, 2005 to allow eligible executive employees to comply with Section 409A of the Internal Revenue Code of 1986.

The Huntsman Supplemental Executive Retirement Plan (the ï SERP ï) is an unfunded non-qualified pension plan established to provide certain executive employees with benefits that could not be provided, due to legal limitations, under the Huntsman Defined Benefit Pension Plan, a qualified defined benefit pension plan, and the Huntsman Money Purchase Pension Plan, a qualified money purchase pension plan.

Assets of these plans are included in other noncurrent assets and as of December 31, 2020 and 2019 were $44 million and $39 million, respectively. During each of the years ended December 31, 2020, 2019 and 2018, we expensed a total of $1 million as contributions to the SSP and the SERP.

Stock-Based Incentive Plan

On May 5, 2016, our stockholders approved a new Huntsman Corporation 2016 Stock Incentive Plan (the ï 2016 Stock Incentive Plan ï), which reserved 8.2 million shares for issuance. The Huntsman Corporation Stock Incentive Plan, as amended and restated (the ï Prior Plan ï), remains in effect for outstanding awards granted pursuant to the Prior Plan, but no further awards may be granted under the Prior Plan. Under the 2016 Stock Incentive Plan, we may grant nonqualified stock options, incentive stock options, stock appreciation rights, restricted stock, phantom stock, performance share units and other stock-based awards to our employees, directors and consultants and to employees and consultants of our subsidiaries, provided that incentive stock options may be granted solely to employees. The terms of the grants under both the 2016 Stock Incentive Plan and the Prior Plan are fixed at the grant date. As of December 31, 2020, we had approximately 7 million shares remaining under the 2016 Stock Incentive Plan available for grant. See ï Note 24. Stock-Based Compensation Plan. ï

International Plans

International employees are covered by various post-employment arrangements consistent with local practices and regulations. Such obligations are included in other long-term liabilities in our consolidated balance sheets.

20. INCOME TAXES

The following is a summary of U.S. and non-U.S. provisions for current and deferred income taxes (dollars in millions):

Huntsman Corporation

	Year ended December 31,		
	2020	2019	2018
Income tax expense (benefit):			
U.S.			
Current	$ (216)	$ (17)	$ 57
Deferred	167	(181)	(30)
Non-U.S.			
Current	90	71	153
Deferred	5	89	(135)
Total	$ 46	$ (38)	$ 45

Huntsman International

	Year ended December 31,		
	2020	2019	2018
Income tax expense (benefit):			
U.S.			
Current	$ (215)	$ (21)	$ 57
Deferred	166	(179)	(34)
Non-U.S.			
Current	90	70	153
Deferred	5	89	(135)
Total	$ 46	$ (41)	$ 41

The following schedule reconciles the differences between the U.S. federal income taxes at the U.S. statutory rate to our provision for income taxes (dollars in millions):

Huntsman Corporation

	Year ended December 31,		
	2020	2019	2018
Income from continuing operations before income taxes	$ 337	$ 391	$ 734
Expected tax expense at U.S. statutory rate of 21%	$ 71	$ 82	$ 154
Change resulting from:			
State tax expense net of federal benefit	(4)	(3)	(1)
Non-U.S. tax rate differentials	16	9	27
Other non-U.S. tax effects, including nondeductible expenses and other withholding taxes	5	13	8
U.S. Tax Reform Act impact	ĭ	(1)	32
Currency exchange gains/losses(net)	ĭ	(5)	(10)
Venator investment basis difference and fair market value adjustments	ĭ	(199)	18
Tax losses related to Venator investment	ĭ	(18)	ĭ
Non-U.S. income subject to U.S. tax not offset by U.S. foreign tax credits	7	7	16
Tax authority audits and dispute resolutions	1	(6)	5
Share-based compensation excess tax benefits	(1)	(4)	(14)
Change in valuation allowance	(14)	56	(185)
Deferred tax effects of non-U.S. tax rate changes	(2)	36	(2)
Impact of equity method investments	(10)	(13)	(14)
Sale of the India-based DIY business	(35)	ĭ	
Non-U.S. withholding tax on repatriated earnings, net of U.S. foreign tax credits	20	6	11
Other U.S. tax effects, including nondeductible expenses and other credits	(8)	2	ĭ
Total income tax expense (benefit)	$ 46	$ (38)	$ 45

Huntsman International

	Year ended December 31,		
	2020	2019	2018
Income from continuing operations before income taxes	$ 338	$ 377	$ 716
Expected tax expense at U.S. statutory rate of 21%	$ 71	$ 79	$ 150
Change resulting from:			
State tax expense net of federal benefit	(4)	(3)	(1)
Non-U.S. tax rate differentials	16	9	27
Other non-U.S. tax effects, including nondeductible expenses and other withholding taxes	5	13	8
U.S. Tax Reform Act impact	ĭ	(1)	32
Currency exchange gains/losses(net)	ĭ	(5)	(10)
Venator investment basis difference and fair market value adjustments	ĭ	(199)	18
Tax losses related to Venator investment	ĭ	(18)	ĭ
Non-U.S. income subject to U.S. tax not offset by U.S. foreign tax credits	7	7	16
Tax authority audits and dispute resolutions	1	(6)	5
Share-based compensation excess tax benefits	(1)	(4)	(14)
Change in valuation allowance	(14)	56	(185)
Deferred tax effects of non-U.S. tax rate changes	(2)	36	(2)
Impact of equity method investments	(10)	(13)	(14)
Sale of the India-based DIY business	(35)	ĭ	ĭ
Non-U.S. withholding tax on repatriated earnings, net of U.S. foreign tax credits	20	6	11
Other U.S. tax effects, including nondeductible expenses and other credits	(8)	2	ĭ
Total income tax expense (benefit)	$ 46	$ (41)	$ 41

During 2020, 2019 and 2018, the average statutory rate for countries with pre-tax income (in 2020, primarily our operations in China (25% statutory rate), the Netherlands (25% statutory rate), India (25% statutory rate) and Luxembourg (25% statutory rate), was higher than the average statutory rate for countries with pre-tax losses, resulting in a net expense of $16 million, $9 million and $27 million, respectively, as compared to the 21% U.S. statutory rate reflected in the reconciliation above. In certain non-U.S. tax jurisdictions, our U.S. GAAP functional currency is different than the local tax currency. As a result, foreign exchange gains and losses will impact our effective tax rate. For 2020, 2019 and 2018, this resulted in tax benefits of nil, a $5 million and $10 million, respectively.

In 2019, we recorded $199 million of deferred tax assets in connection with our tax basis in our Venator investment being greater than our book basis, which deferred tax asset was partially offset by a valuation allowance of $46 million (for a net tax benefit of $153 million), as further discussed below. Effective January 1, 2019, Switzerland reduced certain conditional income tax rates resulting in a decrease in our net deferred tax assets and a corresponding noncash income tax expense of $32 million for the year ended December 31, 2019.

Under the U.S. Tax Reform Act ĭ s global intangible low-taxed income (ĭ GILTI ĭ) provision, our non-U.S. operations are generally subject to U.S. tax. We h elected to treat the GILTI as a current-period expense when incurred. The stated purpose of the GILTI rules is to generate additional U.S. tax related to income in non-U.S. jurisdictions which incur less than a blended 13.125% non-U.S. tax rate. Our non-U.S. income is subject to a blended rate greater than 13.125%; however, in practice, the GILTI regulations result in additional tax liability as a result of expense allocations which limit our ability to utilize foreign tax credits against the GILTI inclusion. For 2020, 2019 and 2018 we have incurred $7 million, $7 million and $16 million, respectively, of tax expense resulting from these expense allocations.

In 2017, we booked provisional amounts for the remeasurements of U.S. deferred tax assets and liabilities and the transitional tax on deemed repatriation of deferred foreign income related to the enactment of the U.S. Tax Reform Act. During the remeasurement period in 2018, we recorded a net tax expense of $32 million. We did not make the election to reclassify the income tax effects of the U.S. Tax Reform Act from accumulated other comprehensive income to retained earnings.

The 2020 sale of the India-based DIY business created a global taxable gain different than the gain for U.S. GAAP purposes. Because this transaction was the disposition of a legal entity in India, we paid only India capital gains tax on the transaction. The difference in the global taxation of this transaction and the U.S. GAAP gain at the U.S. statutory tax rate was $35 million.

The components of income (loss) from continuing operations before income taxes were as follows (dollars in millions):

Huntsman Corporation

	Year ended December 31,		
	2020	2019	2018
U.S.	$ (231)	$ (106)	$ (38)
Non-U.S.	568	497	772
Total	$ 337	$ 391	$ 734

Huntsman International

	Year ended December 31,		
	2020	2019	2018
U.S.	$ (230)	$ (120)	$ (56)
Non-U.S.	568	497	772
Total	$ 338	$ 377	$ 716

Components of deferred income tax assets and liabilities were as follows (dollars in millions):

Huntsman Corporation

	December 31,	
	2020	2019
Deferred income tax assets:		
Net operating loss carryforwards	$ 258	$ 281
Pension and other employee compensation	184	172
Property, plant and equipment	15	15
Intangible assets	52	56
Basis difference in Venator investment	35	199
Operating leases	111	98
Capital loss carryovers	30	11
Deferred interest	28	19
Other, net	44	42
Total	$ 757	$ 893
Deferred income tax liabilities:		
Property, plant and equipment	$ (249)	$ (218)
Pension and other employee compensation	(4)	(1)
Intangible assets	(72)	(27)
Unrealized currency gains	(14)	(43)
Operating leases	(114)	(102)
Other, net	(22)	(8)
Total	$ (475)	$ (399)
Net deferred tax asset before valuation allowance	$ 282	$ 494
Valuation allowance ĭ net operating losses and other	(206)	(231)
Net deferred tax asset	$ 76	$ 263
Non-current deferred tax asset	288	292
Non-current deferred tax liability	(212)	(29)
Net deferred tax asset	$ 76	$ 263

Huntsman International

	December 31,	
	2020	2019
Deferred income tax assets:		
Net operating loss carryforwards	$ 258	$ 281
Pension and other employee compensation	184	172
Property, plant and equipment	15	15
Intangible assets	52	56
Basis difference in Venator investment	35	199
Operating leases	111	98
Capital loss carryovers	30	11
Deferred interest	28	19
Other, net	44	42
Total	$ 757	$ 893
Deferred income tax liabilities:		
Property, plant and equipment	$ (249)	$ (218)
Pension and other employee compensation	(4)	(1)
Intangible assets	(72)	(27)
Unrealized currency gains	(14)	(43)
Operating leases	(114)	(102)
Other, net	(24)	(8)
Total	$ (477)	$ (399)
Net deferred tax asset before valuation allowance	$ 280	$ 494
Valuation allowance ĭ net operating losses and other	(206)	(231)
Net deferred tax asset	$ 74	$ 263
Non-current deferred tax asset	288	292
Non-current deferred tax liability	(214)	(29)
Net deferred tax asset	$ 74	$ 263

We evaluate deferred tax assets to determine whether it is more likely than not that they will be realized. Valuation allowances are reviewed each period on a tax jurisdiction by jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets. These conclusions require significant judgment. In evaluating the objective evidence that historical results provide, we consider the cyclicality of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limits our ability to consider other subjective evidence such as our projections for the future. Our judgments regarding valuation allowances are also influenced by factors outside of business results, including the costs and risks associated with any tax planning idea associated with utilizing a deferred tax asset.

We have gross net operating losses (ĭ NOLs ĭ) of $1,037 million ($240 million tax-effected) in various non-U.S. jurisdictions. While the majority of the non-U.S. NOLs have no expiration date, $119 million ($20 million tax-effected) have a limited life (of which $60 million ($9 million tax-effected) are subject to a valuation allowance) and $57 million ($8 million tax-effected) are scheduled to expire in 2021, all of which are subject to a valuation allowance). We had $107 million ($17 million tax-effected) and $111 million ($16 million tax-effected) of NOLs expire unused in 2020 and 2019, respectively, all of which were subject to a valuation allowance.

We have gross U.S. federal NOLs of $71 million ($15 million tax-effected), which were primarily acquired through acquisitions subject to tax change of control limitations. We expect to be able to utilize the all of these NOLs, and therefore they are not subject to a valuation allowance.

Included in the $1,037 million of gross non-U.S. NOLs is $472 million ($118 million tax-effected) attributable to our Luxembourg entities. As of December 31, 2020, due to the uncertainty surrounding the realization of the benefits of these losses, there is a valuation allowance of $63 million against these net tax-effected NOLs of $118 million.

We have $30 million tax-effected U.S. capital loss carryovers generated in 2020. Capital loss carryovers may only be utilized against capital gains and have a 5-year carryforward period. We have placed a full valuation allowance against all of these capital loss carryovers.

During 2019, based on our expectation that our remaining interest in Venator would be sold on or before December 31, 2023, we recorded $153 million of deferred tax benefit relating to the portion of the $199 million tax basis greater than book basis in our Venator investment. We expected to be able to utilize such future capital losses on our Venator investment against capital gains anticipated on the sale of our Chemical Intermediates Businesses. We established a valuation allowance of $46 million on the excess unrealizable built-in capital loss deferred tax asset. We also recognized $18 million of tax benefit relating to realized tax losses on our Venator investment. During 2020, we sold approximately 42.4 million ordinary shares of our remaining interest in Venator, which allowed us to utilize the expected portion of the losses against the gains on the sale of the Chemical Intermediates Businesses. Incremental changes to the deferred tax assets relating to the excess capital loss carryover and excess built-in capital loss in our remaining interest in Venator, as a result of the U.S. GAAP fair value adjustments to the Venator investment and related loss on disposal, are offset by a full valuation allowance.

During 2019, we also established $11 million of valuation allowances on the remaining Australia NOLs that are no longer more-likely-than-not realizable following the sale of the Australia portion of our Chemical Intermediates Businesses.

During 2018, we released valuation allowances of $132 million. We released significant valuation allowances on certain net deferred tax assets in Switzerland based upon the increased and sustained profitability in our Advanced Materials and Textile Effects businesses. Given Switzerland ĭ s limited seven-year carryover of NOLs, we expect that some of our NOLs will expire unused. Therefore, we recorded a partial release of the valuation allowance of $80 million in the second quarter of 2018. In addition, based upon the separation of Venator from our U.K. combined group and the increased and sustained profitability in our Polyurethanes business in the U.K., we released significant valuation allowances on certain net deferred tax assets in the U.K. Because the U.K. places limitations on the utilization of certain NOLs and limitations on other deferred tax assets, we recorded a partial valuation allowance release of $15 million in the second quarter of 2018. We also released $24 million of valuation allowances on certain net deferred tax assets in Luxembourg in the third quarter of 2018 as a result of changes in estimated future taxable income resulting from increased intercompany receivables and, therefore, increased income in Luxembourg, our primary treasury center outside of the U.S.

Uncertainties regarding expected future income in certain jurisdictions could affect the realization of deferred tax assets in those jurisdictions and result in additional valuation allowances in future periods, or, in the case of unexpected pre-tax earnings, the release of valuation allowances in future periods.

The following is a summary of changes in the valuation allowance (dollars in millions):

Huntsman Corporation

	2020	2019	2018
Valuation allowance as of January 1	$ 231	$ 215	$ 412
Valuation allowance as of December 31	206	231	215
Net decrease (increase)	25	(16)	197
Foreign currency movements	6	ĭ	3
Decrease to deferred tax assets with no impact on operating tax expense, including an offsetting (decrease) increase to valuation allowances	(17)	(40)	(15)
Change in valuation allowance per rate reconciliation	$ 14	$ (56)	$ 185
Components of change in valuation allowance affecting tax expense:			
Pre-tax income and losses in jurisdictions with valuation allowances resulting in no tax expense or benefit	$ 14	$ (133)	$ 53
Releases of valuation allowances in various jurisdictions	ĭ	ĭ	132
Establishments of valuation allowances in various jurisdictions	ĭ	77	ĭ
Change in valuation allowance per rate reconciliation	$ 14	$ (56)	$ 185

Huntsman International

	2020	2019	2018
Valuation allowance as of January 1	$ 231	$ 215	$ 412
Valuation allowance as of December 31	206	231	215
Net decrease (increase)	25	(16)	197
Foreign currency movements	6	ĭ	3
Decrease to deferred tax assets with no impact on operating tax expense, including an offsetting (decrease) increase to valuation allowances	(17)	(40)	(15)
Change in valuation allowance per rate reconciliation	$ 14	$ (56)	$ 185
Components of change in valuation allowance affecting tax expense:			
Pre-tax income and losses in jurisdictions with valuation allowances resulting in no tax expense or benefit	$ 14	$ (133)	$ 53
Releases of valuation allowances in various jurisdictions	ĭ	ĭ	132
Establishments of valuation allowances in various jurisdictions	ĭ	77	ĭ
Change in valuation allowance per rate reconciliation	$ 14	$ (56)	$ 185

The following is a reconciliation of our unrecognized tax benefits (dollars in millions):

	2020	2019
Unrecognized tax benefits as of January 1	$ 28	$ 26
Gross increases and decreases ĭ tax positions taken during a prior period	2	4
Gross increases and decreases ĭ tax positions taken during the current period	1	1
Decreases related to settlements of amounts due to tax authorities	(12)	ĭ
Reductions resulting from the lapse of statutes of limitation	(2)	(4)
Foreign currency movements	(1)	1
Unrecognized tax benefits as of December 31	$ 16	$ 28

As of December 31, 2020 and 2019, the amount of unrecognized tax benefits (not including interest and penalty expense) which, if recognized, would affect the effective tax rate is $16 million and $15 million, respectively.

During 2020, we concluded and settled tax examinations in the U.S. (various states), Thailand and Korea. During 2019, we concluded and settled tax examinations in the U.S. (federal and various states). During 2018, we concluded and settled tax examinations in various jurisdictions, including but not limited to, Egypt and the U.S. (federal and various states).

During 2020, for unrecognized tax benefits that impact tax expense, we recorded a net increase in unrecognized tax benefits with a corresponding income tax expenses (not including interest and penalty expense) of $1 million. During 2019, for unrecognized tax benefits that impacted tax expense, we recorded a net decrease in unrecognized tax benefits with a corresponding income tax benefit (not including interest and penalty expense) of $10 million. During 2018, for unrecognized tax benefits that impact tax expense, we recorded a net increase in unrecognized tax benefits with a corresponding income tax expenses (not including interest and penalty expense) of $5 million.

In accordance with our accounting policy, we continue to recognize interest and penalties accrued related to unrecognized tax benefits in income tax expense.

	Year ended December 31,		
	2020	2019	2018
Interest expense included in tax expense	$ 1	$ 2	$ ĭ
Penalties expense included in tax expense	ĭ	2	ĭ

	December 31,	
	2020	2019
Accrued liability for interest	$ 4	$ 5
Accrued liability for penalties	ĭ	2

We conduct business globally and, as a result, we file income tax returns in U.S. federal, various U.S. state and various non-U.S. jurisdictions. The following table summarizes the tax years that remain subject to examination by major tax jurisdictions:

Tax Jurisdiction	Open Tax Years
Belgium	2018 and later
China	2010 and later
France	2018 and later
Germany	2016 and later
Hong Kong	2014 and later
India	2004 and later
Italy	2015 and later
Japan	2017 and later
Mexico	2014 and later
Spain	2013 and later
Switzerland	2014 and later
The Netherlands	2016 and later
Thailand	2013 and later
United Kingdom	2017 and later
United States federal	2017 and later

Certain of our U.S. and non-U.S. income tax returns are currently under various stages of audit by applicable tax authorities and the amounts ultimately agreed upon in resolution of the issues raised may differ materially from the amounts accrued.

We estimate that it is reasonably possible that certain of our non-U.S. unrecognized tax benefits could change within 12 months of the reporting date with a resulting decrease in the unrecognized tax benefits within a reasonably possible range of $0 million to $2 million. For the 12-month period from the reporting date, we would expect that a decrease in our unrecognized tax benefits would result in a corresponding benefit to our income tax expense.

In connection with the provisions of U.S. Tax Reform, all non-U.S. earnings have generally been subject to U.S. tax and may be repatriated without incurring additional U.S. tax liability. Such repatriation may potentially be subject to limited foreign withholding taxes. We intend to continue to invest most of these earnings indefinitely within the local countries and do not expect to incur any significant additional taxes. There are certain countries where we do intend to repatriate some of our earnings, and we have accrued all withholding taxes for such amounts.

21. COMMITMENTS AND CONTINGENCIES

Purchase Commitments

We have various purchase commitments extending through 2039 for materials, supplies and services entered into in the ordinary course of business. Included in the purchase commitments table below are contracts which require minimum volume purchases that extend beyond one year or are renewable annually and have been renewed for 2020. Certain contracts allow for changes in minimum required purchase volumes in the event of a temporary or permanent shutdown of a facility. To the extent the contract requires a minimum notice period, such notice period has been included in the table below. The contractual purchase prices for substantially all of these contracts are variable based upon market prices, subject to annual negotiations. We have estimated our contractual obligations by using the terms of our current pricing for each contract. We also have a limited number of contracts which require a minimum payment even if no volume is purchased. We believe that all of our purchase obligations will be utilized in our normal operations. We made minimum payments of $2 million, $1 million and nil for the years ended December 31, 2020, 2019 and 2018, respectively, under such take or pay contracts without taking the product.

Total purchase commitments as of December 31, 2020 are as follows (dollars in millions):

Year ending December 31,		
2021	$	1,413
2022		982
2023		818
2024		696
2025		648
Thereafter		1,924
	$	6,481

Legal Matters

We are a party to various proceedings instituted by private plaintiffs, governmental authorities and others arising under provisions of applicable laws, including various environmental, products liability and other laws. Except as otherwise disclosed in this report, we do not believe that the outcome of any of these matters will have a material effect on our financial condition, results of operations or liquidity.

22. ENVIRONMENTAL, HEALTH AND SAFETY MATTERS

EHS Capital Expenditures

We may incur future costs for capital improvements and general compliance under EHS laws, including costs to acquire, maintain and repair pollution control equipment. For the years ended December 31, 2020, 2019 and 2018, our capital expenditures for EHS matters totaled $28 million, $42 million and $32 million, respectively. Because capital expenditures for these matters are subject to evolving regulatory requirements and depend, in part, on the timing, promulgation and enforcement of specific requirements, our capital expenditures for EHS matters have varied significantly from year to year and we cannot provide assurance that our recent expenditures are indicative of future amounts we may spend related to EHS and other applicable laws.

Environmental Reserves

We have accrued liabilities relating to anticipated environmental cleanup obligations, site reclamation and closure costs and known penalties. Liabilities are recorded when potential liabilities are either known or considered probable and can be reasonably estimated. Our liability estimates are calculated using present value techniques as appropriate and are based upon requirements placed upon us by regulators, available facts, existing technology and past experience. The environmental liabilities do not include amounts recorded as asset retirement obligations. We had accrued $4 million for environmental liabilities for both December 31, 2020 and 2019. Of these amounts, $1 million was classified as accrued liabilities in our consolidated balance sheets for both December 31, 2020 and 2019, and $3 million were classified as other noncurrent liabilities in our consolidated balance sheets for both December 31, 2020 and 2019. In certain cases, our remediation liabilities may be payable over periods of up to 30 years. We may incur losses for environmental remediation in excess of the amounts accrued; however, we are not able to estimate the amount or range of such potential excess.

Environmental Matters

Under the Comprehensive Environmental Response, Compensation, and Liability Act (ĭ CERCLA ĭ) and similar state laws, a current or former owner or opera of real property in the U.S. may be liable for remediation costs regardless of whether the release or disposal of hazardous substances was in compliance with law at the time it occurred, and a current owner or operator may be liable regardless of whether it owned or operated the facility at the time of the release. Outside the U.S., analogous contaminated property laws, such as those in effect in France and Australia, can hold past owners and/or operators liable for remediation at former facilities. Currently, there are approximately six former facilities or third-party sites in the U.S. for which we have been notified of potential claims against us for cleanup liabilities, including, but not limited to, sites listed under CERCLA. Based on current information and past experiences at other CERCLA sites, we do not expect these third-party claims to have a material impact on our consolidated financial statements.

Under the Resource Conservation and Recovery Act (ĭ RCRA ĭ) in the U.S. and similar state laws, we may be required to remediate contamination originating from our properties as a condition to our hazardous waste permit. Some of our manufacturing sites have an extended history of industrial chemical manufacturing and use, including on-site waste disposal. We are aware of soil, groundwater or surface contamination from past operations at some of our sites, and we may find contamination at other sites in the future. For example, our Geismar, Louisiana facility is the subject of ongoing remediation requirements imposed under RCRA. Similar laws exist in a number of locations in which we currently operate, or previously operated, manufacturing facilities, such as Australia, India, France, Hungary and Italy.

North Maybe Canyon Mine Remediation

The North Maybe Canyon Mine site is a CERCLA site and involves a former phosphorous mine near Soda Springs, Idaho, which is believed to have been operated by several companies, including a predecessor company to us. In 2004, the U.S. Forest Service notified us that we are a CERCLA potentially responsible party (ĭ PRP ĭ) for contamination originating from the site. In February 2010, we and Wells Cargo (another PRP) agreed to conduct a Remedial Investigation/Feasibility Stud a portion of the site and are currently engaged in that process. At this time, we are unable to reasonably estimate our potential liabilities at this site.

23. HUNTSMAN CORPORATION STOCKHOLDERS ĭ EQUITY

Share Repurchase Program

On February 7, 2018 and on May 3, 2018, our Board of Directors authorized us to repurchase up to an additional $950 million in shares of our common stock in addition to the $50 million remaining under our September 2015 share repurchase authorization. The share repurchase program will be supported by our free cash flow generation. Repurchases may be made through the open market, including through accelerated share repurchase programs, or in privately negotiated transactions, and repurchases may be commenced or suspended from time to time without prior notice. Shares of common stock acquired through the repurchase program are held in treasury at cost. During the first quarter of 2020, we repurchased 5,364,519 shares of our common stock for approximately $96 million, excluding commissions, under the repurchase program. Subsequent to the end of the first quarter of 2020, we suspended share repurchases under our existing share repurchase program in order to enhance our liquidity position in response to COVID-19.

Dividends on Common Stock

The following tables represent dividends on common stock for our Company for the years ended December 31, 2020 and 2019 (dollars in millions, except per share payment amounts):

	2020	
Quarter ended	Per share payment amount	Approximate amount paid
March 31, 2020	$ 0.1625	$ 37
June 30, 2020	0.1625	36
September 30, 2020	0.1625	36
December 31, 2020	0.1625	35

	2019	
Quarter ended	Per share payment amount	Approximate amount paid
March 31, 2019	$ 0.1625	$ 39
June 30, 2019	0.1625	38
September 30, 2019	0.1625	38
December 31, 2019	0.1625	35

24. STOCK-BASED COMPENSATION PLAN

Under the 2016 Stock Incentive Plan, we may grant nonqualified stock options, incentive stock options, stock appreciation rights, restricted stock, phantom stock, performance share units and other stock-based awards to our employees, directors and consultants and to employees and consultants of our subsidiaries, provided that incentive stock options may be granted solely to employees. The terms of the grants under both the 2016 Stock Incentive Plan and the Prior Plan are fixed at the grant date. Initially, there were approximately 8.2 million shares available for issuance under the 2016 Stock Incentive Plan. However, the number of shares available for issuance may be adjusted to include any shares surrendered, exchanged, forfeited or settled in cash pursuant to the Prior Plan. As of December 31, 2020, we had approximately 7 million shares remaining under the 2016 Stock Incentive Plan available for grant. Option awards have a maximum contractual term of 10 years and generally must have an exercise price at least equal to the market price of our common stock on the date the option award is granted. Outstanding stock-based awards generally vest over a three-year period.

The compensation cost under the 2016 Stock Incentive Plan and the Prior Plan for our Company and Huntsman International were as follows (dollars in millions):

	Year ended December 31,		
	2020	2019	2018
Huntsman Corporation compensation cost	$ 27	$ 29	$ 27
Huntsman International compensation cost	26	28	26

The total income tax benefit recognized in the statement of operations for stock-based compensation arrangements was $4 million, $8 million and $18 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Stock Options

The fair value of each stock option award is estimated on the date of grant using the Black-Scholes valuation model that uses the assumptions noted in the following table. Expected volatilities are based on the historical volatility of our common stock through the grant date. The expected term of options granted was estimated based on the contractual term of the instruments and employees ĭ expected exercise and post-vesting employment termination behavior. The risk-free rate for periods within the contractual life of the option was based on the U.S. Treasury yield curve in effect at the time of grant. The assumptions noted below represent the weighted averages of the assumptions utilized for all stock options granted during the year.

	Year ended December 31,		
	2020	2019	2018
Dividend yield	3.0%	2.9%	1.6%
Expected volatility	53.1%	54.0%	55.2%
Risk-free interest rate	1.4%	2.5%	2.6%
Expected life of stock options granted during the period (in years)	5.9	5.9	5.9

A summary of stock option activity under the 2016 Stock Incentive Plan and the Prior Plan as of December 31, 2020 and changes during the year then ended is presented below:

Option Awards	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
	(in thousands)		(years)	(in millions)
Outstanding at January 1, 2020	5,025	$ 19.08		
Granted	788	21.52		
Exercised	(829)	12.81		
Forfeited	(169)	24.28		
Outstanding at December 31, 2020	4,815	20.37	6.0	$ 26
Exercisable at December 31, 2020	3,371	19.23	4.9	22

The weighted-average grant-date fair value of stock options granted during 2020, 2019 and 2018 was $8.25, $9.27 and $15.20 per option, respectively. As of December 31, 2020, there was $7 million of total unrecognized compensation cost related to nonvested stock option arrangements granted under the 2016 Stock Incentive Plan and the Prior Plan. That cost is expected to be recognized over a weighted-average period of approximately 1.8 years.

During the years ended December 31, 2020, 2019 and 2018, the total intrinsic value of stock options exercised was approximately $9 million, $4 million and $78 million, respectively. Cash received from stock options exercised during the years ended December 31, 2020, 2019 and 2018 was approximately $3 million, $2 million and $17 million, respectively. The cash tax benefit from stock options exercised during the years ended December 31, 2020, 2019 and 2018 was approximately $2 million, $1 million, and $17 million, respectively.

NONVESTED SHARES

Nonvested shares granted under the 2016 Stock Incentive Plan and the Prior Plan consist of restricted stock and performance share unit awards, which are accounted for as equity awards, and phantom stock, which is accounted for as a liability award because it can be settled in either stock or cash.

The fair value of each performance share unit award is estimated using a Monte Carlo simulation model that uses various assumptions, including an expected volatility rate and a risk-free interest rate. For the years ended December 31, 2020, 2019 and 2018, the weighted-average expected volatility rate was 34.0%, 34.6% and 44.3%, respectively, and the weighted average risk-free interest rate was 1.4%, 2.5% and 2.3%, respectively. For the performance share unit awards granted during the years ended December 31, 2020, 2019 and 2018, the number of shares earned varies based upon the Company achieving certain performance criteria over a three-year performance period. The performance criteria are total stockholder return of our common stock relative to the total stockholder return of a specified industry peer group for the three-year performance periods.

A summary of the status of our nonvested shares as of December 31, 2020 and changes during the year then ended is presented below:

	Equity Awards		Liability Awards	
	Shares	Weighted Average Grant-Date Fair Value	Shares	Weighted Average Grant-Date Fair Value
	(in thousands)		(in thousands)	
Nonvested at January 1, 2020	1,640	$ 24.61	427	$ 24.80
Granted	848	21.92	238	21.53
Vested	(577) [1] [2]	25.15	(218)	24.64
Forfeited	(44)	26.44	(36)	23.71
Nonvested at December 31, 2020	1,867	23.18	411	23.08

(1) As of December 31, 2020, a total of 426,856 restricted stock units were vested but not yet issued, of which 37,761 vested during 2020. These shares have not been reflected as vested shares in this table because, in accordance with the restricted stock unit agreements, shares of common stock are not issued for vested restricted stock units until termination of employment.

(2) A total of 174,200 performance share unit awards are reflected in the vested shares in this table, which represents the target number of performance share unit awards for this grant and were included in the balance at December 31, 2019. During the year ended December 31, 2020, an additional 165,489 performance share unit awards with a grant date fair value of $26.99 vested above the target in accordance the performance criteria of these awards.

As of December 31, 2020, there was $23 million of total unrecognized compensation cost related to nonvested share compensation arrangements granted under the Stock Incentive Plan and the Prior Plan. That cost is expected to be recognized over a weighted-average period of approximately 1.8 years. The value of share awards that vested during each of the years ended December 31, 2020, 2019 and 2018 was $24 million.

25. OTHER COMPREHENSIVE (LOSS) INCOME

Other comprehensive loss consisted of the following (dollars in millions):

Huntsman Corporation

	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman Corporation
Beginning balance, January 1, 2020	$ (369)	$ (1,031)	$ 8	$ 4	$ (1,388)	$ 26	$ (1,362)
Other comprehensive income (loss) before reclassifications, gross	29	(135)	ĭ	ĭ	(106)	(6)	(112)
Tax benefit	12	30	ĭ	ĭ	42	ĭ	42
Amounts reclassified from accumulated other comprehensive loss, gross(c)	ĭ	111	ĭ	ĭ	111	ĭ	111
Tax expense	ĭ	(25)	ĭ	ĭ	(25)	ĭ	(25)
Net current-period other comprehensive income (loss)	41	(19)	ĭ	ĭ	22	(6)	16
Ending balance, December 31, 2020	$ (328)	$ (1,050)	$ 8	$ 4	$ (1,366)	$ 20	$ (1,346)

(a) Amounts are net of tax of $56 and $68 as of December 31, 2020 and January 1, 2020, respectively.
(b) Amounts are net of tax of $153 and $148 as of December 31, 2020 and January 1, 2020, respectively.
(c) See table below for details about these reclassifications.

	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman Corporation
Beginning balance, January 1, 2019	$ (371)	$ (994)	$ 8	$ 5	$ (1,352)	$ 36	$ (1,316)
Other comprehensive (loss) income before reclassifications, gross	ĭ	(112)	ĭ	(1)	(113)	5	(108)
Tax benefit	2	25	ĭ	ĭ	27	ĭ	27
Amounts reclassified from accumulated other comprehensive loss, gross(c)	ĭ	62	ĭ	ĭ	62	ĭ	62
Tax expense	ĭ	(12)	ĭ	ĭ	(12)	ĭ	(12)
Net current-period other comprehensive (loss) income	2	(37)	ĭ	(1)	(36)	5	(31)
Acquisition of noncontrolling interest	ĭ	ĭ	ĭ	ĭ	ĭ	(15)	(15)
Ending balance, December 31, 2019	$ (369)	$ (1,031)	$ 8	$ 4	$ (1,388)	$ 26	$ (1,362)

(a) Amounts are net of tax of $68 and $71 as of December 31, 2019 and January 1, 2019, respectively.
(b) Amounts are net of tax of $148 and $135 as of December 31, 2019 and January 1, 2019, respectively.
(c) See table below for details about these reclassifications.

Details about Accumulated Other Comprehensive Loss Components(a):	Amounts reclassified from accumulated other comprehensive loss Year ended December 31, 2020	2019	2018	Affected line item in where net income is presented
Amortization of pension and other postretirement benefits:				
Prior service credit	$ (12)	$ (11)	$ (12)	(b)
Settlement loss	43	1	2	
Curtailment gain	(2)	ĭ	ĭ	
Actuarial loss	82	72	87	(b)(c)
	111	62	77	Total before tax
	(25)	(12)	(13)	Income tax expense
Total reclassifications for the period	$ 86	$ 50	$ 64	Net of tax

(a) Pension and other postretirement benefits amounts in parentheses indicate credits on our consolidated statements of operations.
(b) These accumulated other comprehensive loss components are included in the computation of net periodic pension costs. See ĭ Note 19. Employee Benefit Plans. ĭ
(c) Amounts contain approximately $5, $7 and $22 of prior service credit and actuarial loss related to discontinued operations for the years ended December 31, 2020, 2019 and 2018, respectively.

Huntsman International

	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman International
Beginning balance, January 1, 2020	$ (374)	$ (1,012)	$ 8	$ ĭ	$ (1,378)	$ 26	$ (1,352)
Other comprehensive income (loss) before reclassifications, gross	29	(135)	ĭ	ĭ	(106)	(6)	(112)
Tax benefit	12	30	ĭ	ĭ	42	ĭ	42
Amounts reclassified from accumulated other comprehensive loss, gross(c)	ĭ	115	ĭ	ĭ	115	ĭ	115
Tax expense	ĭ	(26)	ĭ	ĭ	(26)	ĭ	(26)
Net current-period other comprehensive (loss) income	41	(16)	ĭ	ĭ	25	(6)	19
Ending balance, December 31, 2020	$ (333)	$ (1,028)	$ 8	$ ĭ	$ (1,353)	$ 20	$ (1,333)

(a) Amounts are net of tax of $43 and $55 as of December 31, 2020 and January 1, 2020, respectively.
(b) Amounts are net of tax of $178 and $174 as of December 31, 2020 and January 1, 2020, respectively.
(c) See table below for details about these reclassifications.

	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman International
Beginning balance, January 1, 2019	$ (376)	$ (977)	$ 8	$ 1	$ (1,344)	$ 36	$ (1,308)
Other comprehensive (loss) income before reclassifications, gross	ĭ	(113)	ĭ	(1)	(114)	5	(109)
Tax benefit	2	25	ĭ	ĭ	27	ĭ	27
Amounts reclassified from accumulated other comprehensive loss, gross(c)	ĭ	65	ĭ	ĭ	65	ĭ	65
Tax expense	ĭ	(12)	ĭ	ĭ	(12)	ĭ	(12)
Net current-period other comprehensive (loss) income	2	(35)	ĭ	(1)	(34)	5	(29)
Acquisition of noncontrolling interest	ĭ	ĭ	ĭ	ĭ	ĭ	(15)	(15)
Ending balance, December 31, 2019	$ (374)	$ (1,012)	$ 8	$ ĭ	$ (1,378)	$ 26	$ (1,352)

(a) Amounts are net of tax of $55 and $57 as of December 31, 2019 and January 1, 2019, respectively.
(b) Amounts are net of tax of $174 and $161 as of December 31, 2019 and January 1, 2019, respectively.
(c) See table below for details about these reclassifications.

Details about Accumulated Other Comprehensive Loss Components(a):	Amounts reclassified from accumulated other comprehensive loss Year ended December 31, 2020	2019	2018	Affected line item in where net income is presented
Amortization of pension and other postretirement benefits:				
Prior service credit	$ (12)	$ (11)	$ (12)	(b)
Settlement loss	43	1	2	(c)
Curtailment gain	(2)	ĭ	ĭ	(c)
Actuarial loss	86	75	90	(b)(c)
	115	65	80	Total before tax
	(26)	(12)	(14)	Income tax expense
Total reclassifications for the period	$ 89	$ 53	$ 66	Net of tax

(a) Pension and other postretirement benefits amounts in parentheses indicate credits on our consolidated statements of operations.
(b) These accumulated other comprehensive loss components are included in the computation of net periodic pension costs. See ĭ Note 19. Employee Benefit Plans. ĭ
(c) Amounts contain approximately $5, $7 and $22 of prior service credit and actuarial loss related to discontinued operations for the years ended December 31, 2020, 2019 and 2018, respectively.

Items of other comprehensive income (loss) of our Company and our consolidated affiliates have been recorded net of tax, with the exception of the foreign currency translation adjustments related to subsidiaries with earnings permanently reinvested. The tax effect is determined based upon the jurisdiction where the income or loss was recognized and is net of valuation allowances.

26. RELATED PARTY TRANSACTIONS

Our consolidated financial statements include the following transactions with our affiliates not otherwise disclosed (dollars in millions):

	Year ended December 31,		
	2020	2019	2018
Sales to:			
Unconsolidated affiliates	$ 115	$ 133	$ 153
Inventory purchases from:			
Unconsolidated affiliates	407	434	411

27. OPERATING SEGMENT INFORMATION

We derive our revenues, earnings and cash flows from the manufacture and sale of a wide variety of differentiated and commodity chemical products. We have four operating segments, which are also our reportable segments: Polyurethanes, Performance Products, Advanced Materials and Textile Effects. We have organized our business and derived our operating segments around differences in product lines.

The major products of each reportable operating segment are as follows:

Segment	Products
Polyurethanes	MDI, polyols, TPU and other polyurethane-related products
Performance Products	Specialty amines, ethyleneamines, maleic anhydride and technology licenses
Advanced Materials	Basic liquid and solid epoxy resins; specialty resin compounds; cross-linking, matting and curing agents; epoxy, acrylic and polyurethane-based formulations
Textile Effects	Textile chemicals and dyes

Sales between segments are generally recognized at external market prices and are eliminated in consolidation. We use adjusted EBITDA to measure the financial performance of our global business units and for reporting the results of our operating segments. This measure includes all operating items relating to the businesses. The adjusted EBITDA of operating segments excludes items that principally apply to our Company as a whole. The revenues and adjusted EBITDA for each of our reportable operating segments are as follows (dollars in millions):

	Year ended December 31,		
	2020	2019	2018
Revenues:			
Polyurethanes	$ 3,584	$ 3,911	$ 4,282
Performance Products	1,023	1,158	1,301
Advanced Materials	839	1,044	1,116
Textile Effects	597	763	824
Corporate and eliminations	(25)	(79)	81
Total	$ 6,018	$ 6,797	$ 7,604
Huntsman Corporation:			
Segment adjusted EBITDA(1):			
Polyurethanes	$ 472	$ 548	$ 809
Performance Products	164	168	197
Advanced Materials	130	201	225
Textile Effects	42	84	101
Corporate and other(2)	(161)	(155)	(171)
Total	647	846	1,161
Reconciliation of adjusted EBITDA to net income:			
Interest expense, net – continuing operations	(86)	(111)	(115)
Interest expense, net – discontinued operations	–	–	(36)
Income tax (expense) benefit – continuing operations	(46)	38	(45)
Income tax expense – discontinued operations	(242)	(35)	(86)
Depreciation and amortization – continuing operations	(283)	(270)	(255)
Depreciation and amortization – discontinued operations	–	(61)	(88)
Net income attributable to noncontrolling interests	32	36	313
Other adjustments:			
Business acquisition and integration expenses and purchase accounting inventory adjustments	(31)	(5)	(9)
Merger costs	–	–	(2)
EBITDA from discontinued operations	1,017	265	171
Noncontrolling interest of discontinued operations	–	–	(232)
Fair value adjustments to Venator investment and related loss on disposal	(88)	(18)	(62)
Loss on early extinguishment of debt	–	(23)	(3)
Certain legal and other settlements and related expenses	(5)	(6)	(1)
Gain (loss) on sale of businesses/assets	280	(21)	–
Income from transition services arrangements	7	–	–
Certain nonrecurring information technology project implementation costs	(6)	(4)	–
Amortization of pension and postretirement actuarial losses	(76)	(66)	(67)
Plant incident remediation costs	(2)	(8)	–
Restructuring, impairment and plant closing and transition (costs) credits	(52)	41	6
Net income	$ 1,066	$ 598	$ 650

	Year ended December 31,		
	2020	2019	2018
Depreciation and Amortization:			
Polyurethanes	$ 130	$ 120	$ 108
Performance Products	79	81	78
Advanced Materials	45	36	37
Textile Effects	16	16	16
Corporate and other	13	17	16
Total	$ 283	$ 270	$ 255

	Year ended December 31,		
	2020	2019	2018
Capital Expenditures:			
Polyurethanes	$ 172	$ 185	$ 153
Performance Products	32	32	48
Advanced Materials	21	24	20
Textile Effects	12	22	20
Corporate and other	12	11	10
Total	$ 249	$ 274	$ 251

	December 31,	
	2020	2019
Total Assets:		
Polyurethanes	$ 3,970	$ 3,437
Performance Products	1,062	1,125
Advanced Materials	1,002	774
Textile Effects	481	511
Corporate and other	2,198	1,265
Total	$ 8,713	$ 7,112

	December 31,	
	2020	2019
Goodwill:		
Polyurethanes	$ 312	$ 177
Performance Products	18	16
Advanced Materials	203	83
Total	$ 533	$ 276

	Year ended December 31,		
	2020	2019	2018
Huntsman International:			
Segment adjusted EBITDA(1):			
Polyurethanes	$ 472	$ 548	$ 809
Performance Products	164	168	197
Advanced Materials	130	201	225
Textile Effects	42	84	101
Corporate and other(2)	(155)	(150)	(167)
Total	653	851	1,165
Reconciliation of adjusted EBITDA to net income:			
Interest expense, net – continuing operations	(88)	(126)	(136)
Interest expense, net – discontinued operations	–	–	(36)
Income tax (expense) benefit – continuing operations	(46)	41	(41)
Income tax expense – discontinued operations	(242)	(35)	(86)
Depreciation and amortization – continuing operations	(283)	(270)	(252)
Depreciation and amortization – discontinued operations	–	(61)	(88)
Net income attributable to noncontrolling interests	32	36	313
Other adjustments:			
Business acquisition and integration expenses and purchase accounting inventory adjustments	(31)	(5)	(9)
Merger costs	–	–	(2)
EBITDA from discontinued operations	1,017	265	171
Noncontrolling interest of discontinued operations	–	–	(232)
Fair value adjustments to Venator investment and related loss on disposal	(88)	(18)	(62)
Loss on early extinguishment of debt	–	(23)	(3)
Certain legal and other settlements and related expenses	(5)	(6)	(1)
Gain (loss) on sale of businesses/assets	280	(21)	–
Income from transition services arrangements	7	–	–
Certain nonrecurring information technology project implementation costs	(6)	(4)	–
Amortization of pension and postretirement actuarial losses	(79)	(70)	(71)
Plant incident remediation costs	(2)	(8)	–
Restructuring, impairment and plant closing and transition (costs) credits	(52)	41	6
Net income	$ 1,067	$ 587	$ 636

	Year ended December 31,		
	2020	2019	2018
Depreciation and Amortization:			
Polyurethanes	$ 130	$ 120	$ 108
Performance Products	79	81	78
Advanced Materials	45	36	37
Textile Effects	16	16	16
Corporate and other	13	17	13
Total	$ 283	$ 270	$ 252

	Year ended December 31,		
	2020	2019	2018
Capital Expenditures:			
Polyurethanes	$ 172	$ 185	$ 153
Performance Products	32	32	48
Advanced Materials	21	24	20
Textile Effects	12	22	20
Corporate and other	12	11	10
Total	$ 249	$ 274	$ 251

	December 31, 2020	December 31, 2019
Total Assets:		
Polyurethanes	$ 3,970	$ 3,437
Performance Products	1,062	1,125
Advanced Materials	1,002	774
Textile Effects	481	511
Corporate and other	2,241	1,668
Total	$ 8,756	$ 7,515

	December 31, 2020	December 31, 2019
Goodwill:		
Polyurethanes	$ 312	$ 177
Performance Products	18	16
Advanced Materials	203	83
Total	$ 533	$ 276

(1) We use segment adjusted EBITDA as the measure of each segment ĭ s profit or loss. We believe that segment adjusted EBITDA more accurately reflects what the chief operating decision maker uses to make decisions about resources to be allocated to the segments and assess their financial performance. Segment adjusted EBITDA is defined as net income of Huntsman Corporation or Huntsman International, as appropriate, before interest, income tax, depreciation and amortization, net income attributable to noncontrolling interests and certain Corporate and other items, as well as eliminating the following adjustments: (a) business acquisition and integration expenses and purchase accounting inventory adjustments; (b) merger costs; (c) EBITDA from discontinued operations; (d) noncontrolling interest of discontinued operations; (e) fair value adjustments to Venator investment and related loss on disposal; (f) loss on early extinguishment of debt; (g) certain legal and other settlements and related expenses; (h) gain (loss) on sale of businesses/assets; (i) income from transition services arrangements related to the sale of our Chemical Intermediates Businesses to Indorama; (j) certain nonrecurring information technology project implementation costs; (k) amortization of pension and postretirement actuarial losses; (l) plant incident remediation costs; and (m) restructuring, impairment, plant closing and transition (costs) credits .

(2) Corporate and other includes unallocated corporate overhead, unallocated foreign exchange gains and losses, LIFO inventory valuation reserve adjustments, nonoperating income and expense and gains and losses on the disposition of corporate assets.

	Year ended December 31, 2020	2019	2018
Revenues by geographic area(1):			
United States	$ 1,863	$ 2,025	$ 2,136
China	1,115	1,076	1,260
Germany	388	541	537
India	211	319	352
Other nations	2,441	2,836	3,319
Total	$ 6,018	$ 6,797	$ 7,604

	December 31, 2020	December 31, 2019
Long-lived assets(2):		
United States	$ 1,078	$ 970
The Netherlands	368	334
China	251	247
Germany	144	137
Saudi Arabia	143	154
Singapore	90	94
Switzerland	73	106
Other nations	358	341
Total	$ 2,505	$ 2,383

(1) Geographic information for revenues is based upon countries into which product is sold.

(2) Long-lived assets consist of property, plant and equipment, net.

HUNTSMAN CORPORATION (PARENT ONLY)
Schedule I ĭ Condensed Financial Information of Registrant
HUNTSMAN CORPORATION (Parent Only)
BALANCE SHEETS
(In Millions, Except Share and Per Share Amounts)

	December 31,	
	2020	**2019**
ASSETS		
Cash and cash equivalents	$ 2	$ ĭ
Prepaid assets	2	1
Receivable from affiliate	3	86
Note receivable from affiliate	ĭ	100
Total current assets	7	187
Note receivable from affiliate-noncurrent	ĭ	280
Investment in and advances to affiliates	3,561	2,626
Total assets	$ 3,568	$ 3,093
LIABILITIES AND STOCKHOLDERS ĭ EQUITY		
Payable to affiliate	$ 39	$ 396
Accrued liabilities	3	3
Total current liabilities	42	399
Other noncurrent liabilities	7	7
Total liabilities	49	406
STOCKHOLDERS ĭ EQUITY		
Common stock $0.01 par value, 1,200,000,000 shares authorized, 258,520,411 and 257,405,496 shares issued and 220,046,262 and 224,295,868 shares outstanding, respectively	3	3
Additional paid-in capital	4,048	4,008
Treasury stock, 38,477,091 and 33,112,572 shares, respectively	(731)	(635)
Unearned stock-based compensation	(19)	(17)
Retained earnings	1,564	690
Accumulated other comprehensive loss	(1,346)	(1,362)
Total stockholders ĭ equity	3,519	2,687
Total liabilities and stockholders ĭ equity	$ 3,568	$ 3,093

This statement should be read in conjunction with the notes to the consolidated financial statements.

HUNTSMAN CORPORATION (Parent Only)
STATEMENTS OF OPERATIONS
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Selling, general and administrative expenses	$ (6)	$ (5)	$ (4)
Interest income	2	15	21
Equity in income of subsidiaries	892	401	163
Dividend income ĭ affiliate	144	148	154
Other income	2	3	3
Net income	$ 1,034	$ 562	$ 337

This statement should be read in conjunction with the notes to the consolidated financial statements.

HUNTSMAN CORPORATION (Parent Only)
STATEMENTS OF COMPREHENSIVE INCOME
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Net income	$ 1,034	$ 562	$ 337
Other comprehensive income, net of tax:			
Foreign currency translations adjustments	41	2	(192)
Pension and other postretirement benefits adjustments	(19)	(37)	(39)
Other, net	32	35	304
Other comprehensive income, net of tax	54	ĭ	73
Comprehensive income	1,088	562	410
Comprehensive income attributable to noncontrolling interests	(38)	(31)	(266)
Comprehensive income attributable to Huntsman Corporation	$ 1,050	$ 531	$ 144

This statement should be read in conjunction with the notes to the consolidated financial statements.

HUNTSMAN CORPORATION (Parent Only)
STATEMENTS OF STOCKHOLDERS ï EQUITY
(In Millions, Except Shares Amounts)

	Huntsman Corporation Stockholders ï Equity							
	Shares Common stock	Common stock	Additional paid-in capital	Treasury stock	Unearned stock-based compensation	Retained earnings	Accumulated other comprehensive loss	Total equity
Beginning balance, January 1, 2018	240,213,606	$ 3	$ 3,889	$ (150)	$ (15)	$ 161	$ (1,268)	$ 2,620
Cumulative effect of changes in fair value of equity investments	ï	ï	ï	ï	ï	10	(10)	ï
Net income	ï	ï	ï	ï	ï	337	ï	337
Other comprehensive loss	ï	ï	ï	ï	ï	ï	(198)	(198)
Issuance of nonvested stock awards	ï	ï	14	ï	(14)	ï	ï	ï
Vesting of stock awards	1,135,003	ï	11	ï	ï	ï	ï	11
Recognition of stock-based compensation	ï	ï	8	ï	13	ï	ï	21
Repurchase and cancellation of stock awards	(259,643)	ï	ï	ï	ï	(30)	ï	(30)
Stock options exercised	2,310,663	ï	46	ï	ï	(29)	ï	17
Treasury stock repurchased	(10,405,457)	ï	ï	(277)	ï	ï	ï	(277)
Disposition of a portion of Venator	ï	ï	18	ï	ï	ï	ï	18
Costs of the secondary offering of Venator	ï	ï	(2)	ï	ï	ï	ï	(2)
Deconsolidation of Venator	ï	ï	ï	ï	ï	ï	160	160
Accrued and unpaid dividends	ï	ï	ï	ï	ï	(1)	ï	(1)
Dividends declared on common stock	ï	ï	ï	ï	ï	(156)	ï	(156)
Balance, December 31, 2018	232,994,172	3	3,984	(427)	(16)	292	(1,316)	2,520
Net income	ï	ï	ï	ï	ï	562	ï	562
Other comprehensive loss	ï	ï	ï	ï	ï	ï	(46)	(46)
Issuance of nonvested stock awards	ï	ï	17	ï	(17)	ï	ï	ï
Vesting of stock awards	1,643,368	ï	7	ï	ï	ï	ï	7
Recognition of stock-based compensation	ï	ï	7	ï	16	ï	ï	23
Repurchase and cancellation of stock awards	(488,441)	ï	ï	ï	ï	(12)	ï	(12)
Stock options exercised	246,661	ï	4	ï	ï	(2)	ï	2
Treasury stock repurchased	(10,099,892)	ï	ï	(208)	ï	ï	ï	(208)
Acquisition of noncontrolling interests, net of tax	ï	ï	(11)	ï	ï	ï	ï	(11)
Dividends declared on common stock	ï	ï	ï	ï	ï	(150)	ï	(150)
Balance, December 31, 2019	224,295,868	3	4,008	(635)	(17)	690	(1,362)	2,687
Net income	ï	ï	ï	ï	ï	1,034	ï	1,034
Other comprehensive loss	ï	ï	ï	ï	ï	ï	16	16
Issuance of nonvested stock awards	ï	ï	18	ï	(18)	ï	ï	ï
Vesting of stock awards	960,406	ï	5	ï	ï	ï	ï	5
Recognition of stock-based compensation	ï	ï	7	ï	16	ï	ï	23
Repurchase and cancellation of stock awards	(287,247)	ï	ï	ï	ï	(8)	ï	(8)
Stock options exercised	441,754	ï	10	ï	ï	(7)	ï	3
Treasury stock repurchased	(5,364,519)	ï	ï	(96)	ï	ï	ï	(96)
Dividends declared on common stock	ï	ï	ï	ï	ï	(145)	ï	(145)
Balance, December 31, 2020	220,046,262	$ 3	$ 4,048	$ (731)	$ (19)	$ 1,564	$ (1,346)	$ 3,519

This statement should be read in conjunction with the notes to the consolidated financial statements.

HUNTSMAN CORPORATION (Parent Only)
STATEMENTS OF CASH FLOWS
(In Millions)

	Year ended December 31,		
	2020	**2019**	**2018**
Operating Activities:			
Net income	$ 1,034	$ 562	$ 337
Equity in income of subsidiaries	(892)	(401)	(163)
Stock-based compensation	1	1	1
Noncash interest income	(2)	(15)	(21)
Changes in operating assets and liabilities	(1)	13	19
Net cash provided by operating activities	140	160	173
Investing Activities:			
Repayments of loan by affiliate	380	207	255
Net cash provided by investing activities	380	207	255
Financing Activities:			
Dividends paid to common stockholders	(144)	(150)	(156)
Repurchase and cancellation of stock awards	(8)	(12)	(30)
Proceeds from issuance of common stock	3	2	17
Repurchase of common stock	(96)	(208)	(277)
(Decrease) increase in payable to affiliates	(273)	1	16
Net cash used in financing activities	(518)	(367)	(430)
Increase (decrease) in cash and cash equivalents	2	ĭ	(2)
Cash and cash equivalents at beginning of period	ĭ	ĭ	2
Cash and cash equivalents at end of period	$ 2	$ ĭ	$ ĭ

This statement should be read in conjunction with the notes to the consolidated financial statements.

Exhibit 3.2

SIXTH
AMENDED AND RESTATED BYLAWS

OF

HUNTSMAN CORPORATION

Dated as of June 16, 2020

(as amended by Amendment to Sixth Amended and Restated Bylaws of Huntsman Corporation, effective as of October 28, 2020)

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SIXTH AMENDED AND RESTATED BYLAWS
OF
HUNTSMAN CORPORATION

ARTICLE I
OFFICES AND RECORDS

Huntsman Corporation (the "Corporation") shall maintain a registered office in Delaware and may maintain such other offices and keep its books, documents and records at such places within or without Delaware as may, from time to time, be designated by the board of directors of the Corporation (collectively, the "Board" and each director, a "Director").

ARTICLE II
STOCKHOLDERS

Section 2.1. Annual Meeting. The annual meeting of the stockholders of the Corporation shall be held on such date and at such time as may be fixed by resolution of the Board.

Section 2.2. Special Meeting.

(a) Called by the Corporation. Special meetings of the stockholders of the Corporation for any purpose or purposes may be called by: (i) the Board pursuant to a resolution stating the purpose or purposes thereof approved by a majority of the total number of authorized Directors, whether or not there exists any vacancy in previously authorized directorships (the "Whole Board") or (ii) the Chairman of the Board.

(b) At the Request of Stockholders. Except as otherwise required by law and subject to the rights of the holders of any class or series of stock having a preference over the Common Stock, as defined in the Amended and Restated Certificate of Incorporation of the Corporation (the "Certificate of Incorporation"), as to dividends or upon liquidation, this Section 2.2(b) is the exclusive means by which one or more stockholders of the Corporation may request the calling of a special meeting of stockholders of the Corporation. Special meetings of stockholders of the Corporation shall be called by the Secretary at the written request of one or more stockholders of record that collectively (x) Own (as defined herein) shares representing at least 15% (the "Requisite Percentage") of the outstanding shares of the capital stock of the Corporation entitled to vote on the matter or matters proposed to be brought before the proposed special meeting and (y) have Owned the Requisite Percentage of such shares for at least 365 consecutive days (the "Requisite Holding Period") prior to the date of such request, provided that a special meeting called at the request of one or more stockholders (a "Stockholder Requested Special Meeting") shall be called by the Secretary only if the stockholder(s) requesting such meeting provide the information required by this Section 2.2(b) regarding such stockholder(s) and the proposed special meeting and otherwise comply with this Section 2.2(b). In order for a Stockholder Requested Special Meeting to be required to be called by the Secretary, one or more valid written requests for a special meeting (individually or collectively, a "Special Meeting Request") signed and dated by stockholders of record that collectively Own the Requisite Percentage of the outstanding shares of the capital stock of the Corporation entitled to vote on the matter or matters proposed to be brought before the proposed special meeting (or their duly authorized agents), must be delivered to and received by the Secretary at the principal executive offices of the Corporation (the date of such receipt, the "Request Receipt Date") and must be accompanied by:

(i) with respect to any nomination of Director(s) to the Board or any other business proposed to be presented at any Stockholder Requested Special Meeting, the same information described in Section 2.8(a)(iii) and, with respect to any nomination of Director(s) to the Board, the completed and signed questionnaire, representation and agreement that would be required by Section 2.8(d); and

(ii) (A) as to each stockholder of record signing such request, or if such stockholder of record is a nominee or custodian, beneficial owner(s) on whose behalf such request is signed, an affidavit by each such person (x) stating the number of shares of capital stock of the Corporation that it Owns as of the date such request was signed and (y) agreeing to (I) continue to Own such number of shares of capital stock of the Corporation through the date of the Stockholder Requested Special Meeting and (II) update and supplement such affidavit as of the record date for the Stockholder Requested Special Meeting (such update and supplement shall be delivered to the Secretary at the principal executive offices of the Corporation not later than five business days after the record date for such Stockholder Requested Special Meeting) and as of the date that is no more than ten business days prior to the date of the Stockholder Requested Special Meeting (such update and supplement shall be delivered to the Secretary at the principal executive offices of the Corporation not later than five business days prior to the date of such Stockholder Requested Special Meeting); provided that in the event of any decrease in of the number of shares of capital stock of the Corporation entitled to vote on the matter or matters proposed to be brought before the Stockholder Requested Special Meeting Owned by such person at any time before the Stockholder Requested Special Meeting, such person ï s Special Meeting Request shall be deemed to have been revoked with respect to such shares of capital stock of the Corporation comprising such reduction and shall not be counted towards the calculation of the Requisite Percentage, and (B) as to any stockholder or beneficial owner who has solicited other stockholders to request the special meeting, the information described in Section 2.8(a)(iii)(A) and (B) as to such stockholder or beneficial owner.

(c) One or more written requests for a special meeting delivered to the Secretary shall constitute a valid Special Meeting Request only if each such written request satisfies the requirements of this Section 2.2 and has been dated and delivered to the Secretary at the principal executive offices of the Corporation within 60 days of the earliest dated of such requests. If the stockholder of record signing the Special Meeting Request is a nominee or custodian on behalf of a beneficial owner, such Special Meeting Request shall not be valid unless documentary evidence is supplied to the Secretary at the time of delivery of such Special Meeting Request of such signatory ï s authority to execute the Special Meeting Request on behalf of such beneficial owner. The determination of the validity of a Special Meeting Request shall be made by the Board, which determination shall be conclusive and binding on the Corporation and the stockholders. Notwithstanding anything to the contrary herein, a Special Meeting Request shall not be valid if: (1) the Special Meeting Request does not comply with the Bylaws, (2) such Special Meeting Request relates to an item of business that is not a matter on which stockholders are authorized to act under, or that involves a violation of, applicable law, (3) the Request Receipt Date occurs during the period commencing 120 days prior to the first anniversary of the date of the most recent annual meeting of stockholders and ending on the date of the next annual meeting of stockholders, (4) the purpose(s) specified in the Special Meeting Request relates to an item of business that is the same or substantially similar (as determined by the Board, which determination shall be conclusive and binding on the Corporation and the stockholders, a ÐSimilar Item ï) to an item of business that was presented at any meeting of stockholders held within the 120 days prior to the Request Receipt Date, or (5) a Similar Item is included in the Corporation ï s notice as an item of business to be brought before a stockholder meeting that has been called or that is called for a date within 120 days of the Request Receipt Date. For the avoidance of doubt, the nomination, election or removal of Directors will be deemed to be a Similar Item with respect to all items of business involving the nomination, election or removal of directors, changing the size of the Board and filling of vacancies and/or newly created directorships resulting from any increase in the authorized number of Directors. Except as otherwise provided by law, in the case of a Stockholder Requested Special Meeting, the Chairman of the Board shall have the power and duty (i) to determine whether any business proposed to be brought before the meeting was proposed in accordance with the procedures set forth in this Section 2.2 and (ii) if any proposed business was not proposed in compliance with this Section 2.2 or the stated business to be brought before the special meeting is not a proper subject for stockholder action under applicable law, to declare that such nomination shall be disregarded or that such proposed business shall not be transacted.

(d) Any special meeting of stockholders shall be held at such date and time as may be fixed by the Board in accordance with these Bylaws and in compliance with the Delaware General Corporation Law (the "DGCL") as the same exists or may hereafter be amended; provided, however, that a Stockholder Requested Special Meeting shall be called for a date not more than 120 days after the Request Receipt Date with respect to the last Special Meeting Request related to such Stockholder Requested Special Meeting (or, in the case of any litigation related to the validity of the requests for a Stockholder Requested Special Meeting, 120 days after the resolution of such litigation).

(e) Business transacted at any Stockholder Requested Special Meeting shall be limited to (i) the purpose(s) stated in the valid Special Meeting Request(s) related to such meeting and (ii) any additional matters that the Board determines to include in the Corporation's notice of the meeting. If none of the stockholders who submitted the Special Meeting Request, or their Qualified Representatives (as defined below), appears at the Stockholder Requested Special Meeting to present the matters to be presented for consideration that were specified in the Stockholder Meeting Request(s), the Corporation need not present such matters for a vote at such meeting, notwithstanding that proxies in respect of such matter may have been received by the Corporation.

(f) For purposes of these Bylaws, to be considered a "Qualified Representative" of a stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or authorized by a writing executed by such stockholder (or a reliable reproduction or electronic transmission of the writing) delivered to the Corporation prior to the presentation of such matters at the meeting stating that such person is authorized to act for such stockholder as proxy at the meeting of stockholders. For the purposes of this Section 2.2 and Section 2.14, a stockholder or beneficial owner shall be deemed to "Own" only those shares of outstanding capital stock of the Corporation as to which such person possesses both (i) the full voting and investment rights pertaining to such shares and (ii) the full economic interest in (including the opportunity for profit and risk of loss on) such shares; provided that the number of shares calculated in accordance with clauses (i) and (ii) shall not include any shares (A) sold by such person or any of its Affiliates (as defined below) in any transaction that has not been settled or closed, (B) borrowed by such person or any of its Affiliates for any purposes or purchased by such person or any of its Affiliates pursuant to an agreement to resell or (C) subject to any option, warrant, forward contract, swap, contract of sale, or other derivative or similar agreement entered into by such person or any of its Affiliates, whether any such instrument or agreement is to be settled with shares or with cash based on the notional amount or value of shares of outstanding capital stock of the Corporation, in any such case which instrument or agreement has, or is intended to have, or if exercised would have the purpose or effect of (1) reducing in any manner, to any extent or at any time in the future, such person's or Affiliates' full right to vote or direct the voting of any such shares, and/or (2) hedging, offsetting or altering to any degree any gain or loss arising from the full economic ownership of such shares by such person or Affiliate. A stockholder or beneficial owner shall "Own" shares held in the name of a nominee or other intermediary so long as the person retains the right to instruct how the shares are voted with respect to the election of Directors and possesses the full economic interest in the shares. A person shall be deemed to continue to Own shares during any period in which the person has loaned such shares provided that the person has the power to recall such loaned shares on five business days' (or less) notice, and has delegated any voting power only by means of a proxy, power of attorney or other instrument or arrangement which is revocable at any time by the person. The determination of the extent to which a stockholder or beneficial owner "Owns" any shares of capital stock for these purposes shall be made by the Board, which determination shall be conclusive and binding on the Corporation and the stockholders. The terms "Owned," "Ownership" and other variations of the word "Own" shall have a corresponding meaning. As used in these Bylaws, the terms "Affiliate(s)" and "Associate(s)" shall have the meanings attributed to such terms in Rule 12b-2 under the Securities Exchange Act as amended (the "Exchange Act").

Section 2.3. Place of Meeting. The Board or the Chairman of the Board, as the case may be, may designate the place of meeting for any annual meeting or for any special meeting of the stockholders. If no designation is so made, the place of meeting shall be the principal office of the Corporation. The Board may, in its sole discretion, determine that any annual meeting or any special meeting of stockholders of the Corporation shall not be held at any place, but may instead be held solely by means of remote communication and in accordance with the DGCL.

Section 2.4. Fixing Record Dates. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board, and which record date: (1) in the case of determination of stockholders entitled to vote at any meeting of stockholders or adjournment thereof, shall, unless otherwise required by law, not be more than 60 nor less than ten days before the date of such meeting; and (2) in the case of any other action, shall not be more than 60 days prior to such other action. If no record date is fixed: (1) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; and (2) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

Section 2.5. Notice of Meeting. Notice, stating the place, day and hour of the meeting and the means of remote communication, if any, by which stockholders and proxyholders may be deemed present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called, shall be given not less than ten calendar days nor more than 60 calendar days before the date of the meeting to each stockholder of record entitled to vote at such meeting, except as otherwise provided herein or required by law or the Certificate of Incorporation. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail with postage thereon prepaid, addressed to the stockholder at such person ï s address as it appears on the stock transfer books of the Corporation. Without limiting the manner by which notice otherwise may be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided by Section 232 of the DGCL. Meetings may be held without notice if all stockholders entitled to vote are present in person (without being present for the purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened), or if notice is waived by those not present in person in accordance with Section 7.4 of these Bylaws. The Board may cancel, reschedule or postpone any previously scheduled annual or special meeting.

Section 2.6. Quorum and Adjournment; Voting. Except as otherwise provided by law or by the Certificate of Incorporation, the holders of a majority of the voting power of all outstanding shares of the Corporation entitled to vote in the election of Directors (the ÏVoting Stock ï), represented in person or by proxy, shall constitute a quorum at a meeting of stockholders, except that when specified business is to be voted on by a class or series of stock voting separately as a class, the holders of a majority of the voting power of all outstanding shares of such class or series represented in person or by proxy shall constitute a quorum of such class or series for the transaction of such business. The chairman of the meeting, as determined by Article IV of these Bylaws, may adjourn the meeting from time to time, whether or not there is such a quorum. No notice of the time and place of adjourned meetings need be given if the time and place, if any, thereof, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which adjournment is taken; provided, however, that if the date of any adjourned meeting is more than 30 days after the date for which notice was originally given, or if a new record date is fixed for the adjourned meeting, notice of the place, if any, date and time of the adjourned meeting and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, shall be given in conformity herewith. At any adjourned meeting, any business may be transacted that might have been transacted at the original meeting. The stockholders present at a duly called meeting at which a quorum is present may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

Section 2.7. Proxies. At all meetings of stockholders, a stockholder may vote by proxy executed in writing (or in such other manner permitted by the DGCL) by the stockholder or by such person ĭ s duly authorized attorney ĭ in ĭ fact.

Section 2.8. Notice of Stockholder Business and Nominations.

(a) Annual Meetings of Stockholders.

(i) Nominations of persons for election to the Board and the proposal of other business to be considered by the stockholders may be made at an annual meeting of stockholders only (A) pursuant to the Corporation ĭ s notice of meeting in accordance with Section 2.5 of these Bylaws, (B) by or at the direction of the Board, (C) by any stockholder of the Corporation who (1) was a stockholder of record at the time the notice provided for in this Bylaw was given, on the record date for the determination of stockholders of the Corporation entitled to vote at the meeting, and at the time of the meeting, (2) is entitled to vote at the meeting, (3) complies with the notice procedures set forth in this Bylaw as to such business or nomination, or (D) solely with respect to nominations of persons for election to the Board, by an Eligible Stockholder (as defined in Section 2.14(c)(i)) whose Stockholder Nominee (as defined in Section 2.14(a)) is included in the Corporation ĭ s proxy materials for the annual meeting pursuant to Section 2.14. Clause (C) of this Section 2.8(a)(i) shall be the exclusive means for a stockholder to make nominations (other than pursuant to Clause (D) of this Section 2.8(a)(i) and Section 2.14) or submit other business before an annual meeting of stockholders (other than pursuant to Rule 14a-8 under the Exchange Act).

(ii) Without qualification, for any nominations or any other business to be properly brought before an annual meeting by a stockholder pursuant to clause (C) of Section 2.8(a)(i) hereof, the stockholder must have given timely notice thereof in writing and otherwise in proper form in accordance with Section 2.8(a)(iii) to the Secretary and such other business must otherwise be a proper matter for stockholder action under applicable law. To be timely, a stockholder ĭ s notice shall be delivered to the Secretary not earlier than the Close of Business on the 120th calendar day prior to the first anniversary of the date of the preceding year ĭ s annual meeting nor later than the Close of Business on the 90th calendar day prior to the first anniversary of the date of the preceding year ĭ annual meeting; provided, however, that in the event that the date of the annual meeting is more than 30 calendar days before or more than 70 calendar days after the anniversary date of the preceding year ĭ s annual meeting, or if no annual meeting was held in the preceding year, notice by the stockholder to be timely must be so delivered not earlier than the Close of Business on the 120th calendar day prior to the date of such annual meeting and not later than the Close of Business on the later of the 90th calendar day prior to the date of such annual meeting or the 10th calendar day following the calendar day on which public announcement of the date of such meeting is first made by the Corporation. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder ĭ s notice as described above. For the avoidance of doubt, a stockholder shall not be entitled to make additional or substitute nominations following the expiration of the time periods set forth in these Bylaws.

(iii) To be in proper form, a stockholder ĭ s notice (whether given pursuant to this Section 2.8(a) or Section 2.8(b)) to the Secretary must:

(A) set forth, as to the stockholder giving the notice (the "Noticing Stockholder ĭ) and the beneficial owner, if any, on whose behalf the nomination or proposal is made (collectively with the Noticing Stockholder, the "Holders ĭ and each, a "Holder ĭ): (1) the name and address as they appear on the Corporation ĭ s books of each Holder and the name and address of any Stockholder Associated Person (as defined herein), (2) (a) the class or series and number of shares of the Corporation which are, directly or indirectly, owned beneficially and of record by each Holder and any Stockholder Associated Person (provided, however, that for purposes of this Section 2.8(a)(iii), any such person shall in all events be deemed to beneficially own any shares of the Corporation as to which such person has a right to acquire beneficial ownership of at any time in the future), (b) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived, in whole or in part, from the value of any class or series of shares of the Corporation, whether or not such instrument or right shall be subject to settlement in the underlying class or series of capital stock of the Corporation or otherwise (a "Derivative Instrument ĭ) directly or indirectly owned beneficially by each Holder and any Stockholder Associated Person and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation, (c) any proxy, contract, arrangement, understanding or relationship pursuant to which each Holder and any Stockholder Associated Person has a right to vote or has granted a right to vote any shares of any security of the Corporation, (d) any Short Interest held by each Holder and any Stockholder Associated Person presently or within the last 12 months in any security of the Corporation (for purposes of this Bylaw a person shall be deemed to have a "Short Interest ĭ in a security if such person, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has the opportunity to profit or share in any profit derived from any decrease in the value of the subject security), (e) any agreement, arrangement or understanding (including any contract to purchase or sell, acquisition or grant of any option, right or warrant to purchase or sell, swap or other instrument) between and among each Holder, any Stockholder Associated Person, on the one hand, and any person acting in concert with any such person, on the other hand, with the intent or effect of which may be to transfer to or from any such person, in whole or in part, any of the economic consequences of ownership of any security of the Corporation or to increase or decrease the voting power of any such person with respect to any security of the Corporation, (f) any direct or indirect legal, economic or financial interest (including Short Interest) of each Holder and any Stockholder Associated Person in the outcome of any vote to be taken at any annual or special meeting of stockholders of the Corporation or any other entity with respect to any matter that is substantially related, directly or indirectly, to any nomination or business proposed by any Holder under this Bylaw, (g) any rights to dividends on the shares of the Corporation owned beneficially by each Holder and any Stockholder Associated Person that are separated or separable from the underlying shares of the Corporation, (h) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership or limited liability company or similar entity in which any Holder and any Stockholder Associated Person is a general partner or, directly or indirectly, beneficially owns any interest in a general partner or is the manager or managing member or, directly or indirectly, beneficially owns any interest in the manager or managing member of a limited liability company or similar entity, and (i) any performance-related fees (other than an asset-based fee) that each Holder and any Stockholder Associated Person is entitled to based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice, (3) a representation by the Noticing Stockholder that such stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting, will continue to be a stockholder of record of the Corporation entitled to vote at such meeting through the date of such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination, (4) a representation whether any Holder and/or any Stockholder Associated Person intends or is part of a group which intends (a) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation ĭ s outstanding capital stock required to approve or adopt the proposal or elect the nominee and/or (b) otherwise to solicit proxies from stockholders in support of such proposal or nomination, (5) a certification that each Holder and any Stockholder Associated Person has complied with all applicable federal, state and other legal requirements in connection with its acquisition of shares or other securities of the Corporation and such person ĭ s acts or omissions as a stockholder of the Corporation, and (6) a representation as to the accuracy of the information set forth in the notice;

(B) if the notice relates to any business other than a nomination of a Director or Directors that the stockholder proposes to bring before the meeting, set forth (1) a brief description of the business desired to be brought before the meeting, (2) the text, if any, of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws of the Corporation, the language of the proposed amendment), (3) the reasons for conducting such business at the meeting and any material interest of each Holder and any Stockholder Associated Person in such business and (4) a description of all agreements, arrangements and understandings between each Holder and any Stockholder Associated Person and any other person or persons (including their names) in connection with the proposal of such business by such stockholder;

(C) set forth, as to each person, if any, whom the Noticing Stockholder proposes to nominate for election or reelection to the Board (1) the name, age, business address and residence address of such person, (2) the principal occupation or employment of such person (present and for the past five years), (3) the ownership information specified in Section 2.8(a)(iii)(A)(2) for such person and any member of the immediate family of such person, or any Affiliate or Associate of such person, or any person acting in concert therewith, (4) all information relating to such person that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of Directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder (including such person ï s written consent to being named in the proxy statement as a nominee and to serving as a Director if elected), (5) a complete and accurate description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings (whether written or oral) during the past three years, and any other material relationships, between or among the Holders and/or any Stockholder Associated Person, on the one hand, and each proposed nominee and any member of the immediate family of such proposed nominee, and his or her respective Affiliates and Associates, or others acting in concert therewith, on the other hand, including, without limitation all biographical and related party transaction and other information that would be required to be disclosed pursuant to the federal and state securities laws, including Rule 404 promulgated under Regulation S-K (the ïRegulation S-K ï) under the Securities Act of 1933 (the ïSecurities Act ï) (or any successor provision), if any Holder and/or any Stockholder Associated Person were the ï registrant ï for purposes of such rule and the nominee were a director or executive officer of such registrant; and

(D) with respect to each nominee for election or reelection to the Board, include a completed and signed questionnaire, representation and agreement and any and all other information required by Section 2.8(d).

(iv) A Noticing Stockholder shall further update and supplement its notice of any nomination or other business proposed to be brought before a meeting, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.8(a) shall be true and correct (A) as of the record date for the meeting and (B) as of the date that is ten Business Days prior to the meeting or any adjournment, recess, rescheduling or postponement thereof. Such update and supplement shall be delivered to the Secretary not later than three Business Days after the later of the record date or the date notice of the record date is first publicly announced (in the case of the update and supplement required to be made as of the record date for the meeting) and not later than seven Business Days prior to the date for the meeting, if practicable (or, if not practicable, on the first practicable date prior to the meeting), or any adjournment, recess, rescheduling or postponement thereof (in the case of the update and supplement required to be made as of ten Business Days prior to the meeting or any adjournment, recess, rescheduling or postponement thereof).

(v) The Corporation may also, as a condition to any such nomination or business being deemed properly brought before an annual meeting, require any Holder or any proposed nominee to deliver to the Secretary, within five Business Days of any such request, such other information as may reasonably be requested by the Corporation, including such other information as may be reasonably required by the Board, in its sole discretion, to determine (A) the eligibility of such proposed nominee to serve as a Director of the Corporation, (B) whether such nominee qualifies as an ǐ independent director ǐ or ǐ aud committee financial expert ǐ under applicable law, securities exchange rule or regulation, or any publicly disclosed corporate governance guideline or committee charter of the Corporation and (C) such other information that the Board determines, in its sole discretion, could be material to a reasonable stockholder ǐ s understanding of the independence, or lack thereof, of such nominee.

(vi) Notwithstanding anything in the second sentence of Section 2.8(a)(ii) to the contrary, in the event that the number of Directors to be elected to the Board is increased and there is no public announcement by the Corporation naming all of the nominees for Director or specifying the size of the increased Board at least 100 calendar days prior to the first anniversary of the preceding year ǐ s annual meeting, a stockholder ǐ s notice required by this Bylaw shall be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary not later than the Close of Business on the 10th calendar day following the day on which such public announcement is first made by the Corporation.

(b) Special Meetings of the Stockholders. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation ǐ s notice of meeting under Section 2.5. In the event that a special meeting of stockholders is called for the purpose of electing one or more Directors to the Board, nominations of persons for election to the Board may be made at such special meeting (i) by the stockholder who submitted a Special Meeting Request relating to such meeting in accordance and in compliance with Section 2.2(b), (ii) by or at the direction of the Board or (iii) by any stockholder (other than any stockholder who submitted a Special Meeting Request relating to such meeting pursuant to Section 2.2(b) that included the election of directors in the request) who (A) was a stockholder of record at the time the notice provided for in this Bylaw was given, (B) is entitled to vote at the meeting and (C) complies with the procedures set forth in Section 2.8(a), including delivering the stockholder ǐ s notice required by Sectior 2.8(a) with respect to any nomination (including the completed and signed questionnaire, representation and agreement required by Section 2.8(d)) to the Secretary not earlier than the Close of Business on the 120th calendar day prior to such special meeting, nor later than the Close of Business on the later of the 90th calendar day prior to such special meeting or the 10th calendar day following the day on which public announcement is first made of the date of the special meeting and of the nominees, if any, proposed by the Board to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder ǐ s notice as described above.

(c) General.

(i) Subject to Section 2.14 with respect to annual meetings, only such persons who are nominated in accordance with the procedures set forth in this Section 2.8 or Section 2.14 shall be eligible to be elected at an annual or special meeting of stockholders of the Corporation to serve as Directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Bylaw. Except as otherwise provided by law, the chairman of the meeting shall have the power and duty (a) to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Bylaw (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination or proposal is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder ĭ s nominee or proposal in compliance with such stockholder ĭ s representation as required by clause (a)(ii)(A)(4) of this Section 2.8) and (b) if any proposed nomination or business was not made or proposed in compliance with this Bylaw, to declare that such nomination shall be disregarded or that such proposed business shall not be transacted.

(ii) Notwithstanding the foregoing provisions of this Bylaw, unless otherwise required by law, if the Noticing Stockholder (or a Qualified Representative thereof) does not appear at the annual or special meeting of stockholders of the Corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation.

(iii) For purposes of this Section 2.8 and Section 2.14, as applicable,

(A) ĭ Business Day ĭ shall mean each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in Woodlands, TX or New York, NY are authorized or obligated by law or executive order to close.

(B) ĭ Close of Business ĭ shall mean 5:00 p.m. local time at the principal executive offices of the Corporation, and if an applicable deadline fall the Close of Business on a day that is not a Business Day, then the applicable deadline shall be deemed to be the Close of Business on the immediately preceding Business Day.

(C) Delivery of any notice or materials by a stockholder as required under this Section 2.8 shall be made by both (1) hand delivery, overnight courier service, or by certified or registered mail, return receipt required, in each case, to the Secretary at the principal executive offices of the Corporation, and (2) electronic mail to the Secretary at CorporateSecretary@huntsman.com or such other email address for the Secretary as may be specified in the Corporation ĭ s proxy statement for the annual meeting of stockholders immediately preceding such delivery of notice or materials.

(D) ĭpublic announcement ĭ shall mean any method (or combination of methods) of disclosure that is reasonably designed to provide broad, non-exclusionary distribution of the information to the public or the furnishing or filing of any document publicly filed by the Corporation with the Securities and Exchange Commission (the ĭSEC ĭ) pursuant to Section 13, 14 or 15(d) of the Exchange Act and the rules and regulations promulgated thereunder.

(E) "Stockholder Associated Person" shall mean as to any Holder (1) any person acting in concert with such Holder, (2) any person controlling, controlled by or under common control with such Holder or any of their respective Affiliates and Associates, or person acting in concert therewith and (3) any member of the immediate family of such Holder or an Affiliate or Associate of such Holder.

(iv) Notwithstanding the foregoing provisions of this Section 2.8, a stockholder must also comply with all applicable requirements of the Exchange Act and the rules and regulations promulgated thereunder with respect to the matters set forth in this Bylaw; provided, however, that any references in the Corporation's Bylaws to the Exchange Act or the rules promulgated thereunder are not intended to and shall not limit the requirements applicable to nominations or proposals as to any other business to be considered pursuant to Section 2.8(a) or Section 2.8(b). Nothing in this Bylaw shall be deemed to affect any rights (A) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or any other applicable federal or state securities law with respect to that stockholder's request to include proposals in the Corporation's proxy statement, or (of the holders of any series of Preferred Stock to elect Directors under an applicable Preferred Stock Designation (as defined in the Certificate of Incorporation).

(d) Submission of Questionnaire. Representation and Agreement. To be eligible to be a nominee for election or reelection as a Director of the Corporation pursuant to Section 2.8(a)(i)(C), a proposed nominee must deliver in writing (in accordance with the time periods prescribed for delivery of notice under this Section 2.8) to the Secretary (i) a written questionnaire with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request of any stockholder of record identified by name within five Business Days of such written request), (ii) an irrevocable, contingent resignation to the Board, in a form acceptable to the Board, as described in Section 2.9(b), and (iii) a written representation and agreement (in the form provided by the Secretary upon written request of any stockholder of record identified by name within five Business Days of such request) that such person (A) is not and will not become a party to (1) any agreement, arrangement or understanding (whether written or oral) with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a Director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (2) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a Director of the Corporation, with such person's fiduciary duties under applicable law, (B) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a Director that has not been disclosed therein, (C) in such person's individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, if elected as a Director of the Corporation, and will comply with all applicable rules of the exchanges upon which the securities of the Corporation are listed and all applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation and (D) in such person's individual capacity and on behalf of any Holder on whose behalf the nomination is being made, intends to serve a full term if elected as a Director of the Corporation.

Section 2.9. Procedure for Election of Directors.

(a) Election of Directors at all meetings of the stockholders at which Directors are to be elected shall be by ballot unless otherwise determined by the Board prior to such meeting, and, subject to the rights of the holders of any series of Preferred Stock to elect Directors under an applicable Preferred Stock Designation, each Director shall be elected by the vote of a majority of the votes cast with respect to that Director ĭ s election at any meeting for the election of Directors at which a quorum is present, provided that if, as of the 10th day preceding the date the Corporation first mails its notice of meeting for such meeting to the stockholders of the Corporation, the number of nominees exceeds the number of Directors to be elected (a ĭContested Election ĭ), the Directors shall be elected by the vote of a plurality of the votes cast.

(b) In order for any incumbent Director to become a nominee of the Board, such person must submit an irrevocable resignation, contingent on (i) that person not receiving a majority of the votes cast in an election that is not a Contested Election, and (ii) acceptance of that proffered resignation by the Board in accordance with the following policies and procedures: In the event an incumbent Director fails to receive a majority of the votes cast in an election that is not a Contested Election, the nominating and corporate governance committee of the Board, or such other committee designated by the Board, shall make a recommendation to the Board as to whether to accept or reject the resignation of such incumbent Director, or whether other action should be taken. The Board shall act on the proffered resignation, taking into account such committee ĭ s recommendation, and publicly disclose (by a press release and filing an appropriate disclosure with the SEC) its decision regarding the resignation and, if such resignation is rejected, the rationale behind the decision within 90 days following certification of the election results. Such committee, in making its recommendation, and the Board, in making its decision, each may consider any factors and other information that they consider appropriate and relevant. The Director whose resignation is being considered shall not participate in the deliberations of such committee or the Board with respect to whether to accept such Director ĭ s resignation. If the Director ĭ s resignation is not accepted by Board, such Director shall continue to serve until his or her successor is duly elected, or until his or her earlier resignation or removal.

(c) For purposes of this Section 2.9, ĭ a majority of the votes cast ĭ shall mean that the number of the votes cast ĭ for ĭ a Director ĭ s elec the number of the votes cast ĭ against ĭ that Director ĭ s election (with ĭ abstentions ĭ and ĭ broker non-votes ĭ not counted as votes cast ei that Director ĭ s election).

Section 2.10. Required Vote. Except as otherwise provided by law, the Certificate of Incorporation, any Preferred Stock Designation or these Bylaws, in all matters other than the election of Directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the matter shall be the act of the stockholders.

Section 2.11. Inspectors of Elections; Opening and Closing the Polls. The Board by resolution may, or, if required by law, shall, appoint, or shall authorize an officer of the Corporation to appoint, one or more inspectors, which inspector or inspectors may include individuals who serve the Corporation in other capacities, including, without limitation, as officers, employees, agents or representatives, to act at the meetings of stockholders and make a written report thereof. One or more persons may be designated as alternate inspector(s) to replace any inspector who fails to act. If no inspector or alternate has been appointed to act or is able to act at a meeting of the stockholders, the chairman of the meeting may, or, if required by applicable law, shall, appoint one or more inspectors to act at the meeting. Each inspector, before discharging such person ĭ s duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such person ĭ s ability. The inspector(s) shall have the duties prescribed by law. The chairman of the meeting shall fix and announce at the meeting the date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting.

Section 2.12. Conduct of Meetings. The Board may to the extent not prohibited by law adopt such rules and regulations for the conduct of meetings of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board, the chairman of any meeting of stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board or prescribed by the chairman of the meeting, may to the extent not prohibited by law include, without limitation, the following: (a) the establishment of an agenda or order of business for the meeting; (b) rules and procedures for maintaining order at the meeting and the safety of those present; (c) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chairman of the meeting shall determine; (d) restrictions on entry to the meeting after the time fixed for the commencement thereof; (e) limitations on the time allotted to questions or comments by participants; and (f) restricting the use of cell phones, audio or video recording devices and similar devices at the meeting. The chairman of the meeting ĭ s rulings on procedural matters shall be final. Unless and to the extent determined by the Board or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

Section 2.13. Exclusive Forum.

(a) Unless the Corporation consents in writing to the selection of an alternative forum, the sole and exclusive forum for: (i) any derivative action or proceeding brought on behalf of the Corporation; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director or officer or other employee of the Corporation to the Corporation or the Corporation ĭ s stockholders; (iii) any action asserting a claim against the Corporation or any director o officer or other employee of the Corporation arising pursuant to any provision of the DGCL or the Corporation ĭ s Certificate of Incorporation or Bylaws (a either may be amended from time to time); or (iv) any action asserting a claim against the Corporation or any director or officer or other employee of the Corporation governed by the internal affairs doctrine shall be a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware). For the avoidance of doubt, this Section 2.13(a) shall not apply to any action or proceeding asserting a claim under the Securities Act or the Exchange Act.

(b) Unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act.

(c) Any person or entity purchasing or otherwise acquiring any interest in any security of the Corporation shall be deemed to have notice of and consented to this Section 2.13.

Section 2.14. Stockholder Nominations Included in the Corporation ĭ s Proxy Materials

(a) Inclusion of Nominees in Proxy Statement. Subject to the provisions of this Section 2.14, if expressly requested in the relevant Nomination Notice (as defined below), the Corporation shall include in its proxy statement for any annual meeting of stockholders: (i) the name of any person nominated for election (the Ò Stockholder Nominee ĭ), which shall also be included on the Corporation ĭ s form of proxy and ballot, by any Eligible Stockholder (as defined below) or group of up to 20 Eligible Stockholders that has (individually and, in the case of a group, collectively) satisfied, as determined by the Board, all applicable conditions and complied with all applicable procedures set forth in this Section 2.14 (such Eligible Stockholder or group of Eligible Stockholders, as applicable, a Ò Nominating Stockholder ĭ); (ii) disclosure about the Stockholder Nominee and the Nominating Stockholder (including, for the avoidance of doubt each group member) required under the rules of the SEC or any other applicable law to be included in the proxy statement; (iii) any statement included by the Nominating Stockholder in the Nomination Notice for inclusion in the proxy statement in support of the Stockholder Nominee ĭ s election to the Board provided that such statement does not exceed 500 words and fully complies with Section 14 of the Exchange Act and the rules and regulations promulgated thereunder (the Ò Supporting Statement ĭ); and (iv) any other information that the Corporation or the Board determines, in their sole discretion, to include in the proxy statement relating to the nomination of the Stockholder Nominee, including, without limitation, any statement in opposition to the nomination and any of the information provided pursuant to this Section 2.14. For purposes of this Section 2.14, any determination to be made by the Board may be made by the Board, a committee of the Board or any officer of the Corporation designated by the Board or a committee of the Board, and any such determination shall be conclusive and binding on the Corporation, any Eligible Stockholder, any Nominating Stockholder, any Stockholder Nominee and any other person so long as made in good faith (without any further requirements).

(b) Maximum Number of Nominees.

(i) The maximum number of Stockholder Nominees that may be included in the Corporation ĭ s proxy statement for an annual meeting of stockholders pursuant to this Section 2.14 shall not exceed the greater of (A) two or (B) 20% of the number of Directors of the Corporation on the last day on which a Nomination Notice may be submitted pursuant to this Section 2.14 with respect to the annual meeting (rounded down to the nearest whole number) (the ĭMaximum Number ĭ). The Maximum Number for a particular annual meeting shall be reduced by: (1) Stockholder Nominees whose nominations are subsequently withdrawn by the Nominating Stockholder or who become unwilling to serve on the Board; (2) Stockholder Nominees who the Board itself decides to nominate for election at such annual meeting; (3) Stockholder Nominees who cease to satisfy, or Stockholder Nominees of a Nominating Stockholder (including, for the avoidance of doubt, each group member) who ceases to satisfy, the eligibility requirements in this Section 2.14, as determined by the Board, (4) the number of incumbent Directors who had been Stockholder Nominees, or nominees of a stockholder pursuant to the advance notice requirements set forth in Section 2.8(a), at any annual or special meetings of stockholders in the preceding two years and whose reelection at the upcoming annual meeting is being recommended by the Board, and, without duplication, (5) the number of incumbent Directors who are not Stockholder Nominees and who will be included in the Corporation ĭ s proxy materials with respect to such annual meeting of stockholders as an unopposed (by the Board) nominee pursuant to any agreement, arrangement or other understanding between the Corporation and any stockholder or group of stockholders. In the event that one or more vacancies for any reason occur on the Board after the deadline for submitting a Nomination Notice as set forth in Section 2.14(d) but before the date of the annual meeting, and the Board resolves to reduce the size of the Board in connection therewith, the Maximum Number shall be calculated based on the number of Directors as so reduced.

(ii) If the number of Stockholder Nominees pursuant to this Section 2.14 for any annual meeting of stockholders exceeds the Maximum Number, then, promptly upon notice from the Corporation, each Nominating Stockholder will select one Stockholder Nominee for inclusion in the proxy statement until the Maximum Number is reached, going in order of the amount (largest to smallest) of shares of Common Stock that each Nominating Stockholder disclosed as Owned in its Nomination Notice, with the process repeated if the Maximum Number is not reached after each Nominating Stockholder has selected one Stockholder Nominee. Following such determination, whether before or after the mailing or other distribution of the definitive proxy statement, if (A) a Nominating Stockholder becomes ineligible or withdraws its nomination, (B) a Stockholder Nominee becomes ineligible or unwilling to serve on the Board, or (C) a Stockholder Nominee is thereafter nominated by the Board, the Corporation: (1) shall not be required to include in its proxy statement or on any ballot or form of proxy such Stockholder Nominee (in the case of clause (A) or (B)) or any successor or replacement nominee proposed by such Nominating Stockholder or by any other Nominating Stockholder and (2) may otherwise communicate to its stockholders, including, without limitation, by amending or supplementing its proxy statement or ballot or form of proxy, that such Stockholder Nominee will not be included as a Stockholder Nominee in the proxy statement or on any ballot or form of proxy.

(c) Eligibility of Nominating Stockholder.

(i) An "Eligible Stockholder" is a person who has either (A) been a record holder of the shares of Common Stock of the Corporation used to satisfy the eligibility requirements in this Section 2.14(c) continuously for the three year period specified in Section 2.14(c)(ii) below or (B) provides to the Secretary, within the time period referred to in Section 2.14(d), evidence of continuous Ownership by such person of such shares for such three year period from one or more securities intermediaries in a form that the Board determines would be deemed reasonably satisfactory for purposes of a stockholder proposal under Rule 14a-8(b)(2) under the Exchange Act (or any successor rule).

(ii) An Eligible Stockholder or group of up to 20 Eligible Stockholders may submit a nomination in accordance with this Section 2.14 only if such person or group (in the aggregate) has continuously Owned at least the Minimum Number (as defined below) of shares of Common Stock (as adjusted for any stock splits, stock dividends or similar events) throughout the three year period preceding and including the date of submission of the Nomination Notice, and continues to Own at least the Minimum Number of shares of Common Stock through the date of the annual meeting. For purposes of qualifying as an Eligible Stockholder and satisfying the ownership requirements set forth in this Section 2.14(c)(ii), two or more funds that are (A) under common management and investment control, (B) under common management and funded primarily by the same employer or (C) a "group of investment companies" (as such term is defined in Section 12(d)(1)(G)(ii) of the Investment Company Act of 1940, as amended) shall be treated as one record holder or beneficial Owner. Any group of funds whose shares are so aggregated shall, within five business days after the date of the Nomination Notice, submit to the Secretary at the Corporation's principal executive office documentation that demonstrates that the funds satisfy the foregoing sentence, as determined by the Board which determination shall be conclusive and binding on the Corporation and the stockholders, and such documentation shall be deemed part of the Nomination Notice for purposes of this Section 2.14. For the avoidance of doubt, in the event of a nomination by a group of Eligible Stockholders, any and all requirements and obligations for an individual Eligible Stockholder that are set forth in this Section 2.14 (including, for the avoidance of doubt, the minimum holding period) shall apply to each member of such group; provided, however, that the requirement with respect to the Minimum Number shall apply to the Ownership of the group in the aggregate. Should any stockholder cease to satisfy the eligibility requirements in this Section 2.14, as determined by the Board, or withdraw from a group of Eligible Stockholders at any time prior to the annual meeting of stockholders, the group of Eligible Stockholders shall only be deemed to Own the shares held by the remaining members of the group.

(iii) The "Minimum Number" means three percent of the number of outstanding shares of Common Stock as of the most recent date for which such amount is given in any filing by the Corporation with the SEC prior to the submission of the Nomination Notice.

(iv) No person may be a member of more than one group constituting a Nominating Stockholder, and if any person appears as a member of more than one group, it shall be deemed to be a member of only the group that has the largest Ownership position as reflected in the Nomination Notice.

(d) Nomination Notice. To nominate a Stockholder Nominee pursuant to this Section 2.14, the Nominating Stockholder must submit to the Secretary at the Corporation's principal executive office all of the following information and documents (collectively, the "Nomination Notice") not earlier than the Close of Business on the 120th calendar day prior to the first anniversary of the date of the preceding year's annual meeting nor later than the Close of Business on the 90th calendar day prior to the first anniversary of the date of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is more than 30 calendar days before or more than 70 calendar days after the anniversary date of the preceding year's annual meeting, the Nomination Notice must be so delivered not later than the Close of Business on the later of the 120th calendar day prior to the date of such annual meeting or the 10th calendar day following the calendar day on which public announcement of the date of such meeting is first made by the Corporation:

(i) one or more written certifications from the record holders of the shares (and from each intermediary through which the shares are or have been held during the requisite three year holding period) verifying that, as of a date within seven days prior to the date of the Nomination Notice, the Nominating Stockholder Owns, and has continuously Owned for the preceding three years, the Minimum Number of shares of Common Stock, and the Nominating Stockholder's agreement to provide (A) within five business days after the record date for the annual meeting, written certifications from the record holders and intermediaries verifying the Nominating Stockholder's continuous Ownership of the Minimum Number of shares of Common Stock through the record date and (B) within two business days after the date of the annual meeting, written certifications from the record holders and intermediaries verifying the Nominating Stockholder's continuous Ownership of the Minimum Number of shares of Common Stock from the date of such Nomination Notice through the date of the annual meeting;

(ii) a copy of the Schedule 14N (or any successor form) relating to the Stockholder Nominee, completed and filed with the SEC by the Nominating Stockholder as applicable, in accordance with SEC rules, or, if Schedule 14N (or any successor form) is not then required by the SEC, a written certification to the Corporation containing the information required by Schedule 14N as in effect on June 16, 2020;

(iii) the written consent of the Stockholder Nominee to being named in the Corporation's proxy statement, form of proxy and ballot as a nominee and to serving as a Director if elected and representation that the Stockholder Nominee intends to serve as a Director for the full term if elected;

(iv) a written notice of the nomination of the Stockholder Nominee that includes the following additional information, agreements, representations and warranties of and by the Nominating Stockholder (including, for the avoidance of doubt, each group member): (A) the information that would be required to be set forth in a stockholder ï s notice of nomination pursuant to Section 2.8 (including, for the avoidance of doubt, the requirements set forth in Section 2.8(a)); (B) the details of any relationship that existed within the past three years and that would have been described pursuant to Item 6(e) of Schedule 14N (or any successor item) if it existed on the date of submission of the written notice; (C) a representation and warranty that the Nominating Stockholder did not acquire, and that neither the Nominating Stockholder, the Stockholder Nominee(s) nor their respective Affiliates and Associates is holding, any securities of the Corporation for the purpose or with the effect of influencing or changing control of the Corporation; (D) a representation and warranty that the Nominating Stockholder has not engaged in and will not engage in a ï solicitation ï within the meaning of Rule 14a-1(l) under the Exchange Act (without reference to the exception in Section 14a-1(l)(2)(iv)) (or any successor rules) with respect to the annual meeting, other than with respect to such Nominating Stockholder ï s Stockholder Nominee(s) or any nominee of the Board; (E) a representation and warranty that the Nominating Stockholder will not use any proxy card other than the Corporation ï s proxy card in soliciting stockholders in connection with the election of a Stockholder Nominee at the annual meeting; (F) a representation and warranty that the Stockholder Nominee ï s candidacy or, if elected, Board membership would not violate applicable state, federal or foreign law or the rules of any stock exchange on which the Corporation ï s securities are traded (the "Stock Exchange Rules ï "); (G) a representation and warranty that the Stockholder Nominee: (1) qualifies as independent under the Stock Exchange Rules; and (2) is not and has not been subject to any event specified in Rule 506(d)(1) of Regulation D (or any successor rule) under the Securities Act or Item 401(f) of Regulation S-K (or any successor rule) under the Exchange Act, without reference to whether the event is material to an evaluation of the ability or integrity of the Stockholder Nominee; (H) a representation and warranty that the Nominating Stockholder satisfies the eligibility requirements set forth in Section 2.14(c); (I) a representation and warranty that the Nominating Stockholder will continue to satisfy the eligibility requirements described in Section 2.14(c) through the date of the annual meeting; (J) a statement regarding the Nominating Stockholder ï s intent with respect to continued Ownership of the Minimum Number of shares of Common Stock for at least one year following the annual meeting; (K) details of any position of the Stockholder Nominee as an officer or director of any entity that provides products or services that compete with or are alternatives to the products or services provided by the Corporation or its Affiliates (any such entity, a "Competitor ï ") within the three years preceding the submission of the Nomination Notice; (L) if desired, a Supporting Statement; and (M) in the case of a nomination by a group of stockholders that together is an Eligible Stockholder, the designation by all group members of one group member that is authorized to act on behalf of all group members with respect to matters relating to the nomination and matters related thereto, including withdrawal of the nomination;

(v) an executed agreement, in a form deemed reasonably satisfactory by the Board, pursuant to which the Nominating Stockholder (including, for the avoidance of doubt, each group member) agrees: (A) to comply with all applicable laws, rules and regulations in connection with the nomination, solicitation and election of the Stockholder Nominee; (B) to file with the SEC any written solicitation or other communication with the Corporation ĭ s stockholders by or on behalf of the Nominating Stockholder relating to the Corporation ĭ s annual meeting of stockholders, one or more of the Corporation ĭ s Directors or Director nominees or any Stockholder Nominee, regardless of whether any such filing is required under any rule or regulation or whether any exemption from filing is available for such solicitation or other communication under any rule or regulation; (C) to assume all liability stemming from an action, suit or proceeding concerning any actual or alleged legal or regulatory violation arising out of any communication by the Nominating Stockholder or the Stockholder Nominee nominated by such Nominating Stockholder with the Corporation, its stockholders or any other person in connection with the nomination or election of directors, including, without limitation, the Nomination Notice; (D) to indemnify and hold harmless (jointly with all other group members, in the case of a group member) the Corporation and each of its directors, officers and employees individually against any liability, loss, damages, expenses or other costs (including attorneys ĭ fees) incurred in connection with any threatened or pending action, suit or proceeding, whether legal, administrative or investigative, against the Corporation or any of its Directors, officers or employees arising out of or relating to a failure or alleged failure of the Nominating Stockholder or Stockholder Nominee to comply with, or any breach or alleged breach of, its, or his or her, as applicable, obligations, agreements or representations under this Section 2.14; (E) in the event that any information included in the Nomination Notice, or any other communication by the Nominating Stockholder (including with respect to any group member) with the Corporation, its stockholders or any other person in connection with the nomination or election, ceases to be true and accurate in all material respects (or omits a material fact necessary to make the statements made not misleading), to promptly (and in any event within 48 hours of discovering such misstatement or omission) notify the Corporation and any other recipient of such communication of the misstatement or omission in such previously provided information and of the information that is required to correct the misstatement or omission; and (F) in the event that the Nominating Stockholder (including any group member) has failed to continue to satisfy the eligibility requirements described in Section 2.14(c), including Ownership of the Minimum Number of shares of Common Stock, to promptly (and in any event within 48 hours of discovering such failure) notify the Corporation of such failure; and

(vi) an executed agreement, in a form deemed reasonably satisfactory by the Board, by the Stockholder Nominee pursuant to which the Stockholder Nominee agrees: (A) to provide to the Corporation a completed and signed questionnaire, representation and agreement required by Section 2.8(d) and such other information as the Corporation may reasonably request; (B) to deliver an irrevocable, contingent resignation to the Board, in a form acceptable to the Board, as described in Section 2.9(b); and (C) that the Stockholder Nominee has read and agrees, if elected, to serve as a member of the Board, to adhere to the Corporation ĭ s Corporate Governance Guidelines and any other policies and guidelines of the Corporation applicable to Directors.

The information and documents required by this Section 2.14(d) shall be (x) provided with respect to and executed by each group member of the Nominating Stockholder, in the case of information applicable to group members; and (y) provided with respect to the persons specified in Instructions 1 and 2 to Items 6(c) and (d) of Schedule 14N (or any successor item) (or, if Schedule 14N (or any successor form) is not then required by the SEC, as required by Schedule 14N as in effect on June 16, 2020) in the case of a Nominating Stockholder or group member that is an entity. The Nomination Notice shall be deemed submitted on the date on which all the information and documents referred to in this Section 2.14(d) (other than such information and documents contemplated to be provided after the date the Nomination Notice is provided) have been delivered to or, if sent by mail, received by the Secretary at the principal executive offices of the Corporation.

(e) Exceptions.

(i) Notwithstanding anything to the contrary contained in this Section 2.14, the Corporation may omit from its proxy statement any Stockholder Nominee, and any information concerning such Stockholder Nominee (including, for the avoidance of doubt, the Supporting Statement), and in such case, no vote on such Stockholder Nominee will occur (notwithstanding that proxies in respect of such vote may have been received by the Corporation), and the Nominating Stockholder may not, after the last day on which a Nomination Notice would be timely pursuant to Section 2.14(d), cure in any way any defect preventing the nomination of the Stockholder Nominee, if: (A) the Corporation receives a notice that the Nominating Stockholder (or any group member) intends to nominate a candidate for Director at the annual meeting pursuant to the advance notice requirements set forth in Section 2.8(a), whether or not such notice is subsequently withdrawn or made the subject of a settlement with the Corporation; (B) the Nominating Stockholder withdraws its nomination; (C) the Board determines that such Stockholder Nominee ĭ s nomination or election to the Board would result in the Corporation violating or failing to be in compliance with these Bylaws, the Certificate of Incorporation or any applicable state, federal or foreign law, rule or regulation (including, for the avoidance of doubt, the Stock Exchange Rules); (D) the Stockholder Nominee is not independent under the Stock Exchange Rules or any rules of the SEC used by the Board in determining the independence of the Directors, in each case as determined by the Board; (E) the Stockholder Nominee was nominated for election to the Board pursuant to this Section 2.14 at one of the Corporation ĭ s two preceding annual meetings of stockholders and either (1) withdrew from or became ineligible or unavailable for election at such annual meeting or (2) did not receive at least 25% of the total votes cast in favor of his or her election at such annual meeting; (F) the Stockholder Nominee has been, within the past three years, an officer or director of a Competitor; or (G) the Corporation is notified, or the Board determines, that the Nominating Stockholder has failed to continue to satisfy the eligibility requirements described in Section 2.14(c), any of the representations and warranties made in the Nomination Notice ceases to be true and accurate in all material respects (or omits a material fact necessary to make the statements made not misleading), the Stockholder Nominee becomes unwilling or unable to serve on the Board or any material violation or breach occurs of any of the obligations, agreements, representations or warranties of the Nominating Stockholder or the Stockholder Nominee under this Section 2.14.

(ii) Notwithstanding anything to the contrary contained in this Section 2.14, the Board or the chairman of the meeting of stockholders shall declare a nomination by a Nominating Stockholder to be invalid, and such nomination and any votes received with respect to the applicable Stockholder Nominee shall be disregarded (notwithstanding that proxies in respect of such vote may have been received by the Corporation and notwithstanding that the annual meeting of stockholders shall have been held), if (A) the Nominating Stockholder (or any group member) or the applicable Stockholder Nominee shall have breached any of its, his or her obligations, agreements or representations under this Section 2.14 (including, for the avoidance of doubt) the agreement to provide written certifications of continuous Ownership of the Minimum Number of shares of Common Stock through the date of the annual meeting in the timeframe specified by Section 2.14(d)(i)), as determined by the Board which determination shall be conclusive and binding on the Corporation and the stockholders or (B) the Nominating Stockholder (or any group member) or any Qualified Representative thereof, does not appear at the annual meeting to present the nomination pursuant to this Section 2.14.

(iii) Notwithstanding anything to the contrary contained in this Section 2.14, the Corporation may omit from its proxy statement, or may supplement or correct, any information, including all or any portion of the Supporting Statement or any other statement in support of the Stockholder Nominee included in the Nomination Notice, if the Board determines that: (A) such information is not true in all material respects or omits a material statement necessary to make the statements made not misleading; (B) such information directly or indirectly impugns the character, integrity or personal reputation of, or directly or indirectly makes charges concerning improper, illegal or immoral conduct or associations, without factual foundation, with respect to, any individual, corporation, partnership, association or other entity, organization or governmental authority; (C) the inclusion of such information in the proxy statement would otherwise violate the rules of the SEC or any other applicable law, rule or regulation; or (D) the inclusion of such information in the proxy statement would impose a material risk of liability upon the Corporation.

(iv) The Corporation may solicit against, and include in the proxy statement its own statement relating to, any Stockholder Nominee.

ARTICLE III
THE BOARD

Section 3.1. General Powers. The business and affairs of the Corporation shall be managed by and under the direction of the Board. In addition to the powers and authorities expressly conferred upon the Board by these Bylaws, the Board may exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute, by the Certificate of Incorporation or by these Bylaws required to be exercised or done by the stockholders. Except as otherwise provided by law, these Bylaws or by the Certificate of Incorporation, all decisions of the Board shall require the affirmative vote of a majority of the Directors present at a meeting at which a quorum is present.

Section 3.2. Number; Qualifications. Subject to the rights of any series of Preferred Stock to elect Directors under specified circumstances, the number of the Directors constituting the entire Board shall be fixed from time to time exclusively by resolution adopted by a majority of the Whole Board. A Director need not be a stockholder of the Corporation.

Section 3.3. Regular Meetings. The Board shall meet at least four times a year. Regular meetings shall be held at such place or places, and at such time or times as shall have been established by the Chairman of the Board or the Board and communicated to all Directors. A notice of each regular meeting shall not be required.

Section 3.4. Special Meetings. A special meeting of the Board may be called at the request of (a) the Chairman of the Board, (b) a Vice Chairman, (c) the President, or (d) a majority of the Whole Board, and such meeting shall be held at such place, on such date, and at such time as he or she shall fix. Notice of the place, date, time and purpose of each such special meeting shall be given to each Director by whom it is not waived by mailing written notice not less than five days before the meeting or by telephone or by facsimile or electronic transmission of the same not less than 24 hours before the meeting.

Section 3.5. Conference Telephone Meetings. Members of the Board or any committee thereof may participate in a meeting of the Board or such committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting.

Section 3.6. Quorum; Conduct of Business. A majority of the Whole Board present in person or participating in accordance with Section 3.5 shall constitute a quorum for the transaction of business, but if at any meeting of the Board there shall be less than a quorum present, a majority of the Directors present may adjourn the meeting from time to time without further notice. Subject to applicable law and any provisions of these Bylaws or the Certificate of Incorporation, the act of the majority of the Directors present at a meeting at which a quorum is present shall be the act of the Board.

Section 3.7. Vacancies; Increases in the Number of Directors. Subject to the rights of the holders of any series of Preferred Stock then outstanding and except as otherwise provided by law, resolution of the Board or in the Certificate of Incorporation, vacancies and newly created directorships resulting from any increase in the authorized number of Directors may be filled only by vote of the majority of the Directors then in office, although less than a quorum, or a sole remaining Director (and not by the stockholders); and any Director so chosen shall hold office until the next election of the class for which such Director has been chosen and until his successor shall be duly elected and shall qualify, unless sooner displaced.

Section 3.8. Committees. (a) The Board may, subject to applicable law, establish committees of the Board and may delegate its powers and authority to such committees. Each such committee shall consist of one or more of the Directors. The Board may designate one or more Directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in place of any such absent or disqualified member.

(a) The Board shall have an audit committee meeting the independence and experience requirements set forth in Rule 10A ĭ 3 under the Exchange Act and in the listing standards of the principal exchange on which the Common Stock of the Corporation is traded, if any, in each case as of the date of these Bylaws for membership on the audit committee of the Board, including any transition rules that may apply. The audit committee shall establish, and the Board shall authorize and approve, a written audit committee charter in accordance with the rules of the principal exchange on which the Common Stock of the Corporation is traded, if any, as amended from time to time.

(b) The Board shall have a compensation committee meeting the independence requirements set forth in the listing standards of the principal exchange on which the Common Stock of the Corporation is traded, if any, as of the date of these Bylaws for membership on the compensation committee of the Board, including any transition rules that may apply. The compensation committee shall establish, and the Board shall authorize and approve, a written compensation committee charter in accordance with the rules of the principal exchange on which the Common Stock of the Corporation is traded, if any, as amended from time to time.

(c) The Board shall have nominating and governance committee meeting the independence requirements set forth in the listing standards of the principal exchange on which the Common Stock of the Corporation is traded, if any, as of the date of these Bylaws for membership on the nominating and governance committee of the Board, including any transition rules that may apply. The nominating and governance committee shall establish, and the Board shall authorize and approve, a written nominating and governance committee charter in accordance with the rules of the principal exchange on which the Common Stock of the Corporation is traded, if any, as amended from time to time.

(d) Unless the Board shall otherwise provide, a majority of any committee may fix the time and place of its meetings and may determine its action. Notice of such meetings shall be given to each member of the committee in the manner provided for in Section 3.4 of these Bylaws. The Board shall have power at any time to fill vacancies in, to change the membership of, or to dissolve any committee. Notwithstanding paragraph (a) of this Bylaw, nothing herein shall be deemed to prevent the Board from appointing one or more committees consisting in whole or in part of persons who are not Directors; provided, however, that no such committee shall have or may exercise any authority of the Board.

Section 3.9. Action by Consent of Board or Committee. The Board and any committee thereof may act without a meeting so long as all members of the Board or committee shall have consented thereto in writing or by electronic transmission and such written consent or electronic transmission is filed with the minutes of the proceedings of the Board or committee, as appropriate.

Section 3.10. Records. The Board shall cause to be kept a record containing the minutes of the proceedings of the meetings of the Board and of the stockholders, appropriate stock books and registers and such books of records and accounts as may be necessary for the proper conduct of the business of the Corporation.

ARTICLE IV
OFFICERS

Section 4.1. Officers. The officers of the Corporation shall be elected by, and serve at the pleasure of, the Board. Such officers shall have the authority and duties delegated to each of them, respectively, by these Bylaws or the Board from time to time. The officers of the Corporation may be a Chairman of the Board, an Executive Chairman, one or more Vice Chairman of the Board, a Chief Executive Officer, a President, a Secretary, a Treasurer, and such other officers (including, without limitation, Executive Vice Presidents, Senior Vice Presidents and Vice Presidents) as the Board from time to time may deem proper. The Board may from time to time elect such other officers (including one or more Vice Presidents, Controllers, Assistant Secretaries and Assistant Treasurers) as may be necessary or desirable for the conduct of the business of the Corporation. Such other officers and agents shall have such duties and shall hold their offices for such terms as shall be provided in these Bylaws or as may be prescribed by the Board, as the case may be. Any number of offices may be held by the same person. The salary of the Executive Chairman and the Chief Executive Officer shall be fixed from time to time by, and the salaries of the other executive officers elected by the Board shall be recommended from time to time by, the compensation committee of the Board, if such committee is then established or, if such committee is not then established, by the Board or by such officers as may be designated by resolution of the Board.

Section 4.2. Election and Term of Office. The officers of the Corporation shall be elected annually by the Board at the regular meeting of the Board held after the annual meeting of the stockholders. If the election of officers shall not be held at such meeting, such election shall be held as soon thereafter as convenient. Each officer shall hold office until such person ĭ s successor shall have been duly elected and shall have qualified or until such person ĭ s death or until he or she shall resig be removed pursuant to Section 4.9.

Section 4.3. Chairman of the Board. The Directors shall elect the Chairman of the Board from among the Directors. The Chairman of the Board shall preside at all meetings of the stockholders and of the Board. He or she shall make reports to the Board and the stockholders and shall see that all orders and resolutions of the Board and of any committee thereof are carried into effect. The Chairman of the Board may also serve as Executive Chairman, President or Chief Executive Officer, if so elected by the Board.

Section 4.4. Executive Chairman. The Executive Chairman shall have all powers and perform all duties commonly incident to such position, or which are, or from time to time may be, delegated to him or her by the Board. The powers and duties of the Executive Chairman shall include, but will not necessarily be limited to: (i) consulting on the strategic vision and direction of the Corporation, (ii) developing, improving and maintaining the Corporation ĭ s government relations and strategic alliances, (iii) improving the business climate for the Corporation around the world, (iv) enhancing relationships with the Corporation ĭ s key customers, partners, investors and employees and (v) serving as a facilitator for communication between the officers of the Corporation and the Board. If the Board deems it proper to elect an Executive Chairman, the office of the Executive Chairman and the office of the Chairman of the Board shall be filled by the same person.

Section 4.5. Vice Chairman of the Board. The Directors may elect one or more Vice Chairman from among the Directors. In the absence of the Chairman, a Vice Chairman (or if there be more than one as designated by the Board and available) shall preside at meetings of the Stockholders and of the Board. A Vice Chairman shall have all powers and perform all duties as may from time to time be granted or delegated to him or her by the Board.

Section 4.6. Chief Executive Officer. The Chief Executive Officer shall be responsible for the general management of the affairs of the Corporation and shall perform all duties and have all powers that are commonly incidental to the office of chief executive, which may be required by law and all such other duties as are properly required of or delegated to him or her by the Board. Unless the Board has elected a vice ĭ chairman and such vice ĭ chairman is able to act in the place of the Chairman of the Board, the Chief Executive Officer, if he or she is also a director, shall, in the absence, or because of the inability to act, of the Chairman of the Board, perform all duties of the Chairman of the Board and preside as chairman at all meetings of stockholders and the Board.

Section 4.7. President. The President shall act in a general executive capacity and shall assist the Chief Executive Officer in the administration and operation of the Corporation ĭ s business and general supervision of its policies and affairs. The President shall have such other powers and shall perform such other duties as shal be properly assigned or delegated to him or her by the Board or the Chairman of the Board.

Section 4.8. Vice Presidents. Each Executive Vice President, Senior Vice President and Vice President shall have such powers and shall perform such duties as shall be properly assigned or delegated to him or her by the Board or the Chairman of the Board or such duties as are customarily performed by such officer.

Section 4.9. Treasurer. The Treasurer shall exercise general supervision over the receipt, custody and disbursement of corporate funds. The Treasurer shall cause the funds of the Corporation to be deposited in such banks as may be authorized by the Board, or in such banks as may be designated as depositories in the manner provided by resolution of the Board. The Treasurer shall, in general, perform all duties and have all powers that are commonly incident to the office of the Treasurer and shall have such further powers and duties and shall be subject to such directions as may be properly granted or imposed from time to time by the Board or the Chairman of the Board.

Section 4.10. Secretary. The Secretary shall keep or cause to be kept, in one or more books provided for that purpose, the minutes of all meetings of the Board, the committees of the Board and the stockholders. The Secretary shall see that all authorized notices are duly given in accordance with the provisions of these Bylaws and as required by law; shall be custodian of the records and the seal of the Corporation and affix and attest the seal to all stock certificates of the Corporation (unless the seal of the Corporation on such certificates shall be a facsimile, as hereinafter provided) and affix and attest the seal to all other documents to be executed on behalf of the Corporation under its seal; and shall see that the books, reports, statements, certificates and other documents and records required by law to be kept and filed are properly kept and filed; and in general, shall perform all the duties and have all powers that are commonly incident to the office of Secretary and such other duties as from time to time may be assigned to the Secretary by the Board or the Chairman of the Board.

Section 4.11. Removal. Any officer elected by the Board may be removed at any time, with or without cause, by the Board whenever, in the judgment of the Board, the best interests of the Corporation would be served thereby. Any officer elected by the Board other than the Chairman of the Board, Executive Chairman, any Vice Chairman, the Chief Executive Officer or the President may be removed at any time, with or without cause, by the Executive Chairman or Chief Executive Officer whenever, in the judgment of such person, the best interests of the Corporation would be served thereby.

Section 4.12. Vacancies. A newly created elected office and a vacancy in any elected office because of death, resignation or removal may be filled by the Board for the unexpired portion of the term at any meeting of the Board.

Section 4.13. Delegation of Authority. The Board may from time to time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

ARTICLE V
STOCK CERTIFICATES AND TRANSFERS

Section 5.1. Certificates. The shares of the Corporation shall be represented by certificates, provided that the Board may provide by resolution or resolutions that some or all of any or all classes or series of stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Every holder of stock represented by certificates shall be entitled to have a certificate signed by or in the name of the Corporation by the Chairman or Vice Chairman of the Board, if any, or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary, of the Corporation certifying the number of shares owned by such holder in the Corporation. Any of or all the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were such officer, transfer agent, or registrar at the date of issue.

Section 5.2. Lost, Stolen or Destroyed Certificates. No certificate for shares of stock in the Corporation shall be issued in place of any certificate alleged to have been lost, destroyed or stolen, except on production of such evidence of such loss, destruction or theft and on delivery to the Corporation of a bond of indemnity in such amount, upon such terms and secured by such surety, as the Board or any financial officer may in its or such person ĭ s discretion require.

ARTICLE VI

INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 6.1. Right to Indemnification. Each person who was or is made a party to or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter, a ǐ proceeding ǐ), by reason of the fact that such person, or a person of whom s person is the legal representative, is or was a Director or officer of the Corporation or, while a Director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee, trustee or agent of another corporation or of a partnership, limited liability company, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee, trustee or agent or in any other capacity while serving as a director, officer, employee, trustee or agent, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended against all expense, liability and loss (including, without limitation, attorneys ǐ fees, judgments, fines, amounts paid or to be paid in settlement and excise taxes or penalties arising under the Employment Retirement Income Security Act of 1974, as in effect from time to time) reasonably incurred or suffered by such person in connection therewith; provided, however, that, except as provided in Section 6.2 hereof, the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the Board. The right to indemnification conferred in this Section 6.1 shall be a contract right. The Corporation shall prepay the expenses incurred in defending any such proceeding in advance of its final disposition, any advance payments to be paid by the Corporation within 20 calendar days after the receipt by the Corporation of a statement or statements from the claimant requesting such advance or advances from time to time; provided, however, that, if and to the extent the DGCL requires, the payment of such expenses incurred by a Director or officer in such person ǐ s capacity as a Director or officer in advance of the final disposition of a proceeding shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such Director or officer, to repay all amounts so advanced if it shall ultimately be determined that such Director or officer is not entitled to be indemnified under this Section 6.1 or otherwise. The Corporation may, to the extent authorized from time to time by the Board, grant rights to indemnification, and rights to have the Corporation pay the expenses incurred in defending any proceeding in advance of its final disposition, to any employee, trustee or agent of the Corporation to the fullest extent of the provisions of this Article VI with respect to the indemnification and advancement of expenses of Directors and officers of the Corporation and may enter into Indemnity Agreements to such effect.

Section 6.2. Right of Claimant to Bring Suit. If a claim under Section 6.1 of this Article VI is not paid in full by the Corporation within 60 calendar days after a written claim has been received by the Corporation, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any is required, has been tendered to the Corporation) that the claimant has not met the standard of conduct which makes it permissible under the DGCL for the Corporation to indemnify the claimant for the amount claimed, but the burden of proving such defense shall be on the Corporation. Neither the failure of the Corporation (including its Board, independent legal counsel or its stockholders) to have made a determination prior to the circumstances that the claimant has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its Board, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that the claimant has not met the applicable standard of conduct.

Section 6.3. Non ĭ Exclusivity of Rights. The right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this Article VI shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, Bylaw, agreement, vote of stockholders or disinterested Directors or otherwise. No repeal or modification of this Article VI shall in any way diminish or adversely affect the rights of any Director, officer, employee, trustee or agent of the Corporation hereunder in respect of any occurrence or matter arising prior to any such repeal or modification.

Section 6.4. Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any Director, officer, employee, trustee or agent of the Corporation or another corporation, partnership, limited liability company, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Section 6.5. Severability. If any provision or provisions of this Article VI shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Article VI (including, without limitation, each portion of any paragraph of this Article VI containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (ii) to the fullest extent possible, the provisions of this Article VI (including, without limitation, each such portion of any paragraph of this Article VI containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision or provisions held invalid, illegal or unenforceable.

Section 6.6. Expenses as a Witness. To the extent that any Director or officer of the Corporation is by reason of such position, or a position as a director, officer, trustee, employee or agent with another entity at the request of the Corporation, a witness in any action, suit of proceeding, he or she shall be indemnified against all costs and expenses actually and reasonably incurred in connection therewith.

Section 6.7. Nature of Rights. The rights conferred upon indemnitees by this Article VI shall continue as to an indemnitee who has ceased to be a Director or officer and shall inure to the benefit of such indemnitee ĭ s heirs, executors and administrators. Any repeal or modification of the foregoing provisions of this Article VI shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

ARTICLE VII
MISCELLANEOUS PROVISIONS

Section 7.1. Fiscal Year. The fiscal year of the Corporation shall begin and end on such dates as the Board at any time shall determine by resolution.

Section 7.2. Dividends. The Board may from time to time declare, and the Corporation may pay, dividends on its outstanding shares in the manner and upon the terms and conditions provided by law and the Certificate of Incorporation.

Section 7.3. Seal. The corporate seal, if any, shall have inscribed thereon the words ĭ Corporate Seal, ĭ the year of incorporation and the word ĭ Delawa

Section 7.4. Waiver of Notice. Whenever any notice is required to be given to any stockholder or Director under the provisions of the DGCL or these Bylaws, a waiver thereof by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice. Neither the business to be transacted at, nor the purpose of, any annual or special meeting of the stockholders or the Board or any committee thereof need be specified in any waiver of notice of such meeting.

Section 7.5. Resignations. Any Director or any officer, whether elected or appointed, may resign at any time by giving written notice of such resignation to the Chairman of the Board or the Secretary, and such resignation shall be deemed to be effective as of the close of business on the date said notice is received by the Chairman of the Board or the Secretary, or at such later time as is specified therein. No formal action shall be required of the Board or the stockholders to make any such resignation effective.

ARTICLE VIII
CONTRACTS; VOTING SECURITIES OF OTHER ENTITIES

Section 8.1. Contracts. Except as otherwise required by law, the Certificate of Incorporation, a Preferred Stock Designation or these Bylaws, any contracts or other instruments may be executed and delivered in the name and on the behalf of the Corporation by such officer or officers of the Corporation as the Board may from time to time direct. Such authority may be general or confined to specific instances as the Board may determine. Unless provided otherwise by resolution of the Board, the Chairman or Vice Chairman of the Board, the Chief Executive Officer, the President or any Executive Vice President, Senior Vice President or Vice President may execute bonds, contracts, deeds, leases and other instruments to be made or executed for or on behalf of the Corporation. Subject to any restrictions imposed by the Board, the Chairman or Vice Chairman of the Board, the Chief Executive Officer, the President or any Executive Vice President, Senior Vice President or Vice President of the Corporation may delegate contractual powers to others under such person ĭ s authority, it being understood, however, that any such delegation of power shall not relieve such officer of responsibility with respect to the exercise of such delegated power.

Section 8.2. Action with Respect to Securities of Other Entities. Unless otherwise provided by resolution adopted by the Board, the Chairman or Vice Chairman of the Board, the Chief Executive Officer, the President or any officer authorized by one of them shall have the power to vote and otherwise act, appoint an attorney or attorneys or agent or agents of the Corporation, in the name and on behalf of the Corporation, to cast the votes which the Corporation may be entitled to cast as the holder of stock, other securities or interests in any other entity, any of whose stock or other securities or interests may be held by the Corporation, at meetings of the holders of the stock, other securities or interests, of such other entity, or to consent in writing, in the name of the Corporation as such holder, to any action by such other entity, and may instruct the person or persons so appointed as to the manner of casting such votes or giving such consent, and may execute or cause to be executed in the name and on behalf of the Corporation and under its corporate seal or otherwise, all such written proxies or other instruments as he or she may deem necessary or proper and otherwise exercise any and all rights and powers that the Corporation may possess by reason of its ownership of stock, other securities or interests in such other entity.

ARTICLE IX
CORPORATE OPPORTUNITIES

A "Specified Director" means any Director who does not serve as an officer or employee of the Corporation and who has been deemed a Specified Director by a resolution approved and adopted by a majority of the Whole Board.

(a) An "Unrestricted Opportunity" of a Specified Director means:

(i) any business or corporate opportunity not involving a business or corporate opportunity that is solely or primarily related to the manufacture, distribution, or marketing of chemical products nor involving a business or corporate opportunity that is solely or primarily related to any other material line of business in which the Corporation engages or, pursuant to a resolution adopted by the Board prior to the time the Specified Director begins to pursue the opportunity, proposes to engage at the time such opportunity arises; or

(ii) any opportunity of which such Specified Director becomes aware prior to learning of such opportunity from the Corporation, any of its subsidiaries or any person acting as agent or representative thereof (unless the person first becomes aware of the opportunity by oral or written communication (including by means of an e-mail) that is explicitly directed to the person in his or her capacity as a Director).

(b) To the fullest extent permitted by law, including, without limitation, Section 122 (17) of the DGCL, each Specified Director and any person who directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such Specified Director or his or her employer:

(i) shall have the right to engage, and shall have no duty to refrain from engaging, in any Unrestricted Opportunity of such Specified Director; and

(ii) shall not have a duty to communicate or present any Unrestricted Opportunity of such Specified Director to the Corporation by reason of the fact that any such person: (A) pursues or acquires any Unrestricted Opportunity of such Specified Director for himself, herself or itself, (B) directs such an opportunity to another person or entity, or (C) does not communicate information regarding such opportunity to the Corporation, and the Corporation hereby renounces any interest or expectancy in, or being offered an opportunity to participate in, any such Unrestricted Opportunity.

(c) This Article may not be altered, amended or repealed at any time except by the stockholders of the Corporation or by unanimous action of the Board. Neither the alteration, amendment nor repeal of this Article, nor an amendment or restatement of the Certificate of Incorporation that is inconsistent with this Article shall eliminate or reduce the effect of this Article in respect of any matter occurring, or any cause of action, suit or claim that, but for this Article, would accrue or arise, prior to such alteration, amendment, repeal or restatement. To the fullest extent permitted by law, any person purchasing or otherwise acquiring any interest in any shares of capital stock of the Corporation shall be deemed to have notice of and to have consented to the provisions of this Article IX.

ARTICLE X
AMENDMENTS

These Bylaws may be altered, amended or repealed and new Bylaws may be adopted (a) at any annual or special meeting of stockholders by the affirmative vote of the holders of a majority of the voting power of the stock issued and outstanding and entitled to vote thereat; or (b) by the affirmative vote of a majority of the Whole Board (provided that, in the case of Article IX and this proviso, the unanimous action of the Board shall be required); provided that in the case of any such stockholder action at a special meeting of stockholders, notice of the proposed alteration, amendment, repeal or adoption of such Bylaws must be contained in the notice of such special meeting.

CERTIFICATE BY SECRETARY

The undersigned, being the Secretary of the Corporation, hereby certifies that the foregoing Sixth Amended and Restated Bylaws were duly approved and adopted by the Board and became effective on June 16, 2020.

IN WITNESS WHEREOF, I have signed this certification on this 16th day of June 2020.

/s/ David M. Stryker
David M. Stryker, Secretary

Exhibit 10.41

Execution Version

EUROPEAN CONTRIBUTION AGREEMENT

between

HUNTSMAN INTERNATIONAL LLC, as Contributor

and

HUNTSMAN RECEIVABLES FINANCE LLC, as the Company

Dated as of October 16, 2009 as amended and restated. as of April 18, 2019

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EUROPEAN CONTRIBUTION AGREEMENT, dated as of October 16, 2009 as amended and restated as of April 18, 2019 (this "**Agreement**"), between Huntsman International LLC, a limited liability company organized under the laws of the State of Delaware, as contributor (the "**Contributor**") and Huntsman Receivables Finance LLC, a limited liability company organized under the laws of the State of Delaware, as the Company (the "**Company**").

WITNESSETH:

WHEREAS, the Company and Contributor are parties to the European Contribution Agreement initially dated on or about October 16, 2009 pursuant to which the Contributor agreed to contribute, from time to time certain Receivables it has purchased or may purchase from the European Originators (as such agreement, as it may be amended, modified or otherwise supplemented from time to time, the "**Existing Agreement**").

WHEREAS, the Company has and will grant a security interest in the accounts receivable contributed to it to HSBC Bank plc, not in its individual capacity but solely as Collateral Agent (the "**Collateral Agent**") pursuant to the European Receivables Loan Agreement, dated as of October 16, 2009 (such agreement, as it may be amended, modified or otherwise supplemented from time

to time, the "**European Receivables Loan Agreement**"), among the Company, Huntsman (Europe) BVBA, as Master Servicer (the "**Master Servicer**"), HSBC Bank plc as Administrative Agent (in such capacity, the "**Administrative Agent**"), the Collateral Agent and the several parties thereto from time to time as Lenders and Funding Agents (the "**Funding Agents**"); and

WHEREAS, the Company, the Master Servicer, the Local Servicers party thereto from time to time, the Administrative Agent, the Collateral Agent, and Huntsman International LLC as Servicer Guarantor have entered into a European Servicing Agreement, dated as of October 16, 2009 (such agreement, as it may be amended, restated, modified or otherwise supplemented from time to time, the "**European Servicing Agreement**"), pursuant to which the Master Servicer will agree to service and administer or cause to be serviced or administered such accounts receivable on behalf of the Company.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants herein contained, the parties hereto agree as follows;

1. **DEFINITIONS**

1.01 Defined Terms. Capitalized terms used herein shall, unless otherwise defined or referenced herein, have the meanings assigned to such terms in **Schedule 3** attached to the European Receivables Loan Agreement, which **Schedule 3** is incorporated by reference herein.

1.02 Other Definitional Provisions.

(a) The words "hereof', "herein", "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement, and article, section, subsection, schedule and exhibit references are to this Agreement unless otherwise specified.

(b) As used herein and in any certificate or other document made or delivered pursuant hereto, accounting terms relating to the Contributor and the Company, unless otherwise defined or incorporated by reference herein, shall have the respective meanings given to them under applicable GAAP.

(c) The meanings given to terms defined or incorporated by reference herein shall be equally applicable to both the singular and plural forms of such terms,

(d) In this Agreement; unless indicated otherwise, references (in any manner, including generally, specifically, by name, by capacity, by role or otherwise) to a person include any individual, .firm, partnership, body corporate, unincorporated association, government, state or agency of a state, local or municipal authority or government body, trust, foundation, joint venture or association (in each case whether or not having. separate legal personality);

(e) Any reference herein.to a Schedule or Exhibit to this Agreement shall be deemed to. be a reference to such Schedule or Exhibit as it may be amended, modified or supplemented from time to time to the extent that such Schedule or Exhibit may be amended, modified or supplemented (or any term or provision of any Transaction Document may be amended that would have the effect of amending, modifying or supplementing information contained in such Schedule or Exhibit) in compliance with the terms of the Transaction Documents.

(f) Any reference in this Agreement to any representation, warranty or covenant "deemed ĭ to have been made is intended to encompass only representations, warranties or covenants that are expressly stated to be repeated on or as of dates following the execution and delivery of this Agreement, and no such reference shall be interpreted as a reference to any implicit, inferred, tacit or otherwise unexpressed representation, warranty or covenant.

(g) The words "include", "includes" or "including" shall he interpreted as if followed, in each case, by the phrase "without limitation",

(h) Any reference herein to a provision of the Bankruptcy Code, Code, ERISA, 1940 Act or the UCC shall be deemed a reference to any successor provision thereto.

(i) References to this Agreement or to any other Transaction Document or any other document or agreement herein shall be deemed to be references to any such document or agreement as amended, restated, supplemented or otherwise modified from time to time.

(j) in this Agreement, unless indicated otherwise, general words introduced by the word "other" are not to be given a restrictive meaning by reason of the fact that they are preceded by words indicating a particular class of acts, matters or things, and general words are not to be given a restrictive meaning by reason of the fact that they are followed by particular examples intended to be embraced by the general words.

(k) In this Agreement, unless indicated otherwise, a reference to a "day" means a period of 24 hours running from midnight to midnight and a reference to a time of day is to London time.

(l) In this Agreement, unless otherwise stated, in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including", the words "to" and "until" each mean "to but excluding", and the word "within" means "from and excluding a specified date and to and including a later specified date".

(m) In this Agreement headings are for convenience only and shall not affect the interpretation of this Agreement.

(n) In this Agreement, unless indicated otherwise, a reference (in any manner, including generally, specifically, by name, by capacity, by role or otherwise) to a Person shall include references to (i) Person's permitted successors, transferees and assigns and any Person deriving title under or through such Person, whether in security or otherwise, and (ii) any Person into which such Person may be merged or consolidated, or any company resulting from any merger, conversion or consolidation or any other Person succeeding to substantially all of the business of that Person.

2. CONTRIBUTION OF RECEIVABLES

2.01 Contribution of Receivables.

(a) On the date hereof and on each Business Day thereafter, the Contributor shall contribute, transfer, assign, and convey, without recourse (except as expressly provided herein), to the Company, as a capital contribution (which the Company shall accept), all of its present and future right, title and interest in, to and under:

(i) such Receivables purchased by the Contributor from an Originator on the applicable date of contribution (the "**Contribution Date**") pursuant to the terms of a Receivables Purchase Agreement from time to time (the "**Contributed Receivables**");

(ii) the Related Property;

(iii) all Collections in respect of such Contributed Receivables;

(iv) all rights (including rescission, replevin or reclamation) of the Contributor relating to any such Contributed Receivable or arising therefrom;

(v) all rights of the Contributor under each of the Receivables Purchase Agreements including, in respect of each such agreement, (A) all rights of the Contributor to receive monies due and to become due under or pursuant to such agreement, whether payable as fees, expenses, costs or otherwise, (B) all rights of the Contributor to receive proceeds of any insurance, indemnity, warranty or guaranty with respect to such agreement, (C) any claims of the Contributor for damages arising out of or for breach of or default under such agreement, (3) the right of the Contributor to amend, waive or terminate such agreement, to perform thereunder and to compel performance and otherwise exercise all remedies thereunder and (E) all other rights, remedies, powers, privileges and claims of the Contributor under or in connection with such agreement (whether arising pursuant to such agreement or otherwise available to the Contributor at law or in equity), including the rights of the Contributor to enforce such agreement and to give or withhold any and all consents, requests, notices, directions, approvals, extensions or waivers under or in connection therewith;

(vi) all "accounts," "general intangibles," "chattel paper" and/or "instruments" (each as defined in the UCC as in effect in any applicable jurisdiction) arising from, relating to or consisting of any of the foregoing property; and

(vii) all proceeds of or payments in respect of any and all of the foregoing **clauses (i)** through **(vi)** (including Collections).

Such property described in the foregoing **clauses (i)** through **(vii)** shall be referred to collectively herein as the "**Receivable Assets**" and shall be considered to be assets that have been contributed, transferred, assigned, set over and otherwise conveyed by the Contributor to the Company immediately upon completion of the purchase of any Receivables referred to in **Section 2.01(a)(i)** above, in accordance with the terms of any Receivables Purchase Agreement. Subject to the last sentence of **Section 7.01** or **7.02** (as applicable), the contribution of Receivables by the Contributor to the Company shall cease to the extent provided in **Section 7.01** or **7.02** (as applicable).

(b) The Contributor and the Company hereby acknowledge and agree that it is their mutual intent that (i) every transfer by way of capital contribution of Receivable Assets to the Company hereunder shall be an absolute, unconditional, "true" conveyance and not a mere granting of a security interest to secure a loan to or from the Company, (ii) the Contributor shall not retain any interest in the Receivable Assets after the contribution thereof hereunder (other than the indirect interest it retains as its entitlement to receive payments in relation to the Contributed Value as contemplated by **Section 2.02** and as holder of limited liability company interests of the Company), (iii) the Receivable Assets originated, or purchased from an Originator, by the Contributor shall not be part of the Contributor's insolvency or bankruptcy estate in the event an insolvency or delinquency proceeding or a bankruptcy petition or other action shall be commenced or filed by or against the Contributor under any insolvency or bankruptcy law an d (iv) the Purchased Receivables originated by any Originator shall not be part of such Originator's insolvency or bankruptcy estate in the event an insolvency or delinquency proceeding or a bankruptcy or other action shall be commenced or filed by or against such Originator under any insolvency or bankruptcy law. In the event, however, that notwithstanding such intent and agreement, such transfers are deemed by any relevant Governmental Authority for any reason whatsoever, whether for limited purposes or otherwise, to be a security interest granted to secure indebtedness of the Contributor, the Contributor shall be deemed to have granted to the Company a perfected first priority security interest under Article 9 of the UCC in the applicable jurisdiction in all of its right, title and interest in, to and under, in each case, whether now owned or existing, or hereafter acquired or arising, and wherever located, the Receivable Assets originated or purchased by the Contributor, and this Agreement shall constitute a security agreement under applicable law, securing the repayment of the amounts paid hereunder, subject to the other terms and conditions of this Agreement, together with such other obligations or interests as may arise hereunder in favour of the parties hereto.

(c) In connection with any transfer, assignment, conveyance and contribution pursuant to **subsection 2.01(a)**, the Contributor hereby agrees to record and file, or cause to be recorded and filed, at its own expense, financing statements or other similar filings (and continuation statements with respect to such financing statements or other similar filings when applicable), (i) with respect to the Contributed Receivables and (ii) with respect to any other Receivable Assets for which an assignment or the creation of a security interest (as defined in the applicable UCC or other similar applicable laws, legislation or statute) may be perfected under the applicable UCC or other applicable laws, legislation or statute by such filing, in each case meeting the requirements of applicable law in such manner and in such jurisdictions as are necessary to perfect and maintain the perfection of the transfer, assignment, conveyance and contribution of such Contributed Receivables and any other Receivable Assets related thereto to the Company, and to deliver to the Company (x) on or prior to the date hereof, a photocopy, certified by a Responsible Officer of the Contributor to be a true and correct copy, of each such financing statement or other filing to be made on or prior to the date hereof and (y) within ten (10) days after the date hereof, a file stamped copy or certified statement of such financing statement (or the similar filing) or other evidence of such filing.

(d) In connection with the transfer, assignment, conveyance and contribution pursuant to **subsection 2.01(a)**, the Contributor agrees at its own expense, with respect to the Contributed Receivables, that it will or will cause, as agent of the Company, (i)(A) on the date hereof and thereafter, direct (or cause the Master Servicer to direct) each Originator to identify on its extraction records relating to Receivables from its master database of receivables, that the Contributed Receivables and all other Receivable Assets related thereto have been transferred, assigned, conveyed and contributed to the Company in accordance with this Agreement and (B) acknowledge, deliver or transmit or cause to be delivered or transmitted to the Master Servicer a Periodic Report as to all such Contributed Receivables, as of the Applicable Periodic Reporting Date and (ii) use its reasonable best efforts to cause the applicable Originator of the Receivables purchased by the Contributor to (A) on the date hereof and thereafter to identify on its extraction records relating to Purchased Receivables from its master database of receivables, that all such Purchased Receivables and all other Receivable Assets related thereto have been transferred, assigned, conveyed and contributed to the Company in accordance with this Agreement and (B) acknowledge, deliver or transmit or cause to be delivered or transmitted to the Master Servicer an Originator Periodic Report as to all such Purchased Receivables, as of the Applicable Periodic Reporting Date.

(e) All Contributed Receivables hereunder shall be without recourse to, or any representation or warranty of any kind (express or implied) by, the Contributor except as otherwise specifically provided herein. The foregoing contribution, assignment, transfer and conveyance does not constitute and is not intended to result in the creation or assumption by the Company of any obligation of the e Contributor or any other person in connection with the Contributed Receivables or any agreement or instrument relating thereto, including any obligation to any Obligor, except as expressly provided herein or in the European Servicing Agreement or any other Transaction Document,

2.02 Contribution Value. The contribution value (the "**Contribution Value**") for the Contributed Receivables and the other Receivable Assets related thereto shall be deemed to be an amount equal to the sum of the "Purchase Price" (as such term is defined in the applicable Receivables Purchase Agreement) payable by the Contributor to each Originator under the applicable Receivables Purchase Agreement with respect to each Contributed Receivable. The Company shall cause to Master Servicer to calculate the Contribution Value and report such amount in each Periodic Report, and in the absence of manifest error such amount shall be deemed to be conclusive. The Company shall cause the Master Servicer to maintain in its books and records a ledger entitled the "**distributable assets ledger**." For each Contributed Receivable, the Company shall credit to the distributable assets ledger an amount equal to the Contribution Value of such Contributed. Receivable and shall debit from the distributable assets ledger the deductions referred to in **Section 2.06(a), Section 2.06(b)** and the following sentence. The Company shall distribute the outstanding amount showing on the distributable assets ledger to the Contributor as and when required under the European Receivables Loan Agreement and may do so by transferring amounts on deposit in the Company Concentration Accounts to the Huntsman Receipts Account. The Contributor hereby appoints the Master Servicer to hold any such distributions and receipt by the Master Servicer into the Huntsman Receipts Account of any such amounts shall discharge the amounts payable to the Contributor with respect to the Contribution Value hereunder Notwithstanding the foregoing, the Company shall not distribute any amounts to the Contributor in respect of Contribution Value, a distribution to equity or otherwise if such distribution would cause a Required Retention Deficiency.

2.03 Intentionally Omitted.

2.04 No Repurchase. Subject to **Section 2.06**, the Contributor shall not have any right or obligation under this Agreement, by implication or otherwise, to repurchase from the Company any Receivable Assets or to rescind or otherwise retroactively effect any purchase of any Receivable Assets after the related Contribution Date; provided that the foregoing shall not be interpreted to limit the right of the Company to receive a Contributor Dilution Adjustment Payment, a Contributor Adjustment Payment or a Contributor Indemnification Payment.

2.05 Rebates, Adjustments, Returns. Reductions and Modifications. From time to time the Contributor may make a Dilution Adjustment to a Contributed Receivable in accordance with this **Section 2.05** and **Section 6.02**; **provided** that if the Contributor or any Originator cancels an invoice related to such. Contributed Receivable, either (i) such invoice must be replaced, or caused to be replaced, by the Contributor as part of a "credit and re-bill" (as defined in the definition of Dilution Adjustment) with an invoice relating to the same transaction of equal or greater Principal Amount within 5 Business Days of such cancellation, (ii) such invoice must be replaced, or caused to be replaced, by the Contributor as part of a "credit and re-bill" (as defined in the definition of Dilution Adjustment) with an invoice relating to the same transaction of a lesser Principal Amount within 5 Business Days of such cancellation and the Contributor must make a Contributor Dilution Adjustment Payment, to the Company Concentration Account, in an amount equal to the difference between such cancelled and replacement invoices or (iii) the Contributor must make a Contributor Dilution Adjustment Payment, to the relevant Company Concentration Account in an amount equal to the full value of such cancelled invoice pursuant to this **Section 2.05**. The Contributor agrees to pay to the Company, on the Business Day immediately succeeding the date any Dilution Adjustment is granted or made pursuant hereto, the amount of any such Dilution Adjustment (a "**Contributor Dilution Adjustment Payment**"). The amount of any Dilution Adjustment shall be set forth in the first Periodic Report prepared after the date on which such Dilution Adjustment was granted or made.

2.06 Payments in Respect of Ineligible Receivables and Originator Indemnification Payments.

(a) Adjustment Payment Obligation. In the event of a breach of any of the representations and warranties contained in **Sections 4.02(a)**, **4.02(b)**, **4.02(c)**, **4.02(d)**, **4.02(e)** or **4.02(f)** in respect of any Contributed Receivable or if the Company does not acquire all of the Contributor's right, title and interest in any Contributed Receivable, the Contributor shall, within 30 days of the earlier of its knowledge or receipt of written notice of such breach or defect from the Company, remedy the matter giving rise to such breach of representation or warranty if such matter is capable of being remedied. If such matter is not capable of being remedied or is not so remedied within said period of 30 days, the Contributor shall repurchase the relevant. Contributed Receivable from the. Company at a repurchase price (without duplication of any Contributor Dilution Adjustment Payments made pursuant to **Section 2.05** hereof), equal to the original Principal Amount of such Contributed Receivable less Collections received by the Company in respect of such Contributed Receivable (the "**Contributor Adjustment Payment**"), which payment shall be made to the relevant Company Concentration Account in the same currency as such Contributed Receivable. Following the payment of a Contributor Adjustment Payment hereunder, the Company shall pay to the Contributor all Collections received subsequent to such repurchase with respect to such repurchased Receivable. The parties agree that if there is a breach of any of the representations and warranties of the Contributor contained in **Sections 4.02(a)**, **4.02(b)**, **4.02(c)**, **4.02(d)**, **4.02(e)** or **4.02(f)** in respect of or concerning any Contributed Receivable, the Contributor's obligation to pay the Contributor Adjustment Payment under this **Section 2.06** is a reasonable pre-estimate of loss and not a penalty (and neither the Company nor any other person or entity having an interest in this Agreement through the Company shall be entitled to any other remedies as a consequence of any such breach).

(b) Special Indemnification. In addition to its obligations under **Section 8.02** hereunder, the Contributor agrees to pay, indemnify and hold harmless (without duplication of any Contributor Dilution Adjustment Payments made pursuant to **Section 2.05** hereof) the Company from any loss, liability, expense, damage or injury which may at any time be imposed on, incurred by or asserted against the Company in any way relating to or arising out of (i) any Contributed Receivable becoming subject to any defense, dispute, offset or counterclaim of any kind (other than as expressly permitted by this Agreement or the European Receivables Loan Agreement) or (ii) the Contributor breaching any covenant contained herein with respect to any Contributed Receivable and such Contributed Receivable (or a portion thereof) ceasing to be an Eligible Receivable (each of the foregoing events or circumstances being a "**Contributor Indemnification Event**"). The amount of such indemnification shall be equal to the original Principal Amount of such Contributed Receivable less Collections received by the Company in respect of such Contributed Receivable (the "**Contributor Indemnification Payment**"). Such payment shall be made to the relevant Company Concentration Account on or prior to the 10th Business Day after the day the Company requests such payment or the Contributor obtains knowledge thereof unless such Contributor Indemnification Event shall have been cured on or before such 10th Business Day; **provided**, **however**, that in the event that (x) an Originator Termination Event with respect to the Contributor has occurred and is continuing or (y) the Company shall be required to make a payment with respect to such Contributed Receivable pursuant to **Section 29** of the European Receivables Loan Agreement and the Company has insufficient funds to make such a payment, the Contributor shall make such payment immediately. The Company shall have no further remedy against the Contributor in respect of such a Contributor Indemnification Event unless the Contributor fails to make a Contributor Indemnification Payment on or prior to such 10th Business Day or on such earlier day in accordance with the proviso set forth in this **subsection 2.06(b)**. Following the payment of a Contributor Indemnification Payment, the Company shall pay to the Contributor all Collections received subsequent to such payment with respect to the Contributed Receivable in respect of which a Contributor Indemnification Payment is made.

2.07 Certain Charges. The Contributor and the Company hereby agree that late charge revenue, reversals of discounts, other fees and charges and other similar items, whenever created, accrued in respect of a Contributed Receivable shall be the property of the Company notwithstanding the occurrence of an Early Originator Termination or Early Program Termination and all Collections with respect thereto shall continue to be allocated and treated as Collections in respect of such Contributed Receivable.

2.08 Intentionally Omitted.

2.09 **Power of Attorney**. The Contributor authorizes each of the Company and the Collateral Agent, and hereby irrevocably appoints each of the Company and the Collateral Agent (on behalf of the Secured Parties), as its attorney-in-fact coupled with an interest, with full power of substitution and with full authority in place of the Contributor, to take any and all steps in the Contributor's name and on behalf of the Contributor, that are necessary or desirable, in the determination of the Company or the Collateral Agent (as applicable), to collect amounts due under the Contributed Receivables, including: (a) endorsing the Contributor's name on checks and other instruments representing Collections of Contributed Receivables and enforcing the Receivable Assets related thereto; (b) taking any of the actions provided for under **Section 7.03**; and (c) enforcing the Receivable Assets, including to ask, demand, collect, sue for, recover, compromise, receive and give acquittance and receipts for moneys due and to become due under or in connection with therewith and to file any claims or take any action or institute any proceedings that the Company or the Collateral Agent (as applicable) (or any designee thereof) may deemed to be necessary or desirable for the collection thereof or to enforce compliance with the other terms and conditions of, or to perform any obligations or enforce any rights of the Contributor in respect of, the Receivable Assets. The rights under this **Section 2.09** shall not be exercisable with respect to the Contributor unless an Originator Termination Event has occurred and is continuing with respect to the Contributor or a Program Termination Event or a Termination Event has occurred and is continuing.

3. CONDITIONS TO CONTRIBUTIONS

3.01 Conditions Precedent to Contribution. The Contributor shall not be entitled to contribute Eligible Receivables to the Company and the Company shall not be obliged to accept such contribution unless the following conditions precedent have been satisfied on or prior to the date hereof:

(a) the Company shall have received copies of duly adopted resolutions (or, if applicable, a unanimous consent) of the Board of Directors of the Contributor, as in effect on the date hereof, authorizing the execution of this Agreement and the other Transaction Documents to which it is a party and the consummation of the Transactions pursuant to the Transaction Documents;

(b) the Company shall have received copies of a Certificate of Good Standing for the. Contributor issued by the Secretary of State of Delaware;

(c) the Company shall have received copies of a certificate of a Responsible Officer of the Contributor certifying (i) the names and signatures of the officers or any managers authorized on its behalf to execute this Agreement and the other Transaction Documents to which it is a party and any other documents to be delivered by it hereunder or thereunder, (ii) that attached thereto is a true, correct, and complete copy of the Contributor's certificate of formation and its operating agreement, (iii) that attached thereto is a true correct and complete copy of the document referred to in **clause (a)** above and (iv) that attached thereto is a true, correct and complete copy of the document referred to in **clause (b)** above;

(d) the Company shall have received copies of fully executed counterparts of this Agreement, the Termination and Release Agreement, the European Receivables Loan Agreement, the European Servicing Agreement and the Receivables Purchase Agreements;

(e) the Company shall have received copies of legal opinions, in each case, dated the date hereof and addressed to each Funding Agent, the Company, the Collateral Agent and the Administrative Agent:

(i) from Counsel to each Originator in form and substance satisfactory to the Company, the Administrative Agent, the Collateral Agent and each Funding Agent; and

(ii) from Counsel to the Contributor, in form and substance satisfactory to the Company, the Administrative Agent, the Collateral Agent and each Funding Agent,

(f) the Company shall have received the Policies of each Originator;

(g) the Company shall have received copies of proper financing statements, which will be filed on or prior to the date hereof, naming the Contributor and each Originator as the debtor in favour of, in each case, the Company as the secured party or other similar instruments or documents as may be necessary or in the reasonable opinion of the Company, the Administrative Agent, the Collateral Agent or any Funding Agent, desirable under the UCC of all appropriate jurisdictions to perfect the Company's ownership interest in the Receivable Assets contributed hereunder;

(h) the Company shall have received certified copies of requests for information or copies (or a similar search report certified by parties acceptable to the Administrative Agent, the Collateral Agent and each Funding Agent) dated a date reasonably near the date hereof listing all effective financing statements or charges which name the Contributor (under its present name and any previous name) as debtor and which are filed in jurisdictions in which the filings were made pursuant to **clause (g)** above, together with copies of such financing statements (none of which shall cover any Receivables or Receivable Assets related thereto);

(i) the Company shall have received a solvency certificate delivered by the Contributor with respect to the Contributor's solvency in the form of **Schedule 1**;

(j) the Company shall have received the most recent audited consolidated financial statements of the Contributor and its consolidated Subsidiaries;

(k) the Company shall be satisfied that the Contributor's and any Originator's systems, procedures and record keeping relating to the Contributed Receivables are sufficient and satisfactory in order to permit the contribution, assignment, transfer and conveyance of such Contributed Receivables and the administration of such Contributed Receivables in accordance with the terms and intent of this Agreement and the other Transaction Documents;

(l) the Company shall have received a solvency certificate delivered by each Originator with respect to each Originator's solvency in the form attached to the applicable Receivables Purchase Agreement;

(m) the Administrative Agent shall have received copies of the documents, filings or other information provided to the Company pursuant to this **Section 3.01**;

(n) the Company shall have received such other approvals, opinions or documents as the Company may reasonably request; and

(o) if applicable, all conditions precedent to the sale of the Purchased Receivables from the related Originator to the Contributor contained in the related Receivables Purchase Agreement shall have been satisfied.

3.02 Conditions Precedent to all Contributions of Receivables. The obligation of the Company to accept a contribution of Receivable Assets on each Contribution Date is subject to the satisfaction of the following conditions precedent, that, on and as of the related Contribution Date, the following statements shall be true:

(a) the representations and warranties of the Contributor contained in **Section 4.01** and **Section 4.02** shall be true and correct on and as of such Contribution Date as though made on and as of such date, except insofar as such representations and warranties in **Section 4.01** are expressly made only as of another date (in which case they shall be true and correct as of such other date);

(b) after giving effect to such contribution, no Originator Termination Event or Potential Originator Termination Event with respect to the Contributor or any Originator and no Potential Termination Event, Termination Event, Potential Program Termination Event or Program Termination Event shall have occurred and be continuing;

(c) since the date hereof, no material adverse change has occurred in the overall rate of collection of the Contributed Receivables;

(d) the Company shall have received such other approvals, opinions or documents as the Company may reasonably request; and

(e) if applicable, all conditions precedent to the sale of such Eligible Receivables from the related Originator to the Contributor contained in the related Receivables Purchase Agreement shall have been satisfied; **provided**, however, that the failure of the Contributor to satisfy any of the foregoing conditions shall not prevent the Contributor from subsequently contributing Eligible Receivables purchased by it pursuant to a Receivables Purchase Agreement, upon satisfaction of all such conditions; **provided, further**, that if a dividend with respect to the Contribution Value shall have been paid with respect to any Receivables, notwithstanding that all the conditions precedent set forth in **Section 3.01** or this **Section 3.02** were not satisfied in full on the related Contribution Date, the contribution and assignment of such Receivables shall be effective as of the related Contribution Date (without prejudice to any claim of the Company against the Contributor or the applicable Originator).

3.03 Conditions Precedent to the Contributor's Obligations on the Initial Contribution Date and each Contribution Date Thereafter. The obligations of the Contributor on the date hereof and each Contribution Date thereafter shall be subject to the conditions precedent, which may be waived by the Contributor, that the Contributor shall have received on or before the date hereof the following, each in form and substance satisfactory to the Contributor:

(a) a Certificate of Good Standing for the Company issued by the Secretary of State of Delaware; and

(b) a certificate of a Responsible Officer of the Company certifying (i) the names and signatures of the officers authorized on its behalf to execute this Agreement and the other Transaction Documents to which it is a party and any other documents to be delivered by it hereunder or thereunder, (ii) that attached thereto is a true, correct and complete copy of the Company's Certificate of Formation and Limited Liability Company Agreement, and (iii) that attached thereto is a true correct and complete copy of duly adopted resolutions of the members of the Company, authorizing the execution of this Agreement and the consummation of the Transactions pursuant to the Transaction Documents.

4. REPRESENTATIONS AND WARRANTIES

4.01 Representations and Warranties of the Contributor. The Contributor represents and warrants to the Company as of the date hereof and on each Contribution Date, except with respect to those related to a specific date, that:

(a) Organization; Powers. It (i) is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware, (ii) has all requisite power and authority to own its property and assets and to carry on its business as now conducted and as proposed to be conducted, (iii) is qualified to do business in, and is in good standing in, every jurisdiction where the nature of its business so requires, except where the failure so to qualify could not reasonably be expected to result in a Material Adverse Effect with respect to it and (iv) has the limited liability company power and authority to execute, deliver and perform its obligations under this Agreement and each of the other Transaction Documents to which it is a party and each other agreement or instrument contemplated hereby or thereby to which it is or will be a party.

(b) Authorization. The execution, delivery and performance by the Contributor of each of the Transaction Documents to which it is a party and the performance of the Transactions (i) have been duly authorized by all required or limited liability company and, if applicable and required, member action and (ii) will not (A) violate (1) any Requirement of Law applicable to it or (2) any provision of any Transaction Document or other material Contractual Obligation to which it is a party or by which it or any of its property is or may be bound, (B) be in conflict with, result in a breach of or constitute (alone or with notice or lapse of time or both) a default under, or give rise to any right to accelerate or to require the prepayment, repurchase or redemption of any obligation under any Transaction Document or any other material Contractual Obligation to which it is a party or by which it or any of its property is or may be bound except where any such conflict, violation, breach or default referred to in **clause (A)** or **(B)**, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect with respect to it or (C) result in the creation or imposition of any Lien upon the Contributed Receivables (other than Liens created pursuant to the Transaction Documents),

(c) Enforceability. Each of this Agreement and the other Transaction Documents to which it is a party have been duly executed and delivered by the Contributor and constitutes a legal, valid and binding obligation of the Contributor enforceable against such Contributor in accordance with its respective terms, subject (i) to applicable bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting the enforcement of creditors' rights generally, from time to time in effect and (ii) to general principles of equity.

(d) Governmental Approvals. No action, consent or approval of, registration or filing with or any other action by any Governmental Authority is or will be required in connection with the execution and delivery of this Agreement or the consummation of the Transactions contemplated hereby, except for (i) the filing of UCC financing statements (or other similar filings) in any applicable jurisdictions necessary to perfect the Company's ownership interest in the Contributed Receivables pursuant to **subsection 3.01(g)**, (ii) such as have been made or obtained and are in full force and effect and (iii) such actions, consents, approvals and filings the failure of which to obtain or make could not reasonably be expected to result in a Material Adverse Effect with respect to it.

(e) Litigation; Compliance with Laws.

(i) There are no actions, suits or proceedings at law or in equity or by or before any Governmental Authority now pending or, to the knowledge of the Contributor, threatened in writing against the Contributor or any Originator in respect of which there exists a reasonable possibility of an outcome that would result in a Material Adverse Effect with respect to it; and

(ii) neither it nor any Originator is in default with respect to any judgment, writ, injunction, decree or order of any Governmental Authority, where such violation or default could reasonably be expected to result in a Material Adverse Effect with respect to it.

(f) Agreements:

(i) Neither it, nor any Originator is a party to any agreement or instrument or subject to any corporate restriction that has resulted or could reasonably be expected to result in a Material Adverse Effect with respect to it; and

(ii) neither nor any Originator is in default in any manner under any provision of any Contractual. Obligation to which it is a party or by which it or any of its properties or assets are bound, where such default could reasonably be expected to result in a Material Adverse Effect with respect to it.

(g) Federal Reserve Regulations. Neither it nor any Originator is engaged principally, or as one of its important activities, in the business of extending credit for the purpose of buying or carrying Margin Stock.

(h) Investment Company Act. It is not an "investment company" as defined in, or subject to regulation under, the 1940 Act

(i) Tax Returns, It has filed or caused to be filed all material tax returns and has paid or caused to be paid or made adequate provision for all taxes due and payable by it and all assessments received by it except to the extent that (i) its obligation to make such filing or payment is being contested in good faith by appropriate proceedings and reserves required in conformity with applicable 'GAAP with respect thereto, if any, have been provided on the books of the Contributor or (ii) a failure with respect to such filing or payment could not reasonably be expected to result in a Material Adverse Effect with respect to it.

(j) ERISA Matters.

(i) it and each of its ERISA Affiliates is in compliance in all material respects with the applicable provisions of ERISA and the regulations and published interpretations thereunder with respect to any Plan of the Contributor or any of its ERISA Affiliates, except for such noncompliance which could not reasonably be expected to result in a Material Adverse Effect with respect to it;

(ii) no Reportable Event has occurred as to which the Contributor or any of its ERISA Affiliates was required to file a report with the PBGC, other than reports for which the 30 day notice requirement is waived, reports that have been filed and reports the failure of which to file would not reasonably be expected to result in a Material Adverse Effect with respect to it;

(iii) as of the date hereof, the present value of all benefit liabilities under each Plan of the Contributor or any of its ERISA Affiliates (on an ongoing basis and based on those assumptions used to fund such Plan) did not, as of the last valuation report applicable thereto, exceed the value of the assets of such Plan;

(iv) neither it nor any of its ERISA Affiliates has incurred any Withdrawal Liability that could reasonably be expected to result in a Material Adverse Effect with respect to it; and

(v) neither it nor any of its ERISA Affiliates has received any notification that any Multiemployer Plan is in reorganization or has been terminated within the meaning of Title IV of ERISA, or that a reorganization or termination has resulted or could reasonably be expected to result, through increases in the contributions required to be made to such Plan or otherwise, in a Material Adverse Effect with respect to it.

(k) Accounting Treatment. Except to the extent otherwise required by law or applicable accounting rules, the Contributor will not prepare any financial statements that shall account for the transactions contemplated hereby, nor will it in any other respect account for the transactions contemplated hereby, in a manner that is inconsistent with the Company's ownership interest in the Receivable Assets or with the assumptions and factual recitations set forth in the Specified Bankruptcy Opinion Provisions. The Contributor intends to treat the contribution of the. Contributed Receivables hereunder as a contribution of such Receivables for all legal purposes.

(l) Intentionally Omitted.

(m) Intentionally Omitted.

(n) Books and Records. The offices at which the Contributor keeps its records concerning the Contributed Receivables (i) are located as set forth on **Schedule 2** hereto or (ii) are in locations as to which the Contributor has notified the Company of the location thereof in accordance with **Section 5.06**.

(o) Bulk Sales Act. No transaction contemplated hereby with respect to the Contributor requires compliance with, or will be subject to avoidance under, any bulk sales act or similar law in the United States.

(p) Names. On the date hereof, the legal name of the Contributor is as set forth in this Agreement, The Contributor does not have any trade names, fictitious names, assumed names or "doing business as" names.

(q) Solvency. No Insolvency Event with respect to the Contributor or any Originator has occurred and the contribution, assignment, conveyance and transfer of the Contributed Receivables by the Contributor to the Company has not been made in contemplation of the occurrence thereof. Both prior to and after giving effect to the transactions occurring on the date hereof and after giving effect to each subsequent transaction contemplated hereunder, including any contribution of Contributed Receivables (i) the fair value of the assets of the Contributor and each Originator, taken individually at a fair valuation, will exceed the debts and liabilities, subordinated, contingent or otherwise, of the Contributor or such Originator, as applicable; (ii) the present fair saleable value of the property of the Contributor and each Originator, taken individually and not on a consolidated basis, will be greater than the amount that will be required to pay the probable liability of the Contributor or such Originator, as applicable, on its debts and other liabilities, subordinated, contingent or otherwise, as such debts and other liabilities become absolute and matured; (iii) the Contributor will be able to pay its debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured; and (iv) the Contributor will not have unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted and is proposed to be conducted. For all purposes of clauses (i) through (iv) above, the amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability. The Contributor does not intend to, nor does it believe that it will nor that any Originator will, incur debts beyond its or their ability to pay such debts as they mature, taking into account the timing of and amounts of cash to be received by the Contributor or each Originator, as the case may be, and the timing of the amounts of cash to be payable on or in respect of its Indebtedness.

(r) No Originator Termination Event. No Potential Originator Termination Event or Originator Termination Event with respect to the Contributor or any Originator has occurred and is continuing.

(s) No Program Termination Event. No Potential Program Termination Event or Program Termination Event shall have occurred and be continuing.

(t) No Fraudulent Transfer. It is not entering into this Agreement with the actual or constructive intent to hinder, delay, or defraud its present or future creditors and is receiving reasonably equivalent value and fair consideration for the Contributed Receivables.

(u) Collection Procedures. Each Originator of Contributed Receivables has in place the Policies and has not acted in contravention of any such Policies with respect to the Contributed Receivables.

(v) No Termination Event. No Potential Termination Event or Termination Event has occurred and is continuing.

(w) No Material Adverse Effect. Since December 31, 2008, no event has occurred which has had a Material Adverse Effect with respect to it.

(x) No Foreclosure Act. No action or proceeding has been brought seeking to foreclose on the Contributor's membership interest in the Company.

(y) Anti-Terrorism Law.

(i) Neither the Contributor nor, to the actual knowledge of a Responsible Officer of the Contributor, any of its Affiliates is in violation of any laws relating to terrorism or money laundering ("**Anti-Terrorism Law**"), including Executive Order No. 13224 on Terrorist Financing, effective September 24, 2001 (the "**Executive Order**"), and the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Public Law 107-56.

(ii) Neither the Contributor nor, to the actual knowledge of a Responsible Officer of the Contributor, any Affiliate or broker or other agent of the Contributor, acting or benefiting in any capacity in connection with its obligations hereunder is any of the following:

(A) A person that is listed in the annex to, or it otherwise subject to the provisions of, the Executive Order;

(B) A person owned or controlled by, or acting for on or behalf of, any person that is listed in the annex to, or is otherwise subject to the provisions of, the Executive Order;

(C) A person with which the Contributor is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law;

(D) A person that commits, threatens or conspires to commit or supports "terrorism" as defined in the Executive Order; or

(E) A person that is named as a "specially designated national and blocked person" on the most current list published by the U.S. Treasury Department, Office of Foreign Assets Control at its official website or any replacement website or other replacement official publication of such list.

(z) Enforceability of Contracts. Each Contract with respect to each Contributed Receivable is effective to create, and has created, a legal, valid and binding obligation of the related Obligor to pay the Principal Amount of such Contributed Receivable created thereunder and any accrued interest thereon, enforceable against the Obligor in accordance with its terms, except as such enforcement may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws relating to or limiting creditors' rights generally and by general principles of equity (regardless of whether enforcement is sought in a proceeding in equity or at law).

The representations and warranties as of the date made set forth in this **Section 4.01** shall survive the transfer, assignment, conveyance and contribution of the Contributed Receivables and the other Receivable Assets related thereto to the Company. Upon discovery by a Responsible Officer of the Company or the Master Servicer or by a Responsible Officer of the Contributor of a breach of any of the foregoing representations and warranties, the party discovering such breach shall give prompt written notice to the Administrative Agent and to the Master Servicer, the Company or the Contributor, as the case may be.

4.02 Representations and Warranties of the Contributor Relating to the Contributed Receivables. The Contributor hereby represents and warrants to the Company on each Contribution Date with respect to the Contributed Receivables as of the relevant Contribution Date:

(a) Receivables Description. Each Originator Periodic Report delivered, transmitted or received by the Contributor pursuant to the Origination Agreements or the Servicing Agreement sets forth in all material respects an accurate and complete listing of all Contributed Receivables contributed, or to be contributed, by the Contributor to the Company and the information contained therein in accordance with **Schedule 12** to the European Receivables Loan Agreement with respect to each such Contributed Receivable is true and correct as of such date.

(b) No Liens. Each Contributed Receivable existing on the date hereof or, in the case of Receivables contributed, transferred, assigned and conveyed to the Company after the date hereof, on such Contribution Date, has been contributed, transferred, assigned and conveyed to the Company free and clear of any Liens (other than Liens created pursuant to the Transaction Documents).

(c) Eligible Receivable. On the date hereof, each Contributed Receivable is an Eligible Receivable on the Contribution Date of such Contributed Receivable.

(d) Filings. All filings and other acts (including notifying related Obligors of the assignment of a Contributed Receivable, if applicable) necessary or advisable under the UCC or under other applicable laws of jurisdictions outside the United States (to the extent applicable) shall have been made or performed in order to grant the Company on the applicable Contribution Date a full legal and beneficial ownership interest in respect of such Contributed Receivables then existing or thereafter arising free and clear of any Liens.

(e) Policies. Since the date hereof, there have been no material changes in the Policies, other than as permitted hereunder.

(f) True Contribution. Title to each Contributed Receivable will be vested in the Company as contemplated in **subsection 4.02(b)** and **subsection 4.02(d)**, and such Contributed Receivables will not form part of the estate of the Contributor or the relevant Originator upon a bankruptcy of the Contributor or the relevant Originator.

(g) Identification of Receivables. The Contributor has the capacity to identify each of the Receivables contributed (or purported to be contributed) pursuant to **Section 2.01** on each Contribution Date and has clearly identified in its computer records each of such Receivables assigned (or purported to be assigned) pursuant to **Section 2.01**.

The representations and warranties as of the date made set forth in this **Section 4.02** shall survive the contribution, transfer, assignment and conveyance of the Contributed Receivables to the Company. Upon discovery by a Responsible Officer of the Company or the Master Servicer or a Responsible Officer of the Contributor of a breach of any of the representations and warranties (or of any Contributed Receivable encompassed by the representation and warranty in **subsection 4.02(c)** not being an Eligible Receivable as of the relevant Contribution Date), the party discovering such breach shall give prompt written notice to the Administrative Agent and the respective other parties.

4.03 Representations and Warranties of the Company. The Company represents and warrants as to itself as follows:

(a) Organization; Powers. The Company (i) is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware, (ii) has all requisite power and authority to own its property and assets and to carry on its business as now conducted and as proposed to be conducted, (iii) is qualified to do business in, and is in good standing in, each jurisdiction where the nature of its business so requires, except where the failure so to qualify would not have a Material Adverse Effect with respect to it and (iv) has the limited liability company power and authority to execute, deliver and perform its obligations under this Agreement and each of the other Transaction Documents to which it is a party and each other agreement or instrument contemplated hereby or thereby to which it is or will be a party.

(b) Authorization. The execution, delivery and performance by the Company of each of the Transaction Documents to which it is a party and the performance of the Transactions (i) have been duly authorized by all requisite limited liability company and, if applicable and required, member action and (ii) will not (A) violate (1) any. Requirement of Law or (2) any provision of any Transaction Document or any other material Contractual Obligation to which the Company is a party or by which it or any of its property is or may be bound, (B) be in conflict with, result in a breach of or constitute (alone or with notice or lapse of time or both) a default under, or give rise to any right to accelerate or to require the prepayment, repurchase or redemption of any obligation under any Transaction Document or any other material Contractual Obligation to which it is a party or by which it or any of its properties is or may be bound, except where any such conflict, violation, breach or default referred to in **clauses (A)** or **(B)**, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect with respect to it or (C) result in the creation or imposition of any Lien up on the Contributed Receivables (other than Liens created pursuant to the Transaction Documents).

(c) Enforceability. This Agreement and each other Transaction Document to which it is a party have been duly executed and delivered by the Company and constitutes, a legal, valid and binding obligation of the Company enforceable against the Company in accordance with its respective terms, subject (i) to applicable bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting the enforcement of creditors' rights generally, from time to time in effect and (ii) to general principles of equity.

(d) Accounting Treatment. Except to the extent otherwise required by law or accounting rules, the Company will not prepare any financial statements that shall account for the transactions contemplated hereby, nor will it in any other respect account for the transactions contemplated hereby, in a manner that is inconsistent with the Company's ownership interest in the Contributed Receivables and the Company's grant to the Collateral Agent of a security interest therein.

(e) Contributor. The Contributor is the sole member in the. Company, and the Contributor's membership interests in the Company are owned free and clear of all Liens, other than any liens in favour of the Company arising under the Limited Liability Company Agreement, provided that the Contributor may pledge any or all of its membership interests to the Collateral Agent under the Pledge Agreement.

5. **AFFIRMATIVE COVENANTS**

The Contributor hereby agrees that, so long as there are any amounts outstanding with respect to Contributed Receivables or until the Final Payout Date, whichever is later, the Contributor shall, and shall cause each Originator to:

5.01 Financial Statements; Reports; etc.:

(a) Furnish to the Company, within 90 days after the end of each fiscal year of the Contributor, the balance sheet and related statements of income, member's equity and cash flows showing the financial condition of the Contributor as of the close of such fiscal year and the results of its operations during such year, all audited by the Contributor's Independent Public Accountants and accompanied by an opinion of such accountants (which shall not be qualified in any material respect) to the effect that such financial statements fairly present in all material respects the financial condition and results of operations of Huntsman International in accordance with GAAP consistently applied;

(b) Furnish to the Company, within 60 days after the end of each of the first three fiscal quarters of each fiscal .year, the Contributor's unaudited balance sheet and related statements of income, members' equity and cash flows for the period from the beginning of such fiscal year to the end of such quarter, all certified by a Responsible Officer of the Contributor;

(c) Furnish to the. Company, together with the financial statements required pursuant to (i) **clause (b)** above, a compliance certificate signed by a Responsible Officer of the Contributor stating that the attached financial statements have been prepared in accordance with GAAP and accurately reflect the financial condition of the Contributor and (ii) **clauses (a)** and **(b)**, a compliance certificate signed by a Responsible Officer of the Contributor stating that to the best of such Responsible Officer's knowledge, no Termination. Event; Originator Termination Event or Program Termination Event exists, or if any Termination Event, Originator Termination Event or Program Termination Event exists and is. continuing, stating the nature and status thereof;

(d) Furnish to the Company upon request, promptly upon the furnishing: thereof to the members of the .Contributor, copies of all financial statements, financial reports and proxy statements so furnished;

(e) Furnish to the Company, promptly, all' information, documents, records, report, certificates, opinions and notices received by the Contributor from an Originator under any Receivables Purchase Agreement;

(f) Intentionally Omitted;

(g) Furnish to the Company, promptly, from time to time, such historical information, including: aging and liquidation schedules, as the Company, Administrative Agent or any Funding Agent may reasonably request;

(h) Furnish to the Company, promptly, from time to time, such other information regarding the operations, business affairs and financial condition of the Contributor, or compliance with the terms of any Transaction Document, in each case as the Company, Administrative Agent or any Funding Agent may reasonably request; and

(i) Furnish to. the Administrative Agent copies of all notices, documents or other information provided to the Company pursuant to this **Section 5.01**.

5.02 Compliance with Law and Policies.

(a) Comply with. all Requirements of Law and material Contractual Obligations to which it is subject and which are applicable to it except to the extent that non- compliance would not reasonably be likely to result in a Material Adverse Effect with respect to it; and

(b) Perform its obligations in accordance with the Policies, as amended from time to time in accordance with the Transaction Documents, in regard to the Contributed Receivables, the other Receivable Assets and the related Contracts.

5.03 Preservation of Company Existence. (i) Preserve and maintain its company existence, rights and privileges, if any, in the jurisdiction of its organization and (ii) qualify and remain qualified in good standing as a foreign company in each jurisdiction where the nature of its business so requires, except where the failure so to qualify would not, individually or in the aggregate with other such failures, have a Material Adverse Effect with respect to it.

5.04 Separate Company Existence.

(a) Maintain its deposit account or accounts separate from those of the Company and ensure that its funds will not be diverted to the Company, nor will such funds be commingled with the funds of the Company;

(b) To the extent that it shares any officers or other employees with the Company, the salaries of and the expenses related to providing benefits to such officers and other employees shall be fairly allocated among it and the Company, and it and the Company shall bear their fair shares of the salary and benefit costs associated with all such common officers and employees;

(c) To the extent that it jointly contracts with the Company to do business with vendors or service providers or to share overhead expenses, the costs incurred in so doing shall be allocated fairly between it and the Company and it and the Company shall bear their fair shares of such costs, To the extent that it contracts or does business with vendors or service providers where the goods and services provided are partially for the benefit of the Company, the costs incurred in so doing shall be fairly allocated between it and the Company in proportion to the benefit of the goods or services each is provided, and it and the Company shall bear their fair shares of such costs. All material transactions between it and the Company, whether currently existing or hereafter entered into, shall be only on an aim's length basis;

(d) Maintain office space separate from the office space of the Company (but which may be located at the same address as the Company). To the extent that it and the Company have offices in the same location, there shall be a fair and appropriate allocation of overhead costs between them, and each shall bear its fair share of such expenses;

(e) Issue financial statements separate from any financial statements issued by the Company;

(f) Conduct its affairs strictly in accordance with its organizational documents and observe all necessary, appropriate and customary company formalities, including, but not limited to, holding regular and special members' and directors' meetings appropriate to authorize all action, keeping separate minutes of its meetings, passing all resolutions or consents necessary to authorize actions taken or to be taken, and maintaining separate books, records and accounts, including, but not limited to, payroll and intercompany transaction accounts;

(g) Except as set forth in the Transaction Documents, not assume or guarantee any of the liabilities of the Company; and

(h) Take, or refrain from taking, as the case may be, all other actions that are necessary to be taken or not to be taken in order (i) to ensure that the assumptions and factual recitations set forth in the Specified Bankruptcy Opinion Provisions remain true and correct with respect to it (and, to the extent within its control, to ensure that the assumptions and factual recitations set forth in the Specified Bankruptcy Opinion Provisions remain true and correct with respect to the Company) and (ii) to comply with those procedures described in such provisions that are applicable to it.

5.05 Inspection of Property; Books and Records, Discussions. Keep proper books of records and account in which entries in conformity with GAAP shall be made of all dealings and transactions in relation to its business and activities, and permit representatives of the Company, the Administrative Agent and the Funding Agents upon reasonable advance notice to visit and inspect any of its properties and examine and make abstracts from any of its books and records during normal business hours on any Local Business Day and as often as may reasonably be requested, subject to the Contributor's or such Originator's reasonable and normal security and confidentiality requirements of general application to the visitors at the relevant property and to discuss the business, operations, properties and financial condition of the Contributor and each Originator with officers and employees of the Contributor and with its Independent Public Accountants.

5.06 Location of Records. Keep the offices where it keeps the records concerning the Receivable Assets (and all original documents relating thereto), at the locations referred to for it on **Schedule 2** hereto or upon 60 days' prior written notice to the Company and the Administrative Agent, at such other location as specified in such notice.

5.07 Computer Files and other Documents. At its own cost and expense, retain the ledger used by it as a master record of the Obligors and retain copies of all documents relating to each Obligor as custodian and agent for the Company and other Persons with interests in the Contributed Receivables originated by each of the Originators, as well as retain all Originator Documents that it is designated by the Company to hold.

5.08 Obligations. Pay, discharge or otherwise satisfy at or before maturity or before they become delinquent, as the case may be, all its obligations of whatever nature (including, without limitation, all taxes, assessments, levies and other governmental charges imposed on it), except where the amount or validity thereof is currently being contested in good faith by appropriate proceedings and reserves in conformity with GAAP with respect thereto have been provided on the books of the Contributor. Defend the right, title and interest of the Company in, to and under the Receivable Assets, whether now existing or hereafter created, against all claims of third parties claiming through the Contributor. The Contributor will duly fulfill all obligations on its part to be fulfilled under or in connection with each Receivable and the related Contract, and will do nothing to materially impair the rights of the Company in such Receivable.

5.09 Collections. Instruct each Obligor to make payments in respect of its Contributed Receivables to a Collection Account and to comply in all material respects with procedures with respect to Collections set forth in the Transaction Documents or otherwise reasonably specified from time to time by the Company with the written consent of the Administrative Agent or by the Administrative Agent. In the event that any payments in respect of any such Contributed Receivables are made directly to the Contributor or an Originator (including, without limitation, any employees thereof or independent contractors employed thereby), the Contributor shall, and shall cause such Originator to, within one (1) Local Business Day of receipt thereof, deliver or deposit such amounts to a Collection Account and, prior to forwarding such amounts, the Contributor shall, or shall cause such Originator to, as applicable, hold such payments in trust for the account and benefit of the Company.

5.10 Furnishing Copies, Etc. Furnish to the Company and the Administrative Agent:

(a) Within five (5) Local Business Days of the Company's or the Administrative Agent's request, a certificate of a Responsible Officer of the Contributor, certifying, as of the date thereof, to the knowledge of such officer, that no Potential Originator Termination Event or Originator Termination Event with respect to it or of any Potential Program Termination Event or Program Termination Event has occurred and is continuing or if one has so occurred, specifying the nature and extent thereof and any corrective action taken or proposed to be taken with respect thereto;

(b) Promptly after a Responsible Officer of the Contributor obtains knowledge of the occurrence of any Originator Termination Event or Potential Originator Termination Event with respect to it, or any Potential Program Termination Event or Program Termination Event, written notice thereof;

(c) Promptly following request therefor, such other information, documents, records or reports regarding or with respect to the Contributed Receivables purchased from an Originator, as the Company or the Administrative Agent may from time to time reasonably request; and

(d) Promptly upon determining that any Contributed Receivable is not an Eligible Receivable, written notice of such determination and (if applicable) the date such Contributed Receivable ceased to be an Eligible Receivable.

5.11 Intentionally Omitted.

5.12 Assessments. Pay before the same become delinquent and discharge all taxes, assessments, levies and other governmental charges imposed on it except such taxes, assessments, levies and governmental charges which are being contested in good faith and for which the Contributor has set aside on its books adequate reserves.

5.13 Intentionally Omitted.

5.14 Notices. Promptly give written notice to the Administrative Agent, the Company and each Funding Agent of the occurrence of any Liens on any Contributed Receivables (other than Liens created pursuant to the Transaction Documents) or a Potential Termination Event or Termination Event, including the statement of a Responsible Officer of the Contributor setting forth the details of such Early Amortization Period and the action taken, or which the Contributor proposes to take, with respect thereto.

5.15 Bankruptcy. Cooperate with the Company, each Funding Agent, the Administrative Agent and the Collateral Agent in making any amendments to the Transaction Documents and take, or refrain from taking, as the case may be, all other actions deemed reasonably necessary by such Funding Agent, Administrative Agent and/or Collateral Agent in order to comply with the structured finance statutory exemption set forth in legislative amendments to the U.S. Bankruptcy Code at or any time after such amendments are enacted into law; provided, however, that it shall not be required to make any amendment or to take, or omit from taking, as the case may be, any action which it reasonably believes would have the effect of materially changing the economic substance of the transaction contemplated by the Transaction Documents on the date hereof.

5.16 Further Action. In addition to the foregoing:

(a) The Contributor agrees that from time to time, at its expense, it will promptly execute! and deliver all further instruments and documents, and take all further action (including notifying the related Obligors to the extent necessary to perfect the ownership interest of the Company in the Contributed Receivables) that may be necessary in the Contributor's reasonable judgment or that the Company, the Collateral Agent or the Administrative Agent may reasonably request, in order to protect the Company's or the Collateral Agent's right, title and interest in the Contributed Receivables, free and clear of any Liens (other than Liens created pursuant to the Transaction Documents), or to enable the Company, the Collateral Agent or the Administrative Agent to exercise or enforce any of its rights in respect thereof. Without limiting the generality of the foregoing, the. Contributor will, and will cause each Originator to, upon the request of the Company, the Collateral Agent or the Administrative Agent (i) execute and. file such financing: or continuation statements, or amendments thereto, and such other instruments or notices, as may be necessary or, in the, opinion of the Company, the Collateral Agent or the Administrative Agent, advisable to protect the Company's ownership interest or the Collateral. Agent's security interest in the Contributed Receivables and (ii) obtain the agreement of any Person having a Lien on any Contributed Receivables owned by the Contributor or an Originator to release such Lien upon the contribution of any such Contributed Receivables to the Company;

(b) Until the termination of this Agreement, the Contributor hereby irrevocably authorizes the. Company, the Collateral Agent and the Administrative Agent to file one or more financing or continuation statements (and other similar instruments), and amendments thereto, relative to all or any part of the Receivable Assets; and

(c) If the Contributor fails to perform any of its agreements or obligations under this Agreement, following notice to the Contributor detailing such delinquency, the Company, the 'Collateral Agent and the Administrative Agent may (but shall not be required to) performs or cause performance of, such agreements or obligations, and the expenses of the Company, the Collateral Agent or the Administrative Agent incurred in connection therewith shall be payable by the Contributor as provided in **Section 8.02**. Each of the Company, the Collateral Agent or the Administrative Agent shall promptly notify the Contributor after any such performance; **provided**, **however**, that the failure to give such notice shall not affect the validity of any such performance.

5.17 Marking of Records. The Contributor will, and will cause each Originator to, maintain a system that will identify on each Contribution Date, the Contributed Receivables contributed on such Contribution Date and otherwise also identify on its extraction records relating to the Contributed Receivables from its master database of receivables that the Contributed Receivables and the Receivable Assets related thereto have been contributed to the Company, and thereupon a security interest granted by the Company to the Collateral Agent (on behalf of the Secured Parties). The Contributor agrees that from time to time it will promptly execute and deliver all instruments and documents, and take all further action, that the Company, the Collateral Agent or the Administrative Agent may reasonably request in order to perfect, protect or more fully evidence the Company's ownership interest and the Collateral Agent's first priority perfected security interest in the Contributed Receivables (for the benefit of the Secured Parties).

5.18 Intercreditor Agreements. With respect to material secured credit facilities, the Contributor will enter into and procure intercreditor agreements, on terms reasonably acceptable to the Company, each Funding Agent, the Administrative Agent and their respective assigns, to the extent reasonably requested by any Funding Agent or the Administrative Agent. In addition, with respect to any other credit facility secured by a location or locations which contain information related to the Receivable Assets, the Contributor will use its commercially reasonable efforts to procure or cause to be procured a landlord estoppel or landlord access letter, as appropriate.

5.19 Enforcement of Agreements. The Contributor shall enforce its rights under each Origination Agreement, including, without limitation, the right to receive Adjustment Payments and indemnification thereunder.

6. **NEGATIVE COVENANTS**

The Contributor hereby agrees that, so long as there are any amounts outstanding with respect to Contributed Receivables or until the Final Payout Date, whichever is the later, the. Contributor shall not, and shall not permit any Originator to:

6.01 Limitations on Transfers of Contributed Receivables, Etc. At any time attempt to recontribute, recovery, reassign, re-transfer or otherwise purport to dispose of or attempt to contribute, sell, convey, assign, transfer or otherwise dispose of any of the Contributed Receivables or any Receivable Assets relating thereto, except as contemplated by the Transaction Documents.

6.02 Extension or Amendment of Contributed Receivables. Extend payment terms, make any Dilution Adjustment to, rescind, cancel, amend or otherwise modify, or attempt or purport to extend, amend or otherwise modify, the terms of any Contributed Receivables except in accordance with **Section 2.05**.

6.03 Change in Payment Instructions to Obligors or in Collection Account Banks. Instruct any Obligor to make any payments with respect to any Contributed Receivables other than by cheek or wire transfer to a Collection Account; or add or terminate any bank as a Collection Account Bank unless such bank enters into a Collection Account Agreement

6.04 Change in Name. Change its name, corporate structure jurisdiction of organization, place of business or chief executive office in any manner that would or is likely to impair the perfection of the ownership interest of the Company and its assignees and the security interest of the Collateral Agent in any Contributed Receivable, without 30 days' prior written notice to the Collateral Agent, the Administrative Agent and each Funding Agent.

6.05 Policies. Make any change or modification (or permit any change or modification to be made) in any material respect to the Policies, except (a) if such changes or modifications are necessary under any Requirement of Law, or (b) if such change or modification, other than a change or modification permitted pursuant to **clause (a)** above, would reasonably be expected to have a Material Adverse Effect, with the consent of each Funding Agent.

6.06 Modification of Legend. Delete or otherwise modify the information related to the ownership of the Receivable Assets contained in the extraction records of an Originator referenced in any Origination Agreement.

6.07 Accounting for. Contributions. Except as otherwise required by law, prepare any financial statements which shall account for the transactions contemplated hereby in any manner other than as a contribution of the Contributed Receivables to the Company or in any other respect account for or treat the transactions contemplated hereby (including for financial accounting purposes, except as required by law) in any manner other than as contribution of the Contributed Receivables to the Company.

6.08 Instruments. Unless delivered to the Collateral Agent, take any action to cause any Contributed Receivable not evidenced by an "instrument" (as defined in Section 9 102(a)(47) of the applicable UCC) at the time of its origination to become evidenced by an instrument, except in connection with the enforcement or collection of a Defaulted Receivable.

6.09 Ineligible Receivables. Without the prior written approval of the Company, take any action relating to such Contributed Receivable which to its knowledge would cause, or would permit such Contributed Receivable to cease to be an Eligible Receivable.

6.10 Business of the Contributor. Fail to maintain and operate the business currently conducted by the Contributor and the business activities reasonably incidental or related thereto in the chemical business, if such failure would reasonably be expected to result in a Material Adverse Effect with respect to it

6.11 Limitation on Fundamental Changes. Except to the extent permitted by **Section 36.3** of the European Receivables Loan Agreement or any Receivables Purchase Agreement, consolidate with or merge into any other corporation or convey, transfer or dispose of its properties and assets substantially as an entirety to any Person, or engage in any corporate restructuring or reorganization, or liquidate.

6.12 Offices. Move the location of the Contributor's offices where it keeps its records with respect to the Contributed Receivables without (a) providing thirty (30) days' prior written notice to the Company, the Collateral Agent and each Funding. Agent and (b) taking all actions reasonably requested by the Collateral Agent (including but not limited to all filings and other acts necessary or advisable under the applicable UCC or other applicable laws or similar statute of each relevant jurisdiction) in order to continue the Collateral Agent's first priority perfected security interest in all Receivable Assets now owned or hereafter created (for the benefit of the Secured Parties).

6.13 Intentionally Omitted.

6.14 Amendment of Transaction Documents or Other Material Documents. Other than as set forth in the Transaction Documents, amend any Transaction Document or other material document related to any transactions contemplated hereby or thereby.

6.15 Additional Equity. Permit the Company to issue or sell any additional shares, membership interests or equity interests in the Company to any Person until after the Final Payout Date.

6.16 Receivables Purchase Agreements. Take any action under the Receivables Purchase Agreements that could reasonably be expected to have a Material Adverse Effect.

7. TERMINATION EVENTS

7.01 Originator Termination Events. If any of the following events (herein called "**Originator Termination Events**") shall have occurred and be continuing with respect to the Contributor:

(a) the Contributor shall fail to pay any amount due hereunder in accordance with the provisions hereof and such failure shall continue unremedied for a period of two (2) Business Days from the earlier to occur of (i) the date upon which a Responsible Officer of the Contributor obtains actual knowledge of such failure or (ii) the date on which written notice of such failure, requiring the same to be remedied, shall have been given (A) to the Contributor by the Company or the Administrative Agent or (B) to the Company, to the Administrative Agent and to the Contributor by any Funding Agent; or

(b) the Contributor shall fail to observe or perform any other covenant or agreement applicable to it contained herein (other than as specified in **paragraph (a)** of this **Section 7.01**) that has a Material Adverse Effect with respect to it and that continues unremedied until ten (10) Local Business Days after the earlier to occur of (i) the date upon which a Responsible Officer of the Contributor obtains actual knowledge of such failure or (ii) the date on which written notice of such failure, requiring the same to be remedied, shall have been given (A) to the Contributor by the Company or the Administrative Agent or (B) to the Company, to the Administrative Agent and to the Contributor by any Funding Agent, **provided** that if such failure may be cured and the Contributor is diligently pursing such cure, such event shall not constitute an Originator Termination Event for an additional thirty (30) days; or

(c) any representation or warranty made by the Contributor in this Agreement or in any certificate delivered pursuant to this Agreement shall prove to have been incorrect in any material respect when made or deemed made, and which continues unremedied until ten (10) Local Business Days after the earlier to occur of (i) the date upon which a Responsible Officer of the Contributor obtains actual knowledge of such failure or (ii) the date on which written notice thereof, requiring the same to be remedied, shall have been given (A) to the Contributor by the Company or the Administrative Agent or (B) to the Company, to the Administrative Agent and to the Contributor by any Funding Agent, **provided** that if such incorrectness may be cured and the Contributor is diligently pursuing such cure, such event shall not constitute an Originator Termination Event for an additional thirty (30) days and provided further that an Originator Termination Event shall not be deemed to have occurred under this **paragraph (c)** based upon a breach of any representation or warranty set forth in **Section 4.02** if the Contributor shall have complied with the provisions of **Section 2.06** in respect thereof; or

(d) a notice of Lien shall have been filed by the PBGC against the Contributor under Section 412(n) of the Code or Section 302(f) of ERISA for a failure to make a required installment or other payment to a plan to which Section 412(n) of the Code or Section 302(f) of ERISA applies unless there shall have been delivered to the Administrative Agent proof, reasonably satisfactory to the Administrative Agent, of release of such Lien or that the filing of such Lien shall not have a Material Adverse Effect with respect to the Contributor as reasonably determined by the Administrative Agent; or

(e) a Federal (or equivalent) tax notice of Lien shall have been filed against an Originator unless there shall have been delivered to the Administrative Agent proof, reasonably satisfactory to the Administrative Agent, of release of such Lien or that the filing of such Lien shall not have a Material Adverse Effect with respect to the Contributor as reasonably determined by the Administrative Agent; or

(f) an "Originator Termination Event" under an Origination Agreement shall have occurred with respect to any Originator other than the Contributor;

then, in the case of any Originator Termination Event, so long as such Originator Termination Event shall be continuing, (x) the Company shall not to accept a contribution of Receivables from the Contributor and (y) in the case of an Originator Termination Event specified in **paragraph (f)** of this **Section 7.01**, the relevant Originator shall be terminated as an Originator upon 10 days written notice (the date on which such notice becomes effective, the "**Originator Termination Date**") to the Contributor (any such termination, an "**Early Originator Termination**"); provided that if such removal or termination of an Originator other than the Contributor is in accordance with **Section 28** of the European Receivables Loan Agreement and does not otherwise constitute a Program Termination Event, then upon such removal or termination, the Company may resume accepting contributions of Receivables from the Contributor.

Notwithstanding the foregoing, any Receivables and Receivable Assets contributed to the Company, prior to the Company and the Administrative Agent receiving a written notice expressly stating that a Program Termination Date has occurred, shall continue to be property of the Company.

7.02 Program Termination Events. If any of the following events therein called "**Program Termination. Events**") shall have occurred and be continuing:

(a) an Insolvency Event or Originator Termination Event shall have occurred with respect to the Contributor; or

(b) there shall have occurred and be continuing an Early Amortization Period; or

(c) a notice of Lien shall have been filed by the PBGC against the Contributor under Section 412(n) of the Code or Section 302(f) of ERISA for a failure to make a required instalment or other payment to a plan to which Section 412(n) of the Code or Section 302(f) of ERISA applies unless there shall have been delivered to the Administrative Agent proof, reasonably satisfactory to the Administrative Agent, of release of such Lien or that the filing of such Lien shall not have a Material Adverse Effect with respect to the Contributor as reasonably determined by the Administrative Agent; or

(d) a Federal (or equivalent) tax notice of Lien shall have been filed against the Contributor unless there shall have been delivered to the Administrative Agent proof, reasonably satisfactory to the Administrative Agent, of release of such Lien or that the filing of such Lien shall not have a Material Adverse Effect with respect to the Contributor as reasonably determined by the Administrative Agent; or

(e) an Originator Termination Date shall have occurred (other than with respect to the Contributor) with respect to an Originator that, as of the last Monthly Settlement Report, had originated more than 10% of the Aggregate Receivables Amount reflected on such report; or

(f) an Originator Termination Event (other than with respect to the Contributor) shall have occurred but such Originator has not been terminated within 10 calendar days in accordance with Section 28 of the European Receivables Loan Agreement;

then, after the expiration of any applicable cure period, the obligation of the Company to accept contributions shall terminate without notice (such date of termination, the "**Program Termination Date**" and any such termination, an "**Early Program Termination**") and an Early Amortization Period shall commence.

Notwithstanding the foregoing, any Receivables and Receivable Assets contributed to the Company, prior to the Company and the Administrative Agent receiving a written notice expressly stating that a Program Termination Date has occurred, shall continue to be property of the Company.

7.03 Remedies.

(a) If an Originator Termination Date or Program Termination Date has occurred and is continuing, the Company (and its assignees) shall have all of the rights and remedies provided to an owner of accounts under applicable law in respect thereto.

(b) The Contributor agrees that, upon the occurrence and during the continuation of a Program Termination Event as described in **subsection 7.02(a)** or **(b)**:

(i) the Company (and its assignees) shall have the right at any time to notify, or require that the Contributor, at its expense, notify, the respective Obligors of the grant by the Company of a security interest in the Contributed Receivables and the other Receivable Assets related thereto in favor of the Collateral Agent (for the benefit of the Secured Parties) and may direct that payment of all amounts due or to become due under the Contributed Receivables be made directly to the relevant Company Concentration Accounts;

(ii) the Company (and its assignees) shall have the right to (A) sue for collections on any Contributed Receivables or (B) sell any Receivable Assets to any Person (other than the. Contributor or any of its Affiliates) for a price that is acceptable to the Company, If required by the applicable UCC (or analogous provisions of any other similar law, statute or legislation applicable to the Receivable Assets), the Company (and its assignees) may offer to sell any Receivable Assets to any Person (other than the Contributor or any of its Affiliates), together, at its option, with all other Receivable Assets created by the same Obligor. Any Receivable Assets sold in accordance with this **clause (ii)** shall cease to be Receivable Assets for all purposes under this Agreement as of the effective date of such sale;

(iii) the Contributor shall, and shall cause each Originator to, upon the Company's (or its assignees') written request and at the Contributor's expense, (A) assemble all of its documents, instruments and other records (including credit files and computer tapes or disks) that (1) evidence or will evidence or record Contributed Receivables and (2) are otherwise necessary or desirable to effect Collections of such Contributed Receivables including (i) Receivable specific information including, when applicable, invoice number, invoice due date, invoice value, purchase order reference, shipping date, shipping address, shipping terms, copies of delivery notes, bills of lading, insurance documents, copies of letters of credit, bills of exchange or promissory notes, other security documents, and (ii) Obligor specific information, including copy of the Contract, correspondence file and details of any security held (collectively, the "**Originator Documents**"') and (B) deliver such Originator Documents to the Company or its designee at a place designated by the Company. In recognition of the Contributor's need to have access to any Originator Documents which may be transferred to the Company hereunder, whether as a result of its continuing business relationship with any Obligor under the Contributed Receivables, the Company hereby grants to the Contributor a license to access the Originator Documents transferred by the Contributor to the Company and to access any such transferred computer software in connection with any activity arising in the ordinary course of the Contributor's business; provided that the Contributor shall not disrupt or otherwise interfere with the Company's use of and access to the Originator Documents and its computer software during such license period; and

(iv) upon written request of the Company, the Contributor will (A) deliver to the Company all licenses, rights, computer programs, related material, computer tapes, disks, cassettes and data necessary for the immediate collection of the Contributed Receivables by the Company, with or without the participation of the Contributor (excluding software licenses which by their terms are not permitted to be so delivered; provided that the Contributor shall use reasonable efforts to obtain the consent of the relevant licensor to such delivery but shall not be required, to the extent it has an ownership interest in any electronic records. computer software or licenses. to transfer, assign, set-over or otherwise convey such ownership interests to the Company) and (B) make such arrangements with respect to the collection of the Contributed Receivables as may be reasonably required by the Company.

(c) The continuation of a Program Termination Event as described in **subsection 7.02(a)** Contributor further agrees that upon the occurrence and during the or **(b)** of any Origination Agreement (or any corresponding provision), the Company, its assignees or the Administrative. Agent may, with respect to the relevant Originator(s), take any action permitted by the Contributor pursuant to **Section 7.03(b)** of the relevant Origination Agreement (or any corresponding provision).

8. **MISCELLANEOUS**

8.01 Payment. All payments to be made by a party ("**payor**") hereunder shall 'be made in Dollars on the applicable due date and in immediately available funds to the recipient's ("**payee**") account as may be specified by such payee from time to time in a notice to such payor. Wherever any payment to be made under this Agreement shall be stated to be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

8.02 Costs and Expenses. The Contributor agrees (a) to pay or reimburse. each of the Company, the Administrative Agent and the Collateral Agent for all of its out-of-pocket costs and expenses incurred in connection with the preparation and execution of, and any amendment, supplement or modification to, this Agreement, the other Transaction Documents and any other documents prepared in connection herewith and therewith, the consummation and administration of the transactions contemplated hereby and thereby, including, without limitation, all reasonable fees and disbursements of counsel, (b) to pay or reimburse the Company, the Administrative Agent, the Collateral Agent and their respective assignees for all its costs and expenses incurred in connection with the enforcement or preservation of any rights under this Agreement and any of the other Transaction Documents, including the reasonable fees and disbursements of counsel to the. Company and its assignees, (c) to pay, indemnify, and hold the Company, the Administrative Agent, the Collateral Agent and their respective assignees harmless from, any and all recording and filing fees and any and all liabilities with respect to, or resulting from any delay caused by such Originator in paying, stamp, excise and other similar taxes, if any, which may be payable or determined to be payable in connection with the execution and delivery of, or consummation or administration of, any of the transactions contemplated by, or any amendment, supplement or modification of, or any waiver or consent under or in respect of, this Agreement and any such other documents and (d) to pay, indemnify, and hold the Company, the Administrative Agent and the Collateral Agent harmless from and against any and all other liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind or nature whatsoever (i) which may at any time be imposed on, incurred by or asserted against the Company, the Administrative Agent, the Collateral Agent or their respective assignees in any way relating to or arising out of this Agreement or the other Transaction Documents or the transactions contemplated hereby and thereby or in connection herewith or any action taken or omitted by the Company, the Administrative Agent, the Collateral Agent or their respective assignees under or in connection with any of the foregoing (all such other liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses and disbursements being herein called "**Originator Indemnified Liabilities**") or (ii) which would not have been imposed on, incurred by or asserted against the Company, the Administrative Agent, the Collateral Agent or their respective assignees but for such Persons entering into and performing under the Transaction Documents; **provided**, **however**, that such indemnity shall not be available to the extent that such Originator Indemnified Liabilities are finally judicially determined to have resulted from the gross negligence or willful misconduct of the Company, the Administrative Agent, the Collateral Agent or their respective assignees. The agreements of the Contributor in this **Section 8.02** shall survive the collection of all Contributed Receivables, the termination of this Agreement and the payment of all amounts payable hereunder; **provided**, **further**, that in no event shall the Contributor be required to make any indemnity payments resulting from the lack of performance or collectability of the Contributed Receivables (unless such loss results from a breach of a representation or undertaking under any Transaction Document by the Contributor or any of its Affiliates with respect to any such Contributed Receivable).

8.03 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the Contributor and the Company and their respective successors (whether by merger, consolidation or otherwise) and permitted assigns. The Contributor agrees that it will not assign or transfer all or any portion of its rights or obligations hereunder without the prior written consent of the Company and the Administrative Agent. The Contributor acknowledges that, pursuant to the European Receivables Loan Agreement, the Company shall grant to the Collateral Agent (for the benefit of the Secured Parties) a security interest in, among other things, all of its rights hereunder. The Contributor further agrees that, in respect of its obligations hereunder, it will act at the direction of and in accordance with all requests and instructions from the Administrative Agent and the Collateral Agent until the Final Payout Date.

8.04 Effectiveness. This Agreement amends and restates the Existing Agreement. On the Restatement 2019 Effective Date, this Agreement shall come into effect as an amendment and restatement of the Existing Agreement.

8.05 Intentionally Omitted.

8.06 Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE, OF NEW YORK AND WITHOUT REFERENCE TO ANY CONFLICT OF LAWS PRINCIPLES (OTHER THAN SECTIONS 5 1401 AND 5 1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW), SUBJECT TO THE APPLICATION OF THE LAWS OF ANY OTHER JURISDICTION THAT MAY BE APPLICABLE TO THE PERFECTION OF ANY CONTRIBUTION OR GRANT OF A SECURITY INTEREST HEREUNDER.

8.07 No Waiver; Cumulative Remedies. No failure to exercise and no delay in exercising, on the part of the Company, the Collateral Agent or the Administrative Agent, any right, remedy, power or privilege hereunder, shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges herein provided are cumulative and not exhaustive of any rights, remedies, powers and privileges provided by law.

8.08 Amendments and Waivers. Neither this Agreement nor any terms hereof may be amended, supplemented or modified except in a writing signed by the Company and the Contributor and that otherwise complies with any applicable provision in the other Transaction Documents, including **Section 26.3(o)** of the European Receivables Loan Agreement.

8.09 Severability. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

8.10 Notices. All notices, requests and demands to or upon the respective parties hereto to be effective shall be in writing, and shall be personally delivered or sent by certified mail, postage prepaid, or overnight courier or electronic mail, to the intended party at the address or electronic mail addresses of such party as addressed below, or at such other address or electronic mail address as shall be designated by such party in a written notice to the other parties hereto (and any other parties to whom such notice is required by the terms of this Agreement or any other Transaction Document). All such notices and communications shall be shall be deemed to have been duly given or made when (i) delivered by hand, (ii) upon the earlier of actual receipt or physical delivery attempt, if deposited in the mail, postage prepaid or sent by recognized courier service, or, (iii) in the case of electronic mail, when received.

With respect to the Company:	Huntsman Receivables Finance LLC c/o Huntsman International LLC 10003 Woodloch Forest Drive The Woodlands, TX 77380 Attention: Office of General Counsel Phone Number: +1 281 719-6000 E-mail:david_stryker@huntsman.com; frank_van_opstal@huntsman.com
Copy to:	VANTICO GROUP S.à r.l 51, Boulevard Grande-Duchesse Charlotte L-1331 Luxembourg Attention: Frank Van Opstal Phone Number: + 352 28 269 681 Email: frank_van_opstal@huntsman.com
With respect to the Contributor:	Huntsman International LLC 10003 Woodloch Forest Drive The Woodlands, TX 77380 Attention: Office of General Counsel Phone Number: +1 281 719-6000 E-mail:david_stryker@huntsman.com; frank_van_opstal@huntsman.com
Copy to:	VANTICO GROUP S.à r.l 51, Boulevard Grande-Duchesse Charlotte L-1331 Luxembourg Attention: Frank Van Opstal Phone Number: + 352 28 269 681 Email: frank_van_opstal@huntsman.com
With respect to the Collateral Agent:	HSBC Bank plc 8 Canada Square London E14 5HQ United Kingdom Attention: Structured Finance: Lilit Yolyan; Vanessa Borgards. Phone numbers: +44 020 79911571 E-mail addresses: lilityolyan@hsbc.com; vanessa1borgards@hsbc.com

8.11 Counterparts. This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts (including by telecopy or other electronic means), and all of said counterparts taken together shall be deemed to constitute one and the same instrument. A set of the copies of this Agreement signed by all the parties shall be lodged with the Company.

8.12 Submission to Jurisdiction; Service of Process.

(a) Each of the parties hereto hereby submits to the nonexclusive jurisdiction of the United States District Court for the Southern District of New York and of any New York State court sitting in the Borough of Manhattan, City of New York for purposes of all legal proceedings arising out of or relating to this Agreement or the transactions contemplated hereby. Each of the parties hereto hereby irrevocably waives, to the fullest extent it may effectively do so, any objection which it may now or hereafter have to the laying of the venue of any such proceeding brought in such a court, any claim that any such proceeding brought in such a court has been brought in an inconvenient forum and any claim based on its immunity from suit. Nothing in this **Section 8.12(a)** shall affect the right of any party hereto to bring any action or proceeding against another or its property in the courts of other jurisdictions.

(b) EACH PARTY WAIVES ITS RIGHTS TO A TRIAL BY JURY OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF OR RELATED TO THIS AGREEMENT, OR THE TRANSACTIONS CONTEMPLATED HEREBY, IN ANY ACTION, PROCEEDING OR OTHER LITIGATION OF ANY TYPE BROUGHT BY EITHER PARTY AGAINST THE OTHER PARTY, WHETHER WITH RESPECT TO CONTRACT CLAIMS, TORT CLAIMS, OR OTHERWISE. EACH PARTY HERETO AGREES THAT ANY SUCH CLAIM OR CAUSE OF ACTION SHALL BE TRIED BY A COURT TRIAL WITHOUT A JURY, WITHOUT LIMITING THE FOREGOING, THE PARTIES HERETO FURTHER AGREE THAT THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY IS WAIVED BY OPERATION OF THIS **SECTION 8.12(b)** AS TO ANY ACTION, COUNTERCLAIM OR OTHER PROCEEDING WHICH SEEKS, IN WHOLE OR IN PART, TO CHALLENGE THE VALIDITY OR ENFORCEABILITY OF THIS AGREEMENT OR ANY PROVISIONS HEREOF. THIS WAIVER SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS TO THIS AGREEMENT.

8.13 No Bankruptcy Petition.

(a) The Contributor, by entering into this Agreement, covenants and agrees, to the extent permissible under applicable law, that it will not solely in its capacity as a creditor of the Company institute against, or join any other Person in instituting against, the Company any involuntary bankruptcy, reorganization, arrangement, insolvency or liquidation proceedings, or other involuntary proceedings (including, but not limited to, petitioning for the declaration of the Company's assets en desastre) under any Applicable Insolvency Laws; and

(b) Notwithstanding anything elsewhere herein contained, the sole remedy of the Contributor or any other Person in respect of any obligation, covenant, representation, warranty or agreement of the Company under or related to this. Agreement shall be against the assets of the Company. Neither the Contributor nor any other Person shall have any claim against the Company to the extent that such assets are insufficient to meet such obligation, covenant, representation, warranty or agreement (the difference being referred to herein as a "shortfall") and all claims in respect of the shortfall shall be extinguished.

8.14 Termination. This Agreement will terminate at such time as (a) the commitment of the Company to accept a contribution of Receivables from the Contributor hereunder shall have terminated and (b) all Contributed Receivables have been collected, and the proceeds thereof turned over to the Company and all other amounts owing to the Company hereunder shall have been paid in full or, if Contributed Receivables have not been collected, such Contributed Receivables have become Defaulted Receivables and the Company shall have completed its collection efforts in respect thereto; **provided, however**, that the indemnities of any Contributor to the Company set forth in this Agreement shall survive such termination and **provided further that**, to the extent any amounts remain due and owing to the Company hereunder, the Company shall remain entitled to receive any Collections on Contributed Receivables which have become Defaulted Receivables after it shall have completed its collection efforts in respect thereof. Notwithstanding anything to the contrary contained herein, if at any time, any payment made by the Contributor is rescinded or must be restored or returned by the Company as a result of any Insolvency Event with respect to the Contributor then the Contributor's obligations with respect to such payment shall be reinstated as though such payment had never been made.

8.15 Responsible Officer Certificates: No Recourse. Any certificate executed and delivered by a Responsible Officer of the Contributor or the Company pursuant to the terms of the Transaction Documents shall be executed by such Responsible Officer not in an individual capacity but solely in his or her capacity as an officer of the Contributor or the Company, as applicable, and such Responsible Officer will not be subject to personal liability as to the matters contained in the certificate. A director, officer, manager, employee or member, as the case may be, as such, of the Contributor or Company shall not have liability for any obligation of the Contributor or the Company hereunder or under any Transaction .Document or for any claim based on, in respect of, or by reason of, any Transaction Document, unless such claim results from the gross negligence, fraudulent acts or willful misconduct of such director, officer, employee, manager or member, as the case may be.

8.16 Confidential Information.

(a) Unless otherwise required by applicable law, and subject to **subsection 8.16(b)** below, each of the parties hereto undertakes to maintain the confidentiality of this Agreement in its communications with third parties and otherwise. None of the parties shall disclose to any person any information of a confidential nature of or relating to either the Contributor, the Administrative Agent, the Collateral Agent or Company, which such party may have obtained as a result of the Transaction (the "**Confidential Information**"). For the avoidance of doubt, the Company shall restrict disclosure of Confidential Information to its officers, employees, agents and advisers who need to receive such information to ensure the proper functioning of the Transaction. Both the Administrative. Agent and the Collateral Agent shall procure that such officers, employees, agents and advisers shall keep confidential all of the Confidential Information received; and

(b) The provisions of this **Section 8.16** shall not apply:

(i) to the disclosure of any information which is or becomes public knowledge otherwise than as a result of the conduct of the recipient;

(ii) to the disclosure of Confidential Information to the Administrative Agent's or Collateral Agent's assigns (provided that such information is disclosed subject to the condition that such party will hold it confidential on the same basis);

(iii) to the disclosure of any information to the parties to any of the Transaction Documents or to other parties with the written consent of the parties hereto;

(iv) to the disclosure of any information in response to any order of any court or Governmental Authority; or

(v) to the disclosure of any information reasonably required for the completion and filing of any financing statements pursuant to **Sections 2.01(c)**, **3.01(h)**, **4.01(d)** and **5.16**.

8.17 Effectiveness of this Agreement. This Agreement shall be binding on the parties hereto with effect as at the date hereof.

[SIGNATURES COMMENCE ON NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have caused this Contribution Agreement to be executed by their respective officers thereunto duly authorized, all as of the day and year first above written.

SCHEDULE 1
to the Contribution Agreement

Form of Solvency Certificate

To: Huntsman Receivables Finance LLC
c/o Huntsman International LLC
500 Huntsman Way
Salt Lake City, Utah 84108
USA

Copy to: HSCB Bank plc
8 Canada Square, London E14 5HQ
United Kingdom

I, _____, a duly elected director/manager of Huntsman International LLC (tile "**Contributor**") hereby certify (in my capacity as a director/manager of the Contributor) in connection with the contribution of certain Receivables on the date hereof to the Company (as defined herein) pursuant to that certain. European Contribution Agreement dated as of October
16 2009 (as amended from time to time, the "**Contribution Agreement**"), among the Contributor, and Huntsman Receivables: Finance LLC, as Company (the "**Company**") as follows:

The fair value of the assets of the Contributor at a fair valuation exceeds the debts and liabilities. (whether subordinated, contingent or otherwise) of the Contributor. The assets of the Contributor do not constitute reasonably small capital to conduct the business in which it is engaged as such business is now conducted and is proposed to be conducted. The present fair saleable value of the property of the Contributor will be greater than the amount that will be required to pay the probable liability of the Contributor on its debts and other liabilities; subordinated, contingent or otherwise, as such debts and other liabilities become absolute and matured. The Contributor does not intend to, or believe that it will, incur debts beyond its ability to pay such debts as they mature, taking into account the timing of and amounts of cash to be received by the Contributor and the timing of the amounts of cash to be payable on or in respect of its indebtedness. The, Contributor does not contemplate the commencement of insolvency, bankruptcy, liquidation or consolidation proceedings or the appointment of a receiver, liquidator, conservator, trustee or similar official in respect of the Contributor or any of its assets or revenue.

Capitalized terms used herein but not otherwise defined shall have' the respective meanings assigned to such terms in **Schedule 3** to the European Receivables Loan Agreement.

IN WITNESS WHEREOF, I have signed and delivered this solvency certificate this _____ day of _____

HUNTSMAN INTERNATIONAL LLC

By: _____
Name:
Title:

SCHEDULE 2
to the Contribution Agreement

Location of Books and Records

Huntsman International LLC
10003 Woodloch Forest Drive
The Woodlands, TX 77380

Exhibit 10.45

MASTER AMENDMENT NO. 9 TO THE U.S. RECEIVABLES LOAN AGREEMENT, U.S. SERVICING AGREEMENT, U.S. RECEIVABLES PURCHASE AGREEMENT AND TRANSACTION DOCUMENTS AND WAIVER

This Master Amendment No. 9 to the U.S. RECEIVABLES LOAN AGREEMENT, U.S. RECEIVABLES PURCHASE AGREEMENT, U.S. SERVICING AGREEMENT AND TRANSACTION DOCUMENTS AND WAIVER, dated as of October 30, 2020 (this "**Amendment**"), is made among Huntsman Receivables Finance II LLC (the "**Company**"), a Delaware limited liability company, Huntsman Ethyleneamines LLC, a Texas limited liability company ("**Huntsman Ethyl**"), Huntsman Petrochemical LLC, a Delaware limited liability company ("**Huntsman Petro**"), Huntsman Advanced Materials Americas LLC, a Delaware limited liability company ("**Huntsman Advanced**" and, together with Huntsman Propylene, Huntsman Fuels, Huntsman Ethyl and Huntsman Petro, each an "**Existing U.S. Originator**" and collectively the "**Existing U.S. Originators**"), EPM Specialty Polymers Holding Corp., a Delaware corporation ("**New Originator**"), Huntsman International LLC, a limited liability company established under the laws of Delaware ("**Huntsman International**"), Vantico Group S.à r.l., a private limited liability company (*société à responsabilité limitée*) incorporated under the laws of the Grand Duchy of Luxembourg (**Luxembourg**) with its registered office at 51, Boulevard Grande-Duchesse Charlotte, L-1331 Luxembourg (the "**Master Servicer**"), PNC Bank, National Association ("**PNC**") in its capacities as Administrative Agent (the "**Administrative Agent**"), as Collateral Agent (the "**Collateral Agent**"), as a Funding Agent (the "**PNC Funding Agent**") and as a Committed Lender (the "**PNC Committed Lender**"), The Toronto-Dominion Bank, as a Funding Agent (the "**TD Funding Agent**") and as a Committed Lender (the "**TD Committed Lender**"), and **Reliant Trust**, as a Conduit Lender (the "**TD Conduit Lender**") (each Conduit Lender and Committed Lender collectively, the "**Lenders**").

WHEREAS, the Existing U.S. Originators and Huntsman International, as purchaser, are parties to the U.S. Receivables Purchase Agreement dated as of October 16, 2009 (as amended, restated, supplemented or otherwise modified from time to time prior to the date hereof, the "**Existing U.S. Receivables Purchase Agreement**") relating to the sale of certain Receivables originated by the U.S. Originators;

WHEREAS, the Company, the Master Servicer, the PNC Funding Agent, the PNC Committed Lender, the TD Funding Agent, the TD Committed Lender, the TD Conduit Lender, the Administrative Agent and the Collateral Agent are parties to the U.S. Receivables Loan Agreement, dated as of October 16, 2009 (as amended, restated, supplemented or modified from time to time prior to the date hereof, the "**Existing U.S. Receivables Loan Agreement**") pursuant to which the Company may from time to time request Loans from the Lenders to, among other things, acquire Receivables;

WHEREAS, the Company, the Master Servicer, the Servicer Guarantor, the Local Servicers, the Administrative Agent and the Collateral Agent are parties to the U.S. Servicing Agreement dated as of October 16, 2009 (as amended, restated, supplemented or modified from time to time prior to the date hereof, the "**Existing U.S. Servicing Agreement**");

WHEREAS, the Master Servicer has notified the Administrative Agent, the Collateral Agent, the Company and each Funding Agent that the New Originator desires to become an Originator under the U.S. Receivables Purchase Agreement and shall thereafter sell its Receivables to Huntsman International pursuant to the U.S. Receivables Purchase Agreement and the New Originator has executed and delivered to Huntsman International an Additional Originator Joinder Agreement (the "**Joinder Agreement**");

WHEREAS, concurrently with the closing of the Joinder Agreement and this Amendment, (i) the New Originator will convert to EPM Specialty Polymers Holding LLC, a Delaware limited liability company; (ii) the Existing U.S. Originator Huntsman Advanced will merge with and into the New Originator, (iii) ESP Sub LLC, a Delaware limited liability company, will merge with and into CVC Specialty Polymers, LLC, a Delaware limited liability company, with CVC Specialty Polymers, LLC surviving the merger, (iv) CVC Specialty Chemicals, Inc., a New Jersey corporation, will merge with and into EPM CVC Group Holdings, Inc., a Delaware corporation, with EPM CVC Group Holdings, Inc. surviving the merger, and (v) each of CVC Specialty Polymers, LLC and EPM CVC Group Holdings, Inc., will merge with and into the New Originator with the New Originator surviving the merger (collectively, the "**Reorganization**");

WHEREAS, concurrently with the Reorganization, the name of the New Originator will be changed to Huntsman Advanced Materials Americas LLC;

WHEREAS, the Company has requested that the Administrative Agent, the Collateral Agent, the Funding Agents and the Lenders agree to amend the Existing U.S. Receivables Loan Agreement, the Existing U.S. Servicing Agreement, the Existing U.S. Receivables Purchase Agreement and the other Transaction Documents on the terms and conditions set forth herein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Capitalized terms. Capitalized terms used but not defined herein shall have the meanings ascribed to them in **Schedule 3** to the Existing U.S. Receivables Loan Agreement.

2. Admission of New Originator as an "Originator" under the U.S. Receivables Purchase Agreement. As of the Effective Date (as defined below), Purchaser has added the New Originator as an "Originator" pursuant to **Section 8.04** of the Existing U.S. Receivables Purchase Agreement and the Joinder Agreement. The parties agree that upon the effectiveness of this Amendment and the Joinder Agreement, all references to the "U.S. Receivables Purchase Agreement" in any Transaction Document shall be to such agreement as amended by this Amendment.

3. Amendments to the U.S. Servicing Agreement. The parties to the Existing U.S. Servicing Agreement hereby agree that, as of the Effective Date, the reference to "Huntsman Advanced Materials Americas LLC, a Delaware limited liability company" in clause (d) of the preamble to the Existing U.S. Servicing Agreement defining "**U.S. Originators**" and "**Local Servicers**" shall be deemed to be a reference to the New Originator. The parties agree that upon the effectiveness of this Amendment, all references to the "Servicing Agreement" in any Transaction Document shall be to such agreement as amended by this Amendment.

4. Amendments to the U.S. Receivables Loan Agreement. The parties to the Existing U.S. Receivables Loan Agreement hereby agree that the Existing U.S. Receivables Loan Agreement shall be and hereby is amended as follows:

(a) **Schedule 3** (*Definitions*) to the Existing U.S. Receivables Loan Agreement is hereby amended as follows:

(i) The definition of "**Approved Originator**" is hereby amended and restated in its entirety to read as follows:

"**Approved Originator**" shall mean Huntsman Ethyleneamines LLC, Huntsman Advanced Materials Americas LLC (fka EPM Specialty Polymers Holding Corp.), Huntsman International LLC, and Huntsman Petrochemical LLC, unless and until any such entity is removed as an Approved Originator pursuant to **Section 28** of the U.S. Receivables Loan Agreement; and any entity that may be approved as an Additional Originator pursuant to, and in accordance with, the provisions of **Section 27** of the U.S. Receivables Loan Agreement.

(ii) The definition of "**Approved Obligor Country**" is hereby amended and restated in its entirety to read as follows:

"**Approved Obligor Country**" shall mean (i) the United States, (ii) Canada, (iii) the Netherlands so long as (a) the long-term foreign currency rating on the Netherlands assigned by Moody's is at least "A2" and (b) the lesser of (X) the long-term foreign currency ratin Netherlands and (y) the transfer and convertibility assessment on the Netherlands in each case assigned by S&P is at least "A", (iv) all c countries that are not subject to a sanctions program administered by OFAC (except for the United States, Canada and the Netherlands) with long-term ratings of greater than or equal to BBB- or Baa3, and (v) any other country as may be agreed by the Company, the Administrative Agent and each Funding Agent in writing.

(iii) The definition of "**Approved Obligor Country Overconcentration Limit**" is hereby amended and restated in its entirety to read as follows:

"**Approved Obligor Country Overconcentration Limit**" shall mean, with respect to (i) the United States, 100%, (ii) Canada, 10.0%, (iii) the Netherlands, 10.0% so long as it is an Approved Obligor Country, and otherwise 0.0%, (iv) all other countries that are not subject to a sanctions program administered by OFAC (except for the United States, Canada and the Netherlands) with long-term ratings of greater than or equal to BBB- or Baa3, 5% in the aggregate and (v) any other country, such percentage as may be agreed by the Company, the Administrative Agent and each Funding Agent in writing, in each case, such percentage representing with respect to each such country the maximum aggregate percentage of Receivables that may constitute the Pool Receivables where the related Obligors are residents in such country.

The parties hereto agree that upon the effectiveness of this Amendment, all references to the ï U.S. Receivables Loan Agreement ï in any Transaction Document sha to such agreement as amended by this Amendment.

5. Acknowledgment Regarding Merger of Huntsman Advanced. In connection with the merger of Huntsman Advanced with and into the New Originator, the Administrative Agent and each Funding Agent hereby acknowledges and agrees that all Receivables sold by Huntsman Advanced prior to the date hereof shall not constitute Receivables originated by the New Originator; *provided* that the New Originator agrees that it shall have a continuing obligation in respect of the Receivables sold by Huntsman Advanced prior to the date hereof pursuant to the Existing U.S. Receivables Purchase Agreement (including making Originator Dilution Adjustment Payments, Originator Adjustment Payments and any payments in respect of indemnification) and such continuing obligation shall be unaffected by the foregoing agreement.

6. Acknowledgment Regarding Merger of CVC Specialty Chemicals. The parties hereto hereby acknowledge and agree that to the extent the merger described in clause (iv) of the definition of Reorganization (the merger of CVC Specialty Chemicals, Inc., a New Jersey corporation, with and into EPM CVC Group Holdings, Inc., a Delaware corporation, with EPM CVC Group Holdings, Inc. surviving the merger) does not become effective on November 1, 2020 as a result of delays at or requirements of the office of the Secretary of State of New Jersey, the Reorganization shall nonetheless be deemed closed for purposes of this Amendment.

7. Waivers. In connection with the addition of an originator as an Approved Originator, (a) the Master Servicer, the Company, the Administrative Agent and each Funding Agent shall have received a copy of the Policies of such originator, which Policies shall be in form and substance satisfactory to the Master Servicer, the Servicer Guarantor, the Company, each Funding Agent and the Administrative Agent in accordance with **Section 27(a)(ii)** of the Existing U.S. Receivables Loan Agreement (the "**Policies Requirement** ï), (b) the Collateral Agent, each Funding Agent and the Administrative Agent shall have received an Opinion of Counsel in form and substance satisfactory to each of them from a nationally recognized law firm qualified to practice in New York to the effect that the sales of Receivables by such originator to Huntsman International or the Company (or such other entity as shall have been agreed) constitute true sales or contributions of such Receivables to Huntsman International or the Company or such other entity in accordance with **Section 27(a)(v)** of the Existing U.S. Receivables Loan Agreement (the "**True Sale Opinion Requirement** ï) and (c) the Company, the Collateral Agent, each Funding Agent and the Administrative Agent shall have received a certificate prepared by a Responsible Officer of the Master Servicer certifying that after giving effect to the addition of such originator, the Target Receivables Amount shall be equal to or less than the Aggregate Receivables Amount on the date such originator is added pursuant to the applicable Receivables Purchase Agreement in accordance with **Section 27(a)(viii)** of the Existing U.S. Receivables Loan Agreement (the "**Master Servicer Certificate Requirement** ï). The Company has requested that the Funding Agents, the Collateral Agent and the Administrative Agent waive compliance by the Company and the New Originator with each of the Policies Requirement, the True Sale Opinion Requirement, and the Master Servicer Certificate Requirement. Accordingly, the Funding Agents, the Collateral Agent and the Administrative Agent hereby waive compliance with Policies Requirement, the True Sale Opinion Requirement, and the Master Servicer Certificate Requirement solely with respect to the addition of the New Originator and waive any breach of any provision of any Transaction Document that occurred as a result of such failure to comply with the Policies Requirement, the True Sale Opinion Requirement, and the Master Servicer Certificate Requirement; provided that an authorized signatory of the Master Servicer shall prepare and execute the certificate required by the Master Servicer Certificate Requirement in lieu of a Responsible Officer of the Master Servicer. Each of the Company, Huntsman International, the New Originator and the Master Servicer acknowledges and agrees that the foregoing waiver is limited to the matters expressly set forth herein and all other terms and conditions of the U.S. Receivables Purchase Agreement, the Contribution Agreement, the U.S. Receivables Loan Agreement, the Servicing Agreement and the other Transaction Documents shall stand and remain unchanged and in full force and effect and the Company, each Originator, Huntsman International, and the Master Servicer each remains obligated to comply with all other terms and conditions of the U.S. Receivables Purchase Agreement, the Contribution Agreement, the U.S. Receivables Loan Agreement, the Servicing Agreement and the other Transaction Documents, in each case as amended by this Amendment. The Company further acknowledges and agrees that the Lenders, the Funding Agents, the Collateral Agent and the Administrative Agent shall not be obligated in the future to waive any provision of the U.S. Receivables Purchase Agreement, the Contribution Agreement, the U.S. Receivables Loan Agreement, the Servicing Agreement or any other Transaction Document as a result of having provided the waiver contained herein.

8. Conditions Precedent. This Amendment shall become effective upon the closing of the Reorganization, provided that the Administrative Agent or its counsel is in receipt of the following (the "**Effective Date**"):

(i) this Amendment duly executed by each of the parties hereto;

(ii) a duly executed copy of the Joinder Agreement;

(iii) a certificate of a Responsible Officer of the New Originator certifying (i) that there is no pending or, to its knowledge, threatened (in writing) action or proceeding affecting the New Originator before any Governmental Authority that could reasonably be expected to have a Material Adverse Effect with respect to it (other than such action or proceeding as disclosed in public filings), (ii) the names and signatures of the officers authorized on its behalf to execute this Amendment, the Joinder Agreement and the other Transaction Documents to which it is a party and any other documents to be delivered by it hereunder or thereunder, (iii) that attached thereto is a true, correct, and complete copy of the New Originator's certificate of incorporation, certificate of merger certificate of formation and all related documents relating to the merger of Huntsman Advanced with and into the New Originator and its operating agreement, (iv) that attached thereto is a true correct and complete copy of the duly adopted resolutions (or, if applicable, a unanimous consent) of the Board of Directors or the members, as the case may be, of the New Originator, as in effect on the date hereof, authorizing the execution of the Joinder Agreement, this Amendment, and the other Transaction Documents to which it is a party and the consummation of the Transactions pursuant to the Transaction Documents, and (v) that attached thereto is a true, correct and complete copy of the Certificate of Good Standing for the New Originator issued by the Secretary of State of Delaware;

(iv) an Opinion of Counsel to the New Originator dated the date hereof and addressed to each Funding Agent, Huntsman International, the Collateral Agent and the Administrative Agent in form and substance satisfactory to each Funding Agent, the Purchaser, the Collateral Agent and the Administrative Agent covering due execution, enforceability and security interest matters;

(v) the results of a recent search satisfactory to the Administrative Agent and each Funding Agent of any UCC filings (or equivalent filings) made with respect to the New Originator in the jurisdictions in which the New Originator is required to file financing statements (or similar filings) together with copies of the financing statements (or similar documents) disclosed by such search and accompanied by evidence satisfactory to the Administrative Agent and each Funding Agent that any Liens disclosed by such search would be Permitted Liens or have been released;

(vi) copies of proper financing statements (Form UCC-1), which will be filed on or prior to the date hereof, naming the New Originator as the debtor, in favor of Huntsman International, as the first secured party/buyer/assignor, the Company as second secured party/buyer/assignor, and the Collateral Agent, as total assignee of secured parties/buyers/assignors, or other similar instruments or documents as may be necessary or in the reasonable opinion of Huntsman International, the Administrative Agent, the Collateral Agent or any Funding Agent, desirable under the UCC of all appropriate jurisdictions to perfect Huntsman International ĭ s ownership interest in the Receivable Assets sold by the New Originator under the Existing U.S. Receivables Purchase Agreement;

(vii) a solvency certificate delivered by the New Originator with respect to New Originator ĭ s solvency in the form of Schedule 1 to the Existing U.S. Receivables Purchase Agreement;

(viii) a certificate prepared by the Master Servicer and executed by an authorized signatory certifying that after giving effect to the addition of the New Originator, the Target Receivables Amount shall be equal to or less than the Aggregate Receivables Amount on the date the New Originator is added pursuant to the Existing U.S. Receivables Purchase Agreement; and

(ix) if, as of the date of the proposed addition of the New Originator, the aggregate Principal Amount of Receivables owned by the Company that were generated by Additional Originators or generated with respect to Acquired Lines of Business pursuant to the provisions of **Section 27** of the Existing U.S. Receivables Loan Agreement in the immediately preceding twelve (12) calendar months (including the aggregate Principal Amount of all Receivables of the New Originator proposed to be sold by the New Originator on such day) is greater than ten percent (10%) of the Aggregate Receivables Amount on such date before giving effect to the addition of the New Originator, the historical aging and liquidation schedule information of the Receivables originated by the New Originator and other data relating to the Receivables is satisfactory to each Funding Agent and the Administrative Agent.

9. Miscellaneous.

9.1 Each of the parties hereto hereby consents, acknowledges and agrees to the amendments set forth in **Sections 2**, **3**, and **4** of this Amendment, the waivers set forth in **Section 7**, and the agreements set forth in **Sections 5 and 6** hereof. Huntsman International, as Servicer Guarantor, hereby expressly affirms its obligations under the Transaction Documents.

9.2 Except as expressly amended by this Amendment, each of the U.S. Receivables Loan Agreement, the U.S. Receivables Purchase Agreement, the U.S. Servicing Agreement and each other Transaction Document is ratified and confirmed in all respects and the terms, provisions and conditions thereof are and shall remain in full force and effect. The parties hereto agree that this Amendment shall constitute a Transaction Document.

9.3 THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO ANY CONFLICT OF LAW PRINCIPLES (OTHER THAN SECTION 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW).

9.4 This Amendment may be executed in counterparts by the parties hereto, and each such counterpart shall be considered an original and all such counterparts shall constitute one and the same instrument. Delivery (by fax or email) of a facsimile signature on the signature page of this Agreement shall be effective as delivery of an original signature thereof.

9.5 The provisions of **Sections 37.1, 37.2, 37.21 and 37.22** of the Existing U.S. Receivables Loan Agreement shall apply hereto, *mutatis mutandis*, as if set forth in full herein.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, each of the parties hereto have caused this Amendment to be duly executed by their respective officers as of the day and year first above written.

HUNTSMAN RECEIVABLES FINANCE II LLC

By: /s/ Claire Mei
Name: Claire Mei
Title: Vice President & Treasurer

VANTICO GROUP S. ĭ R.L.

By: /s/ Joe Hambor
Name: Joe Hambor
Title: Authorized Signatory

HUNTSMAN INTERNATIONAL LLC

By: /s/ Claire Mei
Name: Claire Mei
Title: Vice President & Treasurer

HUNTSMAN ETHYLENEAMINES LLC

By: /s/ Claire Mei
Name: Claire Mei
Title: Vice President & Treasurer

HUNTSMAN PETROCHEMICAL LLC

By: /s/ Claire Mei
Name: Claire Mei
Title: Vice President & Treasurer

HUNTSMAN ADVANCED MATERIALS AMERICAS LLC

By: /s/ Claire Mei
Name: Claire Mei
Title: Vice President & Treasurer

EPM SPECIALTY POLYMERS HOLDING CORP.,
as New Originator

By: /s/ Claire Mei
Name: Claire Mei
Title: Vice President & Treasurer

PNC BANK, NATIONAL ASSOCIATION,
not in its individual capacity but solely as Collateral Agent

By: /s/ Michael Brown
Name: Michael Brown
Title: Senior Vice President

PNC BANK, NATIONAL ASSOCIATION,
as the Administrative Agent

By: /s/ Michael Brown
Name: Michael Brown
Title: Senior Vice President

PNC BANK, NATIONAL ASSOCIATION,
as a Funding Agent, as a Committed Lender, and as an Issuing Bank

By: /s/ Michael Brown
Name: Michael Brown
Title: Senior Vice President

RELIANT TRUST,
as a Conduit Lender

By: Computershare Trust Company of Canada, in its capacity as trustee of Reliant Trust, by its U.S. Financial Services Agent, The Toronto-Dominion Bank

By: /s/ Luna Mills
Name: Luna Mills
Title: Managing Director

THE TORONTO DOMINION BANK,
as a Funding Agent and as a Committed Lender

By: /s/ Luna Mills
Name: Luna Mills
Title: Managing Director

Exhibit 21.1

SUBSIDIARIES OF HUNTSMAN CORPORATION

Company	JURISDICTION
Huntsman (Argentina) S.R.L.	Argentina
HCPH Holdings Pty Limited	Australia
Huntsman Chemical Australia Holdings Pty Limited	Australia
Huntsman Chemical Australia Property Trust	Australia
Huntsman Chemical Australia Unit Trust	Australia
Huntsman Chemical Company Australia (Holdings) Pty Ltd.	Australia
Huntsman Chemical Company Australia Pty Limited	Australia
Huntsman Polyurethanes (Australia) Pty Limited	Australia
Huntsman Advanced Materials (Austria) GmbH	Austria
Huntsman Bangladesh Pte Limited	Bangladesh
Production-trade unitary enterprise Huntsman-NMG	Belarus
Huntsman Advanced Materials (Europe) BV	Belgium
Huntsman (Belgium) BV	Belgium
Huntsman (Europe) BV	Belgium
Huntsman Textile Effects (Belgium) BV	Belgium
Icynene Lapolla Europe	Belgium
Huntsman Química Brasil Ltda	Brazil
Huntsman Building Solutions (Canada) Inc.	Canada
Huntsman Corporation Canada Inc.	Canada
Huntsman International (Canada) Corporation	Canada
Huntsman (Chile) SpA	Chile
Huntsman Advanced Materials (Guangdong) Company Limited	China
Huntsman Advanced Materials (Nanjing) Company Limited	China
Huntsman Chemical Trading (Shanghai) Ltd	China
Huntsman Chemistry R&D Center (Shanghai) Co., Ltd	China
Huntsman Composite Materials (Tianjin) Co., Ltd.	China
Huntsman Enterprise Management (Shanghai) Co., Ltd.	China
Huntsman Polyurethanes (China) Ltd	China
Huntsman Polyurethanes Shanghai Ltd	China
Huntsman Textile Effects (China) Co., Ltd	China
Huntsman Textile Effects (Qingdao) Co., Ltd	China
Jurong Ningwu New Material Development Co. Ltd	China
Nanjing Jinling Huntsman New Material Co., Ltd	China
Shanghai Huntsman Polyurethanes Specialties Co., Ltd	China
Shanghai Lianheng Isocyanate Company Limited	China
Charwell Enterprises Limited	Hong Kong, China
Ever Wax Limited	Hong Kong, China
Huntsman Advanced Materials (Hong Kong) Limited	Hong Kong, China
Huntsman International (Hong Kong) Limited	Hong Kong, China
Huntsman Specialty (Hong Kong) Limited	Hong Kong, China
Hypogain Investments Limited	Hong Kong, China
Top Morale Limited	Hong Kong, China
Vigor Rich Limited	Hong Kong, China
Wiry Enterprises Limited	Hong Kong, China
Huntsman Colombia Limitada	Colombia
Huntsman (Czech Republic) s.r.o.	Czech Republic
Icynene Lapolla Central Europe a.s.	Czech Republic
Huntsman (Egypt) LLC	Egypt
Technocom For Chemical Industries S.A.E.	Egypt
Huntsman Advanced Materials (France) S.A.S.	France
Icynene Lapolla France SAS	France
Huntsman Advanced Materials (Deutschland) GmbH	Germany
Huntsman (Germany) GmbH	Germany
Huntsman International (Germany) GmbH	Germany

Company	JURISDICTION
Huntsman Textile Effects (Germany) GmbH	Germany
HUNTSMAN Verwaltungs GmbH	Germany
IRO Chemie Verwaltungsgesellschaft mbH	Germany
PUR-Systems GmbH	Germany
Huntsman Products GmbH	Germany
Huntsman Textile Effects (Guatemala) Ltda.	Guatemala
HUNTSMAN Corporation Hungary Vegyipari Termelõ Fejlesztõ Zártkör ű en M ű ködõ Részvénytársaság	Hungary
Huntsman International (India) Private Limited	India
Swathi Organics and Specialties Private Limited	India
PT Huntsman Indonesia	Indonesia
Huntsman Advanced Materials (Italy) S.r.l.	Italy
Huntsman Gomet S.r.l.	Italy
Huntsman International (Italy) S.r.l.	Italy
Huntsman Patrica S.r.l.	Italy
Tecnoelastomeri S.r.l.	Italy
Huntsman Japan KK	Japan
Icynene Asia Pacific Inc.	Japan
Huntsman (Korea) Limited	Korea
Huntsman (Kazakhstan) LLP	Kazakhstan
Vantico Group S.à r.l.	Luxembourg
Vantico International S.à r.l.	Luxembourg
Huntsman Global Business Services Sdn. Bhd.	Malaysia
Huntsman de Mexico, S.A. de C.V.	Mexico
Huntsman International de Mexico S. de R.L. de C.V.	Mexico
Huntsman Servicios Mexico S. de R.L. de C.V.	Mexico
Huntsman Textile Effects Mexico S. de R.L. de C.V.	Mexico
BASF Huntsman Shanghai Isocyanate Investment B.V.	Netherlands
Dynasty Licensing B.V.	Netherlands
Huntsman Advanced Materials (Netherlands) B.V.	Netherlands
Huntsman China Investments B.V.	Netherlands
Huntsman International (Netherlands) B.V.	Netherlands
Huntsman (Holdings) Netherlands B.V.	Netherlands
Huntsman Holland B.V.	Netherlands
Huntsman Holland Iota B.V.	Netherlands
Huntsman International (Netherlands) B.V.	Netherlands
Huntsman Investments (Netherlands) B.V.	Netherlands
Huntsman MA Investments (Netherlands) C.V.	Netherlands
Huntsman (Netherlands) B.V.	Netherlands, Lithuania, Russia, Serbia, Ukraine, United Arab Emirates
Huntsman (Russia Investments) B.V.	Netherlands
Huntsman Saudi Industries B.V.	Netherlands
Huntsman (Saudi Investments) B.V.	Netherlands
Huntsman Shanghai China Investments B.V.	Netherlands
Huntsman Textile Effects (Netherlands) B.V.	Netherlands
International Polyurethane Investments B.V.	Netherlands
Huntsman Textile Effects Pakistan (Private) Limited	Pakistan
Huntsman Textile Effects (Panama) S. de R.L.	Panama
Huntsman (Poland) Sp.zo.o	Poland
Joint Stock Company Huntsman-NMG	Russia
LLC Huntsman CIS	Russia
Arabian Amines Company	Saudi Arabia
Huntsman APC Limited	Saudi Arabia
International Diol Company	Saudi Arabia
Huntsman Advanced Materials (Singapore) Pte Ltd	Singapore
Huntsman (Singapore) Pte Ltd	Singapore, Viet Nam
Huntsman Advanced Materials (Spain) S.L.U.	Spain
Huntsman Norden AB	Sweden, Denmark

Company	JURISDICTION
Huntsman Advanced Materials Licensing (Switzerland) GmbH	Switzerland
Huntsman Advanced Materials (Switzerland) GmbH	Switzerland, South Africa
Huntsman Textile Effects (Switzerland) GmbH	Switzerland
Pensionkasse Huntsman (Switzerland)	Switzerland
Huntsman Advanced Materials (Taiwan) Corporation	Taiwan
Huntsman (Taiwan) Limited	Taiwan
Huntsman (Thailand) Limited	Thailand
EMA Kimya Sistemleri Sanayi ve Ticaret A.S.	Turkey
Huntsman P ĭ rsan Chemicals Kimya Sanayi Ve Ticaret Limited Sirketi	Turkey
Huntsman P ĭ rsan Chemicals Kimya Sanayi Ve Ticaret Limited ĭ irketi Çorlu ĭ ubesi	Turkey
Huntsman Specialty Chemicals Kimya Sanayi ve Ticaret Anonim ĭ irketi	Turkey
Huntsman Tekstil Ür ĭ nleri Kimya ve Dis Ticaret Limited Sirketi	Turkey
Limited Liability Company Huntsman (Ukraine)	Ukraine
Huntsman (UAE) FZE	United Arab Emirates
Huntsman Advanced Materials Holdings (UK) Limited	U.K.
Huntsman Advanced Materials (UK) Limited	U.K.
Huntsman Corporation UK Limited	U.K.
Huntsman Europe Limited	U.K.
Huntsman (Holdings) UK	U.K.
Huntsman IFS Polyurethanes Limited	U.K.
Huntsman Investments (UK) Limited	U.K.
Huntsman Offshore Investments Limited	U.K.
Huntsman Polyurethanes (UK) Limited	U.K.
Huntsman Surface Sciences Overseas Limited	U.K.
Huntsman Surface Sciences UK Limited	U.K.
Huntsman Trustees Limited	U.K.
Huntsman Vantico Limited	U.K.
Airstar Corporation	USA ĭ Utah
Clover Lux Holding LLC	USA ĭ Delaware
ESP Akron Sub LLC	USA ĭ Delaware
HF II Australia Holdings Company LLC	USA ĭ Utah
Huntsman Advanced Materials Americas LLC	USA ĭ Delaware
Huntsman Advanced Materials LLC	USA ĭ Delaware
Huntsman Australia Holdings LLC	USA ĭ Utah
Huntsman Australia LLC	USA ĭ Utah
Huntsman Building Solutions (USA) LLC	USA ĭ Delaware
Huntsman Chemical Purchasing LLC	USA ĭ Utah
Huntsman Enterprises LLC	USA ĭ Utah
Huntsman Ethyleneamines LLC	USA ĭ Texas
Huntsman Fuels GP LLC	USA ĭ Delaware
Huntsman Fuels LLC	USA ĭ Texas
Huntsman Fuels Partners LP	USA ĭ Delaware
Huntsman International Investments LLC	USA ĭ Delaware
Huntsman International LLC	USA ĭ Delaware
Huntsman International Trading Corporation	USA ĭ Delaware
Huntsman MA Investment Corporation	USA ĭ Utah
Huntsman MA Services Corporation	USA ĭ Utah
Huntsman Petrochemical LLC	USA ĭ Delaware
Huntsman Petrochemical Purchasing LLC	USA ĭ Utah
Huntsman Pigments LLC	USA ĭ Delaware
Huntsman Procurement LLC	USA ĭ Utah
Huntsman Purchasing, Ltd.	USA ĭ Utah
Huntsman Receivables Finance II LLC	USA ĭ Delaware
Huntsman Receivables Finance LLC	USA ĭ Delaware
Huntsman SA Investment Corporation	USA ĭ Utah
Huntsman Surfactants Technology Corporation	USA ĭ Utah
Huntsman VMC Corporation	USA ĭ Delaware
International Risk Insurance Company	USA ĭ Texas
Maple Shade Land LLC	USA ĭ Delaware
Nanocomp Technologies, Inc.	USA ĭ Delaware
Rubicon LLC	USA ĭ Utah
Huntsman Corporation, C.A.	Venezuela
Huntsman Vietnam Company Limited	Vietnam

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-174086, 333-211715, and 333-211716 on Form S-8 and Registration Statement Nos. 333-144043, 333-162655, and 333-229822 on Form S-3 of our reports dated February 12, 2021, relating to the consolidated financial statements of Huntsman Corporation and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended December 31, 2020.

/s/ DELOITTE & TOUCHE LLP

Houston, Texas
February 12, 2021

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-229822 on Form S-3 of our report dated February 12, 2021, relating to the consolidated financial statements of Huntsman International LLC and subsidiaries appearing in this Annual Report on Form 10-K for the year ended December 31, 2020.

/s/ DELOITTE & TOUCHE LLP

Houston, Texas
February 12, 2021

Exhibit 31.1

**CERTIFICATION PURSUANT TO EXCHANGE ACT RULES 13A-14(A) and 15D-14(A),
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Peter R. Huntsman, certify that:

1. I have reviewed this annual report on Form 10-K of Huntsman Corporation and Huntsman International LLC;

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

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

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

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

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

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

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

5. The registrants ĭ other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrants ĭ auditors and the audit committee of the registrants ĭ board of directors or board of managers, as applicable (or persons performing the equivalent functio

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

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

Date: February 12, 2021

/s/ PETER R. HUNTSMAN
Peter R. Huntsman
Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO EXCHANGE ACT RULES 13A-14(A) and 15D-14(A),
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sean Douglas, certify that:

1. I have reviewed this annual report on Form 10-K of Huntsman Corporation and Huntsman International LLC;

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

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

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

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

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

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

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

5. The registrants ĭ other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrants ĭ auditors and the audit committee of the registrants ĭ board of directors or board of managers, as applicable (or persons performing the equivalent functio

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

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

Date: February 12, 2021

/s/ SEAN DOUGLAS
Sean Douglas
Chief Financial Officer

Exhibit 32.1

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

In connection with the Annual Report on Form 10-K of Huntsman Corporation and Huntsman International LLC (the ï Companies ï) for the period ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the ï Report ï), I, Peter R. Huntsman, Chief Executive Officer of the Companies, certify, pursuant to 18 U.S.C. ï 1350, as adopted pursuant to ï 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

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

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

/s/ PETER R. HUNTSMAN
Peter R. Huntsman
Chief Executive Officer
February 12, 2021

Exhibit 32.2

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

In connection with the Annual Report on Form 10-K of Huntsman Corporation and Huntsman International LLC (the ï Companies ï) for the period ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the ï Report ï), I, Sean Douglas, Chief Financial Officer of the Companies certify, pursuant to 18 U.S.C. ï 1350, as adopted pursuant to ï 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

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

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

/s/ SEAN DOUGLAS
Sean Douglas
Chief Financial Officer
February 12, 2021