

HEALTHY & SUSTAINABLE GROWTH

2021 ANNUAL REPORT




Ingredion
Be what's next.

DEAR VALUED SHAREHOLDERS

In 2021, Ingredion continued to advance its Driving Growth Roadmap to deliver solid net sales and profit growth. We continued to invest in our business, capitalizing on key trends that are shaping the global food and beverage industry to better position Ingredion to meet the rising demand for on-trend ingredients from our specialty growth platforms. Specialty ingredients performed exceptionally well across our four regions led by texturants and sugar reduction delivering net sales growth in the high teens, and now specialties represent 33 percent of our overall net sales.

STRONG FINANCIAL PERFORMANCE AND COST DISCIPLINE

We generated net sales of \$6.9 billion in 2021, up 15 percent from the previous year, reflecting over \$600 million of price mix improvement. The results include full year reported and adjusted operating income of \$310 million and \$685 million, respectively, and reported and adjusted earnings of \$1.73 and \$6.67 per share, respectively, with full year reported results reflecting the impact of a \$340 million charge related to the contribution of our operations to a joint venture in Argentina. We also returned cash to shareholders of \$172 million in dividends.

2021 QUARTERLY NET SALES



Our team successfully completed our three-year Cost Smart program, delivering \$170 million of cumulative run-rate savings and exceeding our original \$125 million target by 36 percent. We will now carry forward this momentum as part of a rebranded strategic pillar called Cost Competitiveness, which will focus on operating excellence and driving continued efficiencies across our business.

ADVANCING THE DRIVING GROWTH ROADMAP

Over the last four years, Ingredion's product portfolio has been significantly broadened through more than \$700 million of organic growth investments and M&A. Last year alone, we invested approximately \$140 million in our specialty growth platforms through acquisitions and capital investments to drive organic growth. These strategic investments are further differentiating us in the marketplace and are expanding our higher-value ingredient portfolio and formulating capabilities. We have built a solid position in plant-based proteins in the

U.S. and Canada with significant headroom for growth, and we have acquired, partnered, and invested our way to being the market leader in high-intensity natural sweeteners with a rapidly growing position in stevia and Reb M. With our broadened capabilities, we continue to reimagine the way we connect with customers. I am particularly proud of how our go-to-market and technical support teams have engaged and co-created on disruptive food innovations for consumers, positioning us to be part of our customers' new product launches.

We are very proud of the progress we made against our bold sustainability commitment, outlined in our 2030 All Life plan. Notably, we advanced our goal to sustainably source 100 percent of our priority crops by 2025, reaching 33 percent, up eight percent from the previous year, while expanding customer engagements going forward.

OUR PURPOSE AND VALUES-DRIVEN GROWTH CULTURE CONTINUE TO UNDERPIN OUR SUCCESS

It was a proud moment for our employees to learn that Ingredion was, once again, named one of the World's Most Admired Companies by *Fortune* magazine for the 13th consecutive year. We were also honored to be included on Bloomberg's Gender-Equality Index for the fifth consecutive year. Finally, we earned a near-perfect score on the Human Rights Campaign Foundation's Corporate Equality Index for the second consecutive year. These external acknowledgments are a testament to the commitment and values that our people bring to work every day in support of our diverse and inclusive work culture.

Ingredion continues to benefit from its diverse and experienced board. I want to offer my sincere appreciation to Barbara Klein for her dedication and commitment in serving Ingredion as she stepped down after 17 years. At the same time, we announced two new board members in 2021, Catherine Suever and Chuck Magro. We look forward to their contributions and the relevant and global perspectives they will provide.

In closing, I want to thank our shareholders, who continue to see the long-term growth potential of Ingredion, and our employees for their continued commitment and focus as we effectively met the unique challenges of 2021. We look forward to building on the progress in 2022.



James P. Zallie
James P. Zallie,
President & CEO
April 7, 2022



“ We remain guided, united, and inspired by our purpose of bringing the potential of people, nature, and technology together to make life better as we fulfilled our role as an essential business, employer of choice, and responsible neighbor. ”

James P. Zallie, President & CEO

STRATEGIC INITIATIVES **TO FORGE GROWTH**

SPECIALTIES GROWTH

Build on our global innovation strengths aligning with current and future consumer trends and a changing customer landscape

COMMERCIAL EXCELLENCE

Accelerate and deliver value through customer co-creation and differentiated go-to-market capabilities

COST COMPETITIVENESS THROUGH OPERATIONAL EXCELLENCE

Continuously optimize our operations and global support functions to reduce waste, lower our costs and enable greater value delivery to our customers

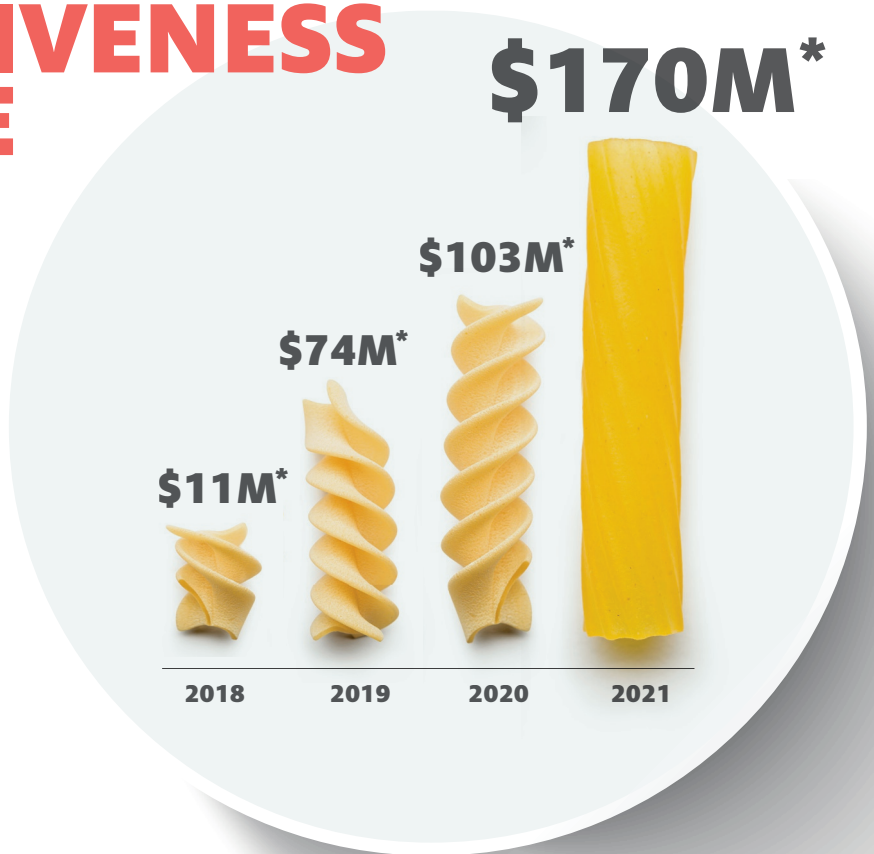
PURPOSE/CULTURE/VALUES/TALENT

Unleash the potential of our people by embracing an inclusive culture supported by contemporary values and an inspiring purpose

THE DIFFERENCE COST COMPETITIVENESS CAN MAKE

We made great progress executing and operating to develop new ways of working and have transitioned our Cost Smart program to Cost Competitiveness. The program has achieved \$170 million in cumulative run-rate savings, exceeding our initial \$125 million target.

COST SMART
POSITIONED OUR
TEAMS WELL FOR
THE CHALLENGES
AND OPPORTUNITIES
IN 2021

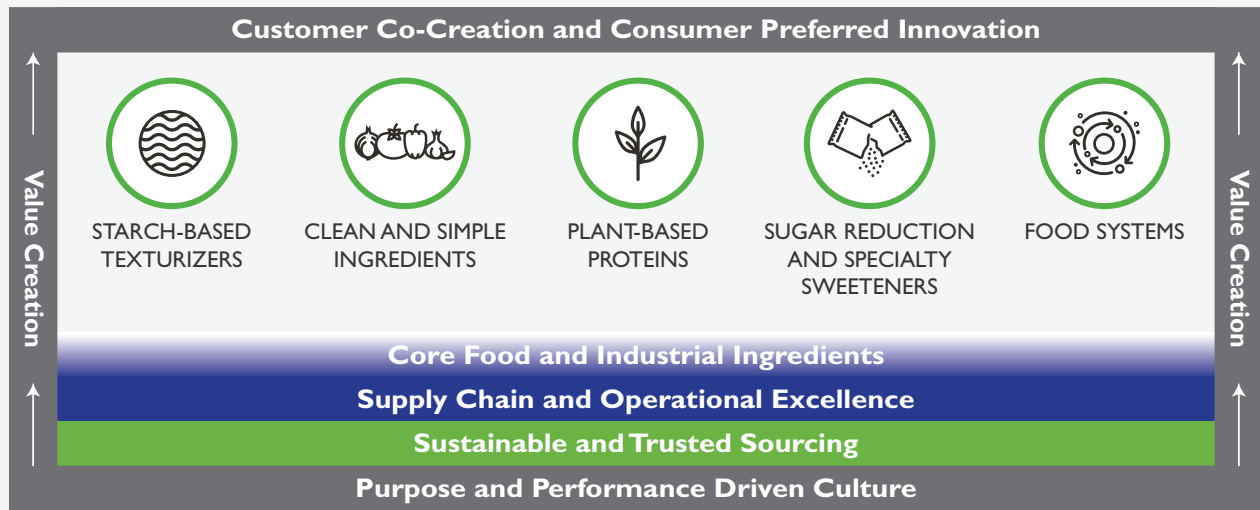


*actioned run-rate savings

CUSTOMER AND INVESTOR VALUE CREATION ROADMAP

INGREDIENT SOLUTIONS THAT MAKE LIFE BETTER

DRIVING GROWTH



HOW WE ENABLED CONSUMER-PREFERRED INNOVATION IN 2021

We used consumer insights, sensory capabilities, proprietary research and teams of scientists to deliver innovative ingredient solutions that support today's lifestyles. Consumers want food and beverages that are closest to nature — made from ingredients that are understood and authentic.

70% of global new product launches contain ingredients that Ingredion produces¹

120+ countries served

500 global food technology R&D scientists

1,800 size of patent estate

2,500 virtual workshops

160 24/7 technical support staff

32 Ingredion Idea Labs®

SEIZING OPPORTUNITIES TO CREATE SHAREHOLDER VALUE IN 2021

1 BILLION
 pounds of sugar (equivalent to 1,786 quadrillion calories) was avoided in consumer diets around the world with products* we sold to our customers



*This includes stevia, allulose and polyols.

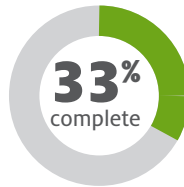
14 new plant-based product launches from Ingredion Idea Labs®



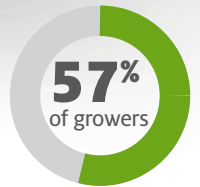
Sustainably source 100% of global waxy corn in supply chain by end of 2022



Sustainably source 100% of the corn, tapioca, potato, pulses and stevia crops in our supply chain by 2025



Educating growers and implementing integrated pest management into 70% of our agricultural supply by end of 2027



PARTNERING FOR REGENERATIVE AGRICULTURE SUCCESS

We advanced our regenerative agriculture program through the Soil and Water Outcomes Fund by partnering with PepsiCo and Nutrien to incentivize growers to choose more sustainable practices for corn grown in Illinois. Our pilot program enrolled nearly 15,000 acres generating nearly 9,000 metric tons of CO2e reduction.



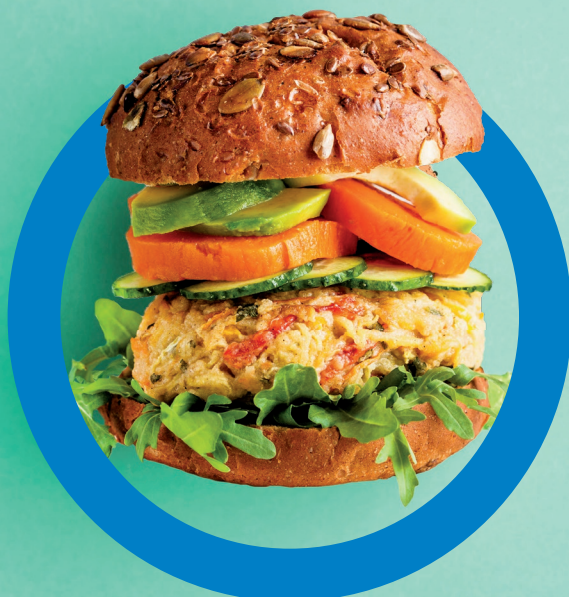
CREATING SUSTAINABLE VALUE: **PLANT-BASED PROTEINS**

Plant-based solutions are supported by consumers who are mindful of the environment, animal welfare, sustainability and digestive health. We're continually investing to help our customers formulate and capitalize on the trends shaping the food industry. With state-of-the-art facilities in Canada and Nebraska, our ingredient solutions are 100% sustainably sourced from North American farms, enabling manufacturers to create innovative, plant-based food and beverages.

Our existing customer pipeline remains robust across many food categories, such as alternative dairy, plant-based meat, fortified bakery and healthy snacks.



121% growth in plant-based proteins in 2021



 **KaTech**
by Ingredion

CUSTOMIZED INGREDIENT SYSTEMS

Food and beverage developers are constantly working to innovate their formulations to align with consumers' tastes and preferences. This capability was initially established with our foundational acquisition of TIC Gums in 2017 and further strengthened with our acquisition of KaTech last year.

CREATING HEALTHY VALUE: **SUGAR REDUCTION**

In 2020, Ingredion acquired PureCircle, the world's leading producer and innovator of plant-based stevia sweeteners and flavors for the food and beverage industry. PureCircle has helped us reach new customers, reinvigorate our existing customers, significantly expanded our capabilities and strengthened our R&D pipeline. PureCircle continues to be a catalyst for growth in sugar reduction and specialty sweeteners that aligns with our strategy to create long-term shareholder value and drive growth opportunities for plant-based alternatives that are sustainable, good for the environment and taste great.

**Under Ingredion's leadership,
PureCircle's net sales are up
by more than**

60%

**on an annualized
basis since 2020**



More than
4,000
farmers make
up our vertically
integrated stevia
supply chain



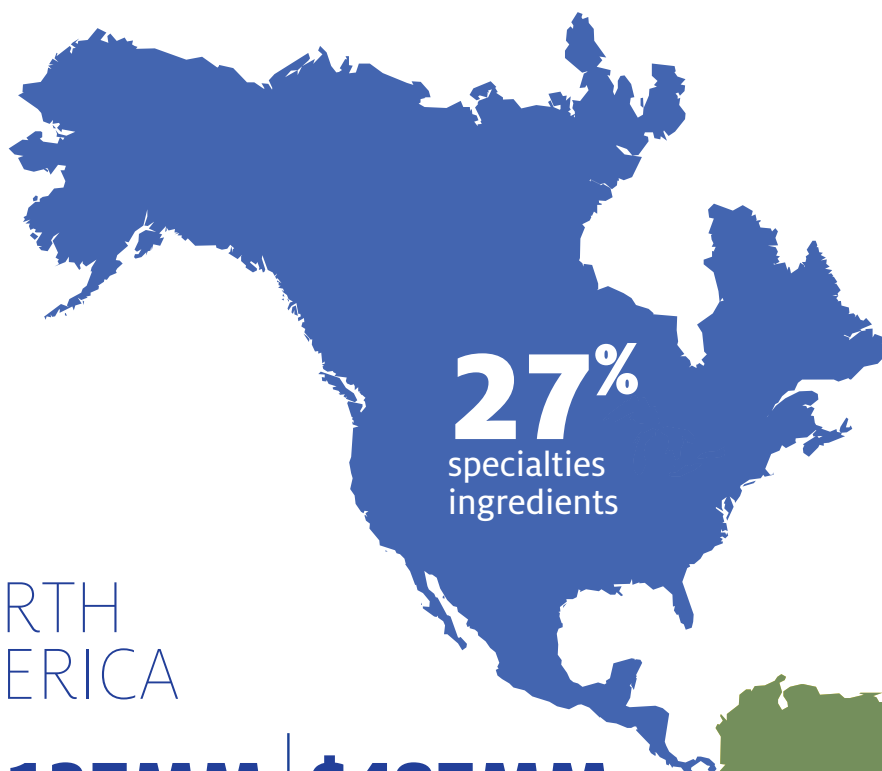
THE STEVIA TRIFECTA

Our new partnership with Amyris, a leading biotechnology company, to manufacture and market a great tasting Reb M sweetener produced sustainably by fermentation rounds out our stevia portfolio, forming the "perfectly sweet trifecta" of offerings in extracted, bio-fermented, and fermented Reb M.



OUR GROWTH ACROSS THE GLOBE

We are continuously innovating with our customers to leverage our global reach and local touch through our Ingredion Idea Labs® around the world. Our worldwide presence and ability to manage and certify our supply chain provides the ability to deliver consistent quality and on-trend solutions.



NORTH
AMERICA

\$4.137MM
of net sales

\$487MM
operating income



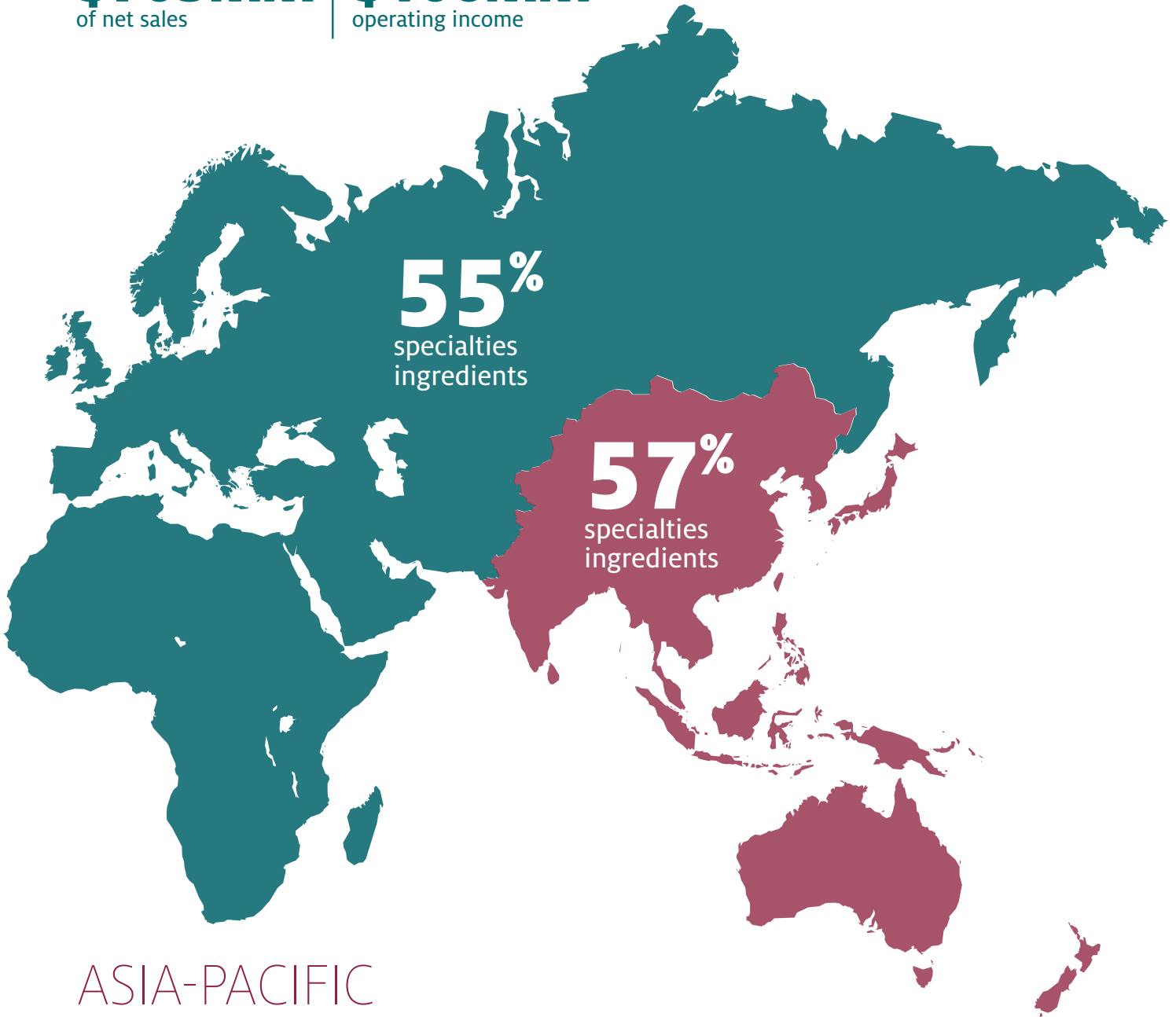
SOUTH
AMERICA

\$1.057MM
of net sales

\$138MM
operating income

EUROPE, MIDDLE EAST, AFRICA

\$703MM | **\$106MM**
of net sales | operating income

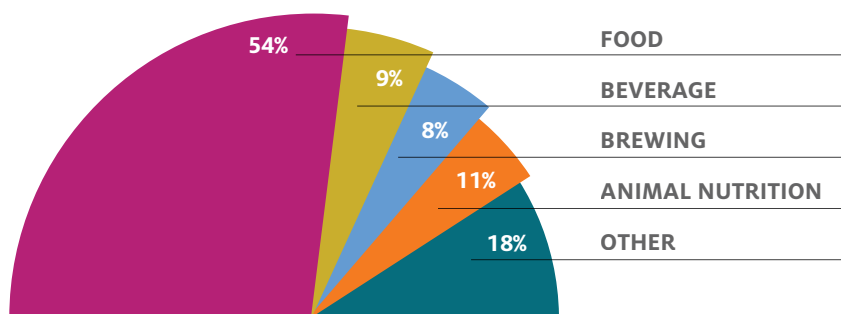


ASIA-PACIFIC

\$997MM | **\$87MM**
of net sales | operating income

Dollars in millions, except per share amounts;
 years ended December 31

	2021	% Change	2020	% Change	2019
Reported Income Statement Data					
Net sales	\$6,894	15%	\$5,987	(4)%	\$6,209
Operating income	310	(47)%	582	(12)%	664
Diluted earnings per share	1.73	(66)%	5.15	(16)%	6.13
Balance Sheet and Other Data					
Cash and cash equivalents	328		665		264
Total assets	6,999		6,858		6,040
Total debt	2,046		2,186		1,848
Total equity (including redeemable equity)	3,225		3,072		2,772
Annual dividends declared per common share	2.58		2.54		2.51
Net debt to adjusted EBITDA ratio ¹	1.9		1.7		1.7
Cash provided by operations	392		829		680
Mechanical stores expense	55		54		57
Depreciation and amortization	220		213		220
Capital expenditures and mechanical stores purchases	300		340		328

SALES (BASED ON 2021 NET SALES)


3.6%
 10-YEAR ADJUSTED
 EPS COMPOUND
 ANNUAL
 GROWTH RATE¹

10.7%
 ADJUSTED RETURN ON
 INVESTED CAPITAL¹

NET SALES
 (in millions)

'21	\$6,894
'20	\$5,987
'19	\$6,209

OPERATING INCOME
 (in millions)

'21	\$310
'20	\$582
'19	\$664

REPORTED DILUTED EARNINGS PER SHARE
 (in dollars)

'21	\$1.73
'20	\$5.15
'19	\$6.13

ADJUSTED DILUTED EARNINGS PER SHARE¹
 (in dollars)

'21	\$6.67
'20	\$6.23
'19	\$6.65

ADJUSTED RETURN ON INVESTED CAPITAL¹
 (percentage)

'21	10.7%
'20	10.8%
'19	12.1%

MARKET CAPITALIZATION as of 12/31/21
 (in billions)

'21	\$6.4
'20	\$5.3
'19	\$6.3

¹ See Financial Performance Metrics beginning on page 52 of the Annual Report on Form 10-K for a reconciliation of these metrics, which are not calculated in accordance with Generally Accepted Accounting Principles (GAAP), to the most comparable GAAP measures

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, 2021**

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number **1-13397**



Ingredion

INGREDION INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

22-3514823

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

5 Westbrook Corporate Center, Westchester, Illinois 60154

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code **(708) 551-2600**

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.01 per share	INGR	New York Stock Exchange

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

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

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

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

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

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

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

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C.7262(b)) by the registered public accounting firm that prepared or issued its audit report Yes No

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

The aggregate market value of the registrant's voting stock held by non-affiliates of the registrant on the last day of the most recently completed second fiscal quarter (based upon the per share closing price of \$90.50 as reported on the New York Stock Exchange on June 30, 2021, and, for the purpose of this calculation only, the assumption that all of the registrant's directors and executive officers are affiliates) was approximately \$6,055,000,000.

The number of shares outstanding of the registrant's common stock, par value \$0.01 per share, as of February 18, 2022 was 66,714,756

Documents Incorporated by Reference:

Information required by Part III (Items 10, 11, 12, 13 and 14) of this document is incorporated by reference to certain portions of the registrant's definitive Proxy Statement to be distributed in connection with its 2022 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2021.

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For purposes of this report, unless the context otherwise requires, all references herein to the “Company,” “Ingredient,” “we,” “us,” and “our” shall mean Ingredient Incorporated and its consolidated subsidiaries.

PART I

ITEM 1. Business

Our Company

Ingredient Incorporated (“Ingredient”) is a leading global ingredients solutions provider that transforms corn, tapioca, potatoes, plant-based stevia, grains, fruits, gums and vegetables into value-added ingredients and biomaterials for the food, beverage, brewing and other industries.

Our Purpose is to bring the potential of people, nature and technology together to make life better. We develop, produce and sell a variety of food and beverage ingredients, primarily starches and sweeteners, for a wide range of industries and we manage our operations geographically on a regional basis, with our businesses and investments classified into the following segments:

- North America – U.S., Mexico and Canada
- South America – Brazil, Argentina, Chile, Colombia, Ecuador, Peru and Uruguay
- Asia-Pacific – South Korea, Thailand, China, Australia, Japan, New Zealand, Indonesia, Singapore, the Philippines, Malaysia, India and Vietnam
- Europe, Middle East and Africa (“EMEA”) – Pakistan, Germany, Poland, the United Kingdom and South Africa

Our product lines include starches and sweeteners, animal feed products and edible corn oil. Our starch-based products include both food-grade and industrial starches, as well as biomaterials. Our sweetener products include glucose syrups, high maltose syrups, high fructose corn syrup, caramel color, dextrose, polyols, maltodextrins, and glucose and syrup solids. Our products are derived primarily from the processing of corn and other starch-based materials, such as tapioca, potato and rice.

Geographic Scope and Operations

We utilize our global network of manufacturing facilities to support key global product lines and we have focused our recent investments on expanding plant-based protein product lines, including pulse-based concentrates, flours and isolates. Our manufacturing process is based on a capital-intensive, two-step process that involves the wet-milling and processing of starch-based materials, primarily corn. During the front-end process, the starch-based materials are steeped in a water-based solution and separated into starch and co-products such as protein, fiber and germ used to produce corn oil. The starch is then either dried for sale or further processed to make starches, sweeteners and other ingredients that serve the particular needs of various industries.

Our North America region includes 22 manufacturing facilities producing a wide range of starches, sweeteners, gum acacia, peas, and fruit and vegetable concentrates. On November 3, 2020, we increased our 20 percent ownership to acquire 100 percent of the outstanding shares of Verdient Foods, Inc (“Verdient”), which is a Canada-based producer of pulse-based protein concentrates and flours from peas, lentils and fava beans for human food applications.

Our South America region includes seven manufacturing facilities that produce regular, modified, waxy tapioca starches, high fructose and high maltose syrups and syrup solids, dextrins and maltodextrins, dextrose, specialty starches, caramel color and sorbitol. On February 12, 2021, we entered into an agreement with an affiliate of Grupo Arcor, an Argentine food company, to establish Ingrear Holding S.A. (the “Arcor joint venture”), a joint venture to combine and operate five manufacturing facilities in Argentina to sell value-added ingredients to customers in the food, beverage, pharmaceutical and other industries in Argentina, Chile and Uruguay. On August 2, 2021, we and Grupo Arcor completed all closing conditions to finalize the transaction and formally establish the Arcor joint venture, which is managed by a jointly appointed team of executives.

Our Asia-Pacific region manufactures corn-based products in South Korea, China and Thailand. We also manufacture tapioca-based and rice-based products in Thailand and plant-based stevia sweetener products in Malaysia and China. We supply tapioca, rice and plant-based stevia sweetener products not only to our Asia-Pacific region, but also to the rest of our global network. The region’s operations include ten manufacturing facilities that produce modified, specialty, regular, waxy, tapioca and rice starches, dextrins, glucose, high maltose syrup, plant-based stevia sweeteners, dextrose, high fructose corn syrup and caramel color.

We are continuing to make strategic investments in Asia. On July 1, 2020, we acquired 75 percent ownership of PureCircle Limited (“PureCircle”), which is one of the leading producers and innovators of plant-based stevia sweeteners and flavors for the food and beverage industry. The acquisition brought global innovation and manufacturing expertise, which we are leveraging with our global go-to-market model, formulation capabilities and broad ingredient portfolio. On June 1, 2021, we made additional investments in stevia by entering an agreement with Amyris, Inc. (“Amyris”) for certain exclusive commercialization rights to Amyris’ rebaudioside M by fermentation product, the exclusive licensing of the product’s manufacturing technology and a 31 percent ownership stake in a joint venture for the product (the “Amyris joint venture”).

Our EMEA region includes six manufacturing facilities that produce modified and specialty starches, glucose and dextrose in Pakistan, Germany and the United Kingdom. On April 1, 2021, we acquired KaTech, a German-based provider of advanced texture and stabilization solutions to the food and beverage industry.

Additionally, we utilize a network of tolling manufacturers in various regions in the production cycle of certain specialty starches. In general, these tolling manufacturers produce certain basic starches for us and we in turn complete the manufacturing process of starches through our finishing channels.

We believe our approach to production and service, which focuses on local management and production improvements of our worldwide operations, provides us with a unique understanding of the cultures and product requirements in each of the geographic markets in which we operate. This allows us to bring added value to our customers through tailored, innovative solutions. At the same time, we believe that our corporate functions give us the ability to identify synergies and maximize the benefits of our global presence.

Products

Our portfolio of products is generally classified into the following categories: Starch Products, Sweetener Products, and Co-products and others. Within these categories, a portion of our products are considered specialty ingredients and we refer to the remainder of our products as core ingredients. We describe these three general product categories in more detail below, along with a broader discussion of specialty ingredients within the product portfolio.

Starch Products: Our starch products represented approximately 45 percent, 46 percent and 46 percent of our net sales for each of 2021, 2020 and 2019, respectively. Starches are an important component in a wide range of processed foods, where they are used for adhesion, clouding, dusting, expansion, fat replacement, freshness, gelling, glazing, mouthfeel, stabilization and texture. Cornstarch is sold to cornstarch packers for sale to consumers. Starches are also used in paper production to create a smooth surface for printed communications and to improve strength in recycled papers. Specialty starches are used for enhanced drainage, fiber retention, oil and grease resistance, improved printability and biochemical oxygen demand control. The textile industry uses starches and specialty starches for sizing (abrasion resistance) to provide size and finishes for manufactured products. Industrial starches are used in the production of construction materials, textiles, adhesives, pharmaceuticals and cosmetics, as well as in mining, water filtration, and oil and gas drilling. Specialty starches are used for biomaterial applications including biodegradable plastics, fabric softeners and detergents, hair and skin care applications, dusting powders for surgical gloves, and in the production of glass fiber and insulation.

Sweetener Products: Our sweetener products represented approximately 33 percent, 35 percent and 36 percent of our net sales for 2021, 2020 and 2019, respectively. Sweeteners include products such as glucose syrups, high maltose syrup, high fructose corn syrup, dextrose, polyols, maltodextrin, glucose syrup solids and non-GMO (genetically modified organism) syrups. Our sweeteners are used in a wide variety of food and beverage products, such as baked goods, snack foods, canned fruits, condiments, candy and other sweets, dairy products, ice cream, jams and jellies, prepared mixes, table syrups, soft drinks, fruit-flavored drinks and many others. These sweetener products also offer functionality in addition to sweetness, such as texture, body and viscosity; help control freezing points, crystallization and browning; add humectancy (ability to add moisture) and flavor; and act as binders. Our high maltose syrups speed the fermentation process, allowing brewers to increase capacity without adding capital. Dextrose has a wide range of applications in the food and confection industries, in solutions for intravenous (“IV”) and other pharmaceutical applications, and in numerous industrial applications like wallboard, biodegradable surface agents and moisture control agents. Our specialty sweeteners provide affordable, natural, reduced calorie and sugar-free solutions for our customers.

Co-products and others: Co-products and others accounted for approximately 22 percent, 19 percent and 18 percent of our net sales for 2021, 2020 and 2019, respectively. Refined corn oil (from germ) is sold to packers of cooking oil and to producers of margarine, salad dressings, shortening, mayonnaise and other foods. Corn gluten feed is sold as animal feed. Corn gluten meal is sold as high-protein feed for chickens, pet food and aquaculture. Our other products include fruit and vegetable products, such as concentrates, purees and essences, as well as pulse proteins and hydrocolloids systems and blends.

Specialty Ingredients within the product portfolio: Within our three product portfolios, we consider certain of our products to be specialty ingredients. Specialty ingredients accounted for approximately 33 percent of our net sales for 2021, up from 32 percent and 30 percent for 2020 and 2019, respectively. These ingredients deliver more functionality than our other products and add additional customer value. Our specialty ingredients are aligned with growing market and consumer trends such as health and wellness, clean-label, simple ingredients, affordability, indulgence and sustainability.

We drive growth for our specialty ingredients portfolio by leveraging the following growth platforms:

Starch-based Texturizers: These ingredients support the structure and texture behind great eating experiences. Products are made from corn, potato, rice and tapioca, and offer a multitude of textures, functionalities and stability during processing and shelf life to a broad range of food products.

Clean and Simple Ingredients: These functional ingredients address the clean label trend for finished products made with shorter lists of food ingredients that have achieved broad consumer acceptance. From food and beverages to pet food and personal care, consumers are looking for clean, simple, natural and authentic products that they can identify and trust. The broad portfolio of clean label ingredients includes starches, sweeteners, flours, nutrition ingredients, emulsifiers and fruit and vegetable concentrates.

Sugar Reduction and Specialty Sweeteners: These solutions provide sweetness or functional replacement for sugar in reduced-calorie and sugar-free foods and beverages without sacrificing quality and consistency. These specialty ingredients are made from a variety of GMO and non-GMO raw material bases and include such ingredients as plant-based stevia sweeteners, polyols, dextrose and allulose, a rare sugar.

Food Systems: These systems deliver ingredient combinations that simplify a customer’s production cycle. A food system can address an array of functional challenges including mouthfeel/texture for dairy and alternative dairy products, thickening of sauces, stabilization in high-protein drinks, gelling for fruit fillings, film formers for candy shells, foaming and frothing, adding soluble fibers and nutritional ingredients, adhering particles to breads, and emulsification of flavors.

Plant-based Proteins: These specialty pulse-based protein ingredients bring solutions made from lentils, chickpeas, fava beans and peas. They add protein, dietary fiber, micronutrients and texture to food and beverages.

Core ingredients within the product portfolio: We refer to the remainder of our starch products, sweetener products and co-products that do not fall into specialty ingredients, as defined above, as core ingredients. Core ingredients accounted for approximately 67 percent of our net sales for 2021, down from 68 percent and 70 percent in 2020 and 2019, respectively.

Competition

The starch and sweetener industry is highly competitive. Competition within our markets is largely based on product functionality, price and quality. Many of our products are viewed as basic ingredients that compete with virtually identical products and derivatives manufactured by other companies in the industry. The U.S. is a highly competitive market with operations by other starch processors, several of which are divisions of larger enterprises. Some of these competitors, unlike us, have vertically integrated their starch processing and other operations. Competitors include Archer-Daniels-Midland Company (“ADM”), Cargill, Inc. (“Cargill”), Tate & Lyle Ingredients Americas, Inc. (“Tate & Lyle”) and several others. Our operations in Mexico and Canada face competition from U.S. imports and local producers including ALMEX, a Mexican joint venture between ADM and Tate & Lyle. In South America, Cargill conducts starch processing operations in Brazil and Argentina. We also face competition from Roquette Frères S.A. (“Roquette”) primarily in our EMEA, North America and Asia-Pacific regions. Many smaller local corn and tapioca processors also operate in some of our markets.

Several of our products also compete with products made from raw materials other than corn. High fructose corn syrup and monohydrate dextrose compete principally with cane and beet sugar products. Co-products such as corn oil and gluten meal compete with products of the corn dry milling industry and with soybean oil, soybean meal and other products. Fluctuations in prices of these competing products may affect prices of, and profits derived from, our products.

Customers

We supply a broad range of customers in over 60 industries worldwide. The following table shows the approximate portion of total net sales by industry for each of the industries we served in 2021:

Industries Served	Total Ingredient	North America	South America	Asia Pacific	EMEA
Food	54%	53%	46%	58%	67%
Beverage	9	13	4	5	1
Brewing	8	8	17	3	—
Food and Beverage Ingredients	71	74	67	66	68
Animal Nutrition	11	11	17	5	7
Other	18	15	16	29	25
Total Net sales	100%	100%	100%	100%	100%

No customer accounted for 10 percent or more of our net sales in 2021, 2020 or 2019.

Raw Materials

Corn (primarily yellow dent) is the primary basic raw material we use to produce starches and sweeteners. The price of corn, which is determined by reference to prices on the Chicago Board of Trade, fluctuates as a result of various factors including: farmers’ planting decisions, climate, domestic and foreign government policies (including those related to the production of ethanol), livestock feeding, shortages or surpluses of world grain supplies and trade agreements. We use chips and slices from

potato processors as the primary raw material to manufacture potato-based starches. We also use tapioca, gum, rice, plant-based stevia, peas and sugar as raw materials. The supply of raw materials has been, and is anticipated to continue to be, adequate for our needs.

Corn is also grown in other areas of the world, including China, Brazil, Europe, Argentina, Mexico, South Africa, Canada and Pakistan. Our subsidiaries outside the U.S. utilize both local supplies of corn and corn imported from other geographic areas, including the U.S. The supply of corn for these subsidiaries is also generally expected to be adequate for our needs. Corn prices for our non-U.S. subsidiaries generally fluctuate as a result of the same factors that affect U.S. corn prices.

We also utilize specialty grains such as waxy and high amylose corn, as well as proprietary seed varieties in our operations. In general, the planning cycle for our specialty grain sourcing begins three years in advance of the anticipated delivery of the specialty corn since the necessary seed must be grown in the season before we contract to buy the grain. To secure these specialty grains at the time of our anticipated needs, we contract with certain farmers to grow the specialty corn approximately two years in advance of delivery. These specialty grains have a higher cost due to their more limited supply and require longer planning cycles to mitigate the risk of supply shortages.

Due to the competitive nature of our industry and the availability of substitute products not produced from corn, such as sugar from cane or beets, end-product prices may not necessarily fluctuate in a timely manner that correlates to raw material costs of corn.

We use derivative hedging contracts to protect the gross margin of our firm-priced business primarily in North America, and we follow a policy of hedging our exposure to commodity price fluctuations with commodities futures and options contracts primarily for certain of our North American corn purchases. Other operations may or may not be hedged at any given time based on management's judgment as to the need to fix the costs of our raw materials to protect our profitability. Outside North America, we generally enter short-term commercial sales contracts and adjust our selling prices based upon the local raw material costs. See Item 7A. Quantitative and Qualitative Disclosures about Market Risk for additional information.

Other raw materials used in our manufacturing processes include chips and slices from potato processors as the primary raw material to manufacture potato-based starches. We also use tapioca, particularly in certain of our production processes in the Asia-Pacific region. In addition to corn, potatoes, and tapioca, we use pulses, gums, rice, plant-based stevia, yellow peas and sugar as raw materials, among others.

Research and Development

Our global network of approximately 500 scientists creates innovative food solutions in 32 Ingredion Idea Labs[®] with headquarters in Bridgewater, New Jersey. Activities at Bridgewater include plant science and physical, chemical and biochemical modifications to food formulations, food sensory evaluation and development of non-food applications such as starch-based biopolymers. In addition, we have product application technology centers that direct our product development teams worldwide to create product application solutions to better serve the ingredient needs of our customers. Product development activity is focused on developing product applications for identified customer and market needs. Through this approach, we have developed value-added products for use by customers in various industries. We usually collaborate with customers to develop the desired product application either in the customers' facilities, our technical service laboratories, or on a contract basis.

Our research and development ("R&D") is supported by our marketing, product technology, and technology support staff, as well as technical support services to assist our customers with application development and co-creation. We invest in R&D and digital transformation solutions to support new product development and innovation, to enable greater value delivery to our customers, to reduce waste and lower our costs and to drive operational excellence.

Sales and Distribution

Our salaried sales personnel, who are generally dedicated to customers in a geographic region, sell our products directly to manufacturers and distributors. In addition, we have staff that provides technical support to our sales personnel on an industry basis. We generally contract with trucking companies to deliver our bulk products to customer destinations. In North America, we generally use trucks to ship to nearby customers. For those customers located considerable distances from our manufacturing facilities, we primarily use either rail or a combination of railcars and trucks to deliver our products.

Patents and Trademarks

As of December 31, 2021, we owned more than 1,800 patents and patents pending, which relate to a variety of products and processes, as well as a number of established trademarks under which we market our products. We also have the right to use other patents and trademarks pursuant to patent and trademark licenses. We do not believe that any individual patent or trademark is material to our business.

Human Capital Resources

As of December 31, 2021, Ingredion employed approximately 12,000 employees, of which, approximately 2,500 were located in the U.S. Approximately 30 percent of our worldwide employees are members of labor unions and approximately 29 percent of our U.S. employees are members of labor unions.

The following table provides additional information about our employees as of December 31, 2021:

Region	Approximate Number of Employees	Percentage of Non-unionized Employees	Percentage of Unionized Employees
North America	5,000	79	21
South America	3,000	39	61
Asia-Pacific	2,500	95	5
EMEA	1,500	62	38
Total Ingredion	12,000		

We believe that our future growth and innovation depend on a company culture that values and promotes diversity and inclusion. Our diverse and inclusive workforce fuels our high-performance culture and attracts and helps to retain top talent.

We leverage the diverse experience and skills of our Business Resource Groups ("BRGs") to help inform our business strategy. Our BRGs, such as Alliance of Black Employees, Women of Ingredion Network and PRIDE for our LGBTQ+ cohorts, are integral in maintaining and improving a culture of inclusion and belonging at Ingredion. BRGs, which we have implemented across our global operations, play an essential role in connecting employees across regions, providing them with opportunities to enhance cultural awareness and enable collaboration, and inform our strategies for a broad consumer marketplace.

In addition, we have joined the Paradigm for Parity[®] coalition, pledging our commitment to achieving gender parity in corporate leadership roles by 2030. As of December 31, 2021, women accounted for more than 25 percent of both Ingredion's Board of Directors and its Executive Leadership team. We have committed under the Paradigm for Parity Action Plan to significantly increase the number of women in senior operating roles.

Additionally, Ingredion has been included for five years in the Bloomberg Gender-Equality Index ("GEI"), a modified market capitalization-weighted index that aims to track the performance of public companies committed to transparency in gender-data reporting. This reference index measures gender equality across five pillars: female leadership & talent pipeline, equal pay & gender pay parity, inclusive culture, anti-sexual harassment policies and pro-women brand. The 2022 GEI included 418 companies

across 45 countries and regions, including firms headquartered in Colombia and Uruguay for the first time.

To continue to attract, develop and retain top talent, Ingredion employs a variety of tools and strategies to assess capabilities, identify skills gaps and provide growth and advancement opportunities based on the needs of the business and our employees. Our total approach to compensation and benefits rewards our employees based on their respective overall contribution to the business. In addition, we regularly assess employee engagement levels and proactively seek continuous improvement in the workplace.

Government Regulation

As a manufacturer and marketer of food items and items for use in the pharmaceutical industry, our operations and the use of many of our products are subject to various federal, state, foreign and local statutes and regulations, including the Federal Food, Drug and Cosmetic Act and the Occupational Safety and Health Act. We and many of our products are also subject to regulation by various government agencies, including the U.S. Food and Drug Administration. Among other things, applicable regulations prescribe requirements and establish standards for product quality, purity and labeling. Failure to comply with one or more regulatory requirements can result in a variety of sanctions, including monetary fines. No such fines of a material nature were imposed on us in 2021. We may also be required to comply with federal, state, foreign and local laws regulating food handling and storage. We believe these laws and regulations have not negatively affected our competitive position.

Our operations are also subject to various federal, state, foreign and local laws and regulations for environmental matters, including air and water quality, as well as other regulations intended to protect public health and the environment. We operate industrial boilers that fire natural gas, coal, or biofuels to operate our manufacturing facilities. Those boilers, along with product dryers, are our primary source of greenhouse gas emissions.

During 2021, we spent approximately \$27 million for environmental control and wastewater treatment equipment to be incorporated into existing facilities and in planned construction projects. We currently anticipate that we will invest approximately \$29 million for environmental facilities and programs in 2022.

Based on current laws and regulations and their enforcement and interpretation, we do not expect that the costs of future environmental compliance will be a material expense, although there can be no assurance that we will remain in compliance or that the costs of remaining in compliance will not have a material adverse effect on our future financial condition and results of operations.

Additional Information

Our Internet address is www.ingredion.com. We make available, free of charge through our Internet website, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. These reports are made available as soon as reasonably practicable after we electronically file them with or furnish them to the Securities and Exchange Commission. Our corporate governance guidelines, board committee charters and code of ethics are posted on our website, the address of which is www.ingredion.com, and will be made available in print without charge to any stockholder upon request in writing to Ingredion Incorporated, 5 Westbrook Corporate Center, Westchester, Illinois 60154, Attention: Corporate Secretary. The information on, or accessible through, our website is not a part of, and is not incorporated by reference into, this report.

Information about our Executive Officers

Set forth below, as of January 31, 2022, is information about all of our executive officers, indicating their positions and offices with Ingredion and other business experience. Our executive officers are elected

annually by the Board to serve until the next annual election of officers and until their respective successors have been elected and have qualified, or until their earlier resignation or removal by the Board.

James P. Zallie, 60

President and Chief Executive Officer since January 1, 2018. Prior to assuming his current position, Mr. Zallie served as Executive Vice President, Global Specialties and President, Americas from January 2016 to December 2017. Mr. Zallie previously served as Executive Vice President, Global Specialties and President, North America and EMEA from January 2014 to December 2015; Executive Vice President, Global Specialties and President, EMEA and Asia-Pacific from February 2012 to January 2014; and Executive Vice President and President, Global Ingredient Solutions from October 2010 to January 2012. Mr. Zallie previously served as President and Chief Executive Officer of the National Starch business from January 2007 to September 2010, when it was acquired by Ingredion. Mr. Zallie worked for National Starch for more than 27 years in various positions of increasing responsibility, progressing from technical to marketing and international business management positions. Mr. Zallie also serves as a director of Sylvamo Corporation, a global producer of uncoated papers and as a director of Northwestern Medicine Lake Forest Hospital, a not-for-profit organization. Mr. Zallie earned a bachelor's degree in food science from Pennsylvania State University and both a master's degree in food science and technology and a master's degree in finance from Rutgers University.

Valdirene Bastos-Licht, 54

Senior Vice President and President, APAC and Global Head of Pharma, Home and Beauty since October 1, 2020. Previously, Ms. Bastos-Licht served as Senior Vice President and President, Asia-Pacific from March 2018 to September 2020. Ms. Bastos-Licht served as Senior Vice President, Asia-Pacific of Solvay SA's Euro Novocare operation, from August 2012 to February 2018. Solvay is a Belgian leader in the specialty chemical industry. The Euro Novocare operation provides chemicals for home and personal care, agriculture, coatings, oil and gas, and industrial applications. Prior to that, she served as Vice President and General Manager – Brazil of Cardinal Health Nuclear Pharmacy – Brazil from August 2011 to August 2012. Ms. Bastos-Licht began her career with BASF, a producer of chemicals and related products, where she spent 21 years in various positions of increasing complexity in IT, operational and strategic supply chain and global strategic and operational marketing, most recently serving as Vice President, General Manager Care Chemicals Division – South America. Ms. Bastos-Licht holds both a bachelor's and a licensing degree in mathematics from Fundacao Santo Andre in Brazil and a Master of Science degree in management from the MIT Sloan School of Management.

Larry Fernandes, 57

Senior Vice President and Chief Commercial & Sustainability Officer of Ingredion since July 17, 2018. Prior to assuming his current position, Mr. Fernandes served as Senior Vice President and Chief Commercial Officer since March 2018. Previously, Mr. Fernandes served as President and General Director, Mexico from January 2014 to February 2018; Vice President and General Manager, U.S./Canada from May 2013 to December 2013; Vice President, Global Beverage and General Manager, Sweetener and Industrial Solutions, U.S./Canada from November 2011 to April 2013; and Vice President Food and Beverage Markets from October 2009 to October 2011. Prior to that, he served in several roles of increasing responsibility in the Commercial organization from May 1990 to September 2009. Prior to joining Ingredion, Mr. Fernandes worked at QuakerChem Canada Ltd. as a Technical Sales Manager. Mr. Fernandes was a member of the executive board of Nueva Vision para el Desarrollo Agroalimentario de Mexico A.C. (Mexican representation of a New Vision for Agriculture, a global initiative of the World Economic Forum) and a member of the executive board of IDAQUIM (representing Corn Refining in Mexico). Mr. Fernandes was also a member of the board of directors of the Corn Refiners Association (CRA) and the board of directors of the International Stevia Council (ISC). Mr. Fernandes holds a bachelor's degree in chemical engineering with a minor in accounting from McGill University in Montreal, Canada.

David M. Gable, 55

Vice President and Corporate Controller since October 1, 2021. Ms. Gable joined Ingredion from Wayfair Inc., an e-commerce company,

where she served as Head of Global Accounting and External Reporting from August 2020 to September 2021. Prior to her service in that position, she was Assistant Controller and Chairperson of the SEC Disclosure Committee at AK Steel Holdings Corporation from May 2013 to July 2020. Ms. Gable also served as Director, Finance and Planning, for Convergys Corporation, a provider of business process outsourcing services, from January 1997 to July 2003. She began her career at Deloitte, a global provider of audit and related services, in Chicago before joining The Quaker Oats Company, a manufacturer of grain-based foods and other food and beverage products, in Corporate Accounting and Treasury. Ms. Gable holds a bachelor's degree in accounting from Indiana University and a master's degree from the Kellogg School of Management, Northwestern University. Ms. Gable is both a Certified Public Accountant and a Certified Treasury Professional.

James D. Gray, 55

Executive Vice President and Chief Financial Officer since March 1, 2017. Prior to assuming his current position, he served as Vice President, Corporate Finance and Planning, from April 2016 to February 2017. Mr. Gray previously served as Vice President, Finance, North America from January 2014, when he joined Ingredion, to March 2016. Prior to that service, Mr. Gray was employed by PepsiCo, Inc. from December 2004 to January 2014. He served as Chief Financial Officer, Gatorade division and Vice President Finance of PepsiCo, Inc. from August 2010 to January 2014 and as Vice President Finance PepsiCo Beverages North America from December 2004 to August 2010. Mr. Gray holds a bachelor's degree in business administration from the University of California, Berkeley and a master's degree from the Kellogg School of Management, Northwestern University.

Tanya Jaeger de Foras, 51

Senior Vice President, Chief Legal Officer, Corporate Secretary and Chief Compliance Officer since November 2021. Prior to joining Ingredion, Ms. Jaeger de Foras was a leader in the global law department of Whirlpool Corporation, a leading kitchen and laundry appliance company, first serving as Chief Legal Officer for its EMEA business unit since 2015 and based in Italy. In 2019, Ms. Jaeger de Foras was appointed Deputy General Counsel and Chief Compliance Officer and relocated to the company's global headquarters in Benton Harbor, Michigan. From 2012 to 2015, Ms. Jaeger de Foras served as Deputy General Counsel at Luxottica S.p.A (now EssilorLuxottica), an international designer, manufacturer and distributor of ophthalmic lenses, frames and sunglasses, as well as EMEA Regional General Counsel. Ms. Jaeger de Foras previously worked for ten years at Pfizer, Inc., a leading pharmaceutical and biotechnology company, holding roles of increasing responsibility leading to her appointment as Assistant General Counsel and Chief Counsel for the company's \$7 billion specialty care European business unit. Jaeger de Foras began her legal career at law firm Sullivan & Cromwell LLP, an international law firm, in New York and Paris. Ms. Jaeger de Foras earned a bachelor's degree in foreign service from Georgetown University and a J.D. from Harvard Law School.

Jorgen Kokke, 53

Executive Vice President and President, Americas since October 2020. Prior to assuming his current position, Mr. Kokke served as Vice President, Global Specialties and President, North America from February 2018 until September 2020. Mr. Kokke previously served as Senior Vice President and President, Asia-Pacific and EMEA from January 2016 to February 2018. Previously, Mr. Kokke served as Senior Vice President and President, Asia-Pacific from September 2014 to December 2015 and as Vice President and General Manager, Asia-Pacific from January 2014 to September 2014. Prior to that role, Mr. Kokke served as Vice President and General Manager, EMEA since joining National Starch (acquired by Ingredion October 2010) in March 2009. He earlier served as a Vice President of CSM NV, a global food ingredients supplier, where he had responsibility for the global Purac Food & Nutrition business from 2006 to 2009 and as Director of Strategy and Business Development at CSM NV. Prior to that service, he held a variety of roles of increasing responsibility in sales, business development, marketing and general management in Unilever's Lodders Crocklaan Group, an international oil and fats business. Mr. Kokke holds a master's degree in economics from the University of Amsterdam.

Pierre Perez y Landazuri, 53

Senior Vice President, Corporate Strategy, Specialties and President EMEA since September 22, 2021. Prior to assuming his current position, Mr. Perez y Landazuri served as Senior Vice President Texture, Protein & Performance Specialties and President EMEA from January 2021 to September 2021. Previously, Mr. Perez y Landazuri served as Senior Vice President and President, EMEA from January 2018 to January 2021 and as Vice President and General Manager, EMEA for Ingredion's subsidiary, Ingredion Germany GmbH, from April 2016 to December 2017. Before joining Ingredion, Mr. Perez y Landazuri was employed by CP Kelco, a global producer of specialty hydrocolloid ingredients, from September 2000 to March 2016. He most recently served as Vice President, Asia-Pacific from January 2014 to March 2016 in Shanghai, China and Singapore. Prior to those roles, he served as Vice President & General Manager, Asia-Pacific from June 2011 to December 2013 and as Marketing & Strategy Director from January 2010 to May 2011 in Shanghai. Mr. Perez y Landazuri previously held a number of marketing, sales and product management roles at CP Kelco, a nature-based ingredient solutions company, in Paris, France. Early in his career, he was employed by chemical companies Rohm and Haas, BASF and Hercules in sales, marketing and engineering positions. Mr. Perez y Landazuri holds a master's degree in chemical process engineering from ENSCP Graduate School of Chemistry (now Chimie ParisTech) in Paris, France.

Eric Seip, 54

Senior Vice President, Global Operations and Chief Supply Chain Officer since January 11, 2021. In this role, Mr. Seip leads global manufacturing, supply chain and procurement excellence while driving world-class safety, delivering cost savings through efficiency management and accelerating digital transformation. Additionally, Mr. Seip develops, implements and maintains supply chain strategies to ensure the continued identification and assimilation of innovative thinking and best practices. Mr. Seip brings more than 30 years of global operations and supply chain experience in asset expansions, integrations, turnarounds, operations strategy, Lean Six Sigma and change management. Before joining Ingredion, Mr. Seip was senior vice president, global procurement and supply chain at ChampionX (formerly Ecolab), a global oil and gas services company, where he was responsible for more than 30 chemical plants. Mr. Seip holds a bachelor's degree in chemistry from the University of Pittsburgh and earned a master's degree in finance from Pepperdine University.

Nancy Wolfe, 53

Senior Vice President and Chief Human Resources Officer since January 24, 2022. Ms. Wolfe brings more than 20 years of extensive experience to the position from her service in senior-level HR roles at Bayer Crop Science (formerly Monsanto), including Senior Vice President, Human Resources from June 2018 to January 2022 and Vice President and Chief of Staff from August 2013 through June 2018. At Bayer Crop Science, Ms. Wolfe developed business transformation and global restructuring plans that drove significant cost improvements and growth. Ms. Wolfe serves as vice chair of the board of directors for The Boys & Girls Clubs of Greater St. Louis and is a member of Washington University's Olin Business School Alumni Board. Ms. Wolfe holds a bachelor's degree in finance and a bachelor's degree in business administration from Illinois State University and earned a master's degree from Washington University in St. Louis.

Jeremy Xu, 54

Senior Vice President and Chief Innovation Officer since October 1, 2020. Prior to joining Ingredion, Mr. Xu worked for Royal DSM, a multinational corporation active in fields of health, nutrition and materials, from May 2016 to September 2020. At that company, he served as President, Human Nutrition and Health, a multibillion-dollar global business unit including vitamins, carotenoids, nutritional lipids and nutraceuticals, and was based in Basel, Switzerland. Prior to that role, Mr. Xu worked for DuPont, a leading global manufacturer of chemicals, electronic and communication technologies, performance materials, coatings and color technologies, safety and protection materials, and agriculture and nutrition ingredients, from April 2007 to April 2016 and from May 2000 to April 2006 in a variety of management roles in both the United States and China. Mr. Xu has a bachelor's degree in biology and bioengineering from Zhejiang University in Hangzhou, China, a master's degree in plant physiology from The Chinese University of Hong Kong, a doctorate in

biochemistry and molecular biology from Purdue University and a Master of Business Administration degree from Purdue University. Mr. Xu speaks English, Mandarin and Cantonese.

ITEM 1A. Risk Factors

Our business and assets are subject to varying degrees of risk and uncertainty. The following are factors that we believe could cause our actual results to differ materially from expected and historical results. Additional risks that are currently unknown to us or that we currently view as immaterial may also impair our business or adversely affect our financial condition or results of operations. In addition, forward-looking statements within the meaning of the federal securities laws that are contained in this Form 10-K or in our other SEC filings or public statements may be subject to the risks described below as well as other risks and uncertainties. See the cautionary notice regarding forward-looking statements in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Risks Related to Our Business and Our Industry

The continued spread of coronavirus disease 2019 ("COVID-19"), is adversely affecting, and is expected to continue to adversely affect, demand for our products and our financial results.

In December 2019, a novel strain of COVID-19 was reported to have surfaced in Wuhan, China. COVID-19 has since spread to over 100 countries, including every state in the United States. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic and on March 13, 2020, the U.S. declared a national emergency with respect to COVID-19.

Our global operations expose us to risks associated with COVID-19. We continue to monitor the health of the employees in each of our 45 manufacturing facilities, domestically and outside the U.S., as COVID-19-related illness at a particular location could impact continued manufacturing operations at that location.

Foreign governmental organizations and governmental organizations at the national, state and local levels in the U.S. have taken various actions to combat the spread of COVID-19, including, from time to time, imposing stay-at-home orders that effectively close "non-essential" businesses and their operations. Because we manufacture food ingredients, our operations are currently considered "essential" under most current COVID-19 government regulations, thus permitting us to continue operations at our facilities and sales activities consistent with those regulations.

Certain of our customers, however, have been deemed to be "non-essential" industries and businesses under governmental regulations. The industries and businesses deemed "non-essential" vary by country and region. For example, Mexico declared one or more brewing producers as "non-essential" industries for a period of time during the pandemic in 2020. Our customers in affected industries are not able to produce goods during the government-mandated closures, which could adversely affect customer demand for our products. Further, government-enacted stay-at-home orders have significantly limited the end-consumers' ability in the U.S. and foreign markets to purchase certain food or beverage products due to limitations on the operations of restaurants, bars and regionally specific sales channels. We expect that, to the extent that these limitations continue to be imposed from time to time, such limitations could continue to negatively affect customer demand for our products, further impacting our revenues and our operating results. Further, any inability by our customers to produce goods may delay our customers' ability to pay outstanding receivables, which would adversely impact our cash flow from operations and working capital.

In addition, COVID-19 has impacted and may further impact the broader economies of affected countries, including negatively affecting economic growth, the proper functioning of financial and capital markets, foreign currency exchange rates and interest rates. Such risks include, in addition to those described above, negative impacts on our cost of and access to capital, pressure to extend our customers' payment terms, insolvency of our customers resulting in increased provisions for credit losses and

counterparty failures in our supply chain, customer network or otherwise that would negatively impact our operations. These risks individually and in the aggregate could have a material adverse effect on our operating results, financial condition, cash flows and prospects.

Changes in consumer preferences and perceptions may lessen the demand for our products, which could reduce our sales and profitability and harm our business.

Food products are often affected by changes in consumer tastes, national, regional and local economic conditions and demographic trends. For instance, changes in prevailing health or dietary preferences causing consumers to avoid food products containing sweetener products, including high fructose corn syrup, in favor of foods that are perceived as being healthier, could materially reduce our sales and profitability. Increasing concern among consumers, public health professionals and government agencies about the potential health concerns associated with obesity and inactive lifestyles (reflected, for instance, in taxes designed to combat obesity, which have been imposed recently in North America) represent a significant challenge to some of our customers, including those engaged in the food and soft drink industries, and could materially affect demand for our products.

Current economic conditions may adversely impact demand for our products, reduce access to credit, affect investment returns and cause our customers and others with whom we do business to suffer financial hardship, all of which could adversely impact our business, results of operations, financial condition and cash flows.

Economic conditions in South America, the European Union and many other countries and regions in which we do business have experienced various levels of weakness over the last few years and may continue to do so for the foreseeable future. General business and economic conditions that could affect us include barriers to trade (including as a result of tariffs, duties and border taxes, among other factors), the strength of the economies in which we operate, unemployment, inflation and fluctuations in debt markets. While currently these conditions have not impaired our ability to access credit markets and finance our operations, we are subject to the risk of a further deterioration in the financial markets.

There could be a number of other effects from these economic developments on our business, including reduced consumer demand for products, pressure to extend our customers' payment terms, insolvency of our customers resulting in increased provisions for credit losses, decreased customer demand, including order delays or cancellations and counterparty failures negatively impacting our operations.

In connection with our defined benefit pension plans, adverse changes in investment returns earned on pension assets and discount rates used to calculate pension and related liabilities or changes in required pension funding levels may have an unfavorable impact on future pension expenses and cash flows.

In addition, volatile worldwide economic conditions and market instability may make it difficult for us, our customers and our suppliers to accurately forecast future product demand trends, which could cause us to produce excess products that could increase our inventory carrying costs. Alternatively, this forecasting difficulty could cause a shortage of products that could result in an inability to satisfy demand for our products.

Our reliance on certain industries for a significant portion of our sales could have a material adverse effect on our business.

Of our 2021 net sales, approximately 54 percent were generated by sales to the food industry, 9 percent by sales to the beverage industry, 11 percent by sales to the animal nutrition industry, 8 percent by sales to the brewing industry and the remaining 18 percent by sales to other industries. If our food customers, beverage customers, animal feed customers, or brewing industry customers were to substantially decrease their purchases, our business might be materially adversely affected.

The uncertainty of acceptance of products developed through biotechnology could affect our profitability.

The commercial success of agricultural products developed through biotechnology, including genetically modified corn, depends in part on public acceptance of their development, cultivation, distribution and consumption. Public attitudes can be influenced by claims that genetically modified products are unsafe for consumption or that they pose unknown risks to the environment, even if such claims are not based on scientific studies. These public attitudes can influence regulatory and legislative decisions about biotechnology. The sale of our products, which may contain genetically modified corn, could be delayed or impeded because of adverse public perception regarding the safety of our products and the potential effects of these products on human health, the environment and animals.

Our future growth could be negatively impacted if we fail to continue introducing innovative new products and services.

A significant portion of our growth depends on innovation in products, processes and services. Our R&D efforts may not result in new products and services at a rate or of a quality sufficient to gain market acceptance.

It may be difficult to preserve operating margins and maintain market share in the highly competitive environment in which we operate.

We operate in a highly competitive environment. Competition in markets in which we compete is largely based on price, quality and product availability. Unexpected surges in customer demand may affect production planning and product availability. Many of our products compete with virtually identical or similar products manufactured by other companies in the starch and sweetener industry. In the U.S., our competitors include divisions of larger enterprises that have greater financial resources than we do. Some of these competitors, unlike us, have vertically integrated their corn refining and other operations. Many of our products also compete with products made from raw materials other than corn, including cane and beet sugar. Fluctuation in prices of these competing products may affect prices of, and profits derived from, our products. In addition, government programs supporting sugar prices indirectly impact the price of corn sweeteners, especially high fructose corn syrup. Furthermore, co-products such as corn oil and gluten meal compete with products of the corn dry milling industry and with soybean oil, soybean meal and other products, the price of some of which may be affected by government programs such as tariffs or quotas.

Due to market volatility, we may be unable to pass potential increases in the cost of corn and other raw materials on to customers through product price increases, or to purchase quantities of corn and other raw materials at prices sufficient to sustain or increase our profitability.

The price and availability of corn and other raw materials are subject to volatility as a result of economic and industry conditions, including supply and demand factors such as crop disease and severe weather conditions that include drought, floods, frost and ocean currents. These conditions are difficult to anticipate, are beyond our control and could adversely impact our profitability by affecting the prices we pay for raw materials.

Raw material and energy price fluctuations, and supply interruptions and shortages could adversely affect our results of operations.

Our finished products are made primarily from corn. Purchased corn and other raw material costs account for between 40 percent and 70 percent of finished product costs. Some of our products are based upon specific varieties of corn that are produced in significantly less volumes than yellow dent corn. These specialty grains are higher-cost due to their more limited supply and require planning cycles of up to three years in order for us to receive our desired amounts of specialty corn. We also

manufacture certain starch-based products from potatoes. Our current potato starch requirements constitute a material portion of the total available North American supply. It is possible that, in the long term, continued growth in demand for potato starch-based ingredients and new product development could result in capacity constraints. Also, we utilize tapioca in the manufacturing of starch products primarily in Thailand, as well as pulses, gum, rice, plant-based stevia and other raw materials around the world. A significant supply disruption or sharp increase in any of these raw material prices that we are unable to recover through pricing increases to our customers could have an adverse impact on our growth and profitability, especially if such an event disproportionately affects us as compared to our competitors.

Our business could be adversely affected by fluctuations in our energy costs, which represented approximately 8 percent of our finished product costs in 2021. We use energy primarily to create steam required for our production processes and to dry products. We consume natural gas, electricity, coal, fuel oil, wood and other biomass sources to generate energy.

The market prices for our raw materials may vary considerably depending on supply and demand, world economies, trade agreements and tariffs and other factors. We purchase these commodities based on our anticipated usage and future outlook for these costs. We may not be able to purchase these commodities at prices that we can adequately pass on to customers, which could have an adverse impact on our growth and profitability.

In North America, we sell a large portion of our finished products derived from corn at firm prices established in supply contracts typically lasting for a period of one year. In order to minimize the effect of volatility in the cost of corn related to these firm-priced supply contracts, we enter into corn futures and options contracts, or take other hedging positions in the corn futures market. These derivative contracts typically mature within one year. At expiration, we settle the derivative contracts at a net amount equal to the difference between the then-current price of the commodity and the derivative contract price. The fluctuations in the fair value of these hedging instruments may adversely affect our cash flow. We fund any unrealized losses or receive cash for any unrealized gains on futures contracts on a daily basis. While the corn futures contracts or hedging positions are intended to minimize the effect of volatility of corn costs on operating profits, the hedging activity can result in losses, some of which may be material. In addition, our hedging activities may not be fully successful in limiting the effect of volatility in the cost of corn.

An inability to contain costs could adversely affect our future profitability and growth.

Our future profitability and growth depend on our ability to contain operating costs and per unit product costs and to maintain and implement effective cost control programs, while also maintaining competitive pricing and superior quality products, customer service and support. Our ability to maintain a competitive cost structure depends on continued containment of manufacturing, delivery and administrative costs, as well as the implementation of cost-effective purchasing programs for raw materials, energy and related manufacturing requirements.

If we are unable to contain our operating costs and maintain the productivity and reliability of our production facilities, our profitability and growth could be adversely affected.

Global climate change and legal, regulatory, or market measures to address climate change, may negatively affect our business, operations and financial results.

We are subject to risks associated with the long-term effects of climate change on the global economy and on our industry in particular. Extreme weather and natural disasters within or outside the United States, such as drought, wildfires, storms, changes in ocean currents and flooding, could make it more difficult and costly for us to manufacture and deliver our products to our customers, obtain raw materials from our suppliers, or perform other critical corporate functions. In particular, if such climate change impacts negatively affect agricultural productivity, we may be

subject to decreased availability or less favorable pricing from certain commodities that are necessary for our products, such as corn, specialty grains, rice, plant-based stevia, peas and sugar. Adverse weather conditions and natural disasters could reduce crop size and crop quality, which could reduce our supplies of raw materials, lower recoveries of usable raw materials, increase the prices of our raw materials, increase our costs of storing and transporting raw materials, or disrupt production schedules. Our manufacturing operations also could be adversely affected by reduced water availability resulting from droughts.

There is a growing societal concern that carbon dioxide and other greenhouse gases in the atmosphere may have an adverse effect on global temperatures, weather patterns and the frequency and severity of natural disasters. The increasing concern over climate change could result in new domestic or international legal requirements for us to reduce greenhouse gas emissions and other environmental impacts of our operations, improve our energy efficiency, or undertake sustainability measures that exceed those we currently pursue. Furthermore, such measures may result in the taxation of greenhouse gas emissions. Any such regulatory requirements could cause disruptions in the manufacture of our products and result in increased capital, procurement, manufacturing and distribution costs. Our reputation and brand could be harmed if we fail, or are seen as having failed, to respond responsibly and effectively to changes in legal and regulatory measures adopted to address climate change.

In addition, changing customer preferences may result in increased demands regarding packaging materials and other components in our products and their environmental impact on sustainability. Further, customers may place increasing importance on purchasing products that are sustainably grown and made, requiring us to incur additional costs for increased due diligence and reporting. These demands may cause us to incur additional costs or make other changes to other operations to respond to such demands, which could adversely affect our financial results.

We may not successfully identify and complete acquisitions or strategic alliances on favorable terms or achieve anticipated synergies relating to any acquisitions or alliances and such transactions could result in unforeseen operating difficulties and expenditures and require significant management resources.

We regularly review potential acquisitions of complementary businesses, technologies, services, or products, as well as potential strategic alliances. We may be unable to find suitable acquisition candidates or appropriate partners with which to form partnerships or strategic alliances. Even if we identify appropriate acquisition or alliance candidates, we may be unable to complete such acquisitions or alliances on favorable terms, or at all. In addition, the process of integrating an acquired business, technology, service, or product into our existing business and operations may result in unforeseen operating difficulties and expenditures. Integration of an acquired company may also require significant management resources that otherwise would be available for ongoing development of our business. Moreover, we may not realize the anticipated benefits of any acquisition or strategic alliance and such transactions may not generate anticipated financial results. Future acquisitions could also require us to issue equity securities, incur debt, assume contingent liabilities, or amortize expenses related to intangible assets, any of which could harm our business.

Operating difficulties at our manufacturing facilities could adversely affect our operating results.

Producing starches and sweeteners through corn refining is a capital-intensive industry. We conduct preventive maintenance and de-bottlenecking programs at our 45 manufacturing facilities designed to maintain and improve grind capacity and facility reliability. If we encounter operating difficulties at a facility for an extended period of time or start-up problems with any capital improvement projects, we may not be able to meet a portion of our sales order commitments and could incur significantly higher operating expenses, both of which could adversely affect our operating results. We also use boilers to generate steam required in our production processes. An event that impaired

the operation of a boiler for an extended period of time could have a significant adverse effect on the operations of any manufacturing facility in which such event occurred.

In addition, we are subject to risks related to such matters as product safety and quality; compliance with environmental, health and safety and food safety regulations; and customer product liability claims. The liabilities that could result from these risks may not always be covered by, or could exceed the limits of, our insurance coverage related to product liability and food safety matters. In addition, negative publicity caused by product liability and food safety matters may damage our reputation. The occurrence of any of the matters described above could adversely affect our revenues and operating results.

We operate a multinational business subject to the economic, political and other risks inherent in operating in foreign countries and with foreign currencies.

We have operated in foreign countries and with foreign currencies for many years. Our results are subject to foreign currency exchange fluctuations. Our operations are subject to political, economic and other risks. There has been and continues to be significant political uncertainty in some countries in which we operate. Economic changes, terrorist activity and political unrest may result in business interruption or decreased demand for our products. Protectionist trade measures and import and export licensing requirements could also adversely affect our results of operations.

We primarily sell products derived from world commodities. Historically, we have been able to adjust local prices relatively quickly to offset the effect of local currency depreciation versus the U.S. dollar, although we cannot guarantee our ability to do this in the future. The anticipated strength in the U.S. dollar may continue to involve risks, as it could take us an extended period of time to fully recapture the impact of a loss of foreign currency value versus the U.S. dollar, particularly in South America.

We may hedge transactions that are denominated in a currency other than the currency of the operating unit entering into the underlying transaction. Our hedging activities may not be fully successful in limiting the adverse impacts of our currency risks.

Our profitability could be negatively impacted if we fail to maintain satisfactory labor relations.

As of December 31, 2021, approximately 30 percent of our worldwide employees and approximately 29 percent of our U.S. employees were members of labor unions. Strikes, lockouts, or other work stoppages or slowdowns involving our unionized employees, or attempts to organize for collective bargaining purposes among nonunionized employees, could have a material adverse effect on our business.

The inability for us to attract, develop, retain, motivate, and maintain good relationships with our workforce, including key personnel, could negatively impact our business and our profitability.

Our future success depends on our ability to attract, develop, retain, motivate, and maintain good relationships with qualified personnel, particularly those who have extensive expertise in the ingredients solutions industry and who may also have long service with our company. We have such personnel in our senior executive leadership as well as in other key areas throughout our U.S. and international operations such as manufacturing, sales, and innovation, all of which are critical to our future growth and profitability. We face intensive competition in retaining and hiring individuals with the requisite expertise, both within and outside the ingredients solutions industry, including from companies with greater resources than ours.

Changes in labor markets as a result of COVID-19 and other socioeconomic and demographic changes, have increased the competition for hiring and retaining talent. As a result of this competition, we may be unable to continue to attract, develop, retain,

motivate, and maintain good relationships with suitably qualified individuals at acceptable compensation levels who have the managerial, operational, and technical knowledge and experience to meet our needs. Furthermore, the failure to execute on internal succession plans or to effectively transfer knowledge from exiting employees to others in the organization could adversely affect our business and results of operations. Even if we succeed in hiring new personnel to fill vacancies, lengthy training and orientation periods might be required before new employees are able to achieve necessary productivity levels. Any failure by us to attract, develop, retain, motivate, and maintain good relationships with qualified individuals could adversely affect our business and results of operations.

Natural disasters, war, acts and threats of terrorism, pandemics and other significant events could negatively impact our business.

The economies of any countries in which we sell or manufacture products or purchase raw materials could be affected by natural disasters. Such natural disasters could include, among others, earthquakes, floods, or severe weather conditions; war, acts of war or terrorism; or the outbreak of an epidemic or pandemic such as COVID-19. Any such natural disaster could result in disruptions to operations, asset write-offs, decreased sales and overall reduced cash flows.

The recognition of impairment charges on goodwill or long-lived assets could adversely impact our future financial position and results of operations.

We have \$1.3 billion of total net intangible assets as of December 31, 2021, consisting of \$914 million of goodwill and \$434 million of other net intangible assets, which constitute 13 percent and 6 percent, respectively, of our total assets as of such date. Additionally, we have \$2.8 billion of long-lived assets, or 40 percent of our total assets, as of December 31, 2021.

We perform an annual impairment assessment for goodwill and our indefinite-lived intangible assets and as necessary for other long-lived assets. If the results of such assessments were to show that the fair value of these assets were less than the carrying values, we could be required to recognize a charge for impairment of goodwill or long-lived assets and the amount of the impairment charge could be material. We continue to monitor our reporting units in struggling economies and recent acquisitions for circumstances affecting these businesses that may negatively impact the fair value of these reporting units.

In addition, during the year ended December 31, 2021, we recorded an impairment of \$340 million related to net assets contributed to a joint venture in South America. Of the impairment, \$311 million was related to the write-off of cumulative translation losses associated with the contributed net assets and \$29 million was related to the write-down to fair value of the contributed net assets to fair value. See Note 5 of the Notes to the Consolidated Financial Statements for additional information.

The future occurrence of a potential indicator of impairment, such as a significant adverse change in the business climate that would require a change in our assumptions or strategic decisions made in response to economic or competitive conditions, could require us to perform an assessment prior to the next required assessment date of July 1, 2022.

Our profitability may be affected by other factors beyond our control.

Our operating income and ability to sustain or increase profitability depend to a large extent upon our ability to price finished products at a level that will cover manufacturing and raw material costs and provide an acceptable profit margin. Our ability to maintain appropriate price levels is determined by a number of factors largely beyond our control, such as aggregate industry supply and market demand, which may vary from time to time, and the economic conditions of the geographic regions in which we conduct our operations.

Risks Related to Our Regulatory Compliance

Government policies and regulations could adversely affect our operating results.

Our operating results could be affected by changes in trade, monetary and fiscal policies, laws and regulations, and other activities of the U.S. and foreign governments, agencies and similar organizations. These conditions include, among others, changes in a country's or region's economic or political conditions, modification or termination of trade agreements or treaties promoting free trade, creation of new trade agreements or treaties, trade regulations affecting production, pricing and marketing of products, local labor conditions and regulations, reduced protection of intellectual property rights, changes in the regulatory or legal environment, restrictions on currency exchange activities, currency exchange rate fluctuations, burdensome taxes and tariffs, and other trade barriers. International risks and uncertainties, including changing social and economic conditions as well as terrorism, political hostilities and war, could limit our ability to transact business in these markets and could adversely affect our revenues and operating results. Furthermore, the national and global regulation or taxation of greenhouse gas emissions could negatively affect our business, operations and financial results.

Our operations could be adversely affected by actions taken in connection with cross-border disputes by the governments of countries in which we conduct business.

Changes in our tax rates or exposure to additional income tax liabilities could impact our profitability.

We are subject to income taxes in the U.S. and in foreign jurisdictions. Our effective tax rates could be adversely affected by changes in the mix of earnings by jurisdiction, changes in tax laws, or tax rates changes in the valuation of deferred tax assets and liabilities and material adjustments from tax audits.

The recoverability of our deferred tax assets is dependent upon our ability to generate future taxable income. In addition, we are subject to ongoing audits in various jurisdictions and final determinations of prior-year tax liabilities are dependent upon many factors, including negotiations and dispute resolutions with tax authorities. The outcome of these final determinations could have a material effect on our profitability and cash flows.

Pillar One and Pillar Two of the base erosion and profit shifting ("BEPS") project undertaken by the Organisation for Economic Cooperation and Development ("OECD") could result in significant tax law changes in jurisdictions in which we do business. An OECD-led coalition of countries is contemplating changes to long-standing international tax norms that determine each country's right to tax cross-border transactions. These contemplated changes, if adopted by countries in which we do business, could increase tax uncertainty and the risk of double taxation, thereby adversely affecting our provision for income taxes.

Risks Related to Our Financing Activities

Increased interest rates could increase our borrowing costs.

We continue to issue debt securities to finance acquisitions, capital expenditures and working capital, or for other general corporate purposes. An increase in interest rates in the general economy could result in an increase in our borrowing costs for these financings, as well as under our revolving credit facility debt, which bears interest at an unhedged floating rate.

We may not have access to the funds required for future growth and expansion.

We may not have access to additional funds we need to grow and expand our operations. We expect to fund our capital expenditures from operating cash flow to the extent we are able to do so. If our operating cash flow is insufficient to fund our capital expenditures, we may either reduce our capital expenditures or utilize borrowings under our revolving credit facility, which provides liquidity support for our commercial paper

program. For further strategic growth through mergers or acquisitions, we may also seek to generate additional liquidity through the sale of debt or equity securities in private or public markets or through the sale of assets. We cannot provide any assurance that our cash flows from operations will be sufficient to fund anticipated capital expenditures or that we will be able to obtain additional funds from financial markets or from the sale of assets at terms favorable to us. If we are unable to generate sufficient cash flows or raise sufficient additional funds to cover our capital expenditures or other strategic growth opportunities, we may not be able to achieve our desired operating efficiencies and expansion plans, which may adversely impact our competitiveness and, therefore, our results of operations. Our working capital requirements, including margin requirements on open positions on futures exchanges, are directly affected by the price of corn and other agricultural commodities, which may fluctuate significantly and change quickly.

Risks Related to Our Information Technology Systems
Any failure by us to maintain effective control over financial reporting could result in loss of investor confidence and adversely impact our stock price.

If we experience material weaknesses in our internal control over financial reporting and are unable to remediate such material weaknesses, or are otherwise unable to maintain effective internal control over financial reporting or our disclosure controls and procedures, our ability to record, process and report financial information accurately and to prepare financial statements within required time periods, could be adversely affected, which could subject us to litigation or investigations requiring management resources and payment of legal and other expenses, negatively affect investor confidence in our financial statements and adversely impact our stock price. We previously reported a material weakness in our internal control over financial reporting, which we fully remediated in fiscal 2021, related to ineffective information technology general controls in the areas of user access over certain information technology systems that support our financial reporting processes.

Our information technology systems, processes and sites may suffer interruptions, security breaches, or failures which may affect our ability to conduct our business.

Our operations rely on certain key information technology systems, which are dependent on services provided by third parties and provide critical data connectivity, information and services for internal and external users. These interactions include, among others, ordering and managing materials from suppliers, risk management activities, converting raw materials to finished products, inventory management, shipping products to customers, processing transactions, summarizing and reporting results of operations, human resources benefits and payroll management, complying with regulatory, legal and tax requirements, and other processes necessary to manage our business. Increased information technology security and social engineering threats and more sophisticated computer crime, including advanced persistent threats, pose potential risks to the security of our information technology systems, networks and services, as well as the confidentiality, availability and integrity of our third-party and employee data. We have put in place security measures to protect ourselves against cyber-based attacks and disaster recovery plans for our critical systems. However, if our information technology systems are breached, damaged, or cease to function properly due to any number of causes, such as catastrophic events, power outages, security breaches, or cyber-based attacks, and if our disaster recovery plans do not effectively mitigate the risks on a timely basis, we may encounter significant disruptions that could interrupt our ability to manage our operations, cause loss of valuable data and actual or threatened legal actions and cause us to suffer damage to our reputation. These factors may adversely impact our revenues, operating results and financial condition. We reported a malware incident that occurred from October 2019 to December 2019, although this incident did not have a material impact on our business.

The costs to address the foregoing security problems and security vulnerabilities before or after a cyber incident could be significant.

Remediation efforts may not be successful and could result in interruptions, delays or cessation of service and loss of existing or potential customers that may impede our sales, manufacturing or other critical functions. Breaches of our security measures and the unapproved dissemination of proprietary information or sensitive or confidential data about us, our employees, our customers or other third parties could expose us, our employees, our customers or other affected third parties to a risk of loss or misuse of this information, result in regulatory enforcement, litigation and potential liability for us, damage our brand and reputation or otherwise harm our business. We rely in certain limited capacities on third-party data management providers and other vendors whose possible security problems and security vulnerabilities may have similar effects on us.

Risks Related to Investment in Our Common Stock
Volatility in the stock market, fluctuations in quarterly operating results and other factors could adversely affect the market price of our common stock.

The market price for our common stock in the past has been, and in the future may continue to be, significantly affected by factors such as our announcement of new products or services or such announcements by our competitors; technological innovation by us, our competitors or other vendors; quarterly variations in our operating results or the operating results of our competitors; general conditions in our or our customers' markets; and changes in earnings estimates by analysts or reported results that vary materially from such estimates. In addition, the stock market has experienced significant price fluctuations that have affected the market prices of equity securities of many companies that have been unrelated to the operating performance of any individual company.

We may not continue to pay dividends or to pay dividends at the same rate we have paid in our most recent fiscal quarters.

The payment of dividends, as well as the amount of any dividends, is solely at the discretion of our Board of Directors. Future dividend payments, if any, also will be subject to our financial results and the availability of statutory surplus funds to pay dividends. These factors could result in a change to our current policy of paying dividends.

ITEM 1B. Unresolved Staff Comments

None.

ITEM 2. Properties

We own or lease (as noted below), directly and through our consolidated subsidiaries, 45 manufacturing facilities. In addition, we lease our corporate headquarters in Westchester, Illinois and our R&D facility in Bridgewater, New Jersey.

The following list provides information about our manufacturing facilities within each of our four reportable business segments as of January 31, 2022:

North America

Cardinal, Ontario, Canada
London, Ontario, Canada
Vanscoy, Saskatchewan, Canada
San Juan del Rio, Queretaro, Mexico
Guadalajara, Jalisco, Mexico
Mexico City, CDMX, Mexico
Oxnard, California, U.S.(a)
Idaho Falls, Idaho, U.S.
Bedford Park, Illinois, U.S.
Mapleton, Illinois, U.S.
Indianapolis, Indiana, U.S.
Cedar Rapids, Iowa, U.S.
Fort Fairfield, Maine, U.S.
Belcamp, Maryland, U.S.
North Kansas City, Missouri, U.S.

South Sioux City, Nebraska, U.S.
Winston-Salem, North Carolina, U.S.
Salem, Oregon, U.S.
Charleston, South Carolina, U.S.
Richland, Washington, U.S.
Moses Lake, Washington, U.S.
Plover, Wisconsin, U.S.

South America

Alcantara, Brazil
Balsa Nova, Brazil
Cabo, Brazil
Mogi-Guacu, Brazil
Barranquilla, Colombia
Cali, Colombia
Lima, Peru

Asia-Pacific

Ganzhou, China
Shandong Province, China
Shanghai, China
Enstek, Malaysia
Icheon, South Korea
Incheon City, South Korea
Ban Kao Dien, Thailand
Kalasin, Thailand
Sikhiu, Thailand
Banglen, Thailand (a)

EMEA

Hamburg, Germany
Wesenberg, Germany
Cornwala, Jaranwala, Pakistan
Mehran, Jamshoro, Pakistan
Rakh Canal, Faisalabad, Pakistan
Goole, United Kingdom (b)

(a) Facility is leased.

(b) Facility is partially owned and partially leased.

We believe our manufacturing facilities are sufficient to meet our current production needs. We conduct preventive maintenance and de-bottlenecking programs designed to improve grind capacity and facility reliability. Furthermore, for the foreseeable future, we intend to continue capital investments to support the updating, modification, improvement and efficient operation of our facilities for the foreseeable future.

We have electricity co-generation facilities at our manufacturing facilities in London, Ontario, Canada; Cardinal, Ontario, Canada; Bedford Park, Illinois; Winston-Salem, North Carolina; San Juan del Rio, Queretaro and Mexico City, CDMX, Mexico; Cali, Colombia; Cornwala, Jaranwala, Pakistan; and Balsa Nova and Mogi-Guacu, Brazil. These facilities provide electricity at a lower cost than is available from third parties. We generally own and operate the co-generation facilities, except for the facilities at our Mexico City and Brazil locations, which are owned by and operated pursuant to co-generation agreements with third parties.

ITEM 3. Legal Proceedings

In 2015 and 2016, Ingredion self-reported certain monitoring and recordkeeping issues relating to environmental regulatory matters involving its Indianapolis, Indiana manufacturing facility. In September 2017, following inspections and the provision by Ingredion of requested information to the U.S. Environmental Protection Agency (the "EPA"), the EPA issued Ingredion a Notice of Violation, which included additional alleged violations beyond those self-reported by Ingredion. These additional alleged violations primarily relate to the results of stack testing at the facility. The allegations in the Notice of Violation, whether from the self-reported information, the inspections or the additional

requested information, are not material to us. The EPA has referred the overall matter to the U.S. Department of Justice, Environment and Natural Resources Division (the "DOJ"). The DOJ and Ingredion are engaged in discussions with respect to a resolution of this matter.

We are currently subject to claims and suits arising in the ordinary course of business, including those relating to labor matters, certain environmental proceedings and commercial claims. We also routinely receive inquiries from regulators and other government authorities relating to various aspects of our business, including with respect to compliance with laws and regulations relating to the environment, and at any given time, we have matters at various stages of resolution with the applicable governmental authorities. The outcomes of these matters are not within our complete control and may not be known for prolonged periods of time. We do not believe that the results of currently known legal proceedings and inquiries will be material to us. There can be no assurance, however, that such claims, suits or investigations or those arising in the future, whether taken individually or in the aggregate, will not have a material adverse effect on our financial condition or results of operations.

ITEM 4. Mine Safety Disclosures

Not applicable.

PART II

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

Trading: Ingredion's common stock is listed on the New York Stock Exchange (symbol: INGR).

Holders: The number of active stockholders of record of our common stock was 3,295 on January 31, 2022.

Dividends: We have a history of paying quarterly dividends. The amount and timing of the dividend payment, if any, is based on a number of factors, including our estimated earnings, financial position and cash flow. The payment of a dividend, as well as the amount of any dividend, is solely at the discretion of our Board of Directors. Future dividend payments will be subject to our financial results and the availability of funds and statutory surplus to pay dividends.

Issuer Purchases of Equity Securities: The following provides information about our stock repurchase program:

(shares in thousands)	Total Number of Shares Purchased	Average Price Paid per Share	Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares That May Yet be Purchased Under the Plans or Programs at End of Period
October 1 – October 31, 2021	—	—	—	5,090 shares
November 1 – November 30, 2021	—	—	—	5,090 shares
December 1 – December 31, 2021	—	—	—	5,090 shares
Total	—	—	—	

On October 22, 2018, the Board of Directors authorized a stock repurchase program permitting us to purchase up to 8.0 million of our outstanding shares of common stock from November 5, 2018, through December 31, 2023. At December 31, 2021, we had 5.1 million shares available for repurchase under the current stock repurchase program.

ITEM 6. [Reserved]

Not applicable.

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

Overview

We are a major supplier of high-quality food and industrial ingredient solutions to customers around the world. We have 45 manufacturing facilities located in North America, South America, Asia-Pacific and Europe, the Middle East and Africa ("EMEA") and we manage and operate our businesses at a regional level. We believe this approach provides us with a unique understanding of the cultures and product requirements in each of the geographic markets in which we operate, bringing added value to our customers. Our ingredients are used by customers in the food, beverage, brewing and animal feed industries, among others.

Effectively managing our manufacturing costs, including costs for corn, other raw materials and utilities, is critical to the success of our business. In addition, our global operations expose us to fluctuations in foreign currency exchange rates. We use derivative financial instruments, when appropriate, for the purpose of minimizing the risks and costs associated with fluctuations in certain raw material and energy costs, foreign exchange rates and interest rates. The capital-intensive nature of our business requires that we generate significant cash flow over time in order to selectively reinvest in our operations and grow organically, as well as to expand through strategic acquisitions and alliances.

In 2021, net sales increased over 15 percent to \$6.9 billion from \$6.0 billion in 2020. The increase in net sales was driven by higher sales volumes and a strong price mix, including the pass-through of higher input costs to customers. Operating income, net income and diluted earnings per common share in 2021 declined from 2020 levels. Operating income of \$310 million in 2021 decreased from \$582 million in 2020, primarily due to the \$340 million net asset impairment charge related to the contribution of Ingredient's Argentina assets to the Arcor joint venture. Excluding the net asset impairment charge, operating income increased to reflect our higher sales volumes.

COVID-19: Our operations in recent periods have been adversely affected by impacts of COVID-19. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic, and on March 13, 2020, the United States declared a national emergency with respect to COVID-19. Our global operations expose us to risks associated with public health crises, including pandemics such as COVID-19. Foreign governmental organizations and governmental organizations at the national, state and local levels in the United States have taken various actions to combat the spread of COVID-19, including, from time to time, imposing stay-at-home orders and closing "non-essential" businesses and their operations. As a manufacturer of food ingredients, our operations are considered "essential" under most current COVID-19 government regulations and our facilities are operating globally. We did not experience any material supply chain interruptions in 2021 and were able to continue to operate and ship products from our global network of manufacturing facilities without material interruptions. We place top priority on our employees' health and safety and continue to follow the advice and the guidelines of public health authorities for physical distancing and to make available personal protective equipment and sanitization supplies. We are monitoring COVID-19 infection rates as well as the pace and effectiveness of vaccination rollouts, as the net sales volume is generally correlated with increased consumer activity and availability of food and beverages consumed away from home.

Cost Smart Program: In July 2018, we announced a Cost Smart program, which we designed to improve profitability, further streamline our global business and deliver increased value to stockholders. We set a \$125 million savings target to include an anticipated \$75 million in cost of sales savings, including freight, and \$50 million in anticipated SG&A savings through 2021. Since the program's inception, we have periodically updated our savings targets and expect to deliver \$170 million in total savings through the end of the program, far exceeding our original target.

Results of Operations

We have significant operations in four reporting segments: North America, South America, Asia-Pacific and EMEA. Fluctuations in foreign currency exchange rates affect the U.S. dollar amounts of our foreign subsidiaries' revenues and expenses. For most of our foreign subsidiaries, the local foreign currency is the functional currency. Accordingly, revenues and expenses denominated in the functional currencies of these subsidiaries are translated into U.S. dollars at the applicable average exchange rates for the period.

We acquired KaTech on April 1, 2021, the remaining interest in Verdient on November 3, 2020, and a controlling interest in PureCircle on July 1, 2020. The results of the acquired businesses are included in our consolidated financial results beginning on the respective acquisition dates, which inclusion affects the comparability of results between years. In addition, our share of results in joint ventures is classified as other operating (income) and comparability between years and between financial statement line items is affected by the timing of and consideration provided to the investments. While we identify fluctuations due to the acquisitions, our discussion below also addresses results of operations excluding the impact of the acquisitions and investments, where appropriate, to provide a more comparable and meaningful analysis.

2021 Compared to 2020 - Consolidated

Net sales. Net sales increased 15 percent to \$6,894 million in 2021 compared to \$5,987 million for 2020. The increase in net sales was driven by strong price mix including the pass through of higher corn costs and higher volumes, which also reflected inclusion of the results of KaTech, Verdient and PureCircle.

Cost of sales. Cost of sales increased by 18 percent to \$5,563 million in 2021 compared to cost of sales of \$4,715 million in 2020. The increase in cost of sales primarily reflected the increase in net sales. Our gross profit margin of 19 percent for 2021 decreased from 21 percent in 2020. The decrease in gross margin was driven by higher corn and input costs.

Operating expenses. Operating expenses increased 6 percent to \$668 million in 2021 compared to \$628 million in 2020. The increase in operating expenses during 2021 was primarily attributable to the inclusion of PureCircle and KaTech. Operating expenses as a percentage of net sales were approximately 10 percent in 2021 and 2020.

Other operating (income). Other operating (income) increased 10 percent to \$(34) million in 2021 compared to \$(31) million in 2020. The increase was due primarily to a net gain related to the Amyris joint venture, an increase in equity method earnings related to the Arcor joint venture, gains on the sale of assets and other items in 2021. These items were partially offset by a reduction in Brazil indirect tax credits recorded in 2021.

Restructuring and impairment charges. Restructuring and impairment charges increased to \$387 million in 2021 compared to \$93 million in 2020. The increase was primarily driven by an impairment charge of \$340 million for net assets from our Argentina business we contributed to the Arcor joint venture, of which \$311 million was related to the write-off of the cumulative translation losses associated with the contributed net assets and \$29 million was related to the final write-down of the contributed net assets to fair value. This was partially offset by \$45 million in impairment charges taken on our TIC tradename intangible asset and our equity method investment in Verdient in 2020.

Financing costs. Financing costs decreased 9 percent to \$74 million in 2021 compared to \$81 million in 2020. The decrease was primarily due to Argentina hyperinflation costs. As part of the Arcor joint venture, a majority of Argentina's hyperinflation costs are no longer recorded in financing costs, but instead are reflected in other operating (income) through our share of equity earnings.

Provision for income taxes. Our effective income tax rates for 2021 and 2020 were 49.6 percent and 30.0 percent, respectively. The increase in the effective income tax rate resulted primarily from an impairment charge related to the Arcor joint venture in Argentina and a change in the mix of earnings. These items were partially offset by the reversal of

an accrual from unremitted earnings, favorable judgments related to the treatment of interest and credits on indirect taxes in Brazil and inflation adjustments in Mexico.

Net income attributable to non-controlling interests. Net income attributable to non-controlling interests increased 33 percent to \$8 million in 2021 compared to \$6 million in 2020.

Net Income attributable to Ingredion. Net income attributable to Ingredion for 2021 decreased to \$117 million from \$348 million in 2020. The decrease in net income was largely attributable to the \$340 million impairment charge for the Argentina assets contributed to the Arcor joint venture, partially offset by strong price mix and volume improvement.

North America

Net sales. North America's net sales increased 13 percent to \$4,137 million in 2021 compared to \$3,662 million in 2020. The increase was primarily driven by a 9 percent improvement in price and product mix, a 3 percent increase in volume and a 1 percent favorable foreign exchange.

Operating income. North America's operating income was flat at \$487 million for 2021 and 2020. Favorable price mix and higher volumes in 2021 were fully offset by higher corn and input costs and ramp-up costs related to our plant-based protein operations in our South Sioux City and Vanscoy facilities.

South America

Net sales. South America's net sales increased 15 percent to \$1,057 million in 2021 from \$919 million in 2020. The increase was primarily driven by a 26 percent improvement in price and product mix, which was partially offset by an 8 percent decrease in volume and a 3 percent unfavorable foreign exchange impact. The decrease in volume was driven by the contribution of our Argentina, Chile and Uruguay operations to the Arcor joint venture.

Operating income. South America's operating income increased 23 percent to \$138 million in 2021 compared to \$112 million in 2020. The increase was primarily due to a strong price mix that more than offset higher corn and input costs.

Asia-Pacific

Net sales. Asia-Pacific's net sales increased 23 percent to \$997 million in 2021 compared to \$813 million in 2020. The increase was driven by favorable volumes of 18 percent, a favorable price and product mix of 3 percent and favorable foreign exchange impacts of 2 percent.

Operating income. Asia-Pacific's operating income increased 9 percent to \$87 million in 2021 compared to \$80 million in 2020. The increase was primarily driven by a favorable price and product mix and year-over-year improvement in PureCircle results that more than offset higher raw materials and input costs.

EMEA

Net sales. EMEA's net sales increased by 19 percent to \$703 million in 2021, compared to \$593 million in 2020. The increase was driven by favorable volumes of 11 percent, partially due to the purchase of KaTech on April 1, 2021, a favorable price and product mix of 5 percent and favorable foreign exchange impacts of 3 percent.

Operating income. EMEA's operating income increased 4 percent to \$106 million in 2021 compared to \$102 million in 2020. The increase was primarily attributable to a favorable price mix in Pakistan and higher volumes in Europe.

2020 Compared to 2019 – Consolidated

A discussion of the year-over-year comparison of results for 2020 and 2019 is not included in this report and can be found in Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in Ingredion's annual report on Form 10-K for the fiscal year ended December 31, 2020.

Liquidity and Capital Resources

As of December 31, 2021, Ingredion had total available liquidity of approximately \$1,719 million. Domestic liquidity of \$770 million consisted of \$20 million in cash and cash equivalents and \$750 million available through a \$1 billion commercial paper program that had \$250 million of outstanding borrowings. The commercial paper program, which we entered on July 27, 2021, is backed by \$1 billion of borrowing availability under a five-year revolving credit agreement that we entered on June 30, 2021 ("Revolving Credit Agreement").

As of December 31, 2021, we had international liquidity of approximately \$953 million, consisting of \$308 million of cash and cash equivalents and \$4 million of short-term investments held by our operations outside the U.S., as well as \$641 million of unused operating lines of credit in the various foreign countries in which we operate. As the parent company, we guarantee certain obligations of our consolidated subsidiaries. As of December 31, 2021, such guarantees aggregated \$61 million. We believe that such consolidated subsidiaries will be able to meet their financial obligations as they become due.

As of December 31, 2021, we had repaid in full the \$380 million of borrowings outstanding under a term loan credit agreement that we previously amended on March 16, 2021 (the "Term Loan Credit Agreement"). The Term Loan Credit Agreement restated the previous agreement by extending the maturity date of the borrowings under the previous agreement until March 15, 2022. No new borrowings under the Term Loan Credit Agreement were incurred in connection with the amendment and restatement. Borrowings under the Term Loan Credit Agreement bore interest at a variable annual rate based on a London Interbank Offering Rate ("LIBOR") or a base rate, at our election, subject to the terms and conditions thereof, plus, in each case, an applicable margin. The Term Loan Credit Agreement reduced the applicable interest rate margin for loans accruing interest based on LIBOR from 0.80 percent to 0.75 percent. We were required to pay a fee on the unused availability under the Term Loan Credit Agreement, which contained customary representations, warranties, covenants and events of default, including covenants restricting the incurrence of liens, the incurrence of indebtedness by our subsidiaries and certain fundamental changes involving us and our subsidiaries, subject to certain exceptions in each case. We were also required to maintain a specified maximum consolidated leverage ratio and a specified minimum consolidated interest coverage ratio.

On June 30, 2021, we entered into the Revolving Credit Agreement to replace our previous revolving credit agreement, which we terminated. The Revolving Credit Agreement provides for a five-year unsecured revolving credit facility in an aggregate principal amount of \$1 billion outstanding at any time. The facility will mature on June 30, 2026. Loans under the facility accrue interest at a per annum rate equal, at our option, to either a specified LIBOR plus an applicable margin, or a base rate (generally determined according to the highest of the prime rate, the federal funds rate or the specified LIBOR plus 1.00 percent) plus an applicable margin. The Revolving Credit Agreement contains customary affirmative and negative covenants that, among other matters, specify customary reporting obligations, and that, subject to exceptions, restrict the incurrence of additional indebtedness by our subsidiaries, the incurrence of liens and the consummation of certain mergers, consolidations and sales of assets. We are subject to compliance, as of the end of each quarter, with a maximum leverage ratio of 3.5 to 1.0 and a minimum ratio of consolidated EBITDA to consolidated net interest expense of 3.5 to 1.0, as each such financial covenant is calculated for the most recently completed four-quarter period. As of December 31, 2021, we were in compliance with these financial covenants.

On July 27, 2021, we established a commercial paper program under which we may issue senior unsecured notes of short maturities up to a maximum aggregate principal amount of \$1 billion outstanding at any time. The notes may be sold from time to time on customary terms in the U.S. commercial paper market. We intend to use the note proceeds for general corporate purposes. During the period from July 27, 2021 through December 31, 2021, the average amount of commercial paper outstanding was \$670 million. As of December 31, 2021, the \$250 million of commercial paper then outstanding had a weighted average interest rate of 0.35 percent over a weighted average maturity of 40 days. The amount of commercial paper outstanding under this program in 2022 is expected to fluctuate.

As of December 31, 2021, we had total debt outstanding of \$2.0 billion, or \$1.7 billion excluding the outstanding commercial paper and other short-term borrowings. Of our outstanding debt, \$1.7 billion consists of senior notes that do not require principal repayment until 2026 through 2050. The weighted average interest rate on our total indebtedness was approximately 3.0 percent for 2021 and 3.4 percent for 2020.

The principal source of our liquidity is our internally generated cash flow, which we supplement as necessary with our ability to borrow under our credit facilities and to raise funds in the capital markets. We currently expect that our available cash balances, future cash flow from operations, access to debt markets and borrowing capacity under our revolving credit facility and commercial paper program, will provide us with sufficient liquidity to fund our anticipated capital expenditures, dividends and other investing and financing activities for at least the next twelve months and for the foreseeable future thereafter. Our future cash flow needs will depend on many factors, including our rate of revenue growth, the timing and extent of our expansion into new markets, the timing of introductions of new products, potential acquisitions of complementary businesses and technologies, continuing market acceptance of our new products and general economic and market conditions. We may need to raise additional capital or incur indebtedness to fund our needs for less predictable strategic initiatives, such as acquisitions.

Net Cash Flows

Our cash provided by operating activities decreased to \$392 million in 2021 from \$829 million in 2020, primarily due to changes in working capital. Our cash used by investing activities decreased to \$335 million in 2021 from \$571 million in 2020, primarily due to our acquisition of a controlling interest in PureCircle in 2020. In 2021, we used \$373 million of cash for financing activities compared to cash provided by financing activities of \$143 million in 2020. Cash used for financing activities in 2021 was primarily used for our repayment of the \$380 million outstanding under the Term Loan Credit Agreement.

To manage price risk related to corn purchases, we use derivative instruments, consisting of corn futures and options contracts, to lock in our corn costs associated with firm-priced customer sales contracts. As the market price of these commodities fluctuates, our derivative instruments change in value and we fund any unrealized losses or receive cash for any unrealized gains related to outstanding commodity futures and option contracts.

We used \$300 million of cash for capital expenditures and mechanical stores purchases to update, expand and improve our facilities in 2021, as compared to \$340 million that we paid in 2020 for capital expenditures and mechanical stores. Capital investment commitments for 2022 are anticipated to be between \$300 million and \$335 million.

In April 2021, we acquired a controlling interest in KaTech for \$40 million, net of cash acquired.

We declare and pay cash dividends to our common stockholders of record on a quarterly basis. Dividends paid, including those to noncontrolling interests, increased 3 percent to \$184 million during 2021 compared to \$178 million during 2020. The increase was primarily due to an increase in the dividend paid per share during 2021. Additionally, during 2021, we repurchased 765 thousand outstanding shares of common stock in open market transactions at a net cost of \$68 million.

We have not provided foreign withholding taxes, state income taxes and federal and state taxes on foreign currency gains/losses on accumulated undistributed earnings of certain foreign subsidiaries because these earnings are considered to be permanently reinvested. It is not practicable to determine the amount of the unrecognized deferred tax liability related to the undistributed earnings. We do not anticipate the need to repatriate funds to the U.S. to satisfy domestic liquidity needs arising in the ordinary course of business, including liquidity needs associated with our domestic debt service requirements.

Key Financial Performance Metrics

We use certain key financial performance metrics to monitor our progress towards achieving our long-term strategic business objectives. These metrics relate to our ability to drive profitability, create value for stockholders and monitor our financial leverage. We assess whether we are achieving our profitability and value creation objectives by measuring our Adjusted Return on Invested Capital ("Adjusted ROIC"). We monitor our financial leverage by regularly reviewing our ratio of net debt to adjusted earnings before interest, taxes, depreciation and amortization ("Net Debt to Adjusted EBITDA"). We believe these metrics provide valuable managerial information to help us run our business and are useful to investors.

The metrics Adjusted ROIC and Net Debt to Adjusted EBITDA include certain financial measures (Adjusted operating income, net of tax and Adjusted EBITDA, respectively) that are not calculated in accordance with U.S. generally accepted accounting principles ("GAAP"). We also have presented below the most comparable metrics calculated using components determined in accordance with GAAP. Management uses these non-GAAP financial measures internally for strategic decision-making, forecasting future results and evaluating current performance. Management believes that the non-GAAP financial measures provide a more consistent comparison of our operating results and trends for the periods presented. These non-GAAP financial measures are used in addition to and in conjunction with results presented in accordance with GAAP and reflect an additional way of viewing aspects of our operations that, when viewed with our GAAP results, provides a more complete understanding of factors and trends affecting our business. The non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, or superior to, the corresponding measures calculated in accordance with GAAP.

In accordance with our long-term objectives, we set certain objectives relating to these key financial performance metrics that we strive to meet. However, no assurance can be given that we will continue to meet our financial performance metric targets. See Item 1A. Risk Factors and Item 7A. Quantitative and Qualitative Disclosures About Market Risk. The objectives reflect our current aspirations in light of our present plans and existing circumstances. We may change these objectives from time to time in the future to address new opportunities or changing circumstances as appropriate to meet our long-term needs and those of our stockholders.

A reconciliation of non-GAAP historical financial measures to the most comparable GAAP measure is provided in the tables below.

Adjusted ROIC: Adjusted ROIC is a financial performance ratio not defined under GAAP, and it should be considered in addition to, and not as a substitute for, GAAP financial measures. Ingredient defines Adjusted ROIC as Adjusted operating income, net of tax, divided by Average end-of-year balances for current year and prior year Total net debt and equity. Similarly named measures may not be defined and calculated by other companies in the same manner. Ingredient believes Adjusted ROIC is meaningful to investors as it focuses on profitability and value-creating potential, taking into account the amount of capital invested. The most comparable measure calculated using components determined in accordance with GAAP is Return on Invested Capital, which Ingredient defines as Net income, divided by Average end-of-year balances for current year and prior year Total net debt and equity. The calculations for Return on Invested Capital and Adjusted ROIC for the periods indicated are provided in the table on the following page.

Return on Invested Capital (dollars in millions)	Year Ended December 31,	
	2021	2020
Net income (a)	\$125	\$354
Adjusted for:		
Provision for income taxes	123	152
Other non-operating (income) expense	(12)	(5)
Financing cost, net	74	81
Restructuring/impairment charges ⁽ⁱ⁾	47	93
Acquisition/integration costs	3	11
Impairment on disposition of assets	340	—
Other matters ⁽ⁱⁱ⁾	(15)	(27)
Income taxes (at effective rates of 25.6% and 26.9%, respectively) ⁽ⁱⁱⁱ⁾	(175)	(177)
Adjusted operating income, net of tax (b)	510	482
Short-term debt	308	438
Long-term debt	1,738	1,748
Less: Cash and cash equivalents	(328)	(665)
Short-term investments	(4)	—
Total net debt	1,714	1,521
Share-based payments subject to redemption	36	30
Total redeemable non-controlling interests	71	70
Total equity	3,118	2,972
Total net debt and equity	\$4,939	\$4,593
Average current and prior year Total net debt and equity (c)	\$4,766	\$4,473
Return on Invested Capital (a ÷ c)	2.6%	7.9%
Adjusted Return on Invested Capital (b ÷ c)	10.7%	10.8%

⁽ⁱ⁾ In 2021, we recorded \$47 million of pre-tax restructuring charges, consisting of \$27 million associated with our Cost Smart Cost of sales program, \$17 million associated with our Cost Smart SG&A program and other restructuring costs. In 2020, we recorded \$48 million of pre-tax restructuring charges, consisting of \$25 million associated with our Cost Smart SG&A program and \$23 million associated with our Cost Smart Cost of sales program. In addition, we recorded impairment charges of \$45 million, consisting of a \$35 million impairment of our intangible assets related to acquired tradenames and a \$10 million impairment associated with our Verdient investment.

⁽ⁱⁱ⁾ In 2021, we recorded \$15 million of pre-tax benefits for Brazil indirect tax matters. In 2020, we recorded \$35 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other adjusted costs totaling \$8 million.

⁽ⁱⁱⁱ⁾ The effective income tax rate was 25.6 percent for 2021 and 26.9 percent for 2020, which removes the tax impact for the identified adjusted items as shown below.

(dollars in millions)	Year Ended December 31, 2021			Year Ended December 31, 2020		
	Income before Income Taxes	Provision for Income Taxes	Effective Income Tax Rate	Income before Income Taxes	Provision for Income Taxes	Effective Income Tax Rate
As reported	\$248	\$123	49.6%	\$506	\$152	30.0%
Add back (deduct):						
Impairment/restructuring charges	47	11		93	18	
Acquisition/integration costs	3	(3)		11	2	
Impairment on disposition of assets	340	—		—	—	
Fair value adjustments on equity investments	(6)	(1)		—	—	
Other matters	(15)	7		(22)	(8)	
Other tax matters	—	(6)		—	(3)	
Tax item-Mexico	—	27		—	(3)	
Adjusted non-GAAP	\$617	\$158	25.6%	\$588	\$158	26.9%

Our long-term objective is to maintain an Adjusted ROIC in excess of 10 percent. For 2021, we achieved an Adjusted ROIC of 10.7 percent as compared to 10.8 percent for 2020.

Net Debt to Adjusted EBITDA: Net Debt to Adjusted EBITDA is a financial performance ratio that is not defined under GAAP, and it should be considered in addition to, and not as a substitute for, GAAP financial measures. Ingredion defines this measure as Short-term and Long-term debt less Cash and cash equivalents and Short-term investments, divided by Adjusted EBITDA. Similarly named measures may not be defined and calculated by other companies in the same manner. Ingredion believes Total net debt to Adjusted EBITDA is meaningful to investors as it focuses on Ingredion's leverage on a comparable Adjusted EBITDA basis and helps investors better understand the time required to pay back Ingredion's outstanding debt. The most comparable ratio calculated using components determined in accordance with GAAP is Total net debt to Income before income taxes, calculated as Short-term and Long-term debt less Cash and cash equivalents and Short-term investments, divided by Income before income taxes. The calculations for the ratio of Total net debt to Income before income taxes and for the ratio of Total net debt to Adjusted EBITDA are provided in the table below.

Net Debt to Adjusted EBITDA ratio (dollars in millions)	As of December 31,	
	2021	2020
Short-term debt	\$308	\$438
Long-term debt	1,738	1,748
Less: Cash and cash equivalents	(328)	(665)
Short-term investments	(4)	—
Total net debt (a)	1,714	1,521
Income before income taxes (b)	248	506
Adjusted for:		
Depreciation and amortization	220	213
Financing cost, net	74	81
Restructuring/impairment ⁽ⁱ⁾	38	85
Acquisition/integration costs	3	11
Impairment from disposition of assets	340	—
Other matters ⁽ⁱⁱ⁾	(15)	(22)
Fair value adjustments to equity investments	(6)	—
Adjusted EBITDA (c)	\$902	\$874
Net Debt to Income before income tax ratio (a ÷ b)	6.9	3.0
Net Debt to Adjusted EBITDA ratio (a ÷ c)	1.9	1.7

⁽ⁱ⁾ Restructuring/impairment charges are reduced by \$9 million in 2021 and \$8 million in 2020 to exclude the accelerated depreciation associated with Cost Smart programs that are included in Depreciation and amortization above.

⁽ⁱⁱ⁾ We recorded \$15 million of pre-tax benefits for Brazil indirect tax matters in 2021 and \$35 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other adjusted charges totaling \$13 million, in 2020.

Our long-term objective is to maintain a ratio of Net Debt to Adjusted EBITDA of less than 2.25. As of December 31, 2021, and December 31, 2020, the ratio was 1.9 and 1.7, respectively.

Critical Accounting Policies and Estimates

Our Consolidated Financial Statements have been prepared in accordance with GAAP. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Actual results may differ from these estimates under different assumptions and conditions.

We have identified below the most critical accounting policies upon which the financial statements are based and that involve our most complex and subjective decisions and assessments. Our senior management has discussed the development, selection and disclosure of these policies with members of the Audit Committee of our Board of Directors. These accounting policies are provided in the Notes to the Consolidated Financial Statements. The discussion that follows should be read in conjunction with the Consolidated Financial Statements and related notes included elsewhere in this Annual Report on Form 10-K.

Business Combinations: Our acquisitions of KaTech in 2021 and PureCircle and Verdient in 2020 were accounted for in accordance with Accounting Standards Codification (“ASC”) Topic 805, Business Combinations. In purchase accounting, identifiable assets acquired and liabilities assumed are recognized at their estimated fair values on the date of acquisition and any remaining purchase price is recorded as goodwill. In determining the fair values of assets acquired and liabilities assumed, we make significant estimates and assumptions, particularly for long-lived tangible and intangible assets. Critical estimates used in valuing tangible and intangible assets include, but are not limited to, future expected cash flows, discount rates, market prices and asset lives. Although our estimates of fair value are based upon assumptions believed to be reasonable, actual results may differ. See Note 2 of the Notes to the Consolidated Financial Statements for more information related to our acquisitions.

Property, Plant and Equipment and Definite-Lived Intangible Assets: We have substantial investments in property, plant and equipment (“PP&E”) and definite-lived intangible assets. For PP&E, we recognize the cost of depreciable assets in operations over the estimated useful life of the assets and evaluate the recoverability of these assets whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable. For definite-lived intangible assets, we recognize the cost of these amortizable assets in operations over their estimated useful life and evaluate the recoverability of the assets whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable. The carrying values of PP&E and definite-lived intangible assets at December 31, 2021 were \$2.4 billion and \$434 million, respectively.

In assessing the recoverability of the carrying value of PP&E and definite-lived intangible assets, we may have to make projections regarding future cash flows. In developing these projections, we make a variety of important assumptions and estimates that have a significant impact on our assessments of whether the carrying values of PP&E and definite-lived intangible assets should be adjusted to reflect impairment. Among these are assumptions and estimates about the future growth and profitability of the related asset group, anticipated future economic, regulatory and political conditions in the asset group’s market and estimates of terminal or disposal values.

Through our continual assessment to optimize our operations, we address whether there is a need for additional consolidation of manufacturing facilities or to redeploy assets to areas where we can expect to achieve a higher return on our investment. This review may result in the closing or selling of certain of our manufacturing facilities. The closing or selling of any of the facilities could have a significant negative impact on the results of operations in the year in which the closing or selling of a facility occurs.

The future occurrence of a potential indicator of impairment, such as a significant adverse change in the business climate that would require a change in our assumptions or strategic decisions made in response to economic or competitive conditions, could require us to perform tests of recoverability in the future.

Indefinite-Lived Intangible Assets and Goodwill: We have certain indefinite-lived intangible assets in the form of tradenames and trademarks. Our methodology for allocating the purchase price of acquisitions is based on established valuation techniques that reflect the consideration of a number of factors, including valuations performed by third-party appraisers when appropriate. Goodwill is measured as the excess of the cost of an acquired business over the fair value assigned to identifiable assets acquired and liabilities assumed. We have identified several reporting units for which cash flows are determinable and to which goodwill may be allocated. Goodwill is either assigned to a specific

reporting unit or allocated between reporting units based on the relative excess fair value of each reporting unit. The carrying value of indefinite-lived intangible assets and goodwill at December 31, 2021 was \$143 million and \$914 million, respectively, compared to \$143 million and \$902 million, respectively, at December 31, 2020.

We assess indefinite-lived intangible assets and goodwill for impairment annually (or more frequently if impairment indicators arise). We perform this annual impairment assessment as of July 1 each year. In testing indefinite-lived intangible assets for impairment, we first assess qualitative factors to determine whether it is more-likely-than-not that the fair value of an indefinite-lived intangible asset is impaired. After assessing the qualitative factors, if we determine that it is more-likely-than-not that the fair value of an indefinite-lived intangible asset is greater than its carrying amount, then we would not be required to compute the fair value of the indefinite-lived intangible asset. In the event the qualitative assessment leads us to conclude otherwise, then we would be required to determine the fair value of the indefinite-lived intangible assets and perform a quantitative impairment test in accordance with ASC subtopic 350-30, Intangibles – Goodwill and Other. In performing the qualitative analysis, we consider various factors including net sales derived from these intangibles and certain market and industry conditions. Based on the results of our assessment, we concluded that as of July 1, 2021, there were no impairments in our indefinite-lived intangible assets.

In testing goodwill for impairment, we first assess qualitative factors in determining whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. After assessing the qualitative factors, if we determine that it is more-likely-than-not that the fair value of a reporting unit is greater than its carrying amount, then we do not perform an impairment test. If we conclude otherwise, then we perform the impairment test as described in ASC Topic 350, Intangibles – Goodwill and Other. Under this impairment test, the fair value of the reporting unit is compared to its carrying value. If the fair value of the reporting unit exceeds the carrying value of its net assets, goodwill is not considered impaired, and no further testing is required. If the carrying value of the net assets exceeds the fair value of the reporting unit, then an impairment exists for the difference between the fair value and carrying value of the reporting unit. This difference is not to exceed the goodwill recorded at the reporting unit.

In performing our impairment tests for goodwill, management makes certain estimates and judgments. These estimates and judgments include the identification of reporting units and the determination of fair values of reporting units, which management estimates using both discounted cash flow analyses and an analysis of market multiples. Significant assumptions used in the determination of fair value for reporting units include estimates for discount and long-term net sales growth rates, in addition to operating and capital expenditure requirements. We consider changes in discount rates for the reporting units based on current market interest rates and specific risk factors within each geographic region. We also evaluate qualitative factors, such as legal, regulatory, or competitive forces, in estimating the impact to the fair value of the reporting units, noting no significant changes that would result in any reporting unit failing the impairment test. Changes in assumptions concerning projected results or other underlying assumptions could have a significant impact on the fair value of the reporting units in the future. Based on the results of the annual assessment, we concluded that as of July 1, 2021, there were no impairments in our reporting units.

Retirement Benefits: We and our subsidiaries sponsor noncontributory defined benefit pension plans (qualified and non-qualified) covering a substantial portion of employees in the U.S. and Canada, and certain employees in other foreign countries. We also provide healthcare and life insurance benefits for retired employees in the U.S., Canada and Brazil. In order to measure the expense and obligations associated with these benefits, our management must make a variety of estimates and assumptions, including discount rates, expected long-term rates of return, rate of compensation increases, employee turnover rates, retirement rates, mortality rates and other factors. We review our actuarial assumptions on an annual basis as of December 31 (or more frequently if a significant event requiring remeasurement occurs) and modify our assumptions based on current rates and trends when it

is appropriate to do so. The effects of modifications are recognized immediately on the Consolidated Balance Sheets but are generally amortized into operating earnings over future periods, with the deferred amount recorded in accumulated other comprehensive loss ("AOCL"). We believe the assumptions utilized in recording our obligations under our plans, which are based on our experience, market conditions and input from our actuaries, are reasonable. We use third-party specialists to assist management in evaluating our assumptions and estimates, as well as to appropriately measure the costs and obligations associated with our retirement benefit plans. Had we used different estimates and assumptions for these plans, our retirement benefit obligations and related expense could vary from the actual amounts recorded and such differences could be material. Additionally, adverse changes in investment returns earned on pension assets and discount rates used to calculate pension and postretirement benefit related liabilities or changes in required funding levels may have an unfavorable impact on future expense and cash flow. Net periodic pension and postretirement benefit cost for all of our plans was \$3 million in 2021 and \$4 million in 2020.

We determine our assumption for the discount rate used to measure year-end pension and postretirement obligations based on high-quality fixed-income investments that match the duration of the expected benefit payments, which has been benchmarked using a long-term, high-quality AA corporate bond index. We use a full yield curve approach in the estimation of the service and interest cost components of benefit cost by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. The weighted average discount rate used to determine our obligations under U.S. pension plans as of December 31, 2021 and 2020, was 2.91 percent and 2.58 percent, respectively. The weighted average discount rate used to determine our obligations under non-U.S. pension plans as of 2021 and 2020, was 3.47 percent and 2.84 percent, respectively. The weighted average discount rate used to determine our obligations under our postretirement plans as of December 31, 2021 and 2020, was 4.22 percent and 3.69 percent, respectively.

A one percentage point decrease in the discount rates at 2021, would have increased the accumulated benefit obligation and projected benefit obligation by the following amounts (millions):

<u>U.S. Pension Plans</u>	
Accumulated benefit obligation	\$43
Projected benefit obligation	43
<u>Non-U.S. Pension Plans</u>	
Accumulated benefit obligation	\$30
Projected benefit obligation	33
<u>Postretirement Plans</u>	
Accumulated benefit obligation	\$8

Our investment approach and related asset allocation for the U.S. and Canada plans is a liability-driven investment approach by which a higher proportion of investments will be in interest-rate sensitive investments (fixed income) under an active-management approach. The approach seeks to protect the current funded status of the plans from market volatility with a greater asset allocation to interest-rate sensitive assets. The greater allocation to interest-rate sensitive assets is expected to reduce volatility in plan funded status by more closely matching movements in asset values to changes in liabilities.

Our current investment policy for our pension plans is to balance risk and return through diversified portfolios of actively managed equity index instruments, fixed income index securities and short-term investments. Maturities for fixed income securities are managed such that sufficient liquidity exists to meet near-term benefit payment obligations. The asset allocation is reviewed regularly, and portfolio investments are rebalanced to the targeted allocation when considered appropriate or to raise sufficient liquidity when necessary to meet near-term benefit payment obligations. For 2021 net periodic pension cost, we assumed an expected long-term rate of return on assets, which

is based on the fair value of plan assets, of 4.10 percent for U.S. plans and approximately 3.06 percent for Canadian plans. In developing the expected long-term rate of return assumption on plan assets, which consist mainly of U.S. and Canadian debt and equity securities, management evaluated historical rates of return achieved on plan assets and the asset allocation of the plans, input from our independent actuaries and investment consultants, and historical trends in long-term inflation rates. Projected return estimates made by such consultants are based upon broad equity and bond indices. We also maintain several funded pension plans in other international locations. The expected returns on plan assets for these plans are determined based on each plan's investment approach and asset allocations. A hypothetical 25 basis point decrease in the expected long-term rate of return assumption would increase 2022 net periodic pension cost for the U.S. and Canada plans by approximately \$1 million each.

Healthcare cost trend rates are used in valuing our postretirement benefit obligations and are established based upon actual health care cost trends and consultation with actuaries and benefit providers. At December 31, 2021, the health care cost trend rate assumptions for the next year for the U.S., Canada and Brazil plans were 6.00 percent, 5.74 percent and 7.79 percent, respectively.

See Note 11 of the Notes to the Consolidated Financial Statements for more information related to our benefit plans.

New Accounting Standards

For information about new accounting standards, see Note 1 of the Notes to the Consolidated Financial Statements.

Forward-Looking Statements

This Form 10-K contains or may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Ingredion intends these forward-looking statements to be covered by the safe harbor provisions for such statements.

Forward-looking statements include, among others, any statements regarding Ingredion's prospects, future operations, or future financial condition, earnings, net sales, tax rates, capital expenditures, cash flows, expenses or other financial items, including management's plans or strategies and objectives for any of the foregoing and any assumptions, expectations or beliefs underlying any of the foregoing.

These statements can sometimes be identified by the use of forward-looking words such as "may," "will," "should," "anticipate," "assume," "believe," "plan," "project," "estimate," "expect," "intend," "continue," "pro forma," "forecast," "outlook," "propels," "opportunities," "potential," "provisional," or other similar expressions or the negative thereof. All statements other than statements of historical facts therein are "forward-looking statements."

These statements are based on current circumstances or expectations, but are subject to certain inherent risks and uncertainties, many of which are difficult to predict and beyond our control. Although we believe our expectations reflected in these forward-looking statements are based on reasonable assumptions, investors are cautioned that no assurance can be given that our expectations will prove correct.

Actual results and developments may differ materially from the expectations expressed in or implied by these statements, based on various factors, including the impact of COVID-19 on the demand for our products and our financial results; changing consumption preferences relating to high fructose corn syrup and other products we make; the effects of global economic conditions and the general political, economic, business and market conditions that affect customers and consumers in the various geographic regions and countries in which we buy our raw materials or manufacture or sell our products, including, particularly, economic, currency and political conditions in South America and economic and political conditions in Europe, and the impact these factors may have on our sales volumes, the pricing of our products and our ability to collect our receivables from customers; future purchases of our products by major industries which we serve and from

which we derive a significant portion of our sales, including, without limitation, the food, beverage, animal nutrition and brewing industries; the uncertainty of acceptance of products developed through genetic modification and biotechnology; our ability to develop or acquire new products and services at rates or of qualities sufficient to gain market acceptance; increased competitive and/or customer pressure in the corn-refining industry and related industries, including with respect to the markets and prices for our primary products and our co-products, particularly corn oil; the availability of raw materials, including potato starch, tapioca, gum Arabic and the specific varieties of corn upon which some of our products are based, and our ability to pass along potential increases in the cost of corn or other raw materials to customers; energy costs and availability, including energy issues in Pakistan; our ability to contain costs, achieve budgets and realize expected synergies, including with respect to our ability to complete planned maintenance and investment projects on time and on budget as well as with respect to freight and shipping costs; the effects of climate change and legal, regulatory and market measures to address climate change; our ability to successfully identify and complete acquisitions or strategic alliances on favorable terms as well as our ability to successfully integrate acquired businesses or implement and maintain strategic alliances and achieve anticipated synergies with respect to all of the foregoing; operating difficulties at our manufacturing facilities; the behavior of financial and capital markets, including with respect to foreign currency fluctuations, fluctuations in interest and exchange rates and market volatility and the associated risks of hedging against such fluctuations; our ability to maintain satisfactory labor relations; our ability to attract, develop, retain, motivate, and maintain good relationships with our workforce; the impact on our business of natural disasters, war, threats or acts of terrorism, the outbreak or continuation of pandemics such as COVID-19, or the occurrence of other significant events beyond our control; the impact of impairment charges on our goodwill or long-lived assets; changes in government policy, law, or regulation and costs of legal compliance, including compliance with environmental regulation; changes in our tax rates or exposure to additional income tax liability; increases in our borrowing costs that could result from increased interest rates; our ability to raise funds at reasonable rates and other factors affecting our access to sufficient funds for future growth and expansion; security breaches with respect to information technology systems, processes and sites; volatility in the stock market and other factors that could adversely affect our stock price; risks affecting the continuation of our dividend policy; and our ability to maintain effective internal control over financial reporting.

Our forward-looking statements speak only as of the date on which they are made, and we do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date of the statement as a result of new information or future events or developments. If we do update or correct one or more of these statements, investors and others should not conclude that we will make additional updates or corrections. For a further description of these and other risks, see Item 1A. Risk Factors above and our subsequent reports on Form 10-Q and Form 8-K.

ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk

Hedging: We are exposed to market risk stemming from changes in commodity prices (primarily corn and natural gas), foreign-currency exchange rates and interest rates. In the normal course of business, we actively manage our exposure to these market risks by entering various hedging transactions, authorized under established policies that place controls on these activities. These transactions utilize exchange-traded derivatives or over-the-counter derivatives with investment grade counterparties. Our hedging transactions may include, but are not limited to, a variety of derivative financial instruments such as commodity-related futures, options and swap contracts, forward currency-related contracts and options, interest rate swap agreements and Treasury lock agreements (“T-Locks”). We plan to continue to use derivative instruments to hedge such price risk and, accordingly, we will be required to make cash deposits to or be entitled to receive cash from

our margin accounts depending on the movement in the market price of the underlying commodities. See Note 6 of the Notes to the Consolidated Financial Statements for additional information.

Raw Material, Energy and Other Commodity Exposure: Our principal use of derivative financial instruments is to manage commodity price risk in North America relating to anticipated purchases of corn and natural gas to be used in our manufacturing process. Our finished products are made primarily from corn. In North America, we sell a large portion of finished products at firm prices established in supply contracts typically lasting for periods of up to one year. In order to minimize the effect of volatility in the cost of corn related to these firm-priced supply contracts, we enter into corn futures contracts or take other hedging positions in the corn futures market. These contracts typically mature within one year. At expiration, we settle the derivative contracts at a net amount equal to the difference between the then-current price of corn and the futures contract price. While these hedging instruments are subject to fluctuations in value, changes in the value of the underlying exposures we are hedging generally offset such fluctuations. While the corn futures contracts or other hedging positions are intended to minimize the volatility of corn costs on operating profits, occasionally the hedging activity can result in losses, some of which may be material. Outside of North America, sales of finished products under long-term, firm-priced supply contracts are not material.

Energy costs represent approximately 8 percent of our cost of sales. The primary use of energy is to create steam in the production process and to dry product. We consume natural gas, electricity, coal, fuel oil, wood and other biomass sources to generate energy. The market prices for these commodities vary depending on supply and demand, world economies and other factors. We purchase these commodities based on our anticipated usage and the future outlook for these costs. We cannot assure that we will be able to purchase these commodities at prices that we can adequately pass on to customers to sustain or increase profitability. We use derivative financial instruments, such as over-the-counter natural gas swaps, to hedge portions of our natural gas costs generally over the following 12 to 24 months, primarily in our North America operations.

At December 31, 2021, we had outstanding futures and option contracts that hedged the forecasted purchase of approximately 135 million bushels of corn, as well as outstanding swap contracts that hedged the forecasted purchase of approximately 35 million MMBtus of natural gas. Based on our overall commodity hedge position at December 31, 2021, a hypothetical 10 percent decline in market prices applied to the fair value of the instruments would result in a charge to other comprehensive loss (“OCL”) of approximately \$3 million, net of income tax benefit of \$1 million. Any change in the fair value of the contracts, real or hypothetical, would be substantially offset by an inverse change in the value of the underlying hedged item.

Unrealized gains and losses associated with marking our commodities-based cash flow hedge derivative instruments to market are recorded as a component of OCL. As of December 31, 2021, our AOCL included \$51 million of net gains (net of income tax expense of \$19 million) related to these derivative instruments. It is anticipated that \$45 million of net gains (net of income tax expense of \$16 million) will be reclassified into earnings during the next 12 months. We expect the net gains to be offset by changes in the underlying commodities costs.

Interest Rate Exposure: We are exposed to interest rate risk on our variable rate debt and price risk on our fixed rate debt. As of December 31, 2021, approximately 85 percent, or \$1.7 billion, of our total debt is fixed rate debt and 15 percent, or approximately \$311 million, of our total debt is variable rate debt subject to changes in short-term rates, which could affect our interest costs. We assess market risk based on changes in interest rates utilizing a sensitivity analysis that measures the potential change in earnings, fair values and cash flows based on a hypothetical 1 percentage point change in interest rates at December 31, 2021. A hypothetical increase of 1 percentage point in the weighted average floating interest rate would increase our annual interest expense by approximately \$3 million and would change the fair value of our fixed rate debt at December 31, 2021 by approximately \$189 million. See Note 8 of the Notes to the Consolidated Financial Statements for further information.

Since we have no current plans to repurchase our outstanding fixed rate instruments before their maturities, the impact of market interest rate fluctuations on our long-term debt is not expected to have a significant effect on our Consolidated Financial Statements.

We occasionally use interest rate swaps and T-Locks to hedge our exposure to interest rate changes, to reduce the volatility of our financing costs, or to achieve a desired proportion of fixed versus floating rate debt, based on current and projected market conditions. The changes in fair value of interest rate swaps designated as hedging instruments that effectively offset the variability in the fair value of outstanding debt obligations are reported in earnings. These amounts offset the gains or losses (the changes in fair value) of the hedged debt instruments that are attributable to changes in interest rates (the hedged risk), which are also recognized in earnings. As of December 31, 2021, and 2020, we did not have any outstanding interest rate swaps.

We did not have any T-Locks outstanding as of December 31, 2021. As of December 31, 2021, our AOCL account included \$3 million of net losses (net of \$1 million tax benefit) related to settled T-Locks. These deferred losses are being amortized to financing costs over the term of the senior notes with which they are associated. The net losses reclassified into earnings during the next 12 months are not anticipated to be significant.

Foreign Currencies: Due to our global operations, we are exposed to fluctuations in foreign currency exchange rates. As a result, we have exposure to translational foreign exchange risk when our foreign operation results are translated to U.S. dollars and to transactional foreign exchange risk when transactions not denominated in the functional currency of the operating unit are revalued.

We selectively use derivative instruments such as forward contracts, currency swaps and options to manage transactional foreign exchange risk. Based on our overall foreign currency transactional exposure at December 31, 2021, we estimate that a hypothetical 10 percent decline in the value of the U.S. dollar would have resulted in a transactional foreign exchange gain of approximately \$9 million. At December 31, 2021, our AOCL account included in the equity section of our Consolidated Balance Sheets includes a cumulative translation loss of approximately \$903 million. The aggregate net assets of our foreign subsidiaries where the local currency is the functional currency approximated \$1.7 billion at December 31, 2021. A hypothetical 10 percent decline in the value of the U.S. dollar relative to foreign currencies would have resulted in a reduction to our cumulative translation loss and a credit to OCL of approximately \$190 million.

We primarily use derivative financial instruments such as foreign-currency forward contracts, swaps and options to manage our foreign currency transactional exchange risk. We enter foreign-currency derivative instruments that are designated as both cash flow hedging instruments as well as instruments not designated as hedging instruments for accounting purposes. As of December 31, 2021, we had foreign currency forward sales contracts with an aggregate notional amount of \$360 million and foreign currency forward purchase contracts with an aggregate notional amount of \$205 million not designated as hedging instruments for accounting purposes. The amount included in AOCL relating to these hedges at December 31, 2021 was insignificant. The net losses reclassified into earnings during the next 12 months are not anticipated to be significant.

Some of the countries in which we operate may incur high inflation. We elected hyperinflation accounting for our affiliate in Argentina, which had high cumulative inflation, determined its functional currency to be the U.S. dollar, and measure its income statement and balance sheet in U.S. dollars using both current and historical rates of exchange. The effect of changes in exchange rates on its local currency denominated monetary assets and liabilities was reflected in earnings in financing costs in the Consolidated Statements of Income until its assets were contributed to a joint venture in 2021 and it was deconsolidated.

ITEM 8. Financial Statements and Supplementary Data Report of Independent Registered Public Accounting Firm To the Stockholders and Board of Directors Ingredion Incorporated:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Ingredion Incorporated and subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, equity and redeemable equity, and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audit of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

Critical Audit Matter

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

Evaluation of the pension benefit obligations

As discussed in Note 11 to the consolidated financial statements, the Company's pension benefit obligations totaled \$637 million as of December 31, 2021. The pension benefit obligations are measured at the actuarial present value of the benefits to which employees are entitled based on employee service rendered and the benefits attributed by the pension benefit formula and the employee's expected date of separation or retirement. The determination of the Company's pension benefit obligations is dependent, in part, on certain estimates and the selection of assumptions, including discount rates.

We identified the evaluation of the pension benefit obligations as a critical audit matter. Subjective auditor judgment was required to evaluate the actuarial models and methodology used by the Company to determine the obligations and to evaluate the discount rates used. Changes in the discount rates could have a significant impact to the measurement of the pension benefit obligations.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's pension benefit obligations process, including controls related to the assessment of the actuarial models and methodology and the development of the discount rates. For certain plans, we involved an actuarial professional with specialized skill and knowledge, who assisted in:

- understanding and assessing the appropriateness of the actuarial models and methodology used by the Company to determine the obligations;
- the evaluation of the Company's discount rates, by assessing changes in the discount rates from the prior year and comparing it to the change in published indices, and by evaluating the discount rates based on the pattern of cash flows; and
- the evaluation of the selected yield curve, the consistency of the yield curve with the prior year, and the spot rates, to further assess the discount rates.

/s/ KPMG LLP

We have served as the Company's auditor since 1997.

Chicago, Illinois
February 22, 2022

Consolidated Statements of Income

(in millions, except per share amounts)	Year Ended December 31,		
	2021	2020	2019
Net sales	\$6,894	\$5,987	\$6,209
Cost of sales	5,563	4,715	4,897
Gross profit	1,331	1,272	1,312
Operating expenses	668	628	610
Other operating (income)	(34)	(31)	(19)
Restructuring/impairment charges and related adjustments	387	93	57
Operating income	310	582	664
Financing costs	74	81	81
Other non-operating (income) expense	(12)	(5)	1
Income before income taxes	248	506	582
Provision for income taxes	123	152	158
Net income	125	354	424
Less: Net income attributable to non-controlling interests	8	6	11
Net income attributable to Ingredion	\$117	\$348	\$413
Weighted average common shares outstanding:			
Basic	67.1	67.2	66.9
Diluted	67.8	67.6	67.4
Earnings per common share of Ingredion:			
Basic	\$1.74	\$5.18	\$6.17
Diluted	1.73	5.15	6.13

See the Notes to the Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

(in millions)	2021	2020	2019
Net income	\$125	\$354	\$424
Other comprehensive income:			
Gains (losses) on cash flow hedges, net of income tax effect of \$58, \$2 and \$5, respectively	160	3	(14)
(Gains) losses on cash flow hedges reclassified to earnings, net of income tax effect of \$55, \$17 and \$4, respectively	(154)	48	10
Actuarial gains (losses) on pension and other postretirement obligations, settlements and plan amendments, net of income tax effect of \$9, \$1 and \$2, respectively	19	(1)	9
Currency translation adjustment	211	(25)	(9)
Comprehensive income	361	379	420
Less: Comprehensive income attributable to non-controlling interests	9	5	9
Comprehensive income attributable to Ingredion	\$352	\$374	\$411

See the Notes to the Consolidated Financial Statements.

Consolidated Balance Sheets

(in millions, except share and per share amounts)	As of December 31,	
	2021	2020
Assets		
<i>Current assets:</i>		
Cash and cash equivalents	\$328	\$665
Short-term investments	4	—
Accounts receivable, net	1,130	1,011
Inventories	1,172	917
Prepaid expenses	63	54
Total current assets	2,697	2,647
Property, plant and equipment, net of accumulated depreciation of \$3,232 and \$3,175, respectively	2,423	2,455
Intangible assets	1,348	1,346
Other assets	531	410
Total assets	6,999	6,858
Liabilities and equity		
<i>Current liabilities:</i>		
Short-term borrowings	308	438
Accounts payable	774	599
Accrued liabilities	430	421
Total current liabilities	1,512	1,458
Long-term debt	1,738	1,748
Other non-current liabilities	524	580
Total liabilities	3,774	3,786
Share-based payments subject to redemption	36	30
Redeemable non-controlling interests	71	70
Ingredion stockholders' equity:		
Preferred stock — authorized 25,000,000 shares — \$0.01 par value, none issued	—	—
Common stock — authorized 200,000,000 shares — \$0.01 par value, 77,810,875 issued at December 31, 2021 and December 31, 2020	1	1
Additional paid-in capital	1,158	1,150
Less: Treasury stock (common stock: 11,154,203 and 10,795,346 shares at December 31, 2021 and December 31, 2020, respectively) at cost	(1,061)	(1,024)
Accumulated other comprehensive loss	(897)	(1,133)
Retained earnings	3,899	3,957
Total Ingredion stockholders' equity	3,100	2,951
Non-redeemable non-controlling interests	18	21
Total equity	3,118	2,972
Total liabilities and equity	\$6,999	\$6,858

See the Notes to the Consolidated Financial Statements.

Consolidated Statements of Equity and Redeemable Equity

(in millions)	Total Equity								
	Preferred Stock	Common Stock	Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Loss	Retained Earnings	Non-Redeemable Non-Controlling Interests	Share-based Payments Subject to Redemption	Redeemable Non-Controlling Interests
Balance, December 31, 2018	\$ —	\$1	\$1,096	\$(1,091)	\$(1,154)	\$3,536	\$20	\$37	\$ —
Net income attributable to Ingredion						413			
Net income attributable to non-controlling interests							11		
Dividends declared						(169)	(8)		
Repurchases of common stock			32	31					
Share-based compensation, net of issuance			9	20				(6)	—
Other					(4)		(2)		
Balance, December 31, 2019	\$ —	\$1	\$1,137	\$(1,040)	\$(1,158)	\$3,780	21	31	—
Net income attributable to Ingredion						348			
Net income (loss) attributable to non-controlling interests							10		(4)
Dividends declared						(171)	(8)		
Acquisition of redeemable non-controlling interests									74
Share-based compensation, net of issuance			13	16				(1)	
Other comprehensive income (loss)					25		(1)		
Other							(1)		
Balance, December 31, 2020	\$ —	\$1	\$1,150	\$(1,024)	\$(1,133)	\$3,957	21	30	70
Net income attributable to Ingredion						117			
Net income (loss) attributable to non-controlling interests							11		(3)
Dividends declared						(175)	(11)		
Repurchases of common stock, net				(68)					
Share-based compensation, net of issuance			8	31				6	
Other comprehensive income (loss)					236		(3)		4
Balance, December 31, 2021	\$ —	\$1	\$1,158	\$(1,061)	\$(897)	\$3,899	\$18	\$36	\$71

See the Notes to the Consolidated Financial Statements.

Consolidated Statements of Cash Flows

(in millions)	Year Ended December 31,		
	2021	2020	2019
Cash provided by operating activities			
Net income	\$125	\$354	\$424
Non-cash charges to net income:			
Depreciation and amortization	220	213	220
Mechanical stores expense	55	54	57
Impairment on disposition of assets	340	—	—
Deferred income taxes	(61)	(7)	3
Other non-cash charges	8	105	33
Changes in working capital:			
Accounts receivable and prepaid expenses	(162)	(3)	(61)
Inventories	(312)	(14)	(43)
Accounts payable and accrued liabilities	226	124	51
Margin accounts	(32)	43	(1)
Other	(15)	(40)	(3)
Cash provided by operating activities	392	829	680
Cash used for investing activities			
Capital expenditures and mechanical stores purchases	(300)	(340)	(328)
Proceeds from disposal of manufacturing facilities and properties	18	7	2
Payments for acquisitions, net of cash acquired	(40)	(236)	(42)
Other	(13)	(2)	(6)
Cash used for investing activities	(335)	(571)	(374)
Cash (used for) provided by financing activities			
Proceeds from borrowings	1,300	1,550	1,209
Payments on debt	(1,690)	(1,224)	(1,465)
Debt issuance cost	—	(9)	—
Commercial paper borrowings, net	250	—	—
(Repurchases) issuances of common stock, net	(49)	4	66
Dividends paid, including to non-controlling interests	(184)	(178)	(174)
Cash (used for) provided by financing activities	(373)	143	(364)
Effects of foreign exchange rate changes on cash	(21)	—	(5)
(Decrease) increase in cash and cash equivalents	(337)	401	(63)
Cash and cash equivalents, beginning of period	665	264	327
Cash and cash equivalents, end of period	\$328	\$665	\$264

See the Notes to the Consolidated Financial Statements.

Notes to Consolidated Financial Statements

NOTE 1 – Description of the Business and Summary of Significant Accounting Policies

Description of the Business: Ingredion Incorporated was founded in 1906 and became an independent and public company as of December 31, 1997. Unless the context otherwise requires, all references herein to the “Company,” “Ingredion,” “we,” “us,” and “our” shall mean Ingredion Incorporated and its consolidated subsidiaries. We primarily manufacture and sell sweeteners, starches, nutrition ingredients and biomaterial solutions derived from the wet milling and processing of corn and other starch-based materials to a wide range of industries, both domestically and internationally.

Basis of presentation: The Consolidated Financial Statements consist of the accounts of Ingredion, including all subsidiaries. Intercompany accounts and transactions are eliminated in consolidation.

The preparation of the accompanying Consolidated Financial Statements in conformity with U.S. Generally Accepted Accounting Principles (“GAAP”) requires management to make estimates and assumptions about future events. These estimates and the underlying assumptions affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities, and reported amounts of revenues and expenses. Such estimates include the value of purchase consideration, valuation of accounts receivable, inventories, certain investments, goodwill, intangible assets and other long-lived assets, legal contingencies and assumptions used in the calculation of income taxes and pension and other postretirement benefits, among others. These estimates and assumptions are based on our best estimates and judgment. We evaluate our estimates and assumptions on an ongoing basis using historical experience and other factors, including the current economic environment, which we believe to be reasonable under the circumstances. We will adjust such estimates and assumptions when facts and circumstances dictate. Foreign currency devaluations versus the U.S. dollar, corn price volatility, access to credit markets and adverse changes in the global economic environment have combined to increase the uncertainty inherent in such estimates and assumptions. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates. Changes in these estimates will be reflected in the financial statements in future periods.

Assets and liabilities of foreign subsidiaries, other than those whose functional currency is the U.S. dollar, are translated at current exchange rates with the related translation adjustments reported in equity as a component of accumulated other comprehensive loss (“AOCL”) and income statement accounts are translated at the average exchange rate during the period. However, significant non-recurring items related to specific events are recognized at the exchange rate on the date of each significant event. The U.S. dollar is the functional currency for Ingredion’s subsidiaries in Mexico and Argentina. If the U.S. dollar is the functional currency, we translate the subsidiary’s monetary assets and liabilities at current exchange rates with the related adjustment included in net income and non-monetary assets and liabilities at historical exchange rates with the related translation adjustments included in AOCL.

Net Sales: Ingredion recognizes revenue under the core principle to depict the transfer of products to customers in an amount reflecting the consideration Ingredion expects to receive. To achieve that core principle, Ingredion applies the following five-step approach: (1) identify the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract and (5) recognize revenue when a performance obligation is satisfied.

Ingredion identifies customer purchase orders, which in some cases are governed by a master sales agreement, as the contracts with its customers. For each contract, Ingredion considers the transfer of products, each of which is distinct, to be the identified performance obligation. In determining the transaction price for the performance obligation, Ingredion evaluates whether the price is subject to adjustment to determine the consideration to which Ingredion expects to be entitled. The pricing model can be fixed or variable within the contract. The variable pricing model is based on historical commodity

pricing and is determinable prior to completion of the performance obligation. Additionally, Ingredion has certain sales adjustments for volume incentive discounts and other discount arrangements that reduce the transaction price. The reduction of transaction price is estimated using the expected value method based on an analysis of historical volume incentives or discounts, over a period of time considered adequate to account for current pricing and business trends. Historically, actual volume incentives and discounts relative to those estimated and included when determining the transaction price have not materially differed. Volume incentives and discounts are accrued at the satisfaction of the performance obligation and accounted for in Accounts payable and Accrued liabilities in the Consolidated Balance Sheets. The product price as specified in the contract, net of any discounts, is considered the standalone selling price as it is an observable input that represents the price if we sold the product to a similar customer in similar circumstances. Payment is received shortly after the performance obligation is satisfied and thus, we do not recognize any significant financing components.

Revenue is recognized when Ingredion’s performance obligation is satisfied and control is transferred to the customer, which occurs at a point in time, either upon delivery to an agreed upon location or to the customer. Further, in determining whether control has transferred, Ingredion considers if there is a present right to payment and legal title, along with risks and rewards of ownership having transferred to the customer.

Shipping and handling activities related to contracts with customers represent fulfillment costs and are recorded in Cost of sales in the Consolidated Statements of Income. Taxes assessed by governmental authorities and collected from customers are accounted for on a net basis and excluded from net sales. We expense costs to obtain a contract when we incur the costs since most contracts are one year or less. These costs primarily include Ingredion’s internal sales force compensation. Under the terms of these programs, the compensation is generally earned, and the costs are recognized when we recognize the revenue.

From time to time, Ingredion may enter into long-term contracts with its customers. Historically, the contracts entered into by Ingredion do not result in significant contract assets or liabilities. Any such arrangements are accounted for in Other assets or Accrued liabilities in the Consolidated Balance Sheets.

Cash and cash equivalents: Cash equivalents consist of all instruments purchased with an original maturity of three months or less and which have virtually no risk of loss in value.

Accounts receivable: Accounts receivable consist of trade and other receivables carried at approximate fair value, net of an allowance for credit losses. The allowance for credit losses is determined using our best estimate of expected credit losses based on historical experience and current forecasts of future economic conditions and we adjust this estimate over the life of the receivable as needed.

Inventories: Inventories are stated at the lower of cost or net realizable value. Costs are predominantly determined using the weighted average method.

Long-term investments: Ingredion may hold marketable securities and equity investments. Long-term investments are included in Other assets in the Consolidated Balance Sheets. Marketable securities are carried at fair value and we record changes in fair value to Other operating (income) in the Consolidated Statements of Income.

Equity investments in companies for which Ingredion does not have the ability to exercise significant influence are accounted for at fair value, with changes in fair value recorded in Other non-operating (income) expense in the Consolidated Statements of Income. Equity securities without readily determinable fair values are carried at cost, less impairments, if any, and adjusted for observable price changes for the identical or a similar investment of the same issuer. We perform a qualitative impairment assessment to determine if such investments are impaired. The qualitative assessment considers all available information, including declines in the financial performance of the issuing entity, the issuing entity’s operating environment and general market conditions.

Impairments of equity securities without readily determinable fair value are recorded in Other non-operating (income) expense in the Consolidated Statements of Income.

Equity investments in companies for which Ingredion has the ability to exercise significant influence, but not control, are accounted for using the equity method of accounting. Ingredion's share of the earnings or losses as reported by equity method investees, are recognized in Other operating (income) in the Consolidated Statements of Income. Each reporting period, Ingredion evaluates declines in the fair value of equity method investments below carrying value to determine if they are other-than-temporary and if so, Ingredion writes down the investment to its estimated fair value. Impairments are recognized in Restructuring/impairment charges and related adjustments in the Consolidated Statements of Income.

Leases: Ingredion determines if an arrangement contains a lease, as well as its classification as an operating lease or finance lease, at the inception of the agreement. Lease assets represent Ingredion's right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Lease assets and liabilities are recognized at the lease commencement date based on the present value of future lease payments over the lease term. As most of Ingredion's leases do not provide an implicit rate, Ingredion uses an incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The lease asset value includes in our calculation any prepaid lease payments made and any lease incentives received from the arrangement as a reduction of the asset. Ingredion's lease terms may include options to extend or terminate the lease and the impact of these options are included in the lease liability and lease asset calculations when the exercise of the option is at Ingredion's sole discretion and it is reasonably certain that we will exercise that option. Ingredion will not separate lease and non-lease components for its leases when it is impracticable to separate them, such as leases with variable payment arrangements. Leases with an initial term of 12 months or less are not recorded on the Consolidated Balance Sheets.

Ingredion has operating leases for certain rail cars, office space, warehouses and machinery and equipment. The commencement date used for the calculation of the lease obligations recorded is the latter of January 1, 2019 or the lease start date. Certain leases have options to extend the life of the lease, which are included in the liability calculation when the option is at the sole discretion of Ingredion and it is reasonably certain that Ingredion will exercise the option. Ingredion has certain leases that have variable payments based solely on output or usage of the leased asset. These variable operating lease assets are excluded from Ingredion's Consolidated Balance Sheets presentation and expensed as incurred. Lease expense is recognized on a straight-line basis over the lease term.

Property, plant and equipment and definite-lived intangible assets: Property, plant and equipment ("PP&E") is stated at cost less accumulated depreciation and definite-lived intangible assets are stated at cost less accumulated amortization. For PP&E, depreciation is generally computed on the straight-line basis over the estimated useful lives of depreciable assets, which range from 25 to 50 years for buildings and from two to 25 years for all other assets. Costs for mechanical stores represent costs for spare parts used in the production process that are capitalized in PP&E as part of machinery and equipment until they are utilized in the manufacturing process and expensed as a period cost. Where permitted by law, accelerated depreciation methods are used for tax purposes. For definite-lived intangible assets, we recognize the cost of these amortizable assets in operations over their estimated useful life, which range from two to 30 years. Ingredion reviews the recoverability of the net book value of PP&E and definite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset group may not be recoverable. If this review indicates that the carrying values of the asset group will not be recovered, the carrying values are reduced to fair value and an impairment loss is recognized. The impairment analysis for long-lived assets occurs before the goodwill impairment assessment described below.

Indefinite-lived intangible assets and Goodwill: We have certain indefinite-lived intangible assets in the form of tradenames and

trademarks. Our methodology for allocating the purchase price of acquisitions is based on established valuation techniques that reflect the consideration of a number of factors, including valuations performed by third-party appraisers when appropriate. Goodwill represents the excess of the cost of an acquired entity over the fair value assigned to identifiable assets acquired and liabilities assumed. Ingredion assesses indefinite-lived intangible assets and goodwill for impairment annually (or more frequently if impairment indicators arise), which we perform as of July 1 of each year.

In testing indefinite-lived intangible assets for impairment, Ingredion first assesses qualitative factors to determine whether it is more-likely-than-not that the fair value of an indefinite-lived intangible asset is impaired. After assessing the qualitative factors, if Ingredion determines that it is more-likely-than-not that the fair value of an indefinite-lived intangible asset is greater than its carrying amount, then we are not required to compute the fair value of the indefinite-lived intangible asset. If the qualitative assessment leads Ingredion to conclude otherwise, then we are required to determine the fair value of the indefinite-lived intangible assets and perform a quantitative impairment test. In performing the qualitative analysis, Ingredion considers various factors including net sales derived from these intangibles and certain market and industry conditions. Based on the results of the annual assessment, Ingredion concluded that as of July 1, 2021, there were no impairments in our indefinite-lived intangible assets.

In testing goodwill for impairment, Ingredion first assesses qualitative factors in determining whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. After assessing the qualitative factors, if Ingredion determines that it is more-likely-than-not that the fair value of a reporting unit is greater than its carrying amount, then Ingredion does not perform an impairment test. If Ingredion concludes otherwise, then Ingredion performs an impairment test that compares the fair value of the reporting unit to its carrying value. If the fair value of the reporting unit exceeds the carrying value of its net assets, goodwill is not considered impaired, and no further testing is required. If the carrying value of the net assets exceeds the fair value of the reporting unit, then an impairment exists for the difference between the fair value and carrying value of the reporting unit. This difference is not to exceed the goodwill recorded at the reporting unit. Based on the results of the annual assessment, Ingredion concluded that as of July 1, 2021, there were no impairments in our reporting units.

Hedging instruments: Derivative financial instruments used by Ingredion consist of commodity futures and option contracts, forward currency contracts and options, interest rate swap agreements and Treasury lock agreements ("T-Locks").

When Ingredion enters a derivative contract, we designate the derivative as a hedge of variable cash flows to be paid related to certain forecasted transactions ("a cash flow hedge"), as a hedge of the fair value of certain firm commitments ("a fair value hedge"), or as a non-designated hedging instrument. This process includes linking all derivatives that are designated as cash flow or fair value hedges to specific assets and liabilities on the Consolidated Balance Sheets, or to specific firm commitments or forecasted transactions. For all hedging relationships, Ingredion documents the hedging relationships and its risk-management objective and strategy for undertaking the hedge transactions, the hedging instrument, the hedged item, the nature of the risk being hedged, how the hedging instrument's effectiveness in offsetting the hedged risk will be assessed and a description of the method of measuring ineffectiveness. Ingredion also formally assesses both, at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in cash flows or fair values of hedged items. Unrealized gains and losses associated with marking cash flow hedging contracts to market (fair value) are recorded as a component of other comprehensive loss ("OCL").

Ingredion discontinues hedge accounting prospectively when it is unlikely that a forecasted transaction will occur or when we determine that the designation of the derivative as a hedging instrument is no longer appropriate since the derivative is no longer effective in offsetting changes in the cash flows or fair value of the originally intended hedged transaction. When hedge accounting is discontinued, Ingredion

continues to carry the derivative on the Consolidated Balance Sheets at its fair value and any accumulated gains and losses that were included in AOCL in the period a hedge was determined to be ineffective, as well as future gains and losses of the derivative, are recognized in earnings in the same line item affected by the originally intended hedged transaction.

Pension and other postemployment benefits: All U.S. pension and postemployment benefit plans and most non-U.S. pension and postemployment benefit plans value the vested benefit obligation based on the actuarial present value of the vested benefits to which employees are currently entitled based on their expected date of separation or retirement.

For defined benefit plans, the service cost component of net periodic benefit cost is presented within either Cost of sales or operating expenses on the Consolidated Statements of Income. The interest cost, expected return on plan assets, amortization of actuarial loss, amortization of prior service credit and settlement loss components of net periodic benefit cost are presented as Other non-operating (income) expense on the Consolidated Statements of Income.

Actuarial gains and losses in excess of 10 percent of the greater of the projected benefit obligation or the market-related value of plan assets are classified in AOCL, along with the related tax impact, and recognized as a component of net periodic benefit cost over the average remaining service period of a plan's active employees for active defined benefit pension plans and over the average remaining life of a plan's active employees for frozen defined benefit pension plans.

Share-based compensation: Ingredion has a stock incentive plan that provides for share-based employee compensation, including the granting of stock options, shares of restricted stock, restricted stock units and performance shares to certain key employees. Compensation expense is generally recognized in the Consolidated Statements of Income on a straight-line basis for all awards over the employee's vesting period or over a one-year required service period for certain retirement-eligible, executive level employees. Ingredion estimates a forfeiture rate at the time of certain grants and updates the estimate throughout the vesting of certain awards within the amount of compensation costs recognized in each period.

Earnings per common share: Basic earnings per common share ("EPS") is computed by dividing net income attributable to Ingredion by the weighted average number of shares outstanding. Diluted EPS is calculated using the treasury stock method, computed by dividing net income attributable to Ingredion by the weighted average number of shares outstanding, including the dilutive effect of outstanding stock options and other instruments associated with long-term incentive compensation plans.

Risks and uncertainties: Ingredion operates domestically and internationally. In each country, the business and assets are subject to varying degrees of risk and uncertainty. Ingredion insures its business and assets in each country against insurable risks in a manner that it deems appropriate. Because of this geographic dispersion, Ingredion believes that a loss from non-insurable events in any one country would not have a material adverse effect on Ingredion's operations as a whole. Additionally, Ingredion believes there is no significant concentration of risk with any single customer or supplier whose failure or non-performance would materially affect Ingredion's results.

New Accounting Standards

In March 2020, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting. The amendments in this update provide optional guidance for a limited period of time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. The amendments in this update are effective for all entities as of March 12, 2020 through December 31, 2022. We are currently evaluating the effect of adoption of ASU No. 2020-04 on our financial position and results of operations.

NOTE 2 – Acquisitions

On April 1, 2021, Ingredion acquired KaTech, a privately held company headquartered in Germany. KaTech provides advanced texture and stabilization solutions to the food and beverage industry. To complete the closing, Ingredion made a total cash payment of \$40 million, net of cash acquired, which we funded from cash on hand. The acquisition added \$26 million of goodwill and intangible assets, as well as \$14 million of tangible assets, which we preliminarily recorded on the acquisition date based on available information and incorporating our best estimates. Beginning at the acquisition date, our Consolidated Financial Statements reflect the effects of the acquisition and KaTech's financial results, which we report on a one-month lag in our Europe, Middle East and Africa ("EMEA") reportable business segment.

On November 3, 2020, Ingredion acquired 80 percent of the outstanding shares of Verdient Foods, Inc. ("Verdient"), as well as land and buildings Verdient leased from a third party. Verdient is a Canada-based producer of pulse-based protein concentrates and flours from peas, lentils and fava beans for human food applications. To complete the closing, Ingredion made a total cash payment of CAD \$33 million (USD \$26 million), which we funded from cash on hand. Before the acquisition, Ingredion owned 20 percent of Verdient's outstanding shares, which we had reported as an equity method investment until we acquired the remaining shares. The acquisition of Verdient added \$15 million of goodwill and \$14 million of tangible assets assumed on the acquisition date of November 3, 2020. Beginning on that date, the financial results of Verdient are wholly consolidated into our North America business segment in our Consolidated Financial Statements.

On July 1, 2020, Ingredion acquired a 75 percent controlling interest in PureCircle Limited ("PureCircle"), which is one of the leading producers and innovators of plant-based stevia sweeteners for global food and beverage industries. To complete the closing, Ingredion made a total cash payment of \$208 million, net of \$14 million of cash acquired, which we funded from cash on hand. Beginning at the acquisition date, we wholly consolidate PureCircle's financial statements into our Asia-Pacific business segment in our Consolidated Financial Statements and net income attributable to non-controlling interests that is deducted from our net income is the portion of net income attributable to the remaining 25 percent portion of PureCircle owned by non-controlling shareholders.

The following table summarizes the final purchase price allocations for the fair value of the PureCircle net assets at the date of acquisition, which included non-redeemable non-controlling interests for the non-controlling shareholders:

(in millions)	PureCircle
Working capital (excluding cash)	\$68
Property, plant and equipment	91
Other, net	(33)
Identifiable intangible assets	68
Goodwill	88
Total fair value, net of cash	282
Less: Non-redeemable non-controlling interests	74
Total purchase price, net of cash	\$208

The PureCircle acquisition's identifiable intangible assets include customer relationships, tradenames and proprietary technology. The fair values of these intangible assets under the fair value hierarchy were determined to be Level 3, which include unobservable inputs to determine the fair value of an asset or liability. Unobservable inputs are used to measure fair value to the extent that observable inputs are not available, thereby allowing for fair value estimates to be made in situations in which there is little, if any, market activity for an asset or liability at the measurement date. For more information on the fair value hierarchy, see Note 7.

The following table presents the fair values, valuation techniques and estimated remaining useful lives for PureCircle's identifiable assets at the acquisition date for these Level 3 measurements (dollars in millions):

Intangible Asset	Fair Value	Valuation Technique	Estimated Useful Life
Proprietary technology	\$32	Relief-from-royalty method	12 years
Tradenames	18	Relief-from-royalty method	15 years
Customer relationships	18	Multi-period excess earnings method	12 years

The fair values of proprietary technology, tradenames and customer relationships were determined through the valuation techniques described above using various judgmental assumptions such as discount rates, royalty rates and customer attrition rates, as applicable. The fair values of property, plant and equipment associated with the acquisitions were determined to be Level 3 under the fair value hierarchy. Property, plant and equipment values were estimated using either the cost or market approach.

On March 1, 2019, Ingredion completed its acquisition of Western Polymer LLC ("Western Polymer"), a U.S.-based producer of native and modified potato starches for industrial and food applications for \$42 million, net of cash acquired. Beginning on the acquisition date, our Consolidated Financial Statements reflect the effects of the acquisition and Western Polymer's financial results in our North America reportable business segment.

Pro-forma results of operation for any of the foregoing acquisitions have not been presented as the effect of each acquisition individually and in the aggregate with other acquisitions would not be material to Ingredion's results of operations for any periods presented.

Ingredion incurred \$5 million, \$11 million and \$3 million of pre-tax acquisition and integration costs in 2021, 2020 and 2019, respectively, associated with our acquisitions.

NOTE 3 – Intangible Assets Goodwill

The original carrying value of goodwill and accumulated impairment charges by reportable business segment at December 31, 2021, was as follows:

(in millions)	North America	South America	Asia-Pacific	EMEA	Total
Goodwill before impairment charges	\$622	\$50	\$316	\$69	\$1,057
Accumulated impairment charges	(1)	(33)	(121)	—	(155)
Balance at January 1, 2021	621	17	195	69	902
Acquisitions	2	—	6	9	17
Currency translation	—	(2)	1	(4)	(5)
Balance at December 31, 2021	\$623	\$15	\$202	\$74	\$914

Based on the results of our impairment assessments, we concluded that as of July 1, 2021, there were no impairments to goodwill.

Other Intangible Assets

The following tables summarize Ingredion's other intangible assets as of December 31, 2021 and 2020:

(in millions)	2021			Weighted Average Useful Life (years)
	Gross	Accumulated Amortization	Net	
Trademarks/tradenames (indefinite-lived)	\$143	—	\$143	—
Patents	33	(4)	29	12
Customer relationships	365	(134)	231	19
Technology	103	(101)	2	9
Other	43	(14)	29	15
Total other intangible assets	\$687	(253)	\$434	17

(in millions)	2020			Weighted Average Useful Life (years)
	Gross	Accumulated Amortization	Net	
Trademarks/tradenames (indefinite-lived)	\$143	—	\$143	—
Patents	33	(2)	31	12
Customer relationships	356	(115)	241	20
Technology	103	(101)	2	9
Other	38	(11)	27	19
Total other intangible assets	\$673	(229)	\$444	17

Amortization expense related to intangible assets was \$27 million, \$30 million and \$29 million for 2021, 2020 and 2019, respectively. Based on the results of our impairment assessments, we concluded that as of July 1, 2021, there were no impairments to our indefinite-lived other intangible assets. Based on acquisitions completed through 2021, intangible asset amortization expense for the next five years is shown below:

(in millions)	Amortization Expense
Year	
2022	\$27
2023	26
2024	26
2025	26
2026	25

NOTE 4 – Investments

Investments consisted of the following as of December 31, 2021 and 2020:

(in millions)	2021	2020
Equity investments	\$16	\$8
Equity method investments	104	10
Marketable securities	12	11
Total investments	\$132	\$29

Amyris Joint Venture

On June 1, 2021, Ingredion entered into an agreement with Amyris, Inc. (“Amyris”) for certain exclusive commercialization rights to Amyris’ rebaudioside M by fermentation product, the exclusive licensing of the product’s manufacturing technology and a 31 percent ownership stake in a joint venture for the products (the “Amyris joint venture”). In exchange, we contributed \$28 million of total consideration, which included \$10 million of cash, as well as non-exclusive intellectual property licenses and other consideration valued at \$18 million. The transaction resulted in an \$8 million gain recorded in Other operating (income), which included \$18 million related to the non-exclusive intellectual property licenses, offset by the \$10 million cash payment. Beginning June 1, 2021, Ingredion accounts for the investment under the equity method.

Arcor Joint Venture

On February 12, 2021, Ingredion entered into an agreement with an affiliate of Grupo Arcor, an Argentine food company, to establish Ingrear Holding S.A. (the “Arcor joint venture”), a joint venture to operate five manufacturing facilities in Argentina to sell value-added ingredients to customers in the food, beverage, pharmaceutical and other industries in Argentina, Chile and Uruguay. On August 2, 2021, Ingredion and Grupo Arcor completed all closing conditions to combine the manufacturing facilities, finalize the transaction and formally establish the Arcor joint venture, which is managed by a jointly appointed team of executives and is accounted for under the equity method.

We exchanged certain assets and liabilities with a fair value of \$71 million from our Argentina, Chile and Uruguay operations for 49 percent of the outstanding shares of the Arcor joint venture valued at \$64 million, as well as \$7 million of other consideration, including cash, from Grupo Arcor as of August 2, 2021. The transaction also resulted in an impairment charge for the transferred assets and liabilities more fully described in Note 5.

Beginning on the dates Ingredion entered into the agreements for equity method investees, our share of income from them is included in Other operating (income). Ingredion incurred \$6 million of pre-tax transaction and integration costs to acquire the Arcor and Amyris joint venture investments in 2021.

NOTE 5 – Restructuring and Impairment Charges

During 2021, Ingredion recorded \$387 million of net pre-tax restructuring and impairment charges. Ingredion recorded a pre-tax impairment charge of \$340 million related to the net assets we contributed to the Arcor joint venture and pre-tax restructuring charges of \$44 million primarily related to Ingredion’s Cost Smart program. During 2020 Ingredion recorded a total of \$93 million of pre-tax restructuring and impairment charges, including \$48 million of pre-tax restructuring costs and \$45 million of pre-tax impairment charges. During 2019 Ingredion recorded \$57 million of pre-tax restructuring charges related to Ingredion’s Cost Smart program.

Impairment Charges

At the announcement of our agreement to invest in the Arcor joint venture in the first quarter of 2021, we reclassified assets and liabilities we expected to contribute to the joint venture as held for sale in Other assets in the Consolidated Balance Sheets and we recorded an impairment charge of \$360 million based on our preliminary estimates of their fair value. Upon completion of the transaction in the third quarter of 2021, Ingredion finalized the fair value of the held for sale assets and liabilities, which resulted in a \$20 million favorable adjustment to the impairment charge in the quarter. Of the final \$340 million impairment charge for the net assets contributed to the Arcor joint venture in 2021, \$311 million was related to the write-off of the cumulative translation losses associated with the contributed net assets and \$29 million was related to the final write-down of the contributed net assets to fair value.

During 2020 Ingredion recorded a \$35 million impairment charge for its indefinite-lived intangible asset associated with the TIC Gums tradename

due to our decision to change our marketing strategy related to the brand. Additionally, we recorded a \$10 million other-than-temporary impairment of our equity method investment in Verdient when we agreed to acquire the remaining 80 percent interest in Verdient.

Restructuring Charges

During 2021 Ingredion recorded \$47 million of pre-tax net restructuring related charges. Ingredion recorded pre-tax net restructuring charges of \$27 million as part of our Cost Smart Cost of sales program, which primarily consisted of accelerated depreciation and other costs recorded in our North America segment. We also recorded \$17 million of employee-related and other costs associated with our Cost Smart selling, general and administrative expense (“SG&A”) program, consisting of professional services and employee-related severance costs primarily in our North America and EMEA segments.

During 2020 Ingredion recorded a total of \$48 million of pre-tax restructuring related charges. Ingredion recorded pre-tax restructuring charges of \$25 million for our Cost Smart SG&A program, which were primarily for employee-related severance costs recorded in our North America and EMEA segments, professional services costs in our North America segment and other costs. We also recorded \$23 million of pre-tax restructuring charges for our Cost Smart Cost of sales program, which were primarily for inventory and mechanical stores write-offs and other costs associated with the closure of our Lane Cove, Australia production facility and closures of North America facilities and product lines including our Berwick, Pennsylvania manufacturing facility and the cessation of ethanol production at our Cedar Rapids, Iowa facility.

During 2019 Ingredion recorded a total of \$57 million of pre-tax restructuring charges. We recorded \$29 million of pre-tax restructuring charges for our Cost Smart Cost of sales program, which were primarily for accelerated depreciation and employee-related severance associated with the closure of our Lane Cove, Australia production facility and professional services and other costs primarily in North America. Pre-tax restructuring charges of \$28 million were recorded for the Cost Smart SG&A program, which were primarily professional services and employee-related severance costs recorded in our North America and South America segments. The Cost Smart Cost of sales and Cost Smart SG&A programs began in 2018, during which we incurred \$49 million of costs as part of the Cost Smart cost of sales program and \$11 million of costs as part of the Cost Smart SG&A program.

A summary of Ingredion’s severance accrual at December 31, 2021, which we expect to fully pay in 2022, is as follows (\$ in millions):

Balance in severance accrual as of December 31, 2020	\$12
Joint venture related	1
Cost Smart	1
Payments made to terminated employees	(11)
Balance in severance accrual as of December 31, 2021	\$ 3

NOTE 6 – Derivative Instruments and Hedging Activities

Ingredion is exposed to market risk stemming from changes in commodity prices (primarily corn and natural gas), foreign currency exchange rates and interest rates. In the normal course of business, we actively manage our exposure to these market risks by entering various hedging transactions authorized under established policies that place controls on these activities. These transactions utilize exchange-traded derivatives or over-the-counter derivatives with investment grade counterparties. We have no collateral to counterparties under collateral funding arrangements as of December 31, 2021. Derivative financial instruments used by Ingredion consist of commodity-related futures, options and swap contracts, foreign currency-related forward contracts, interest rate swaps and treasury locks (“T-Locks”).

Commodity price hedging: Ingredion’s principal use of derivative financial instruments is to manage commodity price risk relating to anticipated purchases of corn and natural gas to be used in the

manufacturing process, generally over the next 12 to 24 months. Ingredion maintains a commodity-price risk management strategy that uses derivative instruments to minimize significant, unanticipated earnings fluctuations caused by commodity-price volatility. To manage price risk related to corn purchases primarily in North America, Ingredion uses corn futures and option contracts that trade on regulated commodity exchanges to lock in corn costs associated with fixed-priced customer sales contracts. Ingredion also uses over-the-counter natural gas swaps in North America to hedge a portion of its natural gas usage. These derivative financial instruments limit the impact that volatility resulting from fluctuations in market prices will have on corn and natural gas purchases. Ingredion's natural gas derivatives and the majority of its corn derivatives have been designated as cash flow hedging instruments.

For certain corn derivative instruments that are not designated as hedging instruments for accounting purposes, all realized and unrealized gains and losses from these instruments are recognized in Cost of sales during each accounting period. We enter these derivative instruments to further mitigate commodity price risk related to anticipated purchases of corn.

For commodity hedges designated as cash flow hedges, unrealized gains and losses associated with marking the commodity hedging contracts to market (fair value) are recorded as a component of OCL and included in the equity section of the Consolidated Balance Sheets as part of AOCL. These amounts, as well as their related tax effects, are subsequently reclassified into earnings in the same line item affected by the hedged transaction and in the same period or periods during which the hedged transaction affects earnings, or in the period a hedge is determined to be ineffective. Ingredion assesses the effectiveness of a commodity hedge contract based on changes in the contract's fair value. The changes in the market value of such contracts have historically been, and are expected to continue to be, highly effective at offsetting changes in the price of the hedged items. Gains and losses from cash flow hedging instruments reclassified from AOCL to earnings are reported as Cash provided by operating activities on the Consolidated Statements of Cash Flows.

Ingredion had outstanding futures and option contracts that hedged the forecasted purchase of approximately 135 million and 95 million bushels of corn as of December 31, 2021 and 2020, respectively. Ingredion also had outstanding swap contracts that hedged the forecasted purchase of approximately 35 million and 33 million MMBtu of natural gas as of December 31, 2021 and 2020, respectively.

Foreign currency hedging: Due to our global operations, including operations in many emerging markets, Ingredion is exposed to fluctuations in foreign currency exchange rates. As a result, Ingredion has exposure to translational foreign-exchange risk when the results of its foreign operations are translated to U.S. dollars and to transactional foreign-exchange risk when transactions not denominated in the functional currency are revalued. Ingredion's foreign-exchange risk management strategy uses derivative financial instruments such as foreign currency forward contracts, swaps and options to manage its transactional foreign exchange risk. Ingredion enters into foreign currency derivative instruments that are designated as both cash flow hedging instruments as well as instruments not designated as hedging instruments for accounting purposes in order to mitigate transactional foreign-exchange risk. Gains and losses from derivative financial instruments not designated as hedging instruments for accounting purposes are marked to market in earnings during each accounting period.

Ingredion hedges certain assets using foreign currency derivatives not designated as hedging instruments, which had a notional value of \$360 million and \$410 million as of December 31, 2021 and 2020, respectively. Ingredion also hedges certain liabilities using foreign currency derivatives not designated as hedging instruments, which had a notional value of \$205 million and \$224 million as of December 31, 2021 and 2020, respectively.

Ingredion hedges certain assets using foreign currency cash flow hedging instruments, which had a notional value of \$505 million and \$401 million as of December 31, 2021 and 2020, respectively. Ingredion also hedges certain liability positions using foreign currency cash flow hedging instruments, which had a notional value of \$708 million and \$542 million as of December 31, 2021 and 2020, respectively.

Interest rate hedging: Ingredion assesses its exposure to variability in interest rates by identifying and monitoring changes in interest rates that may adversely impact future cash flows and the fair value of existing debt instruments and by evaluating hedging opportunities. Ingredion's risk management strategy is to monitor interest rate risk attributable to both Ingredion's outstanding and forecasted debt obligations as well as Ingredion's offsetting hedge positions. Derivative financial instruments that have been used by Ingredion to manage its interest rate risk consist of interest rate swaps and T-Locks.

Ingredion periodically enters into interest rate swaps to hedge its exposure to interest rate changes. The changes in fair value of interest rate swaps designated as hedging instruments that effectively offset the variability in the fair value of outstanding debt obligations are reported in earnings. These amounts offset the gains or losses (the changes in fair value) of the hedged debt instruments that are attributable to changes in interest rates (the hedged risk), which are also recognized in earnings. During 2020 Ingredion settled an outstanding interest rate swap agreement that converted the interest rates on \$200 million of its \$400 million 4.625 percent senior notes due November 1, 2020, to variable rates. Ingredion redeemed these notes in July 2020 and settled the outstanding interest rate swap. Ingredion did not have any outstanding interest rate swaps as of December 31, 2021 or December 31, 2020.

Ingredion periodically enters into T-Locks to hedge its exposure to interest rate changes. The T-Locks are designated as hedges of the variability in cash flows associated with future interest payments caused by market fluctuations in the benchmark interest rate until the fixed interest rate is established and are accounted for as cash flow hedges. Accordingly, changes in the fair value of the T-Locks are recorded to AOCL until the consummation of the underlying debt offering, at which time any realized gain (loss) is amortized to earnings over the life of the debt. During 2020, Ingredion entered into and settled T-Locks associated with the issuance of senior notes due in 2030 and 2050. The realized loss upon settlement of the T-Locks was recorded in AOCL and is amortized into earnings over the term of the senior notes. Ingredion did not have outstanding T-Locks as of December 31, 2021 and December 31, 2020.

The derivative instruments designated as cash flow hedges included in AOCL as of December 31, 2021 and 2020, are reflected below:

Derivatives in Cash Flow Hedging Relationships (in millions)	Gains (Losses) included in AOCL as of December 31,	
	2021	2020
Commodity contracts, net of income tax effect of \$19 and \$16, respectively	\$51	\$47
Foreign currency contracts, net of income tax effect of \$ —	—	(1)
Interest rate contracts, net of income tax effect of \$1	(3)	(4)
Total	\$48	\$42

The fair value and balance sheet location of Ingredion's derivative instruments, presented gross in the Consolidated Balance Sheets, are reflected below:

Balance Sheet Location	Fair Value of Hedging Instruments as of December 31, 2021					
	Designated Hedging Instruments (in millions)			Non-Designated Hedging Instruments (in millions)		
	Commodity Contracts	Foreign Currency Contracts	Total	Commodity Contracts	Foreign Currency Contracts	Total
Accounts receivable, net	\$45	\$9	\$54	\$4	\$3	\$7
Other assets	7	6	13	—	—	—
Assets	52	15	67	4	3	7
Accounts payable and accrued liabilities	5	12	17	2	4	6
Non-current liabilities	2	6	8	—	1	1
Liabilities	7	18	25	2	5	7
Net (Liabilities)/Assets	\$45	\$(3)	\$42	\$2	\$(2)	\$—

Balance Sheet Location	Fair Value of Hedging Instruments as of December 31, 2020					
	Designated Hedging Instruments (in millions)			Non-Designated Hedging Instruments (in millions)		
	Commodity Contracts	Foreign Currency Contracts	Total	Commodity Contracts	Foreign Currency Contracts	Total
Accounts receivable, net	\$50	\$7	\$57	\$3	\$4	\$7
Other assets	4	—	4	—	1	1
Assets	54	7	61	3	5	8
Accounts payable and accrued liabilities	4	12	16	1	8	9
Non-current liabilities	2	—	2	—	2	2
Liabilities	6	12	18	1	10	11
Net (Liabilities)/Assets	\$48	\$(5)	\$43	\$2	\$(5)	\$(3)

Additional information relating to Ingredion's derivative instruments is presented below:

Derivatives in Cash Flow Hedging Relationships (in millions)	Gains (Losses) Recognized in OCL on Derivatives			Income Statement Location	Gains (Losses) Reclassified from AOCL into Income		
	2021	2020	2019		2021	2020	2019
Commodity contracts	\$218	\$17	\$(24)	Cost of sales	\$211	\$(62)	\$(12)
Foreign currency contracts	—	(7)	5	Net sales/ Cost of sales	(1)	(2)	—
Interest rate contracts	—	(5)	—	Financing costs	(1)	(1)	(2)
Total	\$218	\$5	\$(19)		\$209	\$(65)	\$(14)

Derivatives in Fair Value Hedging Relationships (in millions)	Income Statement Location of Derivatives Designated as Hedging Instruments	Gains (Losses) Recognized in Income			Income Statement Location of Hedged Items	Gains (Losses) Recognized in Income		
		2021	2020	2019		2021	2020	2019
Interest rate contracts	Financing costs	\$—	\$(1)	\$2	Financing costs	\$—	\$1	\$(2)

As of December 31, 2021, AOCL included \$45 million of net gains (net of income taxes of \$16 million) on commodities-related derivative instruments, T-Locks and foreign currency hedges designated as cash flow hedges that are expected to be reclassified into earnings during the next 12 months.

NOTE 7 – Fair Value Measurements

We measure certain assets and liabilities at fair value, which is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the "exit price") in an orderly transaction between market participants at the measurement date. In determining fair value, we use various valuation approaches. The hierarchy of those valuation approaches is in three levels based on the reliability of inputs. Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Below is a summary of the hierarchy levels:

- Level 1 inputs consist of quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly for substantially the full term of the financial instrument. Level 2 inputs are based on quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable for the asset or liability or can be derived principally from or corroborated by observable market data.
- Level 3 inputs are unobservable inputs for the asset or liability. Unobservable inputs are used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

Assets and liabilities measured at fair value on a recurring basis are presented below:

(in millions)	As of December 31, 2021				As of December 31, 2020			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Available for sale securities	\$12	\$12	\$—	\$—	\$11	\$11	\$—	\$—
Derivative assets	74	49	25	—	69	53	16	—
Derivative liabilities	32	22	10	—	29	3	26	—
Long-term debt	1,957	—	1,957	—	1,751	—	1,751	—

The carrying values of cash equivalents, short-term investments, accounts receivable, accounts payable and short-term borrowings approximate fair values. Commodity futures, options and swaps contracts are recognized at fair value. Foreign currency forward contracts, swaps and options are also recognized at fair value. The fair value of Ingredion's Long-term debt is estimated based on quotations of major securities dealers who are market makers in the securities. See Note 11 for information on the fair value of pension plan assets.

NOTE 8 – Financing Arrangements

Ingredion had total debt outstanding of approximately \$2.0 billion and \$2.2 billion at December 31, 2021 and 2020, respectively. Short-term borrowings at December 31, 2021, consist primarily of commercial paper borrowings and amounts outstanding under various unsecured local country operating lines of credit.

During 2021, Ingredion amended, restated and later repaid in full the \$380 million of borrowings outstanding under the term loan credit agreement that was amended and restated on March 16, 2021 (the "Term Loan Credit Agreement"). The Term Loan Credit Agreement restated the previous agreement by extending the maturity date of the borrowings under the previous agreement until March 15, 2022. No new borrowings under the Term Loan Credit Agreement were incurred in connection with the amendment and restatement. Borrowings under the Term Loan Credit Agreement bore interest at a variable annual rate based on a London Interbank Offering Rate ("LIBOR") or a base rate, at Ingredion's election, subject to the terms and conditions thereof, plus, in each case, an applicable margin. The Term Loan Credit Agreement reduced the applicable interest rate margin for loans accruing interest based on LIBOR from 0.80 percent to 0.75 percent. Ingredion was required to pay a fee on the unused availability under the Term Loan Credit Agreement. The Term Loan Credit Agreement contained customary representations, warranties, covenants and events of default, including covenants restricting the incurrence of liens, the incurrence of indebtedness by Ingredion's subsidiaries, and certain fundamental changes involving Ingredion and its subsidiaries, subject to certain exceptions in each case. Ingredion also had to maintain a specified maximum consolidated leverage ratio and a specified minimum consolidated interest coverage ratio.

On June 30, 2021, Ingredion entered into a new revolving credit agreement (the "Revolving Credit Agreement") to replace the previous revolving credit agreement, which was terminated. The Revolving Credit Agreement provides for a five-year unsecured revolving credit facility in an aggregate principal amount of \$1 billion outstanding at any time and the facility will mature on June 30, 2026. Loans under the facility will accrue interest at a per annum rate equal, at Ingredion's option, to either a specified LIBOR plus an applicable margin, or a base rate (generally determined according to the highest of the prime rate, the federal funds rate or the specified LIBOR plus 1.00 percent) plus an applicable margin. The Revolving Credit Agreement contains customary affirmative and negative covenants that, among other matters, specify customary reporting obligations, and that, subject to exceptions, restrict

the incurrence of additional indebtedness by Ingredion's subsidiaries, the incurrence of liens and the consummation of certain mergers, consolidations and sales of assets. Ingredion is subject to compliance, as of the end of each quarter, with a maximum leverage ratio of 3.5 to 1.0 and a minimum ratio of consolidated EBITDA to consolidated net interest expense of 3.5 to 1.0, as each such financial covenant is calculated for the most recently completed four-quarter period. As of December 31, 2021, Ingredion was in compliance with these financial covenants. In addition to borrowing availability under its Revolving Credit Agreement, as of December 31, 2021, Ingredion had approximately \$641 million of unused operating lines of credit in the various foreign countries in which it operates.

On July 27, 2021, Ingredion established a commercial paper program under which Ingredion may issue senior unsecured notes of short maturities up to a maximum aggregate principal amount of \$1 billion outstanding at any time. The notes may be sold from time to time on customary terms in the U.S. commercial paper market. Ingredion intends to use the note proceeds for general corporate purposes. Since the program was established, the average amount of commercial paper outstanding was \$670 million with an average interest rate of 0.27 percent and a weighted average maturity of 48 days. As of December 31, 2021, \$250 million of commercial paper was outstanding with an average interest rate of 0.35 percent and a weighted average maturity of 40 days. The amount of commercial paper outstanding under this program in 2022 is expected to fluctuate.

Presented below are Ingredion's debt carrying amounts, net of related discounts, premiums and debt issuance costs and fair values as of December 31, 2021 and 2020:

(in millions)	2021		2020	
	Carrying Value	Fair Value	Carrying Value	Fair Value
2.900% senior notes due June 1, 2030	\$595	\$619	\$594	\$596
3.200% senior notes due October 1, 2026	498	531	497	500
3.900% senior notes due June 1, 2050	390	455	390	395
6.625% senior notes due April 15, 2037	253	350	253	246
Revolving credit agreement	—	—	—	—
Other long-term borrowings	2	2	14	14
Total long-term debt	1,738	1,957	1,748	1,751
Term loan credit agreement due April 12, 2021	—	—	380	380
Commercial paper	250	250	—	—
Other short-term borrowings	58	58	58	58
Total short-term borrowings	308	308	438	438
Total debt	\$2,046	\$2,265	\$2,186	\$2,189

Ingredion guarantees certain obligations of its consolidated subsidiaries. The amount of the obligations guaranteed aggregated was \$61 million and \$58 million at December 31, 2021 and 2020, respectively.

NOTE 9 – Leases

The components of lease expense for the indicated periods were as follows:

(in millions)	2021	2020	2019
Operating lease cost	\$58	\$58	\$55
Variable operating lease cost	26	29	24
Short term lease cost	4	4	3
Lease expense	\$88	\$91	\$82

Ingredion currently has no finance leases. The following is a reconciliation of future undiscounted cash flows to the operating lease liabilities and the related operating lease assets as presented within Other non-current liabilities and Other assets, respectively, on Ingredion's Consolidated Balance Sheets as of December 31, 2021 (\$ in millions):

2022	\$52
2023	43
2024	33
2025	24
2026	19
Thereafter	52
Total future lease payments	223
Less imputed interest	22
Present value of future lease payments	201
Less current lease liabilities	47
Non-current operating lease liabilities	\$154
Operating lease assets	\$193

Additional information related to Ingredion's operating leases is listed below.

Other Information (\$ in millions)	Year ended December 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$58	\$60
Right-of-use assets obtained in exchange for lease liabilities:		
Operating leases	\$77	\$76
	As of December 31, 2021	As of December 31, 2020
Weighted average remaining lease term:		
Operating leases	6.5 years	5.5 years
Weighted average discount rate:		
Operating leases	4.0%	4.9%

NOTE 10 – Income Taxes

The components of income before income taxes and the provision for income taxes for the years indicated are shown below:

(in millions)	2021	2020	2019
Income before income taxes:			
U.S.	\$39	\$(15)	\$74
Foreign	209	521	508
Total income before income taxes	248	506	582
Provision for income taxes:			
Current tax (benefit) expense:			
U.S. federal	2	1	6
State and local	2	2	2
Foreign	180	156	147
Total current tax expense	184	159	155
Deferred tax expense (benefit):			
U.S. federal	(57)	(18)	(8)
State and local	(2)	(1)	—
Foreign	(2)	12	11
Total deferred tax expense (benefit)	(61)	(7)	3
Total provision for income taxes	\$123	\$152	\$158

Deferred income taxes are provided for the tax effects of temporary differences between the financial reporting basis and tax basis of assets and liabilities. Significant temporary differences as of December 31, 2021 and 2020, are summarized as follows:

(in millions)	2021	2020
Deferred tax assets attributable to:		
Employee benefit accruals	\$28	\$20
Pensions and postretirement plans	14	21
Lease liabilities	49	44
Bad debt	14	2
Inventory reserve	13	9
Net operating loss carryforwards	64	32
Tax credit carryforwards	18	11
Other	36	43
Total deferred tax assets	236	182
Valuation allowances	(67)	(30)
Net deferred tax assets	169	152
Deferred tax liabilities attributable to:		
Property, plant and equipment	175	173
Identified intangibles	47	46
Right-of-use lease assets	46	42
Foreign withholding and state taxes on unremitted earnings	1	31
Goodwill	27	20
Brazilian indirect tax credits	5	18
Derivative contracts	19	16
Total deferred tax liabilities	320	346
Net deferred tax liabilities	\$151	\$194

Of the \$64 million of tax-effected net operating loss carryforwards as of December 31, 2021, \$5 million and \$14 million are for U.S. federal and state loss carryforwards, respectively and \$45 million are for foreign loss carryforwards. U.S. federal and state loss carryforwards have various expiration periods starting in 2024. Of the \$45 million of foreign loss carryforwards, \$17 million are related to Canada, \$9 million to Argentina and \$8 million to Australia with carryforward periods of 20 years, 5 years and indefinite, respectively.

A valuation allowance is established when it is more likely than not that all or a portion of a deferred tax asset will not be realized. Prior to establishing a valuation allowance, we consider historical taxable income, scheduled reversal of deferred tax liabilities, tax planning strategies, tax carryovers and projected future taxable income. As of December 31, 2021, Ingredion maintained valuation allowances of \$5 million and \$14 million for U.S. federal and state loss carryforwards, respectively and \$32 million for foreign loss carryforwards. Ingredion also maintained valuation allowances of \$6 million for state credits and carryforwards, \$1 million for certain foreign tax credits and \$9 million on foreign subsidiaries' net deferred tax assets including other carryforwards, all of which we have determined will more likely than not expire prior to realization.

Net operating loss carryforwards disclosed in the financial statements differ from the as-filed tax returns due to an unrecognized tax benefit. Foreign net operating loss carryforwards and valuation allowances would increase \$11 million, absent the unrecognized tax benefit.

A reconciliation of the U.S. federal statutory tax rate to Ingredion's effective tax rate follows:

	2021	2020	2019
Provision for tax at U.S. statutory rate	21.0%	21.0%	21.0%
Tax rate difference on foreign income	13.3	9.1	6.2
Foreign currency FX	3.2	1.2	(0.2)
Inflation adjustments	(4.0)	(0.8)	(0.3)
Tax benefit of intercompany financing	(1.6)	(0.8)	(1.2)
U.S. international tax implications	0.8	0.6	2.2
Valuation allowance in Argentina	(0.4)	(0.6)	0.3
Favorable judgment on the treatment of credits and interest on indirect taxes	(4.8)	(0.6)	—
Unremitted earnings	(12.1)	—	—
Impairment charge related to Accor joint venture	35.5	—	—
Other items, net	(1.3)	0.9	(0.9)
Provision at effective tax rate	49.6%	30.0%	27.1%

Ingredion has significant operations in Mexico, Pakistan and Colombia, where the 2021 statutory tax rates are 30 percent, 29 percent and 31 percent, respectively. In addition, Ingredion's subsidiary in Brazil has a statutory tax rate of 34 percent before the application of local incentives that vary each year.

During 2021 Ingredion Brazil received favorable judgments related to the taxability of interest earned on indirect tax credits (discussed in Note 14) and interest paid on previously recovered tax credits. In addition, Ingredion Brazil recovered income taxes paid on government subsidies. These items resulted in a tax benefit of \$12 million or 4.8 percentage points on the effective tax rate for 2021.

Ingredion recorded a \$340 million impairment charge during 2021 for the net assets contributed to the Arcor joint venture (discussed in Note 5). No tax benefit was recorded for this impairment resulting in a 35.5 percentage point increase in the effective tax rate for 2021.

During 2021 Ingredion reversed an accrual for unremitted earnings due to restructuring and recorded a tax benefit of \$30 million or 12.1 percentage points on the effective rate. As of December 31, 2021, the remaining balance was a \$1 million accrual for foreign withholding on certain unremitted earnings from foreign subsidiaries. No foreign

withholding taxes, federal and state taxes or foreign currency gains/losses have been provided on distributions of approximately \$2.2 billion of unremitted earnings of Ingredion's foreign subsidiaries, as such amounts are considered permanently reinvested. It is not practicable to estimate the additional income taxes, including applicable foreign withholding taxes that would be due upon the repatriation of these earnings.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits, excluding interest and penalties, for 2021 and 2020 is as follows:

(in millions)	2021	2020
Balance at January 1	\$46	\$22
Additions for tax positions related to prior years	2	33
Reductions for tax positions related to prior years	(9)	—
Additions based on tax positions related to the current year	2	—
Reductions related to a lapse in the statute of limitations	(12)	(9)
Balance at December 31	\$29	\$46

Of the \$29 million of unrecognized tax benefits as of December 31, 2021, \$18 million represents the amount that, if recognized, could affect the effective tax rate in future periods. The remaining \$11 million includes an offset for net operating loss carryforwards that would have otherwise had a valuation allowance.

Ingredion accounts for interest and penalties related to income tax matters within the provision for income taxes. Ingredion has accrued \$3 million of interest expense and penalties related to the unrecognized tax benefits as of December 31, 2021.

Ingredion is subject to U.S. federal income tax as well as income tax in multiple states and non-U.S. jurisdictions. The U.S. federal tax returns are subject to audit for the years 2017 through 2020. In general, Ingredion's foreign subsidiaries remain subject to audit for years 2010 and later.

It is reasonably possible that the total amount of unrecognized tax benefits including interest and penalties will increase or decrease within 12 months of December 31, 2021. Ingredion believes it is reasonably possible that none of the unrecognized tax benefits may be recognized within 12 months of December 31, 2021, as a result of a lapse of the statute of limitations. Ingredion has classified none of the unrecognized tax benefits as current because they are not expected to be resolved within the next 12 months.

NOTE 11 – Pension and Other Postretirement Benefits

Ingredion and its subsidiaries sponsor noncontributory defined benefit pension plans (qualified and non-qualified) covering a substantial portion of employees in the U.S. and Canada and certain employees in other foreign countries. Plans for most salaried employees provide pay-related benefits based on years of service. Plans for hourly employees generally provide benefits based on flat dollar amounts and years of service. Ingredion's general funding policy is to make contributions to the plans in amounts that comply with minimum funding requirements and are within the limits of deductibility under current tax regulations. Certain foreign countries allow income tax deductions without regard to contribution levels and Ingredion's policy in those countries is to make contributions required by the terms of the applicable plan.

Included in Ingredion's pension obligation are nonqualified supplemental retirement plans for certain key employees. Benefits provided under these plans are unfunded and payments to plan participants are made directly by Ingredion.

Ingredion also provides healthcare and/or life insurance benefits for retired employees in the U.S., Canada and Brazil. Healthcare benefits for retirees outside the U.S., Canada and Brazil are generally covered through local government plans.

Pension Plans

Pension Obligation and Funded Status: The changes in pension benefit obligations and plan assets during 2021 and 2020, as well as the funded status and the amounts recognized in Ingredion's Consolidated Balance Sheets related to Ingredion's pension plans at December 31, 2021 and 2020, were as follows:

(in millions)	U.S. Plans		Non-U.S. Plans	
	2021	2020	2021	2020
Benefit obligation				
At January 1	\$409	\$387	\$275	\$254
Service cost	4	5	4	4
Interest cost	8	11	9	10
Benefits paid	(24)	(23)	(13)	(12)
Actuarial (gain) loss	(14)	29	(15)	14
Curtailment/settlement/amendments	—	—	(1)	—
Foreign currency translation	—	—	(5)	5
Benefit obligation at December 31	\$383	\$409	\$254	\$275
Fair value of plan assets				
At January 1	\$439	\$408	\$249	\$231
Actual return on plan assets	4	53	3	22
Employer contributions	1	1	7	4
Benefits paid	(24)	(23)	(13)	(12)
Plan settlements	—	—	(1)	—
Foreign currency translation	—	—	(1)	4
Fair value of plan assets at December 31	\$420	\$439	\$244	\$249
Funded status	\$37	\$30	\$(10)	\$(26)

As of December 31, 2021, the decrease in the benefit obligation for U.S. and non-U.S. plans was primarily driven by actuarial gains, which mainly resulted from an increase in discount rates due to an increase in bond yields compared to the prior year. As of December 31, 2020, the increase in benefit obligations for U.S. and non-U.S. plans was driven by actuarial losses, which mainly resulted from a decline in discount rates due to the fall in bond yields compared to the prior year.

Amounts recorded in the Consolidated Balance Sheets as of December 31, 2021 and 2020 were as follows:

(in millions)	U.S. Plans		Non-U.S. Plans	
	2021	2020	2021	2020
Non-current asset	\$47	\$41	\$44	\$36
Current liabilities	(1)	(1)	(1)	(1)
Non-current liabilities	(9)	(10)	(53)	(61)
Net asset (liability) recognized	\$37	\$30	\$(10)	\$(26)

Amounts recorded in AOCL, excluding tax effects that have not yet been recognized as components of net periodic benefit cost at December 31, 2021 and 2020, were as follows:

(in millions)	U.S. Plans		Non-U.S. Plans	
	2021	2020	2021	2020
Net actuarial loss	\$11	\$12	\$38	\$61
Transition obligation	—	—	—	1
Prior service (credit) cost	(4)	(5)	—	—
Net amount recognized	\$7	\$7	\$38	\$62

The amount recognized in AOCL at December 31, 2021 was flat compared to prior year, for the U.S. pension plans, mainly due to the increase in discount rates used to measure Ingredion's obligations under its U.S. pension which was offset by the actual return on assets being less than the expected return on assets.

The decrease in the net amount recognized in AOCL at December 31, 2021, for the non-U.S. pension plans, as compared to December 31, 2020, was primarily due to higher discount rates used to measure Ingredion's obligations under its non-U.S. pension plans.

The accumulated benefit obligation for all defined benefit pension plans was \$619 million and \$664 million at December 31, 2021 and 2020, respectively. Information for pension plans with a projected benefit obligation in excess of plan assets and an accumulated benefit obligation in excess of plan assets was as follows:

(in millions)	U.S. Plans		Non-U.S. Plans	
	2021	2020	2021	2020
Projected benefit obligation	\$(10)	\$(11)	\$(57)	\$(81)
Accumulated benefit obligation	(9)	(10)	(48)	(70)
Fair value of plan assets	—	—	3	19

Components of net periodic benefit cost consist of the following for 2021, 2020 and 2019:

(in millions)	U.S. Plans			Non-U.S. Plans		
	2021	2020	2019	2021	2020	2019
Service cost	\$4	\$5	\$5	\$4	\$4	\$3
Interest cost	8	11	14	9	10	10
Expected return on plan assets	(17)	(21)	(18)	(8)	(8)	(8)
Amortization of actuarial loss	—	—	1	2	2	2
Amortization of prior service credit	(1)	(1)	(1)	—	—	—
Net periodic benefit cost	\$(6)	\$(6)	\$1	\$7	\$8	\$7

Total amounts recorded in other comprehensive income and net periodic benefit cost were as follows:

(in millions, pre-tax)	U.S. Plans			Non-U.S. Plans		
	2021	2020	2019	2021	2020	2019
Net actuarial (gain) loss	\$(1)	\$(3)	\$(25)	\$(11)	\$1	\$7
Prior service cost	—	—	—	—	—	1
Amortization of actuarial loss	—	—	(1)	(2)	(2)	(2)
Amortization of prior service credit	1	1	1	—	—	—
Foreign currency translation	—	—	—	(11)	—	—
Total recorded in other comprehensive income	—	(2)	(25)	(24)	(1)	6
Net periodic benefit cost	(6)	(6)	1	7	8	7
Total recorded in other comprehensive income and net periodic benefit cost	\$(6)	\$(8)	\$(24)	\$(17)	\$7	\$13

The following weighted average assumptions were used to determine Ingredion's obligations for the pension plans for the given years:

	U.S. Plans		Non-U.S. Plans	
	2021	2020	2021	2020
Discount rate	2.91%	2.58%	3.47%	2.84%
Rate of compensation increase	4.18	4.26	3.67	3.54
Cash balance interest credit rate	4.11	3.76	—	—

The following weighted average assumptions were used to determine Ingredion's net periodic benefit cost for the pension plans for the given years:

	U.S. Plans			Non-U.S. Plans		
	2021	2020	2019	2021	2020	2019
Discount rate	2.58%	3.34%	4.38%	2.84%	3.55%	4.33%
Expected long-term return on plan assets	4.10	5.30	5.30	3.37	3.81	4.37
Rate of compensation increase	4.26	4.21	4.31	3.54	3.68	3.63
Cash balance interest crediting rate	3.76	4.16	4.49	—	—	—

For 2021, Ingredion assumed an expected long-term rate of return on assets of 4.10 percent for U.S. plans and 3.06 percent for Canadian plans. In developing the expected long-term rate of return assumption on plan assets, which consist mainly of U.S. and Canadian debt and equity securities, we evaluated historical rates of return achieved on plan assets and the asset allocation of the plans, input from Ingredion's independent actuaries and investment consultants, and historical trends in long-term inflation rates. Projected return estimates are based upon broad equity and bond indices.

The discount rate reflects a rate of return on high-quality fixed income investments that match the duration of the expected benefit payments. Ingredion has typically used returns on long-term, high-quality corporate AA bonds as a benchmark in establishing this assumption. Ingredion elects to use a full yield curve approach in the estimation of these components of benefit cost by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows.

Plan Assets: Ingredion's investment policy for its pension plans is to balance risk and return through diversified portfolios of fixed income securities, equity instruments and short-term investments. Maturities for fixed income securities are managed such that sufficient liquidity exists to meet near-term benefit payment obligations. For U.S. pension plans, the weighted average target range allocation of assets was 9-19 percent in equities and 81-91 percent in fixed income inclusive of other short-term investments. The asset allocation is reviewed regularly, and portfolio investments are rebalanced to the targeted allocation when considered appropriate.

Ingredion's weighted average asset allocations as of December 31, 2021 and 2020, for U.S. and non-U.S. pension plan assets are as follows:

Asset Category	U.S. Plans		Non-U.S. Plans	
	2021	2020	2021	2020
Equity securities	14%	20%	18%	18%
Debt securities	85	79	57	58
Cash and other	1	1	25	24
Total	100%	100%	100%	100%

With the exception of cash, which is considered Level 1 in the fair value hierarchy, all significant pension plan assets are held in collective trusts by Ingredion's U.S. and non-U.S. plans. The fair values of shares of collective trusts are based upon the net asset values of the funds

reported by the fund managers based on quoted market prices of the underlying securities as of the balance sheet date and are considered to be Level 2 fair value measurements. Investments measured at net asset value ("NAV"), as a practical expedient for fair value, are excluded from the fair value hierarchy. This may produce a fair value measurement that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while Ingredion believes its valuation methods are appropriate and consistent with those of other market participants, the use of different methodologies could result in different fair value measurements at the reporting date.

The fair values of Ingredion's plan assets by asset category are as follows:

(in millions)	Fair Value Measurements at December 31, 2021							
	NAV		Level 1		Level 2		Total	
	2021	2020	2021	2020	2021	2020	2021	2020
U.S. Plans:								
Equity index:								
U.S. ^(a)	\$ —	\$ —	\$ —	\$ —	\$37	\$45	\$37	\$45
International ^(b)	—	—	—	—	22	44	22	44
Fixed income index:								
Long bond ^(c)	—	—	—	—	179	276	179	276
Long government bond ^(d)	—	—	—	—	109	69	109	69
Other ^(e)	69	—	—	—	—	—	69	—
Cash ^(f)	—	—	—	—	4	5	4	5
Total U.S. Plans	\$69	\$—	\$—	\$—	\$351	\$439	\$420	\$439
Non-U.S. Plans:								
Equity index:								
U.S. ^(a)	\$ —	\$ —	\$ —	\$ —	\$26	\$26	\$26	\$26
International ^(b)	—	—	—	—	17	19	17	19
Fixed income index:								
Short bond ^(d)	—	—	—	—	34	31	34	31
Intermediate bond ^(h)	—	—	—	—	45	38	45	38
Long bond ⁽ⁱ⁾	—	—	—	—	93	106	93	106
Other ^(j)	—	—	—	—	21	26	21	26
Cash ^(f)	—	—	8	3	—	—	8	3
Total Non-U.S. Plans	\$ —	\$ —	\$8	\$3	\$236	\$246	\$244	\$249

^(a) This category consists of both passively and actively managed equity index funds that track the return of large capitalization U.S. equities.

^(b) This category consists of both passively and actively managed equity index funds that track an index of returns on international developed market equities.

^(c) This category consists of an actively managed fixed income index fund that invests in a diversified portfolio of fixed-income corporate securities with maturities generally exceeding 10 years.

^(d) This category consists of an actively managed fixed income index fund that invests in a diversified portfolio of fixed-income U.S. treasury securities with maturities generally exceeding 10 years.

^(e) This category consists of an actively managed common collective fund that invests in government bonds, collateralized mortgage obligations, investment grade private credit and real estate debt. This fund is priced monthly at the aggregated market value of the underlying investments and can be redeemed with 95 days notification.

^(f) This category represents cash or cash equivalents.

^(g) This category consists of both passively and actively managed fixed income index funds that track the return of short-duration government and investment grade corporate bonds.

^(h) This category consists of both passively and actively managed fixed income index funds that track the return of intermediate duration government and investment grade corporate bonds.

⁽ⁱ⁾ This category consists of both passively and actively managed fixed income index funds that track the return of government bonds and investment grade corporate bonds.

^(j) This category mainly consists of investment products provided by insurance companies that offer returns that are subject to a minimum guarantee and mutual funds.

During 2021 Ingredion made cash contributions of \$1 million and \$7 million to its U.S. and non-U.S. pension plans, respectively. Ingredion anticipates that in 2022 we will make cash contributions of \$1 million and \$3 million to our U.S. and non-U.S. pension plans, respectively. Cash contributions in subsequent years will depend on a number of factors including the performance of plan assets.

The following benefit payments to beneficiaries, which reflect anticipated future service, as appropriate, are expected to be made in the following years:

(in millions)	U.S. Plans	Non-U.S. Plans
2022	23	12
2023	24	13
2024	24	13
2025	23	13
2026	25	13
Years 2027 - 2031	125	72

Ingredion also maintains defined contribution plans. We make matching contributions to these plans that are subject to certain vesting requirements and are based on a percentage of employee contributions. Amounts charged to expense for defined contribution plans totaled \$22 million, \$22 million and \$20 million in 2021, 2020 and 2019, respectively.

Postretirement Benefit Plans

Ingredion's postretirement benefit plans currently are not funded. The information presented below includes plans in the U.S., Brazil and Canada. The changes in the benefit obligations of the plans during 2021 and 2020, as well as the amounts recognized in Ingredion's Consolidated Balance Sheets at December 31, 2021 and 2020, are as follows:

(in millions)	2021	2020
Accumulated postretirement benefit obligation		
At January 1	\$68	\$69
Service cost	1	—
Interest cost	2	3
Amendments	4	—
Actuarial (gain) loss	(5)	4
Benefits paid	(4)	(5)
Foreign currency translation	(1)	(3)
At December 31	65	68
Fair value of plan assets	—	—
Funded status	\$(65)	\$(68)

As of December 31, 2021, the decrease in the postretirement benefit obligation was mainly driven by higher actuarial gains, partially offset by a \$4 million amendment and favorable foreign currency translation related to Ingredion's Canada and Brazil postretirement plans. The North Kansas City retiree medical group shifted from a multiemployer plan to the Ingredion Post Retirement Medical Health and Life Plan at the end of 2021, causing an increase to the postretirement obligation of \$4 million in 2021. As of December 31, 2020, the decrease in the postretirement benefit obligation was mainly driven by favorable foreign currency translation related to Ingredion's Canada and Brazil postretirement plans.

Amounts recorded in the Consolidated Balance Sheets at December 31, 2021 and 2020 consist of:

(in millions)	2021	2020
Current liabilities	\$(4)	\$(4)
Non-current liabilities	(61)	(64)
Net liability recognized	\$(65)	\$(68)

Amounts recorded in AOCL, excluding tax effects that have not yet been recognized as components of net periodic benefit cost at December 31, 2021 and 2020 were as follows:

(in millions)	2021	2020
Net actuarial loss	\$8	\$17
Prior service cost	5	—
Net amount recognized	\$13	\$17

Components of net periodic benefit cost consisted of the following for 2021, 2020 and 2019:

(in millions)	2021	2020	2019
Service cost	\$1	\$—	\$1
Interest cost	2	3	3
Amortization of actuarial loss	1	1	—
Amortization of prior service credit	(2)	(2)	(2)
Net periodic benefit cost	\$2	\$2	\$2

Total amounts recorded in other comprehensive income and net periodic benefit cost for 2021, 2020 and 2019 was as follows:

(in millions, pre-tax)	2021	2020	2019
Net actuarial loss (gain)	\$(5)	\$4	\$6
Prior service cost	4	—	—
Amortization of prior service credit	2	2	2
Amortization of actuarial loss	(1)	(1)	—
Foreign currency translation	(4)	—	—
Total recorded in other comprehensive income	(4)	5	8
Net periodic benefit cost	2	2	2
Total recorded in other comprehensive income and net periodic benefit cost	\$(2)	\$7	\$10

The following weighted average assumptions were used to determine Ingredion's obligations under the postretirement plans in the given years:

	2021	2020
Discount rate	4.22%	3.69%

The following weighted average assumptions were used to determine Ingredion's net postretirement benefit cost:

	2021	2020	2019
Discount rate	3.69%	4.42%	5.49%

The discount rate reflects a rate of return on high-quality fixed-income investments that match the duration of expected benefit payments. Ingredion has typically used returns on long-term, high-quality corporate AA bonds as a benchmark in establishing this assumption.

The healthcare cost trend rates used in valuing Ingredion's postretirement benefit obligations are established based upon actual healthcare trends and consultation with actuaries and benefit providers. The following assumptions were used as of December 31, 2021:

	U.S.	Canada	Brazil
2021 increase in per capita cost	6.00%	5.74%	7.79%
Ultimate trend	4.50%	4.00%	7.79%
Year ultimate trend reached	2032	2040	2021

The following benefit payments to beneficiaries, which reflect anticipated future service, as appropriate, are expected to be made under Ingredion's postretirement benefit plans:

(in millions)	
2022	\$4
2023	4
2024	4
2025	4
2026	4
Years 2027 - 2031	21

Multi-employer Plan

Ingredion participates in and contributes to one multi-employer benefit plan under the terms of collective bargaining agreements that cover certain union-represented employees and retirees in the U.S. The plan covers medical and dental benefits for active hourly employees and retirees represented by the United Steelworkers Union for certain U.S. locations. The risks of participating in this multi-employer plan are different from single-employer plans. This plan receives contributions from two or more unrelated employers pursuant to one or more collective bargaining agreements and the assets contributed by one employer may be used to fund the benefits of all employees covered within the plan.

Ingredion is required to make contributions to this multi-employer plan as determined by the terms and conditions of the collective bargaining agreements and plan terms, but Ingredion does not provide more than five percent of the total contributions to the plan. For 2021, 2020 and 2019, Ingredion made regular contributions of \$14 million, \$14 million and \$13 million, respectively, to the plan. Ingredion cannot currently estimate the amount of multi-employer plan contributions that will be required in 2022 and future years, but these contributions could increase due to healthcare cost trends. The North Kansas City retiree medical group shifted from a multiemployer plan to the U.S. postretirement benefit plan at the end of 2021. The remaining collective bargaining agreements associated with the multi-employer plan expire during 2023 through 2024.

NOTE 12 – Equity

Preferred stock: Ingredion has authorized 25 million shares of \$0.01 par value preferred stock, none of which were issued or outstanding at December 31, 2021 and 2020.

Treasury stock: On October 22, 2018, the Board of Directors authorized a stock repurchase program permitting Ingredion to purchase up to 8 million of its outstanding shares of common stock from November 5, 2018 through December 31, 2023. The parameters of Ingredion's stock repurchase program are not established solely with reference to the dilutive impact of shares issued under Ingredion's stock incentive plan. However, Ingredion expects that, over time, share repurchases will offset the dilutive impact of shares issued under the stock incentive plan.

On November 5, 2018, Ingredion entered into a Variable Timing Accelerated Share Repurchase ("ASR") program with JPMorgan ("JPM"). Under the ASR program, Ingredion paid \$455 million on November 5, 2018 and acquired 4 million shares of its common stock having an approximate value of \$423 million on that date. On February 5, 2019, Ingredion and JPM settled the difference between the initial price and average daily volume-weighted average price ("VWAP") less the agreed upon discount during the term of the agreement. The final VWAP was \$98.04 per share, which was less than originally paid. Ingredion settled the difference in cash, resulting in JPM returning \$63 million of the upfront payment to Ingredion on February 6, 2019, which lowered the total cost of repurchasing the 4 million shares of common stock to \$392 million. Ingredion adjusted Additional paid-in capital and Treasury stock by \$32 million and \$31 million, respectively, in 2019 for this inflow of cash.

During 2021, Ingredion repurchased 765 thousand shares of common stock in open market transactions at a net cost of \$68 million. Ingredion did not repurchase any shares of common stock in open market transactions in 2020.

Set forth below is a reconciliation of common stock share activity for 2021, 2020 and 2019:

(Shares of common stock, in thousands)	Issued	Held in Treasury	Outstanding
Balance at December 31, 2018	77,811	11,285	66,526
Issuance of restricted stock units as compensation	—	(105)	105
Performance shares and other share-based awards	—	(5)	5
Stock options exercised	—	(182)	182
Purchase/acquisition of treasury stock	—	—	—
Balance at December 31, 2019	77,811	10,993	66,818
Issuance of restricted stock units as compensation	—	(69)	69
Performance shares and other share-based awards	—	(5)	5
Stock options exercised	—	(124)	124
Purchase/acquisition of treasury stock	—	—	—
Balance at December 31, 2020	77,811	10,795	67,016
Issuance of restricted stock units as compensation	—	(69)	69
Performance shares and other share-based awards	—	(6)	6
Stock options exercised	—	(331)	331
Purchase/acquisition of treasury stock	—	765	(765)
Balance at December 31, 2021	77,811	11,154	66,657

Share-based payments: The following table summarizes the components of Ingredion's share-based compensation expense for the years ended December 31, 2021, 2020 and 2019:

(in millions)	2021	2020	2019
Stock options:			
Pre-tax compensation expense	\$3	\$4	\$3
Income tax benefit	—	—	—
Stock option expense, net of income taxes	3	4	3
Restricted stock units ("RSUs"):			
Pre-tax compensation expense	12	12	10
Income tax benefit	(1)	(1)	(2)
RSUs, net of income taxes	11	11	8
Performance shares and other share-based awards:			
Pre-tax compensation expense	8	7	5
Income tax benefit	(1)	(1)	—
Performance shares and other share-based compensation expense, net of income taxes	7	6	5
Total share-based compensation:			
Pre-tax compensation expense	23	23	18
Income tax benefit	(2)	(2)	(2)
Total share-based compensation expense, net of income taxes	\$21	\$21	\$16

Ingredion has a stock incentive plan ("SIP") administered by the People, Culture and Compensation Committee ("Compensation Committee") of its Board of Directors that provides for the granting of stock options, restricted stock, restricted stock units and other share-based awards to certain key employees. A maximum of 8 million shares were originally authorized for awards under the SIP. On May 19, 2021, Ingredion's stockholders approved an increase in the number of shares then available under the SIP by 2.5 million shares. As of December 31, 2021, 3.8 million shares were available for future grants under the SIP. Shares covered by awards that expire, terminate or lapse will again be available for the grant of awards under the SIP.

Stock Options: Under Ingredion's SIP, stock options are granted at exercise prices that equal the market value of the underlying common stock on the date of grant. The options have a 10-year term and are exercisable upon vesting, which occurs over a three-year period at the anniversary dates of the date of grant.

Ingredion granted non-qualified options to purchase 358 thousand, 336 thousand and 247 thousand shares for the years ended December 31, 2021, 2020 and 2019, respectively. The fair value of each option grant was estimated using the Black-Scholes option-pricing model with the following assumptions:

	For the Year Ended December 31,		
	2021	2020	2019
Expected life (in years)	5.5	5.5	5.5
Risk-free interest rate	0.6%	1.4%	2.5%
Expected volatility	23.2%	19.8%	19.7%
Expected dividend yield	2.9%	2.9%	2.7%

The expected life of options represents the weighted average period of time that options granted are expected to be outstanding giving consideration to vesting schedules and Ingredion's historical exercise patterns. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the grant date for the period corresponding to the expected life of the options. Expected volatility is based on historical volatilities of Ingredion's common stock. Dividend yields are based on Ingredion's dividend yield at the date of issuance.

A summary of stock option transactions in 2021 is as follows:

	Number of Options (in thousands)	Weighted Average Exercise Price per Share	Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in millions)
Outstanding as of December 31, 2020	2,238	\$86.55	5.15	\$14
Granted	358	87.12		
Exercised	(331)	62.05		
Cancelled	(111)	91.39		
Outstanding as of December 31, 2021	2,154	\$90.39	5.26	\$26
Exercisable as of December 31, 2021	1,591	\$91.21	4.09	\$21

For 2021, 2020 and 2019, cash received from the exercise of stock options was \$21 million, \$6 million and \$6 million, respectively. As of December 31, 2021, the unrecognized compensation cost related to non-vested stock options totaled \$2 million, which is expected to be amortized over the weighted-average period of approximately 1.7 years.

Additional information pertaining to stock option activity is as follows:

(dollars in millions, except per share)	Year Ended December 31,		
	2021	2020	2019
Weighted average grant date fair value of stock options granted (per share)	\$12.31	\$11.48	\$14.02
Total intrinsic value of stock options exercised	10	5	10

Restricted Stock Units: Ingredion has granted restricted stock units ("RSUs") to certain key employees. The RSUs are primarily subject to cliff vesting, generally after three years, provided the employee remains in the service of Ingredion. The fair value of the RSUs is determined based upon the number of shares granted and the quoted market price of Ingredion's common stock at the date of the grant.

The following table summarizes RSU activity in 2021:

(shares in thousands)	Number of Restricted Shares	Weighted Average Fair Value per Share
Non-vested at December 31, 2020	418	\$96.45
Granted	239	87.79
Vested	(95)	121.80
Cancelled	(76)	89.52
Non-vested at December 31, 2021	486	\$88.34

The total fair value of RSUs that vested in 2021, 2020 and 2019 was \$12 million, \$17 million and \$16 million, respectively.

At December 31, 2021, the total remaining unrecognized compensation cost related to RSUs was \$17 million, which will be amortized on a weighted-average basis over approximately 1.8 years. Recognized compensation cost related to unvested RSUs is included in Share-based payments subject to redemption in the Consolidated Balance Sheets and totaled \$25 million and \$23 million at December 31, 2021 and 2020, respectively.

Performance Shares: Ingredion has a long-term incentive plan for senior management in the form of performance shares. Historically these performance shares vested based solely on Ingredion's total shareholder return as compared to the total shareholder return of its peer group over the three-year vesting period. Beginning with the 2019 performance share grants, the vesting of the performance shares are based on two performance metrics. Fifty percent of the performance shares awarded

vest based on Ingredion's total shareholder return as compared to the total shareholder return of its peer group and the remaining fifty percent vest based on the calculation of Ingredion's three-year average Adjusted Return on Invested Capital ("ROIC") against an established ROIC target. The 2021 performance shares were granted in two tranches. Vesting for the first tranche was split evenly between Ingredion's total shareholder return and Adjusted ROIC against the applicable target. The second tranche of performance share awards vest 100 percent based on the calculation of Adjusted ROIC against the applicable target.

For the 2021 performance shares awarded based on Ingredion's total shareholder return, the number of shares that ultimately vest can range from zero to 200 percent of the grant depending on Ingredion's total shareholder return as compared to the total shareholder return of its peer group. The share award vesting will be calculated at the end of the three-year period and is subject to approval by management and the Compensation Committee of the Board of Directors. Compensation expense is based on the fair value of the performance shares at the grant date, established using a Monte Carlo simulation model. The total compensation expense for these awards is amortized over a three-year graded vesting schedule.

For the 2021 performance shares awarded based on Adjusted ROIC, the number of shares that ultimately vest can range from zero to 200 percent of the grant depending on Ingredion's Adjusted ROIC performance against the target. The share award vesting will be calculated at the end of the three-year period and is subject to approval by management and the Compensation Committee. Compensation expense is based on the market price of our common stock on the date of the grant and the final number of shares that ultimately vest. Ingredion will estimate the potential share vesting at least annually to adjust the compensation expense for these awards over the vesting period to reflect Ingredion's estimated Adjusted ROIC performance against the target. The total compensation expense for these awards is amortized over a three-year graded vesting schedule.

Ingredion awarded 108 thousand, 81 thousand and 70 thousand performance shares in 2021, 2020 and 2019, respectively. The weighted average fair value of the shares granted during the 2021, 2020 and 2019 was \$100.29, \$94.48 and \$92.57, respectively.

The 2018 performance share awards that vested during 2021 achieved a zero percent payout of the granted performance shares. As of December 31, 2021, the 2019 performance share awards are estimated to pay out at zero percent. Additionally, there were 27 thousand shares cancelled during 2021.

As of December 31, 2021, the unrecognized compensation cost relating to these plans was \$7 million, which will be amortized over the remaining requisite service periods of 1.9 years. Recognized compensation cost related to these unvested awards is included in share-based payments subject to redemption in the Consolidated Balance Sheets and totaled \$11 million and \$7 million at December 31, 2021 and 2020, respectively.

Other share-based awards under the SIP: Under the compensation agreement with the Board of Directors, \$130,000 of a non-employee director's annual retainer and 50 percent of the additional retainers paid to the Lead Director and the Chairs of committees of the Board of Directors are awarded in shares of common stock or, if a director elects to defer all or a portion of their common stock or cash compensation, in shares of restricted stock units. These restricted units may not be transferred until a date not less than six months after the director's termination of service from the Board of Directors, at which time the restricted units will be settled by delivering shares of common stock with fractional shares to be paid in cash. The compensation expense relating to this plan included in the Consolidated Statements of Income was approximately \$2 million for 2021 and 2020, as well as \$1 million for 2019. At December 31, 2021, there were approximately 253 thousand restricted stock units outstanding under this plan at a carrying value of approximately \$17 million.

Accumulated Other Comprehensive Loss: A summary of accumulated other comprehensive income (loss) for 2021, 2020 and 2019, is presented below:

(in millions)	Cumulative Translation Adjustment	Hedging Activities	Pension and Postretirement Adjustment	AOCL
Balance, December 31, 2018	\$(1,080)	(5)	(69)	(1,154)
Other comprehensive (loss) income before reclassification adjustments	(9)	(19)	11	(17)
Amount reclassified from accumulated OCL	—	14	—	14
Tax benefit (provision)	—	1	(2)	(1)
Net other comprehensive (loss) income	(9)	(4)	9	(4)
Balance, December 31, 2019	(1,089)	(9)	(60)	(1,158)
Other comprehensive (loss) income before reclassification adjustments	(25)	5	(2)	(22)
Amount reclassified from accumulated OCL	—	65	—	65
Tax (provision) benefit	—	(19)	1	(18)
Net other comprehensive (loss) income	(25)	51	(1)	25
Balance, December 31, 2020	\$(1,114)	\$42	\$(61)	\$(1,133)
Other comprehensive (loss) gain before reclassification adjustments	(100)	218	28	146
Loss (gain) reclassified from accumulated OCL	311	(209)	—	102
Tax (provision)	—	(3)	(9)	(12)
Net other comprehensive income	211	6	19	236
Balance, December 31, 2021	\$(903)	\$48	\$(42)	\$(897)

Supplemental Information: The following table provides the computation of basic and diluted earnings per common share (“EPS”) for the periods presented.

(in millions, except per share amounts)	2021			2020			2019		
	Net Income Available to Ingredion	Weighted Average Shares	Per Share Amount	Net Income Available to Ingredion	Weighted Average Shares	Per Share Amount	Net Income Available to Ingredion	Weighted Average Shares	Per Share Amount
Basic EPS	\$117	67.1	\$1.74	\$348	67.2	\$5.18	\$413	66.9	\$ 6.17
Effect of Dilutive Securities:									
Incremental shares from assumed exercise of dilutive stock options and vesting of dilutive RSUs and other awards		0.7			0.4			0.5	
Diluted EPS	\$117	67.8	\$1.73	\$348	67.6	\$5.15	\$413	67.4	\$6.13

Approximately 0.9 million, 1.7 million and 1.1 million share-based awards of common stock were excluded in 2021, 2020 and 2019, respectively, from the calculation of the weighted average number of shares outstanding for diluted EPS because their effects were anti-dilutive.

NOTE 13 – Segment Information

Ingredion is principally engaged in the production and sale of starches and sweeteners for a wide range of industries and is managed geographically on a regional basis. The nature, amount, timing and uncertainty of Ingredion’s Net sales are managed by Ingredion primarily based on our geographic segments, which we classify and report as North America, South America, Asia-Pacific and collectively Europe, Middle East and Africa (“EMEA”). Our North America segment includes businesses in the U.S., Mexico and Canada. Our South America segment includes businesses and our share of earnings from investments in joint ventures in Brazil, Argentina, Chile, Colombia, Ecuador, Peru and Uruguay. Our Asia-Pacific segment includes businesses in South Korea, Thailand, China, Australia, Japan, New Zealand, Indonesia, Singapore, the Philippines, Malaysia, India and Vietnam. Our EMEA segment includes businesses in Pakistan, Germany, Poland, the United Kingdom and South Africa. Net sales by product are not presented because to do so would be impracticable.

Presented below are Ingredion’s net sales to unaffiliated customers by reportable segment for the years indicated:

(in millions)	2021	2020	2019
Net sales to unaffiliated customers:			
North America	\$4,137	\$3,662	\$3,834
South America	1,057	919	960
Asia-Pacific	997	813	823
EMEA	703	593	592
Total net sales	\$6,894	\$5,987	\$6,209

Presented below is Ingredion’s operating income by reportable segment for the years indicated:

(in millions)	2021	2020	2019
Operating income:			
North America	\$487	\$487	\$522
South America	138	112	96
Asia-Pacific	87	80	87
EMEA	106	102	99
Corporate	(133)	(122)	(99)
Subtotal	685	659	705
Acquisition/integration costs	(3)	(11)	(3)
Restructuring/impairment charges	(47)	(93)	(57)
Impairment on disposition of assets	(340)	-	-
Other matters	15	27	19
Total operating income	\$310	\$582	\$664

Presented below are Ingredion’s total assets by reportable segment as of December 31, 2021 and 2020:

(in millions)	As of December 31,	
	2021	2020
Assets:		
North America ^(a)	\$4,203	\$4,231
South America	799	818
Asia-Pacific	1,403	1,255
EMEA	594	554
Total assets	\$6,999	\$6,858

^(a) For purposes of presentation, North America includes Corporate assets.

Presented below are Ingredion's depreciation and amortization, mechanical stores expense and capital expenditures and mechanical stores purchases by reportable segment:

(in millions)	2021	2020	2019
Depreciation and amortization:			
North America ^(a)	\$146	\$147	\$146
South America	18	19	22
Asia-Pacific	40	32	37
EMEA	16	15	15
Total	\$220	\$213	\$220
Mechanical stores expense ^(b) :			
North America ^(a)	\$43	\$39	\$40
South America	6	7	10
Asia-Pacific	3	4	4
EMEA	3	4	3
Total	\$55	\$54	\$57
Capital expenditures and mechanical stores purchases:			
North America ^(a)	\$166	\$243	\$226
South America	38	39	45
Asia-Pacific	81	46	40
EMEA	15	12	17
Total	\$300	\$340	\$328

^(a) North America includes Corporate activities.

^(b) Represents costs for spare parts used in the production process that are recorded in PP&E as part of machinery and equipment until they are utilized in the manufacturing process and expensed as a period cost.

The following table presents net sales to unaffiliated customers by country of origin for the years indicated:

(in millions)	Net Sales		
	2021	2020	2019
U.S.	\$2,509	\$2,284	\$2,368
Mexico	1,170	984	1,075
Brazil	586	447	479
Canada	459	393	390
Korea	323	268	270
Others	1,847	1,611	1,627
Total	\$6,894	\$5,987	\$6,209

The following table presents long-lived assets (excluding intangible assets and deferred income taxes) by country as of December 31, 2021 and 2020:

(in millions)	Long-lived Assets	
	2021	2020
U.S.	\$1,317	\$1,276
Mexico	320	342
Canada	272	245
Brazil	189	202
Thailand	156	165
Germany	135	137
China	128	52
Others	423	423
Total	\$2,940	\$2,842

NOTE 14 – Commitments and Contingencies

In January 2019, Ingredion's Brazilian subsidiary received a favorable decision from the Federal Court of Appeals ("Lower Court") in Sao Paulo, Brazil, related to certain indirect taxes collected in prior years (referred as "Brazil indirect tax matters" in these financial statements). Ingredion finalized its calculation of the amount of the credits and interest due from the favorable decision, concluding that Ingredion could be entitled to approximately \$66 million of credits spanning a period from 2005 to 2018. The Department of Federal Revenue of Brazil, however, issued an Internal Ruling in which it charged that Ingredion was entitled to only \$22 million of the calculated indirect tax credits and interest for the period from 2005 to 2014. As a result of the Internal Ruling, Ingredion recorded \$22 million in pre-tax benefits in Other operating (income) in the Consolidated Statements of Income in 2019.

The Brazil National Treasury filed a motion for clarification with the Brazilian Supreme Court ("Court"), asking the Court, among other things, to modify the Lower Court's decision to approve the Internal Ruling. In 2020, Ingredion received another favorable Lower Court judgment that clarified the calculation of Ingredion's benefit, allowing Ingredion to claim gross treatment within the indirect tax claim calculation and a larger indirect tax claim against the government. As a result of the decision, Ingredion recorded an additional \$35 million pre-tax benefit in the Consolidated Income Statements in Other operating (income) in 2020 related to the open period of 2005 to 2014.

In May 2021, the Court issued its ruling related to the calculation of certain indirect taxes, which affirmed the Lower Court rulings that Ingredion had received in previous years and affirmed that Ingredion is entitled to the previously recorded tax credits. The Court ruling ensures that Ingredion will be entitled to \$15 million of additional credits from the period of 2015 to 2018 that was previously unrecorded pending a final Court ruling. Ingredion recorded the \$15 million of additional credits in 2021 within Other operating (income) in the Consolidated Statements of Income. As of December 31, 2021, Ingredion has \$41 million of remaining indirect tax credits recorded in Other assets and Prepaid expenses on the Consolidated Balance Sheets that result in deferred income taxes of \$5 million. Ingredion will use the income tax offsets to eliminate its Brazilian federal tax payments in 2022 and future years, including the income tax payable for the indirect taxes recovered.

Ingredion is currently subject to claims and suits arising in the ordinary course of business, including labor matters, certain environmental proceedings and other commercial claims. Ingredion also routinely receives inquiries from regulators and other government authorities relating to various aspects of its business, including with respect to compliance with laws and regulations relating to the environment, and at any given time, Ingredion has matters at various stages of resolution with the applicable governmental authorities. The outcomes of these matters are not within Ingredion's complete control and may not be known for prolonged periods of time. Ingredion does not believe that the results of currently known legal proceedings and inquires will be material to it. There can be no assurance, however, that such claims, suits or investigations or those arising in the future, whether taken individually or in the aggregate, will not have a material adverse effect on Ingredion's financial condition or results of operations.

NOTE 15 – Supplementary Information

Accounts Receivable, Net

Accounts receivable, net as of December 31, 2021 and 2020, consist of:

(in millions)	2021	2020
Accounts receivable — trade	\$950	\$855
Accounts receivable — other	193	170
Allowance for credit losses	(13)	(14)
Total accounts receivable	\$1,130	\$1,011

No customer accounted for 10 percent or more of Accounts receivable, net as of December 31, 2021 or 2020 and write-offs of accounts receivable were immaterial in 2021 and 2020. There were no significant contract assets associated with customers as of December 31, 2021 or 2020.

Inventories

Inventories as of December 31, 2021 and 2020, consist of:

(in millions)	2021	2020
Finished and in process	\$688	\$584
Raw materials	380	236
Manufacturing supplies	104	97
Total inventories	\$1,172	\$917

PP&E

PP&E as of December 31, 2021 and 2020, consist of:

(in millions)	2021	2020
Land	\$206	\$207
Buildings	812	802
Machinery and equipment	4,637	4,621
Property, plant and equipment, at cost	5,655	5,630
Accumulated depreciation	(3,232)	(3,175)
Property, plant and equipment, net	\$2,423	\$2,455

Ingredion capitalized to PP&E interest of \$4 million, \$7 million and \$5 million for 2021, 2020 and 2019, respectively. Ingredion recognized depreciation expense of \$194 million, \$183 million and \$191 million in 2021, 2020 and 2019, respectively.

Accrued Liabilities

Accrued liabilities as of December 31, 2021 and 2020, consist of:

(in millions)	2021	2020
Compensation-related costs	\$105	\$96
Current lease liabilities	47	46
Dividends payable	44	43
Taxes payable other than income taxes	44	44
Other accrued liabilities	190	192
Total accrued liabilities	\$430	\$421

There were no significant contract liabilities associated with our customers as of December 31, 2021 and 2020. Liabilities for volume discounts and incentives were also not significant as of December 31, 2021 and 2020.

Other Non-Current Liabilities

Other non-current liabilities as of December 31, 2021 and 2020, consist of:

(in millions)	2021	2020
Deferred tax liabilities	\$165	\$217
Non-current operating lease liabilities	154	136
Pension and postretirement liabilities	123	139
Other	82	88
Total other non-current liabilities	\$524	\$580

Supplemental Income Statements Information

Research and Development (“R&D”) expense was approximately \$43 million in 2021 and 2020 and \$44 million in 2019. Our R&D expense represents investments in new product development and innovation. R&D expense is recorded within Operating expenses in the Consolidated Statements of Income.

Supplemental Cash Flow Information

The following represents additional cash flow information for the indicated years:

(in millions)	2021	2020	2019
Interest paid	\$72	\$78	\$80
Income taxes paid	168	120	145

Quarterly Financial Data (Unaudited)

Earnings per share for each quarter and the year are calculated individually and may not sum to the total for the respective year. Summarized quarterly financial data is as follows:

(in millions, except per share amounts)	1st QTR ^(b)	2nd QTR ^(c)	3rd QTR ^(d)	4th QTR ^(e)
2021				
Net sales	\$1,614	\$1,762	\$1,763	\$1,755
Gross profit	351	367	323	290
Net income attributable to Ingredion	(246)	178	118	67
Basic earnings per common share of Ingredion	(3.66)	2.65	1.76	1.00
Diluted earnings per common share of Ingredion	(3.66)	2.62	1.75	0.99
Per share dividends declared	\$0.64	\$0.64	\$0.65	\$0.65

(in millions, except per share amounts)	1st QTR ^(e)	2nd QTR ^(f)	3rd QTR ^(g)	4th QTR ^(h)
2020				
Net sales	\$1,543	\$1,349	\$1,502	\$1,593
Gross profit	323	271	326	352
Net income attributable to Ingredion	75	66	92	115
Basic earnings per common share of Ingredion	1.12	0.98	1.37	1.71
Diluted earnings per common share of Ingredion	1.11	0.98	1.36	1.70
Per share dividends declared	\$0.63	\$0.63	\$0.64	\$0.64

(a) All items in the footnotes below are presented after-tax unless otherwise noted.

(b) In the first quarter of 2021, Ingredion recorded \$360 million in held for sale impairment charges related to the Arcor joint venture with no income tax benefit, \$8 million in net restructuring costs, \$3 million in charges for tax matters and \$1 million in acquisition/integration costs.

(c) In the second quarter of 2021, Ingredion recorded \$32 million in income for tax matters, \$10 million in other matters income, \$4 million in acquisition/integration costs, \$3 million in equity method acquisition benefits and \$2 million in net restructuring costs.

(d) In the third quarter of 2021, Ingredion recorded a \$20 million favorable adjustment to the impairment charges related to the Arcor joint venture with no income tax expense, \$7 million in net restructuring costs, \$4 million in acquisition/integration costs and \$4 million in charges for tax matters.

(e) In the fourth quarter of 2021, Ingredion recorded \$19 million in net restructuring and impairment costs, \$12 million in benefits for other matters, \$5 million in benefits for fair value adjustments to equity investments, \$4 million in charges for tax matters and \$1 million in net acquisition/integration costs.

(f) In the first quarter of 2020, Ingredion recorded \$11 million in net restructuring costs.

(g) In the second quarter of 2020, Ingredion recorded \$8 million in net restructuring costs and \$2 million in acquisition/integration costs.

(h) In the third quarter of 2020, Ingredion recorded \$15 million in net restructuring costs, \$6 million in charges for other tax matters, \$4 million in acquisition/integration costs, \$4 million in charges for early extinguishment of debt, \$3 million in charges for fair value markup of acquired inventory and \$2 million in North America storm damage costs.

(i) In the fourth quarter of 2020, Ingredion recorded \$40 million in net restructuring and impairment costs, \$27 million in income for other matters, \$4 million in acquisition/integration costs, \$3 million in income for other tax matters, \$1 million in charges for fair value markup of acquired inventory and \$1 million in North America storm damage costs.

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

ITEM 9A. Controls and Procedures Evaluation of Disclosure Controls and Procedures

Our management, including our Chief Executive Officer and our Chief Financial Officer, performed an evaluation of the effectiveness of our disclosure controls and procedures as of December 31, 2021. Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that, as of December 31, 2021, our disclosure controls and procedures (a) are effective in providing reasonable assurance that all information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, has been recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (b) are designed to ensure that information required to be disclosed in the reports we file or submit under the Securities Exchange Act of 1934, as amended, is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. This system of internal control is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our Consolidated Financial Statements for external purposes in accordance with GAAP.

Internal control over financial reporting includes those policies and processes that:

1. Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets.
2. Provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in

accordance with generally accepted accounting principles accepted in the U.S., and that our receipts and expenditures are being made only with proper authorizations of our management and directors.

3. Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our 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.

Management, under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer and the oversight of the Board of Directors, conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2021 based upon the framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013). The scope of the assessment included all of the subsidiaries of Ingredion. Based on the evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2021. The effectiveness of our internal control over financial reporting has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report included in the Consolidated Financial Statements filed with this report.

Under guidelines established by the U.S. Securities and Exchange Commission, companies are allowed to exclude acquisitions from their first assessment of internal control over financial reporting following the date of the acquisition. Ingredion management excluded the acquisition of KaTech, which was completed on April 1, 2021, from the assessment of the effectiveness of internal control over financial reporting. Total assets of \$61 million and total net sales of \$35 million associated with the acquisition are included in the Consolidated Financial Statements of Ingredion as of and for the year ended December 31, 2021.

Changes in Internal Control Over Financial Reporting

There were no changes to our internal control over financial reporting that occurred during the quarter ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. Other Information

None.

ITEM 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

Information required by this Item 10 is incorporated herein by reference to Ingredion's definitive proxy statement for Ingredion's 2022 Annual Meeting of Stockholders (the "Proxy Statement"), including the information in the Proxy Statement appearing under the headings "Proposal 1. Election of Directors," "The Board and Committees," and "Delinquent Section 16(a) Reports." The information regarding executive officers required by Item 401 of Regulation S-K is included in Part 1 of this report under the heading "Information about our Executive Officers."

Ingredion has adopted a code of ethics that applies to its principal executive officer, principal financial officer and controller. The code of ethics is posted on Ingredion's Internet website, which is found at www.ingredion.com. Ingredion intends to disclose on its website, within any period that may be required under SEC rules, any amendments to, or waivers under, a provision of its code of ethics that applies to Ingredion's principal executive officer, principal financial officer or controller that relates to any element of the code of ethics definition enumerated in Item 406(b) of Regulation S-K.

ITEM 11. Executive Compensation

Information required by this Item 11 is incorporated herein by reference to the Proxy Statement, including the information in the Proxy Statement appearing under the headings "Executive Compensation," "Compensation Committee Report," "Director Compensation" and "Compensation Committee Interlocks and Insider Participation."

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

Information required by this Item 12 is incorporated herein by reference to the Proxy Statement, including the information in the Proxy Statement appearing under the headings "Equity Compensation Plan Information as of December 31, 2021" and "Security Ownership of Certain Beneficial Owners and Management."

ITEM 13. Certain Relationships and Related Transactions and Director Independence

Information required by this Item 13 is incorporated herein by reference to the Proxy Statement, including the information in the Proxy Statement appearing under the headings "Review and Approval of Transactions with Related Persons," "Certain Relationships and Related Transactions" and "Independence of Board Members."

ITEM 14. Principal Accountant Fees and Services

Information required by this Item 14 is incorporated herein by reference to the Proxy Statement, including the information in the Proxy Statement appearing under the heading "2021 and 2020 Audit Firm Fee Summary."

PART IV

ITEM 15. Exhibits and Financial Statement Schedules

ITEM 15(a)(1) Consolidated Financial Statements

Financial Statements (see the Index to the Consolidated Financial Statements on page 44 of this report).

ITEM 15(a)(2) Financial Statement Schedules

All financial statement schedules have been omitted because the information either is not required or is otherwise included in the Consolidated Financial Statements and notes thereto.

ITEM 15(a)(3) Exhibits

The following list of exhibits includes both exhibits submitted with this Form 10-K as filed with the SEC and those incorporated by reference from other filings.

Exhibit No. Description

- | Exhibit No. | Description |
|-------------|---|
| 3.1 | Amended and Restated Certificate of Incorporation of Ingredion Incorporated, as amended (incorporated by reference to Exhibit 3.1 to Ingredion's Annual Report on Form 10-K for the year ended December 31, 2019, filed on February 19, 2020) (File No. 1-13397). |
| 3.2 | Amended By-Laws of Ingredion (incorporated by reference to Exhibit 3.1 to Ingredion's Current Report on Form 8-K dated December 9, 2016, filed on December 14, 2016) (File No. 1-13397). |
| 4.1 | Description of Ingredion's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to Exhibit 4.1 to Ingredion's Annual Report on Form 10-K for the year ended December 31, 2019, filed on February 19, 2020) (File No. 1-13397). |
| 4.2 | Indenture dated as of August 18, 1999, between Ingredion and The Bank of New York, as Trustee (incorporated by reference to Exhibit 4.1 to Ingredion's Registration Statement on Form S-3, filed on September 19, 2019) (File No. 333-233854). |
| 4.3 | Fourth Supplemental Indenture dated as of April 10, 2007, between Corn Products International, Inc. and The Bank of New York Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.4 to Ingredion's Current Report on Form 8 K dated April 10, 2007, filed on April 10, 2007) (File No. 1-13397). |
| 4.4 | Seventh Supplemental Indenture, dated as of September 17, 2010, between Corn Products International, Inc. and The Bank of New York Mellon Trust Company, N.A. (as successor trustee to The Bank of New York), as Trustee (incorporated by reference to Exhibit 4.3 to Ingredion's Current Report on Form 8-K dated September 14, 2010, filed on September 20, 2010) (File No. 1-13397). |
| 4.5 | Ninth Supplemental Indenture, dated as of September 22, 2016, between Ingredion and The Bank of New York Mellon Trust Company, N.A. (as successor trustee to The Bank of New York), as Trustee (incorporated by reference to Exhibit 4.1 to Ingredion's Current Report on Form 8-K dated September 22, 2016, filed on September 22, 2016) (File No. 1-13397). |
| 4.6 | Tenth Supplemental Indenture, dated as of May 13, 2020, between Ingredion and The Bank of New York Mellon Trust Company, N.A. (as successor trustee to The Bank of New York), as Trustee (incorporated by reference to Exhibit 4.1 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020, filed on August 5, 2020) (File No. 1-13397). |
| 4.7 | Eleventh Supplemental Indenture, dated as of May 13, 2020, between Ingredion and The Bank of New York Mellon Trust Company, N.A. (as successor trustee to The Bank of New York), as Trustee (incorporated by reference to Exhibit 4.2 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020, filed on August 5, 2020) (File No. 1-13397). |
| 10.1* | Stock Incentive Plan as amended and restated as of May 19, 2021 (the "Stock Incentive Plan") (incorporated by reference to Exhibit 10.1 to Ingredion's Current Report on Form 8-K dated May 20, 2021, filed on May 20, 2021) (File No. 1-13397). |
| 10.2* | Form of Indemnification Agreement entered into by each of the members of Ingredion's Board of Directors and Ingredion's executive officers (incorporated by reference to Exhibit 10.14 to Ingredion's Annual Report on Form 10-K for the year ended December 31, 1997, filed on March 31, 1998) (File No. 1-13397). |

10.3*	Supplemental Executive Retirement Plan as effective July 18, 2012 (incorporated by reference to Exhibit 10.7 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, filed on November 2, 2012) (File No. 1-13397).	21.1	Subsidiaries of the Registrant.
		23.1	Consent of Independent Registered Public Accounting Firm.
		24.1	Power of Attorney.
10.4*	Annual Incentive Plan as effective July 18, 2012 (incorporated by reference to Exhibit 10.10 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, filed on November 2, 2012) (File No. 1-13397).	31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
10.5*	Form of Performance Share Award Agreement for use in connection with awards under the Stock Incentive Plan	31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
10.6*	Form of Performance Share Award Agreement for use in connections with awards under the Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, filed on May 7, 2021) (File No. 1-13397).	32.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
10.7*	Form of Stock Option Award Agreement for use in connection with awards under the Stock Incentive Plan.	32.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes Oxley Act of 2002.
10.8*	Form of Restricted Stock Units Award Agreement for use in connection with awards under the Stock Incentive Plan.		
10.9*	Form of Restricted Stock Units Award Agreement for use in connection with awards under the Stock Incentive Plan (incorporated by reference to Exhibit 10.3 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, filed May 7, 2021) (File No. 1-13397).	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).
10.10*	Form of Executive Severance Agreement entered into by certain executive officers of Ingredion (incorporated by reference to Exhibit 10.17 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, filed on August 3, 2018) (File No. 1-13397).	101.SCH	Inline XBRL Taxonomy Extension Schema Document.
		101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
		101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
10.11*	Form of Executive Severance Agreement entered into by certain executive officers of Ingredion (incorporated by reference to Exhibit 10.18 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, filed on August 3, 2018) (File No. 1-13397).	101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
		101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
10.12*	Letter of Agreement, dated as of November 10, 2016, between Ingredion and Jorgen Kokke (incorporated by reference to Exhibit 10.28 to Ingredion's Annual Report on Form 10-K for the year ended December 31, 2016, filed on February 22, 2017) (File No. 1-13397).	104	Cover Page Interactive Data File (the cover page XBRL tags are embedded within the Inline XBRL document, which is contained in Exhibit 101).
10.13*	Letter of Agreement, dated as of December 1, 2017, between Ingredion and Jorgen Kokke (incorporated by reference to Exhibit 10.23 to Ingredion's Annual Report on Form 10-K for the year ended December 31, 2017, filed on February 21, 2018) (File No. 1-13397).		*Management contract or compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 15(b) of this report.
10.14*	Letter of Agreement, dated as of June 30, 2020, between Ingredion and Jorgen Kokke (incorporated by reference to Exhibit 10.1 to Ingredion's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, filed on November 6, 2020) (File No. 1-13397).		
10.15	Revolving Credit Agreement, dated as of June 30, 2021, by and among Ingredion Incorporated, as Borrower, the Subsidiary Borrowers from time to time party thereto, the Lenders from time to time party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated July 1, 2021, filed on July 1, 2021) (File No. 1-13397).		
10.16*	Summary of Non-Employee Director Compensation.		
10.17*	Separation Agreements and General Release, dated June 25, 2021, by and between Janet M. Bawcom and Ingredion Incorporated (incorporated by reference to Exhibit 10.1 to the Company's Current Report on for 8-K dated July 1, 2021, filed on July 1 2021) (File No. 1-13397).		

ITEM 16. Form 10-K Summary

None.

Signatures

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

INGREDION INCORPORATED

Date: February 22, 2022

By: /s/ James P. Zallie

James P. Zallie

President and Chief Executive 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 the registrant, in the capacities indicated and on the dates indicated.

Signature	Title	Date
/s/ James P. Zallie	President, Chief Executive Officer and Director	February 22, 2022
James P. Zallie	(Principal executive officer)	
/s/ James D. Gray	Chief Financial Officer	February 22, 2022
James D. Gray	(Principal financial officer)	
/s/ Davida M. Gable	Controller	February 22, 2022
Davida M. Gable	(Principal accounting officer)	
*Luis Aranguren-Trellez	Director	February 22, 2022
Luis Aranguren-Trellez		
*David B. Fischer	Director	February 22, 2022
David B. Fischer		
*Paul Hanrahan	Director	February 22, 2022
Paul Hanrahan		
*Rhonda L. Jordan	Director	February 22, 2022
Rhonda L. Jordan		
*Gregory B. Kenny	Director	February 22, 2022
Gregory B. Kenny		
*Victoria J. Reich	Director	February 22, 2022
Victoria J. Reich		
*Catherine A. Suever	Director	February 22, 2022
Catherine A. Suever		
*Stephan B. Tanda	Director	February 22, 2022
Stephan B. Tanda		
*Jorge A. Uribe	Director	February 22, 2022
Jorge A. Uribe		
*Dwayne A. Wilson	Director	February 22, 2022
Dwayne A. Wilson		

*By: /s/ Tanya Jaeger de Foras

Tanya Jaeger de Foras

Attorney-in-fact

Date: February 22, 2022

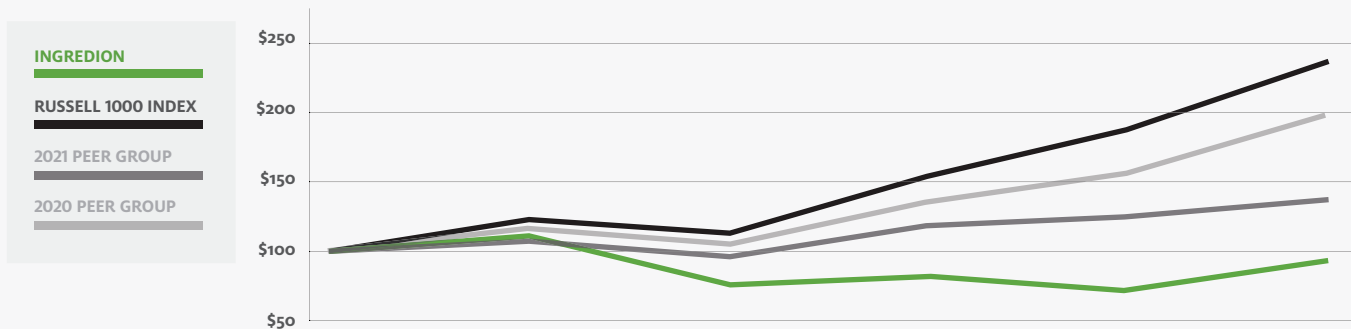
The performance graph below shows the cumulative total return to shareholders (stock price appreciation or depreciation plus reinvested dividends) during the 5-year period from December 31, 2016 to December 31, 2021, for our common stock compared to the cumulative total return during the same period for the Russell 1000 Index and our peer group. The Russell 1000 Index is a comprehensive stock market index representing equity investments in the 1,000 largest U.S. companies ranked by total market capitalization. The Russell 1000 Index only includes publicly traded common stocks belonging to U.S. companies, as determined in accordance with the selection criteria published by FTSE Russell, the creator of the index.

As of December 31, 2021, our total shareholder return peer group consisted of the following 21 companies:

- | | |
|--------------------------------|-----------------------------------|
| AAK AB (publ.) | McCormick & Company, Inc. |
| Archer-Daniels-Midland Company | Mondelez International, Inc. |
| Associated British Foods plc | Novozymes A/S |
| Celanese Corporation | Sealed Air Corporation |
| Danone S.A. | Sensient Technologies Corporation |
| Ecolab Inc. | Tate & Lyle plc |
| General Mills, Inc. | The Kraft Heinz Company |
| Huntsman Corporation | Tyson Foods, Inc. |
| Kellogg Company | Unilever PLC |
| Kerry Group plc | W. R. Grace & Co. |
| Koninklijke DSM N.V. | |

To enhance the alignment of our total shareholder return peer group of companies with our evolving business, the following companies were removed from our prior-year peer group: (i) Albemarle Corporation, (ii) Balchem Corporation, (iii) Crown Holdings, Inc., (iv) Givaudan SA, (v) International Flavors & Fragrances Inc., (vi) Nutrien Ltd., (vii) Symrise AG, and (viii) The Mosaic Company. In addition, the following companies were added to our prior-year peer group: (i) Danone S.A., (ii) General Mills, Inc., (iii) Kellogg Company, (iv) Mondelez International, Inc. (v) The Kraft Heinz Company, (vi) Tyson Foods, Inc., and (vii) Unilever PLC.

Comparison of Cumulative Five Year Total Return



	Base Period					
	Dec. 31, 2016	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2020	Dec. 31, 2021
Ingredion Incorporated	\$100.00	113.87	76.18	79.76	69.75	88.13
Russell 1000 Index	\$100.00	121.69	115.87	152.28	184.20	232.93
2021 Peer Group	\$100.00	111.41	98.18	119.89	123.43	137.14
2020 Peer Group	\$100.00	118.05	110.47	136.90	153.44	194.17

Comparison of Cumulative Total Return among our Company, the Russell 1000 Index and our Peer Group

(For the period from December 31, 2016 to December 31, 2021. Source: Standard & Poor's)

The graph assumes that:

- as of the market close on December 31, 2016, you made one-time \$100 investments in our common stock and in market capital base-weighted amounts which were apportioned among all the companies whose equity securities constitute each of the other three named indices, and
- all dividends were automatically reinvested in additional shares of the same class of equity securities constituting such investments at the frequency with which dividends were paid on such securities during the applicable time frame.

Financial Performance Metrics

Reconciliation of Diluted Earnings Per Share (“EPS”) to Non-GAAP Adjusted Diluted EPS

	Year ended 31-Dec-21	Year ended 31-Dec-20	Year ended 31-Dec-19	Year ended 31-Dec-11
Net income attributable to Ingredion	\$1.73	\$5.15	\$6.13	\$5.32
Add back (deduct):				
Restructuring/impairment charges, net of income tax ⁽ⁱ⁾	0.53	1.11	0.65	0.08
Acquisition/integration costs, net of income tax ⁽ⁱⁱ⁾	0.10	0.13	0.03	0.26
Impairment on disposition of assets ⁽ⁱⁱⁱ⁾	5.01	-	-	-
Other matters, net of income tax ^(iv)	(0.32)	(0.24)	(0.16)	-
Fair value adjustments to equity investments, net of income tax expense ^(v)	(0.07)	-	-	-
Tax provision (benefit) - Mexico ^(vi)	0.09	0.04	(0.04)	-
Other tax matters ^(vii)	(0.40)	0.04	-	-
NAFTA award ^(viii)	-	-	-	(0.75)
Gain from change in postretirement plan, net of income tax ^(ix)	-	-	-	(0.23)
Non-GAAP adjusted net income	\$6.67	\$6.23	\$6.61	\$4.68

EPS may not foot or recalculate due to rounding.

ⁱ During the year ended December 31, 2021, the Company recorded \$47 million of net pre-tax restructuring-related charges, consisting of \$17 million of employee-related and other costs associated with its Cost Smart SG&A program and \$27 million of net charges as part of its Cost Smart Cost of sales program. During the year ended December 31, 2020, the Company recorded \$93 million of pre-tax restructuring and impairment charges, which included a \$35 million impairment charge in the fourth quarter of 2020 for a TIC Gum intangible asset and \$48 million of pre-tax restructuring charges, consisting of \$25 million of employee-related and other costs associated with its Cost Smart SG&A program and \$23 million of restructuring related expenses primarily in North America and APAC as part of its Cost Smart Cost of sales program. During the year ended December 31, 2019, the Company recorded \$57 million of pre-tax restructuring charges, including \$29 million of net restructuring related expenses as part of the Cost Smart cost of sales program and \$28 million of employee-related and other costs, including professional services, associated with our Cost Smart SG&A program. During the year ended December 31, 2011, the Company recorded \$10 million of pre-tax restructuring-related charges.

ⁱⁱ During the year ended December 31, 2021, the Company recorded acquisition and integration costs for our acquisitions of PureCircle, KaTech and Verdient Foods businesses, as well as investments with Amyris and Arcor joint ventures. The 2020 period primarily includes costs related to the acquisition and integration of the business acquired from PureCircle Limited. The 2019 period primarily includes costs related to the acquisition and integration of the business acquired from Western Polymer, LLC. The 2011 period primarily includes costs related to the acquisition and integration of National Starch.

ⁱⁱⁱ During the year ended December 31, 2021, the Company recorded a \$340 million net asset impairment charge related to the contribution of the Company's Argentina operations to the Arcor joint venture, which primarily consisted of \$311 million for cumulative foreign translation losses related to the contributed net assets.

^{iv} In 2021, we recorded \$15 million of pre-tax benefits for Brazil indirect tax matters. In 2020, we recorded \$35 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other adjusted costs totaling \$8 million. In 2019, we recorded \$22 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other charges during the period.

^v During the year ended December 31, 2021, the Company recorded a net pre-tax fair value adjustment of \$6 million to its equity investments.

^{vi} The Company recorded a tax provision of \$6 million for the year ended December 31, 2021 as a result of the movement of the Mexican peso against the U.S. dollar during the period. The Company recorded a tax provision of \$3 million for the year ended December 31, 2020 as a result of the movement of the Mexican peso against the U.S. dollar and its impact to the remeasurement of the Company's Mexico financial statements. During the year ended December 31, 2019, the company recorded a tax benefit of \$3 million as a result of the movement of the Mexican peso against the U.S. dollar during the period.

^{vii} This relates to tax impact related legal entity rationalization and other tax settlements and matters.

^{viii} During the year ended December 31, 2011, the Company received a \$58 million settlement from the Government of Mexico regarding a North American Free Trade (“NAFTA”) dispute.

^{ix} During the year ended December 31, 2011, a United States hourly postretirement plan became a member of a multi-employer plan. Because of this change, a non-cash gain of \$30 million was recognized as a reduction of net periodic benefit cost during 2011.

Return on Invested Capital

(dollars in millions)	Year ended in December 31,		
	2021	2020	2019
Net income (a)	\$125	\$354	\$424
Adjusted for:			
Provision for income taxes	123	152	158
Other non-operating (income) expense	(12)	(5)	1
Financing cost, net	74	81	81
Restructuring/impairment charges ⁽ⁱ⁾	47	93	57
Acquisition/integration costs	3	11	3
Impairment on disposition of assets	340	-	-
Other matters ⁽ⁱⁱ⁾	(15)	(27)	(19)
Income taxes (at effective rates of 25.6% and 26.9%, respectively) ⁽ⁱⁱⁱ⁾	(175)	(177)	(189)
Adjusted operating income, net of tax (b)	510	482	516
Short-term debt	308	438	82
Long-term debt	1,738	1,748	1,766
Less: Cash and cash equivalents	(328)	(665)	(264)
Short-term investments	(4)	-	(4)
Total net debt	1,714	1,521	1,580
Share-based payments subject to redemption	36	30	31
Total redeemable non-controlling interests	71	70	-
Total equity	3,118	2,972	2,741
Total net debt and equity	\$4,939	\$4,593	\$4,352
Average current and prior year Total net debt and equity (c)	\$4,766	\$4,473	\$4,282
Return on Invested Capital (a ÷ c)	2.6%	7.9%	9.9%
Adjusted Return on Invested Capital (b ÷ c)	10.7%	10.8%	12.1%

ⁱ In 2021, we recorded \$47 million of pre-tax restructuring charges, consisting of \$27 million associated with our Cost Smart Cost of sales program, \$17 million associated with our Cost Smart SG&A program and other restructuring costs. In 2020, we recorded \$48 million of pre-tax restructuring charges, consisting of \$25 million associated with our Cost Smart SG&A program and \$23 million associated with our Cost Smart Cost of sales program. In addition, we recorded impairment charges of \$45 million, consisting of a \$35 million impairment of our intangible assets related to acquired tradenames and a \$10 million impairment associated with our Verdient investment. In 2019, we recorded \$57 million of pre-tax restructuring charges, including \$29 million of net restructuring related expenses as part of the Cost Smart Cost of sales program and \$28 million of employee-related and other costs, including professional services, associated with our Cost Smart SG&A program.

ⁱⁱ In 2021, we recorded \$15 million of pre-tax benefits for Brazil indirect tax matters. In 2020, we recorded \$35 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other adjusted costs totaling \$8 million. In 2019, we recorded \$22 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other charges during the period. for the favorable judgment during twelve months ended December 31, 2019. This benefit was partially offset by other charges during the period.

ⁱⁱⁱ The effective income tax rate was 25.6 percent for 2021, 26.9 percent for 2020, and 26.8 percent for 2019, which removes the tax impact for the identified adjusted items as shown below.

(dollars in millions)	Year ended December 31, 2021			Year ended December 31, 2020			Year ended December 31, 2019		
	Income before Income Taxes	Provision for Income Taxes	Effective Income Tax Rate	Income before Income Taxes	Provision for Income Taxes	Effective Income Tax Rate	Income before Income Taxes	Provision for Income Taxes	Effective Income Tax Rate
As reported	\$248	\$123	49.6%	\$506	\$152	30.0%	\$582	\$158	27.1%
Add back (deduct):									
Impairment/restructuring charges	47	11		93	18		57	13	
Acquisition/integration costs	3	(3)		11	2		3	1	
Impairment on disposition of assets	340	-		-	-		-	-	
Fair value adjustments on equity investments	(6)	(1)		-	-		-	-	
Other matters	(15)	7		(22)	(8)		(19)	(8)	
Other tax matters	-	(6)		-	(3)		-	-	
Tax item-Mexico	-	27		-	(3)		-	3	
Adjusted non-GAAP	\$617	\$158	25.6%	\$588	\$158	26.9%	\$623	\$167	26.8%

Net Debt to Adjusted EBITDA Ratio

(dollars in millions)	2021	2020	2019
Short-term debt	\$308	\$438	\$82
Long-term debt	1,738	1,748	1,766
Less: Cash and cash equivalents	(328)	(665)	(264)
Short-term investments	(4)	-	(4)
Total net debt (a)	1,714	1,521	1,580
Income before income taxes (b)	248	506	582
Adjusted for:			
Depreciation and amortization	220	213	220
Financing cost, net	74	81	81
Restructuring/impairment ⁽ⁱ⁾	38	85	44
Acquisition/integration costs	3	11	3
Impairment from disposition of assets	340	-	-
Other matters ⁽ⁱⁱ⁾	(15)	(22)	(19)
Fair value adjustments to equity investments	(6)	-	-
Adjusted EBITDA (c)	\$902	\$874	\$911
Net Debt to Income before income tax ratio (a ÷ b)	6.9	3.0	2.7
Net Debt to Adjusted EBITDA ratio (a ÷ c)	1.9	1.7	1.7

ⁱ Restructuring/impairment charges are reduced by \$9 million in 2021, \$8 million in 2020, and \$13 million in 2019, to exclude the accelerated depreciation associated with Cost Smart programs that are included in Depreciation and amortization above.

ⁱⁱ In 2021, we recorded \$15 million of pre-tax benefits for Brazil indirect tax matters. In 2020, we recorded \$35 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other adjusted costs totaling \$8 million. In 2019, we recorded \$22 million of pre-tax benefits for Brazil indirect tax matters, partially offset by other charges during the period. for the favorable judgment during twelve months ended December 31, 2019. This benefit was partially offset by other charges during the period.

BOARD OF DIRECTORS | AS OF APRIL 7, 2022

Luis Aranguren-Trellez²

Executive President
Arancia, S.A. de C.V.
Age 60; Director since 2003

David B. Fischer²

Former President and Chief Executive Officer
Greif, Inc.
Age 59; Director since 2013

Paul Hanrahan¹

Chief Executive Officer and Director
Hygo Energy Transitions Ltd.
Age 64; Director since 2006

Rhonda L. Jordan²

Former President, Global Health & Wellness,
and Sustainability
Kraft Foods Inc.
Age 64; Director since 2013

Gregory B. Kenny^{*3}

Former President and Chief Executive Officer
General Cable Corporation
Age 69; Director since 2005

Victoria J. Reich¹

Former Senior Vice President and Chief Financial Officer
Essendant Inc.
Age 64; Director since 2013

Catherine Suever¹

Former Executive Vice President
Finance and Administration and Chief Financial Officer
Parker-Hannifin Corporation
Age 63; Director since 2021

Stephan B. Tanda³

President and Chief Executive Officer
AptarGroup, Inc.
Age 56; Director since 2019

Jorge A. Uribe³

Former Global Productivity and Organization
Transformation Officer
The Procter & Gamble Company
Age 65; Director since 2015

Dwayne A. Wilson¹

Former Senior Vice President
Fluor Corporation
Age 63; Director since 2010

James P. Zallie

President and Chief Executive Officer
Ingredion Incorporated
Age 60; Director since 2017

*Chairman of the Board
Committees of the Board

¹ Audit Committee, Ms. Reich is Chairman.

² People, Culture and Compensation Committee, Ms. Jordan is Chairman.

³ Corporate Governance and Nominating Committee, Mr. Kenny is Chairman.

CORPORATE OFFICERS | AS OF APRIL 7, 2022

James P. Zallie

President and Chief Executive Officer
Age 60; joined Company in 2010

Lori Arnold

Vice President, Tax
Age 56; joined Company in 2011

Valdirene Bastos-Licht

Senior Vice President and President, APAC
and Global Head of Pharma, Home and Beauty
Age 54; joined Company in 2018

Larry Fernandes

Senior Vice President and
Chief Commercial and Sustainability Officer
Age 57; joined Company in 1990

James D. Gray

Executive Vice President and Chief Financial Officer
Age 55; joined Company in 2014

Tanya Jaeger de Foras

Senior Vice President, Chief Legal Officer,
Corporate Secretary and Chief Compliance Officer
Age 51; joined Company in 2021

Jorgen Kokke

Executive Vice President and President, Americas
Age 53; joined Company in 2010

Pierre Perez y Landazuri

Senior Vice President, Corporate Strategy,
Specialties and President, EMEA
Age 53; joined Company in 2016

Eric Seip

Senior Vice President, Global Operations
and Chief Supply Chain Officer
Age 54; joined Company in 2021

C. Kevin Wilson

Vice President and Corporate Treasurer
Age 60; joined Company in 2014

Nancy Wolfe

Senior Vice President and Chief Human Resources Officer
Age 53; joined Company in 2022

Jeremy Xu

Senior Vice President and Chief Innovation Officer
Age 54; joined Company in 2020

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CORPORATE HEADQUARTERS

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Westchester, IL 60154
708.551.2600
708.551.2700 fax
www.ingredion.com

STOCK EXCHANGE

The common shares of Ingredion Incorporated trade on the New York Stock Exchange under the ticker symbol INGR. Our Company is a member of the Russell 1000 Index and the S&P MidCap 400 Index.

TRANSFER AGENT, DIVIDEND DISBURSING AGENT AND REGISTRAR

Computershare 866.517.4574 or 201.680.6685 (outside the U.S.) or 888.269.5221 (hearing impaired – TTY phone)

SHAREHOLDER ASSISTANCE

Ingredion Incorporated c/o Computershare
P.O. Box 30170
College Station, TX 77842-3170

Send overnight correspondence to:
Ingredion Incorporated c/o Computershare
211 Quality Circle, Suite 210
College Station, TX 77845

Shareholder website: www.computershare.com/investor

Shareholder online inquiries:
<https://www-us.computershare.com/investor/contact>

INVESTOR AND SHAREHOLDER CONTACT

Investor Relations Department 708.551.2592
investor.relations@ingredion.com

COMPANY INFORMATION

Copies of the Annual Report, the Annual Report on Form 10-K and quarterly reports on Form 10-Q may be obtained, without charge, by writing to Investor Relations at the corporate headquarters address, by calling 708.551.2603, by emailing investor.relations@ingredion.com or by visiting our website at ir.ingredionincorporated.com.

ANNUAL MEETING OF SHAREHOLDERS

The 2022 Annual Meeting of Shareholders will be held on Friday, May 20, 2022, at 9:00 a.m. Central Daylight Time. The Annual Meeting will be a hybrid meeting, held in person at The Westin Chicago Lombard, 70 Yorktown Center, Lombard, IL 60148 and via the internet by visiting <http://www.virtualshareholdermeeting.com/INGR2022>. A formal notice of that meeting, proxy statement and proxy voting card are being made available to shareholders in accordance with U.S. Securities and Exchange Commission ("SEC") regulations.

INDEPENDENT AUDITORS

KPMG LLP
200 East Randolph Drive
Chicago, IL 60601
312.665.1000

BOARD COMMUNICATION

Interested parties may communicate directly with any member of our Board of Directors, including the Chairman of the Board, or the non-management directors or the independent directors, as a group, by writing in care of Corporate Secretary, Ingredion Incorporated, 5 Westbrook Corporate Center, Westchester, IL 60154.

SAFE HARBOR

Certain statements in this Annual Report that are neither reported financial results nor other historical information are forward-looking statements. Such forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results and Company plans and objectives to differ materially from those expressed in the forward-looking statements. A description of some of these risks and uncertainties is contained in our reports on Forms 10-K, 10-Q and 8-K filed with the SEC.



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HEALTHY & SUSTAINABLE GROWTH

2021 ANNUAL REPORT

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