





10-K
International Flavors & Fragrances

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2023

OR

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

For the transition period from _____ to _____

Commission File Number 1-4858

INTERNATIONAL FLAVORS & FRAGRANCES INC.

(Exact name of registrant as specified in its charter)

New York

*(State or other jurisdiction
of incorporation or organization)*

13-1432060

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

521 West 57th Street, New York, NY 10019-2960

200 Powder Mill Road, Wilmington, DE 19803-2907

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code (212) 765-5500

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, par value 12 1/2¢ per share	IFF	New York Stock Exchange
1.750% Senior Notes due 2024	IFF 24	New York Stock Exchange
1.800% Senior Notes due 2026	IFF 26	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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

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

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

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

The aggregate market value of the voting stock held by non-affiliates of the Registrant was \$20,313,097,570 as of June 30, 2023.

As of February 21, 2024, there were 255,314,909 shares of the registrant's common stock, par value 12 1/2¢ per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement for the 2024 Annual Meeting of Shareholders (the "IFF 2024 Proxy Statement") are incorporated by reference in Part III of this Form 10-K.

INTERNATIONAL FLAVORS & FRAGRANCES INC.

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PART I

In this report, we use the terms “IFF,” “the Company,” “we,” “us” and “our” to refer to International Flavors & Fragrances Inc. and its subsidiaries.

ITEM 1. BUSINESS.

We are a leading creator and manufacturer of food, beverage, health & biosciences, scent and pharma solutions and complementary adjacent products, including cosmetic active and natural health ingredients, which are used in a wide variety of consumer products. Our products are sold principally to manufacturers of dairy, meat, beverages, snacks, savory, sweet, baked goods and other foods, personal care products, soaps and detergents, cleaning products, perfumes and cosmetics, dietary supplements, food protection, infant and elderly nutrition, functional food, pharmaceutical and oral care products. As a result, we hold global leadership positions in the Food & Beverage, Home & Personal Care and Health & Wellness markets, and across key Tastes, Textures, Scents, Nutrition, Enzymes, Cultures, Soy Proteins, Pharmaceutical Excipients and Probiotics categories.

Sales in 2023 were approximately \$11.479 billion. Based on 2023 sales, approximately 46% of sales were to global consumer products companies and approximately 54% of sales were to small and mid-sized companies. During 2023, our 25 largest customers accounted for approximately 32% of sales. In 2023, no customer accounted for more than 10% of sales.

Our business is geographically diverse, with sales in the U.S. representing approximately 28% of sales in 2023. No other country represented more than 7% of sales.

Our Product Offerings

Our business currently consists of four segments: Nourish, Health & Biosciences, Scent and Pharma Solutions.

Nourish

As a leading creator of ingredients and solutions, we help our customers deliver on the promise of healthy and delicious foods and drinks that appeal to consumers. We create products in our regional creative centers which allows us to satisfy local customer preferences, while also helping to ensure regulatory compliance and production standards. We develop thousands of different Nourish offerings, most of which are tailor-made, and we continually develop new ingredients and solutions to meet changing consumer preferences and customer needs.

Our Nourish segment consists of an innovative and broad portfolio of natural-based ingredients to enhance nutritional value, texture and functionality in a wide range of beverage, dairy, bakery, confectionery and culinary applications and consists of Ingredients, Flavors and Food Designs.

Ingredients include a diversified portfolio across natural and plant-based specialty food ingredients derived from herbs and plants that provide texturizing solutions used in the food industry, food protection solutions used in food and beverage products, as well as specialty soy and pea protein with value-added formulations, emulsifiers and sweeteners. Natural food protection ingredients consist of natural antioxidants and anti-microbials used for natural food preservation and shelf-life extension for beverages, cosmetic and healthcare products, pet food and feed additives.

Flavors include a range of flavor compounds and natural taste solutions that are ultimately used by our customers in savory products (soups, sauces, meat, fish, poultry, snacks, etc.), beverages (juice drinks, carbonated or flavored beverages, spirits, etc.), sweets (bakery products, candy, cereal, chewing gum, etc.), and dairy products (yogurt, ice cream, cheese, etc.). Flavors also include value-added spices and seasoning ingredients for meat, food service, convenience, alternative protein and culinary products.

Food Designs include savory solution products such as spices, sauces, marinades and mixtures. During the fourth quarter of 2022, we announced our entry into an agreement to sell a portion of the Savory Solutions business and completed the divestiture on May 31, 2023. Additionally, Food Designs provide inclusion products that help with taste and texture by, among other things, combining flavorings with fruit, vegetables and other natural ingredients for a wide range of food products, such as health snacks, baked goods, cereals, pastries, ice cream and other dairy products.

Health & Biosciences

Our Health & Biosciences segment consists of the development and production of an advanced biotechnology-derived portfolio of enzymes, food cultures, probiotics and specialty ingredients for food and non-food applications. Among many other applications, this biotechnology-driven portfolio includes cultures for use in fermented foods such as yogurt, cheese and fermented beverages, probiotic strains, many with documented clinical health claims for use as dietary supplements and through industrial fermentation the production of enzymes and microorganisms that provide product and process performance benefits to household detergents, animal feed, ethanol production and brewing. Health & Biosciences is comprised of Health, Cultures & Food Enzymes, Home & Personal Care, Animal Nutrition and Grain Processing.

Health provides ingredients for dietary supplements, functional food and beverage, specialized nutrition and pharma.

Cultures & Food Enzymes provides products that aim to serve the global demand for healthy, natural, clean label and fermented food for fresh dairy, cheese, bakery and brewing products. Such products contribute to extended shelf life, stability, taste and texture, helping our customers to improve their product offerings. The business’s enzyme solutions also allow our customers to provide low sugar, high fiber and lactose-free dairy products.

Home & Personal Care produces enzymes for laundry and dishwashing detergents, cleaning and textiles to help enhance the product and process performance of products in the fabric and home care, textiles and industrials and personal care markets. In 2023, we introduced patented enzymatic polymers that are renewable, biodegradable alternatives to functional ingredients used in home cleaning and beauty care products.

Animal Nutrition produces feed enzymes and animal health solutions that help to improve nutrition, welfare, performance and sustainability of livestock animal farming.

Grain Processing produces yeasts and enzymes for biofuel production and carbohydrate processing.

Scent

Our Scent segment creates fragrance compounds, fragrance ingredients and cosmetic ingredients that are integral elements in the world’s finest perfumes and best-known household and personal care products. Consumer insights science and creativity are at the heart of our Scent business, and, along with our unique portfolio of natural and synthetic ingredients, global footprint, innovative technologies and know-how, and customer intimacy, we believe make us a market leader in scent products. The Scent segment is comprised of Fragrance Compounds, Fragrance Ingredients and Cosmetic Ingredients.

Fragrance Compounds are unique and proprietary combinations of multiple fragrance ingredients that are ultimately used by our customers in their consumer goods. Our creative and commercial teams within fragrance compounds are organized into two broad categories: fine fragrances and consumer fragrances.

Our perfumers harness creativity and leverage our innovative captive molecules, sustainable natural ingredients obtained with innovative processes, biotech ingredients, data science, and consumer insights to create unique and inspiring fragrances driving consumer preferences.

Our fine fragrances focus on perfumes and colognes, creating global and local namesake brands, from high luxury to mass market, from market leading to ultra-niche products.

Our consumer fragrances include three end-use categories of products:

- Fabric Care, including laundry detergents, fabric softeners and specialty laundry products;
- Home Care, including household cleaners, dishwashing detergents and air fresheners; and
- Body Care, including personal wash, hair care and toiletries products.

Fragrance Ingredients are natural and synthetic, and active and functional ingredients that are used internally and sold to third parties, including competitors, for use in the preparation of compounds. While the principal role of our fragrance ingredients facilities is to support our fragrance compounds business, we utilize excess manufacturing capacity to manufacture and sell certain fragrance ingredients to third parties, enabling us to leverage our fixed costs while maintaining the security of our supply for our perfumers and ultimately our customers. Flavor ingredients include natural flavor extracts, specialty botanical extracts, distillates, essential oils, citrus products, aroma chemicals and natural gums and resins. Such ingredients are used for food, beverage and flavors, and are often sold directly to food and beverage manufacturers who use them in producing consumer products. During the fourth quarter of 2022, we announced our entry into an agreement to sell our Flavor Specialty Ingredients business and completed the divestiture on August 1, 2023.

Cosmetic Ingredients designs, develops, manufactures and markets innovative ingredients for the cosmetics and personal care industry, while offering active ingredients, functional ingredients, and delivery systems. During the fourth quarter of 2023, we entered into an agreement to sell our Cosmetic Ingredients business and expect the divestiture to be completed in the first quarter of 2024.

Pharma Solutions

Our Pharma Solutions segment produces, among other things, a vast portfolio of cellulose and seaweed-based pharmaceutical excipients, used to improve the functionality and delivery of active pharmaceutical ingredients, including controlled or modified drug release formulations, and enabling the development of more effective pharmaceutical finished dosage formulations. Our excipients are used in prescription and over-the-counter pharmaceuticals and dietary supplements. Our Pharma Solutions products also serve a variety of other specialty and industrial end-uses including coatings, inks, electronics, agriculture and consumer products.

Consumer Insights, Research and Product Development Process

The markets in which we compete require constant innovation to remain competitive. Consumer preferences tend to drive change in our markets, and as science evolves and sustainability continues to be a key factor to customers and consumers, we must continue to strengthen our research and development platforms and adapt our capabilities to provide differentiated products.

Consumer Insights

We believe that the first step to creating an innovative and unique product experience begins with gaining insight into the consumer and emerging industry trends. By developing a deep understanding of what consumers value and prefer through our consumer insight programs, we are better able to focus our research and development and creative efforts.

Our consumer science, insight and marketing teams interpret trends, monitor product launches, analyze quantitative market data and conduct numerous consumer interviews annually.

Based on this information, we develop innovative and proprietary programs to evaluate potential products that enable us to understand the emotional connections between a prospective product and the consumer. We believe this ability to pinpoint the likelihood of a product's success translates into stronger brand equity, resulting in increased returns and greater market share gains for our customers as well as for IFF.

Research and Development

We consider our research and development infrastructure to be one of our key competencies and critical to our ability to provide differentiated products to our customers. We have strong product and application development pipelines built upon a global network that includes research and development, as well as regulatory and product stewardship capabilities.

We focus and invest substantial resources in the research and development of new and innovative molecules, compounds, formulations and technologies and the application of these to our customers' products. Using the knowledge gained from our consumer insights programs and business unit needs, we strategically focus our resources around key research and development platforms that address or anticipate consumer needs or preferences. Our innovation-based platforms are aligned with key consumer insight-led growth themes: improving home and personal care, empowering wellbeing and healthy lives, transforming food systems and accelerating climate solutions. By aligning our capabilities and resources to these platforms, we ensure the proper support and focus for each program so that our products can be further developed and eventually accepted for commercial application.

As of December 31, 2023, we have 880 granted U.S. patents and 431 pending U.S. patent applications, as well as numerous other granted patents and pending patent applications around the world. We have developed many unique molecules and delivery systems for our customers that are used as the foundations of successful products around the world.

Our principal basic research and development activities are located in Union Beach, New Jersey; Wilmington, Delaware; Palo Alto, California; Brabrand, Denmark; and Leiden, The Netherlands. At those locations, our scientists and application engineers, while collaborating with our other research and development centers around the world, support the:

- discovery of new materials;
- development of new technologies, such as delivery systems;
- creation of new compounds; and
- enhancement of existing ingredients and compounds.

As of December 31, 2023, we employed approximately 3,700 people globally in research and development activities.

Creative Application

Through our global network of creative centers and application laboratories, we create or adapt the basic Nourish, Health & Biosciences, Scent and Pharma Solutions products that we have developed in the research and development process to commercialize for use in our customers' consumer products. Our global creative teams consist of marketing, consumer science, consumer insights and technical application experts, from a wide range of cultures and nationalities. In close partnership with our customers' product development groups, our creative teams create the experiences that our customers are seeking in order to satisfy consumer demands in each of their respective markets.

New product development is driven by a variety of sources including requests from our customers, who are in need of specific products for use in a new or modified consumer product, or as a result of internal initiatives stemming from our consumer insights program. Our product development team works in partnership with our scientists and researchers to optimize the consumer appeal and relevance of our offerings. We use a collaborative process between our researchers, our product development team and our customers to perfect our offerings so they are ready to be included in the final consumer product.

In addition to creating new products, our researchers and product development teams advise customers on ways to improve their existing products by moderating or substituting current ingredients with more readily accessible or less expensive materials enhancing their yield, or helping to increase or improve functionality of their formulations. This often results in creating a better value proposition for our customers.

Most of our formulas are treated as trade secrets and remain our proprietary assets. Our business is not materially dependent upon any individual patent, trademark or license.

Center for Commercial Excellence

Our Center for Commercial Excellence utilizes a holistic and centralized approach towards commercial execution by, among other things:

- Unlocking value through improved customer experience based on market, customer and pricing insights, digital and advanced analytics, sales enablement, and marketing excellence;
- Building further sales force capability to deliver growth targets, own the end-to-end process, and deliver sales synergies using CRM systems, pricing tools, segmentation models, commercial opportunity management, account plan development, training, and incentive plans;
- Evaluating and driving new business development opportunities, including analyzing potential markets, assessing client needs, and identifying competitor response strategies; and
- Strengthening collaboration across divisions by collecting and disseminating best practices and anchoring business decisions in data-driven insights.

Supply Chain

We strive to provide our customers with consistent and quality products on a timely and cost-effective basis by managing all aspects of the supply chain, from raw material sourcing through manufacturing, quality assurance, regulatory compliance and distribution.

Procurement

In connection with the manufacture of our products, we use natural and synthetic ingredients. As of December 31, 2023, we purchased approximately 24,000 different raw materials sourced from an extensive network of domestic and international suppliers and distributors.

Natural ingredients are derived from flowers, fruits and other botanical products, as well as from plant, animal and marine products, and commodity crops like wheat, corn and soy. They contain varying numbers of organic chemicals that are responsible for the fragrance, flavor, antioxidant properties and nutrition of the natural products. Natural products are purchased directly from farms or in processed and semi-processed forms. Some natural products are used in compounds in the state in which they are obtained and others are used after further processing. Natural products, together with various chemicals, are also used as raw materials for the manufacture of synthetic ingredients by chemical processes.

In order to ensure our supply of raw materials, achieve favorable pricing and provide timely transparency regarding inflationary trends to our customers, we continue to focus on:

- purchasing under contract with fixed or formula-based pricing for set time periods;
- entering into hedging for raw materials we purchase that can be hedged against liquid commodity assets;
- entering into supplier relationships to gain access to supplies we would not otherwise have;
- implementing indexed pricing;
- reducing the complexity of our formulations;

- evaluating the profitability of whether to buy or make an ingredient;
- sourcing from local countries with our own procurement professionals; and
- periodically assessing our supply base with a view towards greater cost efficiencies and improvements.

Manufacturing and Distribution

As of December 31, 2023, we had approximately 190 manufacturing facilities, creative centers and application laboratories located in approximately 40 different countries. Our major manufacturing facilities are located in the United States, The Netherlands, Spain, Germany, Indonesia, Turkey, Brazil, Mexico, Slovenia, China, India, Ireland, Norway, Finland, Denmark, Belgium and Singapore.

During the last few years in connection with the acquisition of Frutarom, we undertook an initiative to optimize our global operations footprint to efficiently and cost-effectively deliver value to our global customers (the “Frutarom Integration Initiative”). From the inception of the Frutarom Integration Initiative through its completion as of March 31, 2023, we completed the closure of 22 sites.

Our supply chain initiatives are focused on increasing capacity and investing in key technologies. Within our more mature markets, we tend to focus on consolidation and cost optimization as well as the implementation of new technologies. In addition to our own manufacturing facilities, we develop relationships with third parties, including contract manufacturing organizations, that expand our access to the technologies, capabilities and capacity that we need to better serve our customers.

For more detailed information about risks related to our supply chain, please refer to Item 1A, “Risk Factors” – *Supply chain disruptions, geopolitical developments, including the Russia-Ukraine war, the Israel-Hamas war and wider Middle East developments (including disruptions to the Red Sea passage or such conflicts spreading further in the relevant regions), or climate-change events (including severe weather events) may adversely affect our suppliers or our procurement of raw materials, and thus may impact our business and financial results.*

Environmental, Social, and Governance

Following the integration with Nutrition and Biosciences, Inc. (“N&B”), we launched a refreshed and comprehensive Environmental, Social, and Governance (“ESG”) roadmap, the ‘Do More Good Plan’ (“the Plan”), which aligns with IFF’s purpose of applying science and creativity for a better world and our strategy for long term growth and value creation. The Plan includes ambitious 2030 goals across four key areas: Environmental, Social, Governance and Sustainable Solutions.

Environmental: Climate & Planetary Health

Supporting environmental stewardship across our operations, including commitments to climate action, zero waste to landfill, water stewardship solutions and an acceleration of our responsible sourcing practices by promoting regenerative ecosystems and achieving zero deforestation for strategic raw material supply chains.

Social: Equity & Wellbeing

Advancing our commitment to people and communities by strengthening diversity, equity & inclusion within our workforce, while continuously improving our safety program by striving for an injury-free workplace, and achieving world-class safety performance. Within our responsible sourcing program, the Company will continue to promote human rights and animal welfare, while supporting farmers’ livelihoods and ensuring prosperous and equitable value chains.

Governance: Transparency & Accountability

Continuing our commitment to good governance which starts with our Board and Executive Leadership Team and is supported by a strong governance framework, including having a robust program to ensure compliance with our Codes of Conduct and adherence to the highest standards of ethics, integrity, honesty and respect in our dealings internally and with our business partners. To enhance accountability in line with evolving stakeholder expectations, the Company has launched ESG metrics tied to executive compensation, while expanding oversight for ESG at the Board of Directors level.

Sustainable Solutions

Focusing on the sustainability value proposition and growth for all new innovations as we assist customers in achieving their own ESG goals by delivering an expanded suite of sustainable solutions for the market.

In 2023, our Company continued to achieve notable recognitions in these areas. We qualified as a constituent of the Dow Jones Sustainability Index, North America for the fourth consecutive year, a family of best-in-class benchmarks for investors who recognize that sustainable business practices are critical to generating long-term shareholder value. This distinction validates IFF’s leadership position in sustainability performance and underscores our commitment to executing on key ESG priorities. We were also awarded the 2023 EcoVadis Platinum sustainability rating for the third time, placing IFF among the top 1% of companies assessed. In addition, following our submission to CDP Climate Change, Water Security and Forests, we maintained our leadership position in CDP Climate Change and achieved management level for CDP Water Security and Forests for 2023. IFF continues to be listed in the FTSE4Good Index series as well as in the Euronext Vigeo World 120 Index for ESG performance.

In addition, in 2023 IFF further aligned with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) by completing the first phase of a climate scenario analysis to understand and quantify the potential risks and opportunities related to climate change. For more detailed information about our ESG programs and performance, please refer to our annual ESG report.

Governmental Regulation

We develop, produce and market our products in a number of jurisdictions around the world and are subject to federal, regional and local legislation and regulations in various countries. Our products, which among other industries, are intended for use in food, beverage, pharmaceutical and dietary supplements, home and personal care, feed, cosmetics industries, are subject to strict quality and regulatory standards and environmental laws and regulations. We in turn are required to meet strict standards which, in recent years, have become increasingly stringent and affect both existing as well as new products. While the cost of compliance with such laws and regulations leads to higher overall capital expenditure, which can be significant in certain periods, we do not currently anticipate any material capital expenditures necessary to comply with such laws and regulations. We continue to monitor existing and pending laws and regulations and while the impact of regulatory changes cannot be predicted with certainty, compliance has not had, and is not expected to have a material adverse effect on capital expenditure, earnings or competitive position.

Our products and operations are subject to regulation by governmental agencies in each of the markets in which we operate. These agencies include (1) the Food and Drug Administration and equivalent international agencies that regulate flavors, pharmaceutical excipients and other ingredients in consumer products, (2) the Environmental Protection Agency and equivalent international agencies that regulate our manufacturing facilities, as well as fragrance products (including encapsulation systems), (3) the Occupational Safety and Health Administration and equivalent international agencies that regulate the working conditions in our manufacturing, research laboratories and creative centers, (4) local and international agencies that regulate trade and customs, (5) the Drug Enforcement Administration and other local or international agencies that regulate controlled chemicals that we use in our operations, (6) the Chemical Registration/Notification authorities that regulate chemicals that we use in, or transport to, the various countries in which we manufacture and/or market our products, and (7) the U.S. Department of Agriculture and equivalent international authorities with respect to, among other things, labeling of consumer products. We have seen an increase in registration and reporting requirements concerning the use of certain chemicals in a number of countries, such as Registration, Evaluation, Authorization and Restriction of Chemicals (“REACH”) regulations in the European Union, as well as similar regulations in other countries.

In addition, we are subject to various rules relating to health, work safety and the environment at the local and international levels in the various countries in which we operate. Our manufacturing facilities throughout the world are subject to environmental standards relating to air emissions, sewage discharges, the use of hazardous materials, waste disposal practices and clean-up of existing environmental contamination. In recent years, there has been an increase in the stringency of environmental regulation and enforcement of environmental standards, and the costs of compliance have risen significantly, a trend we expect will continue in the future.

For more detailed information about risks related to governmental regulation applicable to the Company, please refer to Item 1A, “Risk Factors” – *If we are unable to comply with regulatory requirements and industry standards, including those regarding product safety, quality, efficacy and environmental impact, we could incur significant costs and suffer reputational harm which could adversely affect results of operations.*

Competition

The markets for our products are part of a larger market that supplies a wide variety of ingredients and compounds used in consumer products. The broader market includes functional foods and food additives, including seasonings, texturizers, spices, cultures, enzymes, probiotics, certain food-related commodities, and fortified products, as well as natural ingredients, nutritional ingredients, supplements and active cosmetic ingredients. Our acquisitions have also expanded our reach in products within the functional food ingredient market, including ingredients focused on improving the health and wellness characteristics of a consumer good, the dietary supplement, pharmaceutical ingredient, infant nutrition markets and the cosmetic actives market.

The global market for our products has expanded, primarily as a result of an increase in demand for, and an increase in the variety of, consumer products.

The market for our products is highly competitive. Our main competitors consist of (1) other large global companies, such as Givaudan, DSM-Firmenich Symrise, Kerry, ADM, Novonosis, (2) mid-sized companies, (3) numerous regional and local manufacturers and (4) consumer product companies who may develop their own competing products.

We believe that our ability to create products with the sustainability related attributes customers expect and compete successfully in the various sub-market is based on:

- our in-depth understanding of consumers,
- vertical integration,
- innovation and technological advances from our research and development activities and, as applicable, our scientists,
- our ability to tailor products to customers' needs,
- our ability to manufacture products on a global scale, and
- broad-based regulatory capabilities.

In certain industries, large multi-national customers and, increasingly, mid-sized customers, may limit the number of their suppliers by placing some on “core lists,” giving them priority for development and production of their new or modified products. To compete more successfully, we must make continued investments in customer relationships and tailor our research and development efforts to anticipate customers' needs, provide effective service and secure and maintain inclusion on these “core lists.”

Private label manufacturers, mostly medium-sized, local or small food manufacturers, constitute a growing segment in certain markets where we are active. Over the last decade, with the strengthening of supermarket chains, online platforms and growing consumer price consciousness, consumption of private label products has grown at a faster rate than the brand food industry rate. We believe that new business opportunities will continue to arise from these clients as they are increasing their demand for products that are similar to existing products in the market, distinctive premium products, as well as more innovative products.

Our People

The success of our business is built on our talented employees. At December 31, 2023, we had approximately 21,500 employees worldwide, of whom approximately 5,200 are employed in the United States. Our workforce plans and talent management programs support our employees to best deliver the business strategy and ensure their development and engagement.

Culture and Values

Our culture is based on our five corporate values of empowerment, expertise, innovation, integrity and responsibility, and the expression of these values can be seen and felt throughout our history. Our employees appreciate that they contribute to products that touch and enhance the lives of millions of people around the world. Our robust culture ambassador programs continue to engage a broad portion of the IFF community in building common identity and shared purpose and strengthen engagement and motivation by providing programming on IFF values and providing recognition of individuals who exemplify them.

Leadership and Development

Our leadership development efforts empower employees to become forward-looking, inspiring and capable decision-makers, agents of change and great leaders. A full portfolio of proprietary leadership development programs and an overarching talent management system is in place to support growth of leaders and at all levels. To cultivate our employees' talent and build sustainable long-lasting careers at IFF, we provide tools that enable our employees to envision their career journeys in the form of articulated career “ladders” and “frameworks”. We offer corresponding development opportunities to include specialized courses for employees globally by partnering with leading institutions and universities to help provide the latest training and development offerings at all levels. We also offer to our employees an extensive library of on-demand courses and materials on leadership, management and professional skills development. Those learning resources are integrated into our human capital platform, allowing managers and employees to establish digitalized learning plans that are ultimately captured as a part of their employee profile. Further, those offerings complement our talent acquisition strategy and organized and personalized feedback process, supported by industry-leading assessment tools.

Diversity, Equity, & Inclusion (“DE&I”)

“Your Uniqueness Unleashes Our Potential” is the unifying vision for DE&I at IFF around the world because we know that the diverse backgrounds, experiences and knowledge of our global workforce is what unleashes the potential that exists at the intersection of science and creativity. This is what enables us to *Be the Premier Partner* to our customers.

In 2023, we refreshed our strategic framework to continue accelerating our journey. This new strategic framework builds on what has come before and increases focus on integrating DE&I into how we operate on a daily basis - fostering inclusive talent processes, inclusive employee experiences and external engagement. Through this new strategic framework, among other things:

- We made progress against our ESG goals, increasing representation for women in senior leadership roles to approximately 38%;
- We expanded accountability beyond the executive team by tying senior leader bonus awards to progress towards our 2030 gender diversity goals;
- Our colleague communities or employee resource groups (open to all IFF employees, with a focus on Women, Black, LGBTQIA+, Latino/a/e, Asian, People with Disabilities, Early in Career, Veterans & First Responders) increased visibility and impact with well-attended events around the world; and
- We committed to the Living Wage Pledge.

IFF is proud to continue to be globally EDGE certified for gender equality at the “Move” level by the Edge Certified Foundation and we continue to leverage and be recognized by other external benchmarking organizations including Bloomberg Gender Equality Index; DisabilityIN's Disability Equality Index, Workplace Pride, as well as others. In 2023, we participated in the Black Equality Index for the first time. These indices allow us to understand what it takes to raise the bar and refine or adjust our DE&I initiatives accordingly. IFF was also listed as a “Best Place to Work for Disability Inclusion” for the fourth consecutive year.

Occupational Health & Safety

Employee safety is one of the cornerstones of our business. Our occupational health and safety management system requires and encourages employees and supervised contractors at sites globally to uphold IFF's protocols, report any incidents and suggest improvements that improve the safety of work sites. Our safety management system is based on U.S. Occupational Safety and Health Administration (“OSHA”) standards which apply to all of our sites in conjunction with any local regulations. To work toward a safer workplace, we have put in place a set of protocols and programs related to three areas of focus: (a) safety governance (setting and updating comprehensive safety policies and procedures), (b) safety training of employees based on IFF policies and local requirements, and (c) safety culture characterized by awareness and communication.

Availability of Reports

We make available free of charge on or through the “Investors” link on our website, www.iff.com, all materials that we file electronically with the Securities and Exchange Commission (“SEC”), including 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, as soon as reasonably practicable after electronically filing such materials with, or furnishing them to, the SEC. During the period covered by this Form 10-K, we made all such materials available through our website as soon as reasonably practicable after filing such materials with the SEC.

The SEC maintains an Internet website, www.sec.gov, that contains reports, proxy and information statements and other information that we file electronically with the SEC.

A copy of our By-Laws, Corporate Governance Guidelines, Codes of Conduct, and the charters of the Audit Committee, Human Capital & Compensation Committee, Governance & Corporate Responsibility Committee and Innovation Committee of the Board of Directors are posted on the “Investors” section of our website, www.iff.com.

Our principal executive offices are located at 521 West 57th Street, New York, New York 10019 and 200 Powder Mill Road, Wilmington, Delaware 19803.

Executive Officers of Registrant

Below is a list of the executive officers of the Company and other significant employees who are members of our Executive Leadership Team as of February 28, 2024.

Name	Age	Position
J. Erik Fyrwald ⁽¹⁾	64	Chief Executive Officer and member of our Board of Directors
Yuvraj Arora	52	President, Nourish
Deborah Borg ⁽¹⁾	47	Executive Vice President, Chief Human Resources, Diversity & Inclusion and Communications Officer
Michael DeVeau	43	Senior Vice President, Corporate Finance and Investor Relations
Ralf Finzel ⁽¹⁾	60	Executive Vice President, Global Operations Officer
Simon Herriott ⁽¹⁾	60	President, Health & Biosciences and Scent
Jennifer Johnson ⁽¹⁾	49	Executive Vice President, General Counsel and Corporate Secretary
Glenn Richter ⁽¹⁾	62	Executive Vice President, Chief Financial & Business Transformation Officer
Angela Strzelecki ⁽¹⁾	57	President, Pharma Solutions
Vic Verma	55	Executive Vice President, Chief Information Officer
Casper Vroemen	54	Executive Vice President, Chief Research & Development Officer

(1) These individuals are executive officers and file reports under Section 16 of the Securities Exchange Act of 1934.

J. Erik Fyrwald has served as our Chief Executive Officer and a member of our Board of Directors since February 6, 2024. Mr. Fyrwald joined us from Syngenta, where he served as Chief Executive Officer since 2016. Prior to his role at Syngenta, Mr. Fyrwald served as Chief Executive Officer of Univar Solutions from May 2012 until May 2016, as Chairman and Chief Executive Officer of Nalco from 2008 until 2011, when Nalco merged with Ecolab Inc., and following the merger, he served as President of Ecolab. Mr. Fyrwald began his career at DuPont starting in 1981. During his 27 years at DuPont, Mr. Fyrwald held a number of positions, including Group Vice President of the Agriculture and Nutrition Division at DuPont and Vice President and General Manager of DuPont's Nutrition and Health Business.

Yuvraj Arora has served as our Executive Vice President and President, Nourish since June 19, 2023. Mr. Arora joined IFF from Kellogg North America, where he served as the President of the company's six U.S. categories since April 2021. He was with Kellogg for more than 20 years, beginning in India in 2002 where he held roles in marketing and category management. He later assumed roles of increasing responsibility in marketing, brand management and general management upon his relocation to the United States in 2005 and in Singapore from 2012-2015.

Deborah Borg has served as our Executive Vice President, Chief Human Resources, Diversity & Inclusion and Communications Officer since August 29, 2022. Ms. Borg joined IFF from Bunge Limited, where she served as Chief Human Resources and Communications Officer since 2016. Prior to joining Bunge, she served in a variety of business leadership and Human Resources roles in Australia, Switzerland and the U.S. for Dow Chemical between 2000 and 2015. She began her career at General Motors Australia.

Michael DeVeau has served as our Senior Vice President, Corporate Finance and Investor Relations since December 2022 and had previously served as Senior Vice President, Chief Investor Relations & Communications Officer from February 2021 to December 2022, Vice President, Investor Relations, Communications, and Chief of Staff from September 2014 to February 2021, as well as divisional Chief Financial Officer, Scent from 2018 to 2020 and head of Corporate Strategy from 2016 to 2018. Since joining the Company in 2009 as head of investor relations, Mr. DeVeau has held various roles of increasing scope and responsibility in communications, finance and strategy. Prior to joining the Company, he served in leadership positions in investor relations, finance and corporate development at PepsiCo. Mr. DeVeau began his career as an Equity Research Analyst at Citigroup Investment Research.

Ralf Finzel has served as our Executive Vice President, Global Operations Officer since November 1, 2022. Previously, Mr. Finzel served as Vice President of Integrated Supply Chain for Honeywell International Performance Materials and Technologies Business Group in Houston since 2020. Prior to that, he served as Vice President of Integrated Supply Chain for Honeywell International Building Technologies Business Group from July 2017 to March 2020. He first joined Honeywell in Germany as an operations manager in 1999, and held various roles of increasing responsibility and scope in Europe and the U.S. Prior to joining Honeywell, he worked in research and plant management roles for Hoechst AG.

Simon Herriott has served as our President, Health & Biosciences since February 2021 and President, Scent since June 2023. From 2019 to February 2021, Mr. Herriott was Vice President and Global Business Director, Health & Biosciences for the N&B Business and from 2016 to 2019, he served as Global Business Director, Bioactives, Industrial Biosciences and Vice President, Danisco Inc. Mr. Herriott was employed by DuPont's predecessor or formerly affiliated companies for 15 years and held a variety of roles, including Global Business Director, Biomaterials, Industrial Biosciences.

Jennifer Johnson has served as our Executive Vice President, General Counsel and Corporate Secretary since February 2021. From 2019 to February 2021, Dr. Johnson served as Associate General Counsel for the N&B Business. Dr. Johnson

joined DuPont in 2013, where she led the legal team for DuPont's former Industrial Biosciences business as Associate General Counsel and previously served as Assistant Chief Intellectual Property Counsel for Industrial Biosciences. Prior to joining DuPont, Dr. Johnson was a Partner at the law firm of Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

Glenn Richter has served as our Executive Vice President, Chief Financial & Business Transformation Officer since February 2023. Mr. Richter served as our Executive Vice President, Chief Financial Officer from September 2021 to February 2023. Prior to joining IFF, Mr. Richter was Chief Financial Officer of TIAA, having worked at the company in various leadership roles from April 2015 to July 2021. Previously, Mr. Richter worked for Nuveen Investments as Chief Operating Officer and Chief Administrative Officer and before joining Nuveen Investments in 2006, he served as Executive Vice President, Chief Financial Officer for RR Donnelley & Sons, and prior to that he was Executive Vice President & CFO of Sears, Roebuck and Co. and Chairman of Sears Canada, a publicly-traded affiliate.

Angela Strzelecki has served as our President, Pharma Solutions since February 2021. From 2019 to February 2021, Dr. Strzelecki was Global Business Director, Pharma Solutions for the N&B Business. During her 29 year career with DuPont or its formerly affiliated companies, Dr. Strzelecki held a variety of leadership positions, including Planning Director - Corporate Planning and M&A, Global Business Director - Electronics & Communications, North America Business Director - Building Innovations, Global Business Director - Industrial Coatings and Global Technology Director for Coatings.

Vic Verma has served as our Executive Vice President, Chief Information Officer since February 2021 and had previously served as our Senior Vice President, Chief Information Officer from 2016 to February 2021. Before joining the Company, Mr. Verma served as Vice President of Global Infrastructure Operations at American Express, a multinational financial services company. Prior to that, Mr. Verma held several other leadership positions at American Express as well as Vice President, Division CIO and management consulting roles with GlaxoSmithKline, Bristol Myers Squibb and PricewaterhouseCoopers.

Casper Vroemen has served as our Executive Vice President, Chief Research & Development Officer since September 2023. Dr. Vroemen has been with the N&B Business since 2004. Over the past two decades, he has assumed roles of increasing responsibility in research and development in Europe and the U.S.

Recent Developments

On January 11, 2024, we announced the departure of Frank K. Clyburn Jr. as our Chief Executive Officer, effective February 6, 2024. The Board of Directors appointed J. Erik Fyrwald as our Chief Executive Officer, effective February 6, 2024.

ITEM 1A. RISK FACTORS.

Risk Factor Summary

The following summary highlights some of the principal risks that could adversely affect our business, financial condition or results of operations. This summary is not complete and the risks summarized below are not the only risks we face. These risks are discussed more fully further below in this section entitled "Risk Factors" in Item 1A. of this report. These risks include, but are not limited to, the following:

- We have a substantial amount of indebtedness that could materially adversely affect, among other things, our financial condition, our ability to return capital to our shareholders, needed investments into our business, and our credit ratings.
- If we are unable to successfully execute the next phase of our strategic transformation, including our portfolio optimization, it may have a material adverse effect on our business, results of operations and financial condition.
- Our ability to declare and pay dividends is subject to certain considerations.
- Our results of operations may be negatively impacted by the outcome of uncertainties related to legal claims, disputes, investigations and litigation, including the ongoing antitrust and competition investigations and related class actions lawsuits.
- Inflationary trends and pricing uncertainty, including in the price of our input costs, such as raw materials, transportation and energy, could adversely affect our business and financial results in the short term and result in uncertainties in the long term.
- Supply chain disruptions, geopolitical developments, including the Russia-Ukraine war, the Israel-Hamas war and wider Middle East developments (including disruptions to the Red Sea passage or such conflicts spreading further in the relevant regions), or climate-change events (including severe weather events) may adversely affect our suppliers or our procurement of raw materials, and thus may impact our business and financial results.
- Our success depends on attracting and retaining talented people within our business and our management team. Changes to management, including turnover of our top executives, and significant shortfalls in recruitment, retention or transition of employees or our management team could adversely affect our ability to compete and achieve our strategic goals.

- If we are unable to successfully market to our expanded and diverse customer base, our operating results and future growth may be adversely affected.
- Our business is highly competitive, and if we are unable to compete effectively our sales and results of operations will suffer.
- A significant portion of our sales is generated from a limited number of large multi-national customers, which are currently under competitive pressures that may affect the demand for our products and profitability.
- We may not successfully develop and introduce new products that meet our customers' needs, which may adversely affect our results of operations.
- International conflicts (such as the Russia-Ukraine war and the Israel-Hamas war), geopolitical events, natural disasters, public health crises (such as the COVID-19 pandemic), trade wars, terrorist acts, labor strikes, political or economic crises (such as uncertainty related to protracted U.S. federal government funding negotiations), accidents and other events could adversely affect our business and financial results, including by disrupting development, manufacturing, distribution or sale of our products.
- A significant data breach or other disruption to our information technology systems could disrupt our operations, result in the loss of confidential information or personal data, and adversely impact our reputation, business or results of operations.
- We are subject to risks associated with the potential use of artificial intelligence ("AI") in our own operations and by third-party partners that we may engage with.
- We have made investments in and continue to expand our business into emerging markets, which exposes us to certain risks.
- The impact of currency fluctuation or devaluation in the international markets in which we operate may negatively affect our results of operations.
- International economic, political, legal, compliance and business factors could negatively affect our financial statements, operations and growth.
- Economic uncertainty, including increased inflation, may adversely affect demand for our products which may have a negative impact on our operating results and future growth.
- The integration of the N&B Business may continue to present significant challenges, and we may not realize anticipated synergies and other benefits of the N&B Transaction.
- If we are unable to react in a timely and cost-effective manner to changes in consumer trends, such as increasing awareness of health and wellness, our results of operations and future growth may be adversely affected.
- We are subject to increasing customer, consumer, shareholder and regulatory focus on sustainability, which may result in additional costs in order to meet new requirements.
- Our performance may be adversely impacted if we are not successful in managing our inventory and/or working capital balances.
- Any impairment of our tangible or intangible long-lived assets, including goodwill, may adversely impact our profitability.
- If we fail to successfully enter into or close collaborations, joint ventures, partnerships or acquisitions, or successfully manage such transactions, it could adversely affect our business and growth opportunities.
- Our funding obligations for our pension and postretirement plans could adversely affect our earnings and cash flows.
- The phase out of the London Interbank Offered Rate ("LIBOR") may impact the interest rates paid on our variable rate indebtedness and could cause our interest expense to increase.
- If we are unable to comply with regulatory requirements and industry standards, including those regarding product safety, quality, efficacy and environmental impact, we could incur significant costs and suffer reputational harm which could adversely affect results of operations.
- Defects, quality issues (including product recalls), inadequate disclosure or misuse with respect to the products and capabilities could adversely affect our business, reputation and results of operations.
- Failure to comply with environmental protection laws may cause us to close, relocate or operate one or more of our plants at reduced production levels, and expose us to civil or criminal liability, which could adversely affect our operating results and future growth.
- We could be adversely affected by violations, by us or our counterparties, of the U.S. Foreign Corrupt Practices Act, similar U.S. or foreign anti-bribery and anti-corruption laws and regulations, applicable sanctions laws and regulations in the jurisdictions in which we operate or ethical business practices and related laws and regulations.
- Our ability to compete effectively depends on our ability to protect our intellectual property rights.

- Changes in our tax rates, the adoption of new U.S. or international tax legislation, or changes in existing tax laws could expose us to additional tax liabilities that may affect our future results.
- The N&B Transaction could result in significant tax liability, and we may be obligated to indemnify DuPont for any such tax liability imposed on DuPont.
- If we fail to comply with data protection laws in the U.S. and abroad, we may be subject to fines, penalties and other costs.

Risk Factors

We routinely encounter and address risks in conducting our business. Some of these risks may cause our future results to be different - sometimes materially different - than we presently anticipate. Below are material risks we have identified that could adversely affect our business. How we react to material future developments, as well as how our competitors and customers react to those developments, could also affect our future results.

Risks Related to Our Business and Industry

We have a substantial amount of indebtedness that could materially adversely affect, among other things, our financial condition, our ability to return capital to our shareholders, needed investments into our business and our credit ratings.

As of December 31, 2023, our total debt was \$10.071 billion. Despite our level of indebtedness, we expect to continue to have the ability to borrow additional debt. There may be circumstances in which required payments of principal and/or interest on our debt could adversely affect our cash flows, our operating results or our ability to return capital to our shareholders. In addition, our existing Revolving Credit Facility and Term Loans are also at variable interest rates, exposing us to potentially material interest rate risk at our current level of indebtedness.

Furthermore, our degree of leverage could adversely affect our future credit ratings. If we are unable to maintain or improve our current investment grade rating or improve our leverage, it could adversely affect our future cost of funding, liquidity and access to capital markets. The Company does not have any rating downgrade triggers that would accelerate the maturity dates of its senior unsecured debt. However, any downgrade in our credit rating may, depending on the extent of such downgrade, negatively impact our ability to raise additional debt capital, our liquidity and capital position, and may increase our cost of borrowing for new capital raises. In addition, our existing Revolving Credit Facility and Term Loans have pricing grids that are based on credit rating, such that our cost of borrowing may increase as our public debt rating decreases. The pricing grid rates have increased by 0.125% for the duration that financial covenant relief (as described below) is provided.

Our Revolving Credit Facility and Term Loans contain various covenants, limitations and events of default customary for similar facilities for similarly rated borrowers, including the requirement for us to maintain, at the end of each fiscal quarter, a maximum ratio of net debt for borrowed money to credit adjusted EBITDA in respect of the previous four fiscal quarters. On September 19, 2023, we entered into further amendments to our Revolving Credit Facility and Term Loans that extend certain relief with respect to this financial covenant by providing that during the relief period our leverage ratio shall not exceed as of the end of the fiscal quarter (for the period of the four fiscal quarters then ended): (i) 5.25x for any fiscal quarter ending on or before March 31, 2024, (ii) 4.75x for the fiscal quarter ending June 30, 2024, (iii) 4.50x for the fiscal quarter ending September 30, 2024, (iv) 4.25x for any subsequent fiscal quarter ending on or before March 31, 2025, (v) 4.00x for any subsequent fiscal quarter ending on or before September 30, 2025 and (vi) 3.75x for the fiscal quarter ending December 31, 2025. The financial covenant relief provided in these most recent amendments superseded the ratios and step downs set forth in prior amendments to these credit facilities entered into on August 4, 2022 and March 23, 2023.

During the financial covenant relief period, the amendments prohibit us from (i) effecting share repurchases, (ii) declaring and paying dividends in cash on common stock in excess of \$0.81 per share per fiscal quarter (for an aggregate amount of \$3.24 per fiscal year) and (iii) creating liens to secure debt in excess of the greater of \$300 million and 3.65% of Consolidated Net Tangible Assets, in each case subject to certain exceptions set forth in the amendments. During the financial covenant relief period, the Term Loans are subject to a mandatory prepayment provision whereby certain asset sale proceeds must be used to pay down amounts outstanding thereunder. See Note 9 for additional information on the amendments to the debt agreements.

Our current level of leverage could increase our vulnerability to sustained, adverse macroeconomic weakness, limit our ability to obtain further financing, lead to a reduction or suspension of our dividend payments, decrease our flexibility in responding to or preparing for changes in the industry in which we operate and our ability to pursue certain operational and strategic projects or opportunities, including necessary investments into our business or large acquisitions. Our level of indebtedness, as well as a failure to comply with covenants under our debt instruments, could adversely affect our business, results of operation and financial condition or our ability to return capital to our shareholders and any additional debt modifications, instruments or covenant reliefs may subject us to additional covenants and restrictions.

If we are unable to successfully execute the next phase of our strategic transformation, including our portfolio optimization, it may have a material adverse effect on our business, results of operations and financial condition.

In December 2022, we announced our new strategic and financial vision previewing a refreshed strategic plan and new operating model, which among other things, consists of a renewed growth-focus strategy, enhanced cost & productivity initiatives, a redesigned operating model, a reaffirmation of our commitment to our portfolio optimization initiatives and a plan to evolve our Board in line with best-in-class governance standards, as well as certain changes to our Executive Leadership Team. Implementing such changes can be complex, costly and time-consuming and may also result in unanticipated issues, such as additional expenses, competitive responses, employee turnover or impact on our commercial relationships. Even if such initiatives are implemented successfully, the full benefits may not be realized or may not be realized within the desired timeframe. The failure to meet the challenges involved in implementing our strategic transformation could result in a material adverse impact on our business, results of operations and financial condition.

As a part of our ongoing strategic transformation and our portfolio optimization strategy as discussed above, we continue to evaluate and work towards divestitures or strategic transactions. For instance, during the third quarter of 2022, the second quarter of 2023 and the third quarter of 2023, we completed divestitures of our Microbial Control business, a portion of the Savory Solutions business and our Flavor Specialty Ingredients business, respectively. During the third quarter of 2023, we announced that we entered into an agreement for the sale of our Cosmetics Ingredients business, which is expected to close in the first quarter of 2024, subject to customary closing conditions. The successful entry into and closing of such transactions is contingent on many factors, including, among other things, the performance of the underlying assets or business as well as the relevant industry dynamics overall, the interest of potential buyers and their ability to finance such transactions (which is also impacted by general economic and financial conditions and market dynamics), requisite regulatory approvals, and related separation activities. Divestitures involve separation costs and efforts that may divert management's and employees' attention and also result in stranded costs and dis-synergies for the Company. Moreover, divestitures often entail post-closing third party agreements, such as supply arrangements (including with "take or pay" provisions), product manufacturing, cross-licensing, transitional, or site services agreements ("ancillary agreements"), that may bind the Company for certain periods after closing, during which market or Company conditions may change. Any failure to enter into, complete or potential delays in closing any such transaction, any failure to mitigate or manage the associated costs of such transactions, or obtain appropriate terms for ancillary agreements, could adversely affect the implementation of our portfolio optimization strategy as well as our financial condition, including our leverage ratio.

Our ability to declare and pay dividends is subject to certain considerations.

Dividends are authorized and determined by our Board of Directors in its sole discretion and depend upon a number of factors, including:

- cash available for dividends;
- our results of operations and anticipated future results of operations;
- our financial condition, including our current or forecasted future cash flows provided by our operating activities (after deducting anticipated future capital expenditures and other commitments required to carry out our operations and business strategy);
- our operating expenses;
- restrictions in our credit agreement related to the issuance of dividends, including minimum capital requirements; and
- other general and economic conditions or other factors our Board of Directors deems to be relevant.

We expect to continue to pay dividends to our shareholders; however, our Board may reduce, suspend or discontinue the payment of dividends at any time. Any reduction in the amount of dividends we pay to shareholders could have an adverse effect on the trading price of our common stock.

Our results of operations may be negatively impacted by the outcome of uncertainties related to legal claims, disputes, investigations and litigation, including the ongoing antitrust and competition investigations and related class actions lawsuits.

From time to time we are involved in a number of legal claims, regulatory investigations and litigation, including claims related to intellectual property, product liability, competition and antitrust, environmental matters and indirect taxes. For instance, product liability claims may arise due to the fact that we supply products to the food and beverage, functional food, pharma/nutraceutical and personal care industries. Our manufacturing and other facilities may expose us to environmental claims and regulatory investigations and potential fines. In addition, and as further described in our consolidated financial statements, we are subject to antitrust and competition investigations in the United States and Europe, as well as class action lawsuits against us and certain of our competitors in the United States and Canada, alleging violations of antitrust laws and related claims. We may face additional civil suits in the United States or elsewhere, relating to such alleged conduct. At this

time, we are unable to predict or determine the scope, duration, or outcome of these investigations. Our results of operations, liquidity or financial condition could be adversely impacted by unfavorable outcomes in these or other pending or future claims, disputes, investigations or litigation. Poor results of operations, liquidity or financial condition—particularly as we work towards implementation of our ongoing strategic transformation and our portfolio optimization strategy—may increase the likelihood of shareholder litigation.

In addition, in light of our product offerings into functional food, nutraceuticals, natural antioxidants or pharmaceutical products, we may also be subject to claims of false or deceptive advertising claims relating to the efficacy, health benefits or other performance attributes of such offerings in the U.S., Europe and other foreign jurisdictions in which we offer these types of products. These claims can arise as a result of function claims, health claims, nutrient content claims and other claims that impermissibly suggest such benefits or attributes for certain foods or food components. The cost of defending these claims or our obligations for direct damages and indemnification if we were found liable could adversely affect our results of operations.

Our insurance may not be adequate to protect us from potential material expenses related to pending and future claims and our current levels of insurance may not be available in the future at commercially reasonable prices. Any of these factors could adversely affect our profitability and results of operations.

Inflationary trends and pricing uncertainty, including in the price of our input costs, such as raw materials, transportation and energy, could adversely affect our business and financial results in the short term and result in uncertainties in the long term.

The global economy continues to experience high rates of inflation. Though inflation appears to be gradually declining in certain parts of the world, inflationary pressure and price uncertainty is expected to continue in 2024. As a result of the broader inflationary environment and supply chain disruptions we have experienced, and may continue to experience, volatility and increases in the price of input costs, such as certain raw materials, transportation and energy costs. We might also suffer from supply disruptions from supplier exits as higher costs may become unaffordable for certain suppliers. In addition, though many central banks have paused monetary policies such as increasing interest rates to counter inflation, rates remain at historical highs and may continue to remain at such levels. These and other monetary policies to counter inflation could negatively affect our borrowing costs and those of our customers and suppliers, as well as exchange rates and other macroeconomic factors.

If we are unable to increase the prices of our products to our customers to offset inflationary cost trends, or if we are unable to achieve cost savings to offset such cost increases, we could fail to meet our cost expectations, and our profits and operating results could be adversely affected. Our ability to price our products competitively to timely reflect higher input costs is critical to maintain and grow our sales. Increases in prices of our products to customers or the impact of the broader inflationary environment on our customers may continue to lead to declines in demand and sales volumes. Further, we may not be able to accurately predict or hedge for price fluctuations of input costs, or predict the volume impact of the price increases in our products, while our competitors may be able to more successfully adjust to such input cost volatility. Increasing our prices to our customers could result in long-term sales declines or loss of market share if our customers find alternative suppliers or choose to reformulate their consumer products to rely less on our products, which could have an adverse long-term impact on our results of operations. Increased cost volatility trends may also impact the business and financial situation of our customers or suppliers, which could in turn affect the demand or supply, respectively, by such parties. Future inflationary and deflationary trends are beyond our control, and we may not be able to sufficiently mitigate any impact on our business and financial situation.

Supply chain disruptions, geopolitical developments, including the Russia-Ukraine war, the Israel-Hamas war and wider Middle East developments (including disruptions to the Red Sea passage or such conflicts spreading further in the relevant regions), or climate-change events (including severe weather events) may adversely affect our suppliers or our procurement of raw materials, and thus may impact our business and financial results.

In connection with our manufacturing of our products, we often rely on third party suppliers for raw materials. We use many different raw materials for our business, such as essential oils, extracts and concentrates derived from fruits, vegetables, flowers, woods and other botanicals, animal products, raw fruits, organic chemicals and petroleum-based chemicals, as well as, gelatin, glycols, cellulose processed grains, guar, locust bean gum, organic vegetable oils, peels, saccharides, seaweed, soybeans, and sugars and yeasts.

Supply chain disruptions, such as the ones related to the COVID-19 pandemic, may impair or delay our ability to obtain sufficient quantities of certain raw materials through our ordinary supply channels and cause us to incur higher costs by procuring raw materials from other sources in order to compensate for such delays or lack of availability.

In addition, our suppliers, similar to us, are subject to risks, inherent in agriculture, manufacturing and distribution on a global scale, including industrial accidents, environmental events, climate change, strikes and other labor disputes, disruptions in supply chain or information systems, disruption or loss of key research or manufacturing sites, product quality control, safety and environmental compliance issues, licensing requirements and other regulatory issues, as well as natural disasters, global or

local health crises, international conflicts, terrorist acts, geopolitical developments, trade wars, and other external factors over which neither they nor we have control. These suppliers could also become insolvent or experience other financial distress.

If our suppliers are unable to supply us with sufficient quantities of ingredients and raw materials to meet our needs, we would need to seek alternative sources of such materials (which may result in higher transportation or procurement costs) or pursue our own production of such ingredients or direct acquisition of such raw materials. However, for certain of our ingredients and raw materials, we rely on a limited number of suppliers where there are not readily available alternatives. If we are unable to obtain or manufacture alternative sources of such ingredients or raw materials at a similar cost, we may seek to (i) reformulate our products and/or (ii) increase pricing to reflect the higher supply cost. To mitigate our sourcing risk, we maintain strategic stock levels for critical items. However, if we do not accurately estimate the amount of raw materials that will be used for the geographic region in which we will need these materials or competitively price our products, our margins could be adversely affected.

Geopolitical developments, such as trade wars, the Russia-Ukraine war, the Israel-Hamas war and wider Middle East developments (including disruptions to the Red Sea passage or such conflicts spreading further in the relevant regions), could adversely impact, among other things, our raw material, energy and transportation costs, certain of our suppliers, distributors, customers and local markets, global and local macroeconomic conditions, and cause further supply chain disruptions (including by delaying the delivery times of raw materials needed for our business or our products to customers). As the Russia-Ukraine war has prolonged, it continues to impact our sourcing of certain raw materials for future years, and we continue to look for alternative suppliers or adjust the types of raw materials used in our products. In addition, as the Israel-Hamas war develops with potential implications for the wider Middle East (including the Red Sea passage), it may have similar impacts on suppliers, customers or local markets.

At the same time, climate-change related disruptions, may affect the availability, quality and pricing of raw materials. There is growing evidence that carbon dioxide and other greenhouse gases in the atmosphere may have an adverse impact on global temperatures, weather and precipitation patterns, growing and harvesting conditions (both on land and in the sea), and the frequency and severity of extreme weather and natural disasters, such as floods, wildfires, droughts and water scarcity. To the extent such climate change effects have a negative impact on crop size and quality, supply chain, energy or transportation costs, it could impact the availability, quality and pricing of affected raw materials. Climate related policies and energy production restrictions and pricing may exacerbate such negative impacts.

More generally, as we source many of our raw materials globally to help ensure quality control or to mitigate supply chain disruptions, we are subject to additional risks related to the increases in energy or transportation costs. Energy prices are in turn subject to significant volatility caused by, among other things, market fluctuations, supply and demand changes, currency fluctuations, production and transportation disruptions, and other world events, as well as geopolitical developments and climate change related conditions discussed above.

If we are not able to successfully mitigate such supply chain and climate-change related risks, we could experience disruptions in production or increased costs, which may result in decrease in our gross margin or reduced sales, and have a material adverse effect on our business, results of operations and financial condition.

Our success depends on attracting and retaining talented people within our business and our management team. Changes to management, including turnover of our top executives, and significant shortfalls in recruitment, retention or transition of employees or our management team could adversely affect our ability to compete and achieve our strategic goals.

Attracting, developing, and retaining talented employees is essential to the successful delivery of our products and has become more difficult and costly in the current labor market. Furthermore, as we continue to focus on innovation, our need for scientists and other professionals will increase and may result in increased labor costs. The ability to attract and retain talented employees is critical in the development of new products and technologies which is an integral component of our growth strategy.

Competition for employees can be intense and if we are unable to successfully integrate, motivate and reward our employees, we may not be able to retain them. If we are unable to retain our employees or attract new employees in the future, our ability to effectively compete with our competitors and to grow our business could be adversely affected. In addition, we have announced, as part of our strategic transformation initiatives, certain headcount reductions to re-align our workforce to match strategic and financial objectives and optimize resources for long-term growth. Such reductions could lead to increased uncertainty, attrition or lower morale amongst those employees who are not directly affected by the headcount reductions as those reductions are being implemented, which may result in decreased productivity or could otherwise impact our results of operation.

In addition, the loss of any member of our senior management could materially adversely affect our ability to execute our business plan and strategy. We may not find an adequate replacement in a timely fashion, or at all and any replacement may

view the business differently than current members of management. Future executives may make changes to our strategic focus, operations, business plans or financial guidance and outlook, with corresponding changes in how we report our results of operations. We can make no assurances that we would be able to properly manage any shift in focus or that any changes to our business would ultimately prove successful.

Lastly, our success may depend on the ability of our new Chief Executive Officer to integrate and quickly adapt to and understand our business, operations, and strategic plans. This will be critical to the Company and our management's ability to make informed decisions about our near-term strategic direction and operations. While our Board of Directors strives to mitigate the risk through a robust management succession process, which includes the outgoing Chief Executive Officer serving in an advisory role until December 2024, leadership transitions can be inherently difficult to manage. An inadequate transition may cause disruption to our business due to, among other things, diverting management's attention away from the Company's financial and operational goals or causing a deterioration in morale.

If we are unable to successfully market to our expanded and diverse customer base, our operating results and future growth may be adversely affected.

As a result of our acquisition of Frutarom and the N&B Transaction, the number of our customers significantly increased and became more diverse. Our historical customer base was primarily comprised of large and medium-sized food, beverage and consumer products companies. With the completion of the N&B Transaction, our customer base has further increased significantly and, based on 2023 sales, we had approximately 27,000 customers, approximately 54% of which are small and mid-sized companies. This substantial increase in and diversity of our customer base has required us and may continue to require us to adjust, among other things, our product development, manufacturing, distribution, marketing, customer relationship and sales strategy as well as adapt corporate, information technology, finance and administrative infrastructures to support different go-to-market models. We may experience difficulty managing the growth of a portfolio of customers that is more diverse in terms of its geographical presence as well as with respect to the types of services they require and the infrastructure required to deliver our products. If we are unable to successfully gain market share or maintain our relationships with these customers, our future growth could be adversely affected.

Our business is highly competitive, and if we are unable to compete effectively our sales and results of operations will suffer.

The markets in which we compete are highly competitive. We face vigorous competition from companies throughout the world, including multi-national and specialized companies active in flavors, fragrances, enzymes, pharmaceutical excipients, nutrition and specialty ingredients, as well as consumer product companies which may develop their own competing products. For instance, in the flavors industry, we face increasing competition from ingredient suppliers that have expanded their portfolios to include flavor offerings. Some of our competitors specialize in one or more of our product sub-segments, while others participate in many of our product sub-segments. In addition, some of our global competitors may have more resources than we do or may have proprietary products that could permit them to respond to changing business and economic conditions more effectively than we can. Moreover, there has been increased consolidation among our competitors, and such consolidation or partnerships among our competitors may exacerbate these risks.

As we continue to enter into adjacent markets, such as functional foods, specialty fine ingredients and nutrition products, we may face greater competition-related risks in these markets than with our other businesses. For example, the specialty fine ingredients market is more price sensitive than the flavors market and is characterized by relatively lower profit margins. Some fine ingredients products are less unique and more replaceable than competitors' products. There is no assurance that operating margins will remain at current levels, which could substantially impact our business, operating results and financial condition.

Competition in our business is based, among other things, on innovation, product quality, regulatory compliance, pricing, quality of customer service, the support provided by marketing and application groups, and understanding of consumers. It is difficult for us to predict the timing, scale and success of our competitors' actions in these areas. In particular, the discovery and development of new products, protection of our intellectual property and development and retention of key employees are critical to our ability to effectively compete in our business. Advancement in technologies have also enhanced the ability of our competitors to develop substitutable products. Increased competition by existing or future competitors, including aggressive price competition, could result in the loss of sales, reduced pricing and margin pressure and could adversely impact our sales and profitability.

Failing to identify and make capital expenditures to achieve growth opportunities, being unable to make new concepts scalable, or failing to effectively and timely reinvest in our business operations, could result in the loss of competitive position and adversely affect our financial condition or results of operations.

A significant portion of our sales is generated from a limited number of large multi-national customers, which are currently under competitive pressures that may affect the demand for our products and profitability.

During 2023, our 25 largest customers, a majority of which were multi-national consumer products companies, collectively accounted for approximately 32% of our sales in the aggregate. Large multi-national customers' market share, especially in the consumer product industry, continues to be pressured by new smaller companies and specialty players that cater to or are more adept at adjusting to the latest consumer trends, including towards natural products and clean labels, changes in the retail landscape (including e-commerce and consolidation), and increased competition from private labels, which have resulted and may continue to result in decreased demand for our products by such multi-national customers and volume erosion, especially in our Nourish business. Furthermore, consolidations amongst our customers have resulted in larger and more sophisticated customers with greater buying power and additional negotiating strength. If such trends continue, our sales could be adversely impacted if we are not able to replace these sales.

In addition, large multi-national customers and increasingly middle market customers continue to utilize "core lists" of suppliers to improve margins and profitability in the flavors and fragrance segments. Typically, these "core list" suppliers are then given priority for new or modified products. Recently, these customers are making inclusion on their "core lists" contingent upon a supplier providing more favorable terms, including rebates, which could adversely affect our margins. We must either offer competitive cost-in-use solutions to secure and maintain inclusion on these "core lists" or seek to manage the relationship without being on the "core-list." If we choose not to pursue "core-list" status due to profitability concerns or if we are unable to obtain "core-list" status, our ability to maintain our share of these customers' future purchases could be adversely affected and therefore our future results of operations.

We may not successfully develop and introduce new products that meet our customers' needs, which may adversely affect our results of operations.

Our ability to differentiate ourselves and deliver growth largely depends on our ability to successfully develop and introduce new products and product improvements that meet our customers' needs, and ultimately appeal to consumers. Innovation is a key element of our ability to develop and introduce new products. We cannot be certain that we will be successful in achieving our innovation goals, such as the development of new molecules, new and expanded delivery systems and other technologies. In 2023, we spent approximately 5.5% of our sales on research and development, and as part of our new strategic vision announced in December 2022, we expect to continue investment in research and development and innovation initiatives. This investment level may vary in the future if available resources to invest in research and development are limited due to our ongoing integration and restructuring efforts or from adverse macroeconomic or supply chain factors. We also may need to devote more resources to enhancing our existing product portfolios. Our research and development investments may only generate future revenues to the extent that we are able to develop products that meet our customers' specifications, are at an acceptable cost and achieve acceptance by the targeted consumer market. Furthermore, there may be significant lag times from the time we incur research and development costs to the time that these research and development costs may result in increased revenue.

Consequently, even when we "win" a project, our ability to generate revenues as a result of these investments is subject to numerous customer, economic and other risks that are outside of our control, including delays by our customers in the launch of a new product, the level of promotional support for the launch, poor performance of our third-party vendors, anticipated sales by our customers not being realized or changes in market preferences or demands, or disruptive innovations by competitors.

International conflicts (such as the Russia-Ukraine war and Israel-Hamas war), geopolitical events, natural disasters, public health crises (such as the COVID-19 pandemic), trade wars, terrorist acts, labor strikes, political or economic crises (such as uncertainty related to protracted U.S. federal government funding negotiations), accidents and other events could adversely affect our business and financial results, including by disrupting development, manufacturing, distribution or sale of our products.

As a company engaged in the global development, manufacture and distribution of products, we are subject to the risks inherent in such activities, including industrial accidents, environmental events, strikes and other labor disputes, product quality control issues, safety, licensing requirements and other regulatory issues, as well as natural disasters, public health crises, such as pandemics or epidemics, international conflicts, geopolitical events, trade wars, terrorist acts, political or economic crises (such as the uncertainty related to protracted U.S. federal government funding negotiations) and other external factors over which we have no control. See, also "*—Supply chain disruptions, geopolitical developments, including the Russia-Ukraine war, the Israel-Hamas war and wider Middle East developments (including disruptions to the Red Sea passage), or climate-change events (including severe weather events) may adversely affect our suppliers or our procurement of raw materials, and thus may impact our business and financial results.*" For instance, the Russia-Ukraine war has adversely impacted and may continue to impact, among other things, certain of our local markets and suppliers, global and local macroeconomic conditions, foreign exchange rates and financial markets, raw material, energy and transportation costs, and cause further supply chain disruptions. We maintain operations in both Russia and Ukraine and export products to customers in Russia and Ukraine from operations outside the region. In response to the events in Ukraine, the Company has limited the production and supply of ingredients in and to Russia to only those that meet the essential needs of people, including food, hygiene and medicine. As a result of changes and uncertainties arising out of the Russia-Ukraine war, our operating performance in Russia remains lower compared

to previous years and may not reverse in the near future. The Israel-Hamas war may also have impacts on our operations in Israel and certain of our customers, local markets and suppliers.

While we operate research and development, manufacturing and distribution facilities throughout the world, many of these facilities are extremely specialized and certain of our research and development or creative laboratories facilities are uniquely situated to support our research and development efforts while certain of our manufacturing facilities are the sole location where a specific ingredient or product is produced. If our research and development activities or the manufacturing of ingredients or products were disrupted, the cost of relocating or replacing these activities or reformulating these ingredients or products may be substantial, which could result in production or development delays or otherwise have an adverse effect on our margins, operating results and future growth.

Moreover, as a result of the COVID-19 pandemic's impact on the global supply chain, we have experienced, and may continue to experience, increased costs, delays or limited availability related to raw materials, strain on shipping and transportation resources, and higher energy prices, which have negatively impacted and may continue to negatively impact, our margins and operating results. Although we do not currently anticipate any impairment charges related to COVID-19, the continuing effects of the pandemic could result in increased risks to us of asset write-downs and impairments, including, but not limited to, property, plant and equipment, goodwill and other intangibles, and equity investments. Any of these events or factors could potentially result in a material adverse impact on our business and results of operations.

A significant data breach or other disruption to our information technology systems could disrupt our operations, result in the loss of confidential information or personal data, and adversely impact our reputation, business or results of operations.

We rely on information technology systems, including some managed by third-party providers, to conduct business and to support our business processes, including those relating to product formulas, product development, manufacturing, sales, order and invoice processing, production, distribution, internal communications and communications with third parties throughout the world, processing transactions, summarizing and reporting results of operations, complying with regulatory (including SEC), tax or legal requirements, and collecting and storing customer, supplier, employee and other stakeholder information.

To address the risks to our information technology systems and the associated costs, we maintain an information security program that includes updating technology and information security policies and controls, cybersecurity insurance, cybersecurity governance and compliance, employee/consultant awareness training, table-top exercises, logging and monitoring and routine testing of our information technology systems. We believe that these preventative actions provide adequate measures of protection against information security breaches/incidents and generally reduce our cybersecurity risks, however, cybersecurity incidents, data breaches and operational disruptions are constantly evolving, becoming more sophisticated, including through the increasing use of AI, and conducted by groups and individuals with a wide range of expertise and motives, including foreign governments, cyber terrorists, cyber criminals, malicious employees and other insiders and outsiders. Additionally, continued geopolitical turmoil, including the ongoing conflicts in the Middle East and between Russia and Ukraine, heightened the risk of cyber incidents. We and our third-party providers are subject to the risks posed by such incidents, which can take many forms, including code anomalies, "Acts of God," data leakage, hardware or software failures, human errors, cyber extortion, password theft or introduction of viruses, malware and ransomware, including through phishing emails.

A disruption to our information technology systems could result in the loss of confidential business, customer, supplier or employee information, litigation or fines, and may require substantial investigations, repairs or replacements or impact our ability to summarize and report financial results in a timely manner, resulting in significant financial, legal and relational costs and potentially harming our reputation and adversely impacting our operations, customer service and results of operations. Additionally, the increasing use and evolution of technology, including cloud-based computing and AI, may lead to potential loss or unauthorized disclosure or use of personal data and proprietary information that was collected, used, stored, or transferred with respect to our business, and to dissemination or destruction of confidential information, unintentionally or otherwise, stored in our or in our third party providers' systems or through use of AI, which may significantly increase our business and information security costs, and expose us to reputational harm, penalties, or legal liability. As we complete integration of systems of prior acquired companies with IFF's systems and prepare for the announced divestitures, we reduce our risk profile. Additionally, an information security or data breach could require us to devote significant management and financial resources to address the problems created, and, as a result of the private rights of action provided for under the European Union's General Data Protection Regulation (the "GDPR"), the California Consumer Privacy Act (the "CCPA") and other laws relating to data protection and privacy in other jurisdictions, in the event of such breaches, additional private litigation against us may result. These types of adverse impacts could also occur in the event the confidentiality, integrity or availability of company, customer, supplier or employee information are compromised due to a data loss by us or a trusted third party. We or the third parties with which we share information may not discover any such incidents and/or loss of information for a significant period of time after the incident occurs. In addition, our hybrid and remote work arrangements could introduce operational risk, including cybersecurity and IT systems management risks.

We have experienced threats to our data and our systems and although we have not experienced a material incident to date, there can be no assurance that these measures will prevent or limit the impact of a future incident. Additionally, while we have insurance coverage designed to address certain aspects of cyber risks in place, such insurance coverage may be insufficient to cover all losses or all types of claims that may arise.

We are subject to risks associated with the potential use of AI in our own operations and by third-party partners that we may engage with.

Recent technological advances in AI come with significant risks related to its use across many industries, including our own. IFF may be exposed to such risks in cases where IFF utilizes AI in connection with certain business activities now or in the future, in cases where, whether known or unknown to IFF, IFF personnel, use AI for our business or at IFF locations, or in cases where our third-party partners, whether or not known to IFF, use AI in their business activities (which we may not be in a position to control).

The use of AI by us, our employees or any of our third-party partners may result in unauthorized disclosure of personal data, proprietary information and trade secrets, commercially sensitive or confidential information of IFF, our employees or our partners. Similarly, we may become, through the use of AI and unbeknownst to us, recipients or users of such information provided by other parties, which may enable, among other things, third parties to claim that we infringed on their intellectual property rights. Such unauthorized disclosures or uses of information can result, among other things, in reputational harm, loss of confidence by our customers or employees, penalties, litigation costs, or legal liability.

Analyses, results or business processes relying on AI may also be deficient, inaccurate, or biased and we may fail to identify in a timely fashion or at all, if or to the extent that is the case. Furthermore, AI can exacerbate our cybersecurity or IT risks. See “--A significant data breach or other disruption to our information technology systems could disrupt our operations, result in the loss of confidential information or personal data, and adversely impact our reputation, business or results of operations.” With new and evolving AI comes a continually changing AI regulatory environment, which may create additional compliance costs and risks. At the same time, AI has the potential to significantly change the way we do our business by, among other things, creating efficiencies, improving our processes, customer experience, talent management and our decision-making. Any failure to capitalize on the AI benefits to the same degree or with the same speed as our competitors may put us in a disadvantageous position.

If we are unable to successfully manage these risks, it may have a material adverse effect on our business, results of operations and financial condition.

We have made investments in and continue to expand our business into emerging markets, which exposes us to certain risks.

As part of our growth strategy, we have increased our presence in emerging markets by expanding our manufacturing presence, sales organization and product offerings in these markets, and we expect to continue to expand our business in these markets as part of our new strategic vision announced in December 2022. With our acquisition of Frutarom in 2018 and the N&B Transaction, each of which also had a significant presence in emerging markets, our business in these markets has meaningfully grown. In addition to the currency and international risks described below, our operations in these markets may be subject to a variety of other risks. Emerging markets typically have a consumer base with limited or fluctuating disposable income and customer demand in these markets may fluctuate accordingly. As a result, a decrease in customer demand in emerging markets may have an adverse effect on our ability to execute our growth strategy.

Further, there is no assurance that our existing products, variants of our existing products or new products that we make, manufacture, distribute or sell will be accepted or be successful in any particular developing or emerging market, due to local or global competition, product price, cultural differences, consumer preferences or otherwise. In addition, emerging markets may have weak legal systems which may affect our ability to enforce our intellectual property and contractual rights, exchange controls, unstable governments and privatization or other government actions that may affect taxes, subsidies and incentive programs and the flow of goods and currency. In conducting our business, we move products from one country to another and may provide services in one country from a subsidiary located in another country. Accordingly, we are vulnerable to abrupt changes in trade, customs and tax regimes in these markets. If we are unable to expand our business in developing and emerging markets, effectively operate, or manage the risks associated with operating in these markets, or achieve the return on capital we expect from our investments in these markets, our operating results and future growth could be adversely affected.

The impact of currency fluctuation or devaluation in the international markets in which we operate may negatively affect our results of operations.

We have significant operations outside the U.S., the results of which are reported in the local currency and then translated into U.S. dollars at applicable exchange rates for inclusion in our consolidated financial statements. The exchange rates between these currencies and the U.S. dollar have fluctuated and will continue to do so in the future, with the fluctuations being particularly pronounced in certain emerging markets. Changes in exchange rates between these local currencies and the U.S. dollar will affect the recorded levels of sales, profitability, assets and/or liabilities. Along with other macroeconomic uncertainty we are experiencing such as a highly inflationary global environment and supply chain disruptions discussed elsewhere in these risk factors, we have experienced and continue to expect volatility in global foreign currency exchange rates. Changes to interest rate policy as managed by the Federal Reserve Bank to counter inflationary trends may further impact such exchange rates. Further volatility or unfavorable movements in currency exchange rates may adversely impact our financial condition, cash flows or liquidity. Although we employ a variety of techniques to mitigate the impact of exchange rate fluctuations, including sourcing strategies and a limited number of foreign currency hedging activities, we cannot guarantee that such hedging and risk management strategies will be effective, and our results of operations could be adversely affected.

International economic, political, legal, compliance and business factors could negatively affect our financial statements, operations and growth.

We operate on a global basis, with manufacturing and sales facilities in or supply arrangements with companies based in the U.S., Europe, Africa, the Middle East, Latin America, and Greater Asia. During 2023, approximately 72% of our combined net sales were to customers outside the U.S. and we intend to continue expansion of our international operations. As a result, our business is increasingly exposed to risks inherent in international operations. These risks, which can vary substantially by location, include the following:

- governmental laws, regulations and policies adopted to manage national economic and macroeconomic conditions, such as increases in taxes, austerity measures that may impact consumer spending, monetary policies that may impact inflation rates, employment regulations, currency fluctuations or controls and sustainability of resources;
- changes in environmental, health and safety permits or regulations, such as regulations related to biodiversity or the continued implementation and evolution of the European Union’s REACH regulations and similar regulations that are being evaluated and adopted in other markets, or the ban on microplastics recently adopted by the European Commission (“EC”) and the burdens and costs of our compliance with such regulations which may differ significantly across jurisdictions;
- increased product labeling and ingredient prohibitions in specific markets that may impact consumer preferences, products costs and/or customer acceptance;
- the imposition of or changes in customs, tariffs, quotas, trade barriers, other trade protection measures, import or export licensing requirements, and sanctions on trade with certain countries, imposed by the U.S. or other countries, which could adversely affect our cost or ability to import raw materials or export our products to surrounding markets;
- risks and costs arising from our ability to cater to local demand and customer preferences, language and cultural differences;
- the movement for increased unionization in the U.S. and internationally may lead to labor instability, employee turnover, increased labor costs or production and operation disruptions;
- changes in the laws and policies that govern foreign investment in the countries in which we operate, including the risk of expropriation or nationalization, the costs and ability to repatriate the profit that we generate in these countries;
- risks and costs associated with complying with anti-money laundering and counter-terrorism financing laws;
- risks and costs associated with complying with the U.S. Foreign Corrupt Practices Act, similar U.S. or foreign anti-bribery and anti-corruption laws and regulations, applicable sanctions laws and regulations in the jurisdictions in which we operate or ethical business practices and related laws and regulations;
- risks and costs associated with political and economic instability, bribery and corruption, anti-American sentiment, and social and ethnic unrest in the countries in which we operate;
- difficulty in recruiting and retaining trained local personnel;
- natural disasters, global or local health crisis, pandemics (such as the COVID-19 pandemic), epidemics or international conflicts (such as the Russia-Ukraine war and Israel-Hamas war) or geopolitical tension (such as deteriorating U.S.-China relations), including terrorist acts, political crisis, national and regional labor strikes in the countries in which we operate, which could endanger our personnel, interrupt our operations or adversely affect the demand for our products, the results of certain regions or our global supply chain; or
- the risks of operating in developing or emerging markets in which there are significant uncertainties regarding the interpretation, application and enforceability of laws and regulations and the enforceability of contract rights and intellectual property rights.

The occurrence of any one or more of these factors could increase our costs and adversely affect our results of operations.

Economic uncertainty, including increased inflation, may adversely affect demand for our products which may have a negative impact on our operating results and future growth.

Many of our products are ingredients in a wide assortment of global consumer products throughout the world. Historically, demand for consumer products using our products, was stimulated and broadened by changing social habits and consumer needs, population growth, an expanding global middle-class and general economic growth, especially in emerging markets.

Changes in the global, regional or local economic conditions have, and may in the near future, adversely impact demand for consumer products at a regional or global level. Such parameters include, but are not limited to, increased inflation, unemployment and underemployment, salaries and wage rates stagnation, low growth rates, and ongoing impacts of the COVID-19 pandemic. Reduced consumer spending may cause changes in our customer orders including reduced demand for our products or order cancellations. The timing of placing of orders and the amounts of these orders are generally at our customers' discretion. Customers may cancel, reduce or postpone orders with us on relatively short notice. Significant cancellations, reductions or delays in orders by customers could affect our results of operation.

The integration of the N&B Business may continue to present significant challenges, and we may not realize anticipated synergies and other benefits of the N&B Transaction.

The combination of large, diverse and independent businesses is complex, costly and time-consuming. The combination with the N&B Business may result in material unanticipated problems, expenses, liabilities, competitive responses, employee turnover and loss of customer and other business relationships. In addition, even though the operations of the N&B Business are being integrated, the full benefits of the transaction may not be realized, including, among others, the synergies, cost savings or revenue growth that are expected. These benefits may not be achieved within the anticipated time frame or at all, which could result in a material adverse impact on our business and results of operations.

If we are unable to react in a timely and cost-effective manner to changes in consumer trends, such as increasing awareness of health and wellness our results of operations and future growth may be adversely affected.

We must continually anticipate and react, in a timely and cost-effective manner, to changes in consumer preferences and demands, including changes in demand driven by increasing awareness of health and wellness, demands for transparency or cleaner labels with respect to product ingredients by consumers and regulators, and attitudes towards the impact of biotechnology advances such as gene editing and mapping. Consumers, especially in developed economies such as the U.S. and Western Europe, are rapidly shifting away from products containing artificial ingredients to all-natural, healthier alternatives, and the development of certain new weight management pharmaceutical products such as glucagon-like peptide-1 (GLP-1) receptor agonists may affect consumer behavior and trends, and ultimately decrease demand for our product offerings. In addition, there has been a growing demand by consumers, non-governmental organizations and, to a lesser extent, governmental agencies to provide more transparency in product labeling and our customers have been taking steps to address this demand, including by voluntarily providing product-specific ingredients disclosure. These trends could affect the types and volumes of our ingredients and compounds that our customers include in their consumer product offerings and, therefore, affect the demand for our products. If we are unable to react to or anticipate these trends in a timely and cost-effective manner, our results of operations and future growth may be adversely affected.

We are subject to increasing customer, consumer, shareholder and regulatory focus on sustainability, which may result in additional costs in order to meet new requirements.

Federal, state, local and foreign governments, our customers, consumers and shareholders are becoming increasingly sensitive to environmental and other sustainability issues. In response, we have committed to a sustainability strategy to better understand the opportunities and risks in our sustainable efforts.

The increased focus on sustainability may result in new regulations and customer requirements that could affect us. These could cause us to incur additional direct costs or to make changes to our operations in order to comply with any new regulations and customer requirements. We could also lose revenue if our customers divert business from us because we have not complied with their sustainability requirements. Increased shareholder activism with respect to sustainability or other governance issues or management concerns could also lead to increased costs and disruption to operations. These potential costs, changes and loss of revenue could have a material adverse effect on our business, results of operations and financial condition.

Our performance may be adversely impacted if we are not successful in managing our inventory and/or working capital balances.

We evaluate our inventory balances of materials based on shelf life, expected sourcing levels, known uses and anticipated demand based on forecasted customer order activity and changes in our product/sales mix. Efficient inventory management is a key component of our business success, financial returns and profitability. To be successful, we must maintain sufficient inventory levels and an appropriate product/sales mix to meet our customers' demands, without allowing those levels to increase to such an extent that the costs associated with storing and holding other inventory adversely impact our financial results. If our buying decisions do not accurately predict sourcing levels, customer trends or our expectations about customer needs are inaccurate, we may have to take unanticipated markdowns or charges to dispose of the excess or obsolete inventory, which can adversely impact our financial results. Current supply-chain related issues could also lead to raw material shortages and inventory depletion, which may adversely affect our operations. See *"—Supply chain disruptions, geopolitical developments, including the Russia-Ukraine war, the Israel-Hamas war and wider Middle East developments (including disruptions to the Red Sea passage), or climate-change events (including severe weather events) may adversely affect our suppliers or our procurement of raw materials, and thus may impact our business and financial results."* Additionally, we believe excess inventory levels of raw materials with a short shelf life in our manufacturing facilities subjects us to the risk of increased inventory shrinkage. If we are not successful in managing our inventory balances and shrinkage, our results of and cash flows from operations may be negatively affected.

We sell certain accounts receivable on a non-recourse basis to unrelated financial institutions under "factoring" agreements, some of which are sponsored by certain customers. The cost of participating in these programs was immaterial to our results in all periods. Should we choose not to participate, or if these programs were no longer available, it could reduce our cash flows from operations in the period in which the arrangement ends.

Any impairment of our tangible or intangible long-lived assets, including goodwill, may adversely impact our profitability.

A significant portion of our assets consists of long-lived assets, including tangible assets such as our manufacturing facilities, and intangible assets, including goodwill and customer relationships.

As a result of our recent acquisitions, including the acquisition of Frutarom and the N&B Transaction, as of December 31, 2023, we recorded approximately \$18.992 billion of intangible assets and goodwill, including \$4.289 billion of goodwill associated with the acquisition of Frutarom and \$11.817 billion of goodwill associated with the merger with the N&B Business, prior to the impact of impairment charges and business divestitures. Our results of operations and financial position in future periods could be negatively impacted should future impairments of our long-lived assets, including intangible assets or goodwill occur.

At least annually, we assess both goodwill and indefinite-lived intangible assets for impairment. We test for impairment by comparing the estimated fair value of a reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its estimated fair value, we record an impairment charge based on the difference of the two. Intangible assets with finite lives are also tested for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Such events and changes in circumstances could include a sustained decrease in our market capitalization, increased competition or unexpected loss of market share, increased input costs beyond projections (for example due to regulatory or industry changes), our inability to recognize the anticipated benefits of acquisitions, unexpected business disruptions (for example due to a natural disaster, public health crises, such as pandemics or epidemics or loss of a customer, supplier, or other significant business relationship), acts by governments and courts, operating results falling short of projections, or significant adverse changes in the markets in which we operate. During the year ended December 31, 2023, we recorded a goodwill impairment charge of \$2.623 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss. Refer to Part II, Item 7 and Note 1 and Note 6 to the Consolidated Financial Statements for additional information.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions, estimates and market factors. Estimating the fair value of reporting units requires us to make assumptions and estimates regarding our business performance, future plans, future annual net cash flows, income tax considerations, discount rates and growth rates based on industry, economic, regulatory conditions and other market factors. Moreover, management will make significant accounting judgments and estimates for the application of acquisition accounting under GAAP, and the underlying valuation models. IFF's business, operating results and financial condition could be materially and adversely impacted in future periods if IFF's accounting judgments and estimates related to these models prove to be inaccurate.

To the extent any of our acquisitions, including the acquisitions of Frutarom and the N&B Business, do not perform as anticipated and our underlying assumptions and estimates related to their fair value determination are not met, whether due to internal or external factors, the value of goodwill and other long-lived assets may be negatively affected and we may be required to record impairment charges.

If we fail to successfully enter into or close collaborations, joint ventures, partnerships or acquisitions, or successfully manage such transactions, it could adversely affect our business and growth opportunities.

From time to time, we evaluate and enter into collaborations, joint ventures or partnerships to enhance our research and development efforts, expand our product portfolios and technology, or modify or enter into new distribution arrangements. The process of establishing and maintaining such relationships is difficult and time-consuming to negotiate, document and implement. We may not be able to successfully negotiate such arrangements or the terms of the arrangements may not be as favorable as anticipated. Furthermore, our ability to generate revenues from such collaborations will depend on our partners' abilities and efforts to successfully perform the functions assigned to them in these arrangements and these collaborations may not lead to development or commercialization of products in the most efficient manner, or at all. In addition, from time to time, we have acquired, and we may acquire, only a majority interest in companies and provided or may provide earnouts for the former owners along with the ability, at our option, or obligation, at the former owners' option, to purchase the minority interests at a future date at an established price. These investments may have additional risks and may not be as efficient as other operations as we may have fiduciary or contractual obligations to the minority investors and may rely on former owners for the continuing operation of the acquired business. If we are unable to successfully establish and manage these collaborative relationships and majority investments, it could adversely affect our future growth.

In addition, from time to time, we evaluate acquisition candidates that may strategically fit our business and/or growth objectives. If we are unable to successfully integrate and develop acquired businesses, we could fail to achieve anticipated synergies and cost savings, including any expected increase in revenues and operating results, which could have a material adverse effect on our financial results. Furthermore, even if successfully integrated, the acquisition target may fail to further the Company's business strategy as anticipated, expose the Company to increased competition or other challenges with respect to the Company's products or geographic markets, and expose the Company to additional liabilities associated with the acquired business, technology or other asset or arrangement. We may also incur asset impairment charges related to acquisitions if we fail to maintain and integrate the acquired businesses and such impairments charges would reduce our earnings.

Our funding obligations for our pension and postretirement plans could adversely affect our earnings and cash flows.

The funding obligations for our pension plans are impacted by the performance of the financial markets, particularly the equity markets and interest rates. Funding obligations are determined under government regulations and are measured each year based on the value of assets and liabilities on a specific date. If the financial markets do not provide the long-term returns that are expected under the governmental funding calculations, we could be required to make larger contributions. The equity markets can be very volatile, and therefore our estimate of future contribution requirements can change dramatically in relatively short periods of time. Similarly, changes in interest rates and legislation enacted by governmental authorities can impact the timing and amounts of contribution requirements. An adverse change in the funded status of the plans could significantly increase our required contributions in the future and adversely impact our liquidity.

Assumptions used in determining projected benefit obligations and the fair value of plan assets for our pension and other postretirement benefit plans are determined by us in consultation with outside consultants and advisors. In the event that we determine that changes are warranted in the assumptions used, such as the discount rate, expected long-term rate of return on assets, or expected health care costs, our future pension and postretirement benefit expenses could increase or decrease. Due to changing market conditions or changes in the participant population, the assumptions that we use may differ from actual results, which could have a significant impact on our pension and postretirement liabilities and related costs and funding requirements.

The phase out of the London Interbank Offered Rate ("LIBOR") may impact the interest rates paid on our variable rate indebtedness and could cause our interest expense to increase.

After consultations among financial regulators in the United States and Europe, the Secured Overnight Financing Rate ("SOFR") was identified as the replacement rate for LIBOR, which ceased publication in June 2023. SOFR is observed and backward-looking, which stands in contrast with LIBOR's methodology, which was an estimated forward-looking rate and relied, to some degree, on the expert judgment of submitting panel members. Given that SOFR is a secured rate backed by government securities, it is a rate that does not take into account bank credit risk (as was the case with LIBOR). SOFR is a relatively new reference rate with a limited history and so it is difficult to predict its future performance. As such, the transition from LIBOR to SOFR may pose future uncertainties and challenges.

Borrowings under our Revolving Credit Facility and Term Loans are at variable interest rates and have been amended to be based on SOFR. No assurance can be made that such alternative rate will perform in a manner similar to LIBOR and may result in interest rates that are higher or lower than those that would have resulted had LIBOR remained in effect. Any of these occurrences could materially and adversely affect our borrowing costs, financial condition and results of operations.

Risks Related to Legal and Regulatory Considerations

If we are unable to comply with regulatory requirements and industry standards, including those regarding product safety, quality, efficacy and environmental impact, we could incur significant costs and suffer reputational harm which could adversely affect results of operations.

The development, manufacture and sale of our products are subject to various regulatory requirements in each of the countries in which our products are developed, manufactured and sold. In addition, we are subject to product safety and compliance requirements established by governments, non-governmental organizations, including industry or similar oversight bodies, or contractually by our customers, including requirements concerning product safety, quality and efficacy, environmental impacts (including packaging, energy and water use and waste management) and other sustainability or similar issues. Changes to regulations or the implementation of additional regulations, especially in certain highly regulated markets we are active in, such as regulatory modernization of food safety laws and evolving standards and regulations affecting pharmaceutical excipients or in reaction to new or next-generation technologies, including advances in protein engineering, biotechnology (e.g., gene editing and gene mapping), novel uses of existing technologies or stricter rules on ingredients produced by biotechnology techniques have required and may in the future require us to reduce or remove certain ingredients, substances or processing aids from the product portfolio and may result in significant costs or capital expenditures or require changes in business practice that could result in reduced margins or profitability.

As concerns regarding safety, quality and environmental impact become more pressing, we may see new, more restrictive regulations adopted that impact our products. For example, the EC recently adopted a ban on microplastics, including those found in personal care items, detergents and cosmetics, to reduce plastics pollution. We are now required to modify our products and/or innovate new solutions to replace microplastics in our products. The EU Green Deal includes a Chemicals Strategy for Sustainability (CSS), which will trigger updates of the main regulations governing chemical substances used in household and cosmetic products or in industrial applications (REACH, CLP, Cosmetic Regulation and Detergent Regulation). This strategy aims for an expansion of the generic risk management approach based on hazard rather than risk and will introduce other concepts like grouping of similar substances to accelerate regulatory decision making. The practical implementation of this strategy may negatively impact some of the products we place on the market, including some enzymes or fragrance ingredients. If we are unable to adapt to these new regulations or standards in a cost effective and timely manner, we may lose business to competitors who are able to provide compliant products, expose ourselves to customer claims, regulatory fines, litigation or reputational damage.

Gaps in our operational processes or those of our suppliers or distributors can result in products that do not meet our quality control or industry standards or fail to comply with the relevant regulatory requirements, which in turn can result in finished consumer goods that do not comply with applicable standards and requirements. Products that are mislabeled, contaminated or damaged could result in a regulatory non-compliance event or even a product recall by the FDA or a similar foreign agency. For instance, the Company had determined in the past that certain grades of microcrystalline cellulose (Avicel® PH 101, 102, and 200 NF and Avicel® RC-591 NF) were found to be out-of-specification. Although the Company does not expect the OOS conductivity issue to affect the functionality of Avicel® NF grades or to pose a human health hazard, corrective actions have been implemented to improve operational and laboratory conditions.

We may also be exposed to serious adverse health claims related to undetected poor quality of raw materials, internal system failures to adequately reduce or eliminate certain hazards (such as pathogens, allergens, contaminants, pesticides, physical hazards, etc.) or products that are not in line with required or agreed specifications. Supply chain complexities, aging equipment and infrastructure, human errors, or other failures may exacerbate such risks.

Our contracts often require us to indemnify our customers for the costs associated with a product non-compliance event, including penalties, costs and settlements arising from litigation, remediation costs or loss of sales. As our offerings are used in many products intended for human use or consumption, these consequences would be exacerbated if we or our customer did not identify the defect before the product reaches the consumer and there was a resulting impact at the consumer level. Such a result could lead to potentially large-scale adverse publicity, negative effects on consumer's health, recalls and potential litigation, fines, penalties, sanctions or other regulatory actions. In addition, if we do not have adequate insurance or contractual indemnification from suppliers or other third parties, or if insurance or indemnification is not available, the liability relating to product or possible third-party claims arising from mislabeled, contaminated or damaged products could adversely affect our business, financial condition or results of operations. Furthermore, adverse publicity about our products, or our customers' products that contain our ingredients, including concerns about product safety or similar issues, whether real or perceived, could harm our reputation and result in an immediate adverse effect on our sales and customer relationships, as well as require us to utilize significant resources to rebuild our reputation.

Defects, quality issues (including product recalls), inadequate disclosure or misuse with respect to the products and capabilities could adversely affect our business, reputation and results of operations.

Defects in, misuse of, quality issues with respect to (including products recalls) or inadequate disclosure of risks relating to our products, could lead to lost profits and other economic damage, property damage, personal injury or other liability resulting in third-party claims, criminal liability, significant costs, damage to our reputation and loss of business. Any of these factors could adversely affect our business, financial condition and our results of operations.

Failure to comply with environmental protection laws may cause us to close, relocate or operate one or more of our plants at reduced production levels, and expose us to civil or criminal liability, which could adversely affect our operating results and future growth.

Our business operations and properties procure, make use of, manufacture, sell, and distribute substances that are sometimes considered hazardous and are therefore subject to extensive and increasingly stringent federal, state, local and foreign laws and regulations pertaining to protection of the environment, including air emissions, sewage discharges, the use of hazardous materials, waste disposal practices and clean-up of existing environmental contamination.

Failure to comply with these laws and regulations or any future changes to them may result in significant consequences to us, including the need to close or relocate one or more of our production facilities, administrative, civil and criminal penalties, fines, sanctions, litigation, costly remediation measures, liability for damages and negative publicity. If we are unable to meet production requirements, we can lose customer orders, which can adversely affect our future growth or we may be required to make incremental capital investments to ensure supply. Idling of facilities or production modifications has caused or may cause customers to seek alternate suppliers due to concerns regarding supply interruptions and these customers may not return or may order at reduced levels even once issues are remediated. If these non-compliance issues reoccur in China or occur in any other jurisdiction, we may lose business and may be required to incur capital spending above previous expectations, close a plant, or operate a plant at significantly reduced production levels on a permanent basis, and our operating results and cash flows from operations may be adversely affected.

We could be adversely affected by violations, by us or our counterparties, of the U.S. Foreign Corrupt Practices Act, similar U.S. or foreign anti-bribery and anti-corruption laws and regulations, applicable sanctions laws and regulations in the jurisdictions in which we operate or ethical business practices and related laws and regulations.

The global nature of our business, our increased size and employee count, the significance of our international revenue, our focus on emerging markets and presence in regulated industries create various domestic and local regulatory challenges and subject us to risks associated with our international operations. The U.S. Foreign Corrupt Practices Act (the “FCPA”) and similar anti-bribery and anti-corruption laws and regulations in other countries generally prohibit companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or keeping business or for other commercial advantage. In addition, U.S. public companies are required to maintain records that accurately and fairly represent their transactions and have an adequate system of internal accounting controls. Under the FCPA, U.S. companies may be held liable for the corrupt actions taken by directors, officers, employees, agents, or other strategic or local partners or representatives. As such, if we or our intermediaries fail to comply with the requirements of the FCPA or similar legislation, governmental authorities in the U.S. and elsewhere could seek to impose substantial civil and/or criminal fines and penalties which could have a material adverse effect on our business, reputation, operating results and financial condition.

We operate or may pursue opportunities in some jurisdictions, such as China, India, Brazil, Russia and Africa, that pose potentially elevated risks of fraud or corruption or increased risk of internal control issues. In certain jurisdictions, compliance with anti-bribery laws may conflict with local customs and practices. From time to time, we have conducted and will conduct internal investigations of the relevant facts and circumstances, control testing and compliance reviews, and take remedial actions, when appropriate, to help ensure that we are in compliance with applicable corruption and similar laws and regulations. For example, in August 2019, during the integration of Frutarom, we were made aware of allegations that two Frutarom businesses operating principally in Russia and Ukraine made certain improper payments, including to representatives of a number of customers. Our investigation substantiated the allegations that improper payments to representatives of customers were made and that key members of Frutarom’s senior management at the time were aware of such payments. We did not uncover any evidence suggesting that such payments had any connection to the U.S. In addition, Frutarom grew through rapid acquisition and, as part of our integration efforts, we have implemented our anti-corruption and similar policies throughout a number of those acquired companies, many of which were not previously subject to these U.S. laws.

Detecting, investigating and resolving actual or alleged violations of the FCPA or other anti-bribery and anti-corruption laws and regulations is expensive, could consume significant time and attention of our senior management and could subject us to investigations and inquiries by governmental and other regulatory bodies. Any allegations of non-compliance with such laws and regulations could have a disruptive effect on our operations in such jurisdiction, including interruptions of business or loss of third-party relationships, which may negatively impact our results of operations or financial condition. Any determination that our operations or activities are not in compliance with such laws and regulations could expose us to severe criminal or civil penalties or other sanctions, significant fines, termination of necessary licenses and permits and penalties or other sanctions that may harm our business and reputation.

Given the international scope of our business, we also sell certain of our products to countries that are subject to U.S. and other sanctions under general licenses and authorizations related to such products, technologies and transactions. For example, the U.S., the European Union and other countries have imposed sanctions and export controls on Russia, Belarus and occupied regions of Ukraine. As a result, we have limited our export of ingredients to customers in Russia, Belarus and occupied regions of Ukraine to only those that are permitted and meet the essential needs of people. Compliance with sanctions laws is highly technical and requires careful oversight, and it is possible that actions taken by us, our subsidiaries or our suppliers may cause us to be in breach with these laws, which could have a material adverse effect to our business.

In addition, our reputation and our customers’ willingness to purchase our products depend in part on our compliance by our suppliers, distributors, customers or other counterparties with ethical employment practices, such as with respect to child labor, wages and benefits, forced labor, discrimination, safe and healthy working conditions, as well as with all legal and regulatory requirements relating to the conduct of their businesses (including the ones mentioned in the preceding paragraphs). While we generally require that third-parties we work with agree to our code of conduct, we do not exercise control over our suppliers, distributors, vendors and customers and due to the global nature of our business cannot guarantee their compliance with such ethical and lawful business practices or such legal requirements. If our counterparties fail to comply with applicable laws, regulations, safety codes, employment practices, human rights standards, quality standards, environmental standards, production practices, or other obligations, norms, or ethical standards, our reputation and brand image could be harmed, and we could be exposed to litigation, investigations, enforcement actions, monetary liability, and additional costs that would harm our reputation, business, financial condition, results of operations and prospects.

Our ability to compete effectively depends on our ability to protect our intellectual property rights.

We rely on patents, trademarks, copyrights and trade secrets to protect our intellectual property rights. We often rely on trade secrets to protect our products, manufacturing processes, extract methodologies and other processes, as this does not require us to publicly file information regarding our intellectual property. From time to time, a third party may claim that we have infringed upon or misappropriated their intellectual property rights, or a third party may infringe upon or misappropriate our intellectual property rights. We could incur significant costs in connection with legal actions to assert our intellectual property rights against third parties or to defend ourselves from third-party assertions of invalidity, infringement, misappropriation or other claims. Any settlement or adverse judgment resulting from such litigation could require us to obtain a license to continue to use the intellectual property rights that are the subject of the claim, or otherwise restrict or prohibit our use of such intellectual property rights. Any required licensing fees may not be available to us on acceptable terms, if at all. For those intellectual property rights that are protected as trade secrets, this litigation could result in even higher costs, and potentially the loss of certain rights, since we would not have a perfected intellectual property right that precludes others from making, using or selling our products or processes. The ongoing trend among our customers towards more transparent labeling could further diminish our ability to effectively protect our products.

We vigilantly protect our intellectual property rights, including trade secrets. We have designed and implemented internal controls intended to restrict access to and distribution of our respective intellectual property. Despite these precautions, our intellectual property is vulnerable to unauthorized access through employee error or actions, theft and cybersecurity incidents, and other security breaches, including due to increasing use of AI tools. See, also - *“We are subject to risks associated with the potential use of AI in our own operations and by third-party partners that we may engage with.”* Protecting intellectual property related to biotechnology is particularly challenging because theft can be difficult to detect and biotechnology can be self-replicating. Accordingly, the impact of such theft can be significant.

For intellectual property rights that we seek to protect through patents, we cannot be certain that these rights, if obtained, will not later be opposed, invalidated or circumvented. In addition, even if such rights are obtained in the U.S., the laws of some other countries in which our products are or may be sold may not protect intellectual property rights to the same extent as the laws of the U.S. For instance, we may be unable to obtain or defend intellectual property rights in new and inventive technology developed in whole or in part by relying on AI tools. If other parties were to infringe on our intellectual property rights, or if our intellectual property rights were the subject of unauthorized access leading to competitive pressure or if a third party successfully asserted that we had infringed on their intellectual property rights, it could materially and adversely affect our future results of operations by, among other things, (i) being required to cease production and marketing or reducing the price that we could obtain in the marketplace for products which are based on such rights, (ii) increasing the royalty or other fees that we may be required to pay in connection with such rights, (iii) limiting the volume, if any, of such products that we can sell or (iv) resulting in significant litigation costs and potential liability.

Changes in our tax rates, the adoption of new U.S. or international tax legislation, or changes in existing tax laws could expose us to additional tax liabilities that may affect our future results.

We are subject to taxes in the U.S. and numerous foreign jurisdictions. Our future effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and

liabilities, changes in liabilities for uncertain tax positions, cost of repatriations or changes in tax laws or their interpretation. Any of these changes could have a material adverse effect on our profitability.

We have and will continue to implement transfer pricing policies among our various operations located in different countries. These transfer pricing policies are a significant component of the management and compliance of our operations across international boundaries and overall financial results. Many countries routinely examine transfer pricing policies of taxpayers subject to their jurisdiction, challenge transfer pricing policies aggressively where there is potential non-compliance and impose significant interest charges and penalties where non-compliance is determined. However, governmental authorities could challenge these policies more aggressively in the future and, if challenged, we may not prevail. We could suffer significant costs related to one or more challenges to our transfer pricing policies.

We are subject to the continual examination of our income tax returns by the Internal Revenue Service, state tax authorities and foreign tax authorities in those countries in which we operate, and may be subject to assessments or audits in the future in any of the countries in which we operate. The final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals, and while we do not believe the results that follow would have a material adverse effect on our financial condition, such results could have a material effect on our income tax provision, net income or cash flows in the period or periods in which that determination is made.

In addition, a number of international legislative and regulatory bodies have proposed legislation and begun investigations of the tax practices of multi-national companies and, in the European Union, the tax policies of certain European Union member states. In December 2021, the Organisation for Economic Co-operation and Development (“OECD”) released the Pillar Two model rules to reform international corporate taxation that aim to ensure that applicable multinationals (global revenue exceeding €750 million) pay a minimum effective corporate tax rate of 15%. The rules are due to be passed into national legislation based on each country’s approach, and some countries have already enacted or substantively enacted the rules. The OECD continues to release additional guidance on the Two-Pillar framework, with widespread implementation anticipated by 2024. We are continuing to evaluate the potential impact on future periods of the Pillar Two Framework, pending legislative adoption by individual countries. This new legislation may have a material effect on our effective tax rate, income tax expense, net income or cash flows.

Since 2013, the European Commission (“EC”) has been investigating tax rulings granted by tax authorities in a number of European Union member states with respect to specific multi-national corporations to determine whether such rulings comply with European Union rules on state aid, as well as more recent investigations of the tax regimes of certain European Union member states. Under European Union law, selective tax advantages for particular taxpayers that are not sufficiently grounded in economic realities may constitute impermissible state aid. If the EC determines that a tax ruling or tax regime violates the state aid restrictions, the tax authorities of the affected European Union member state may be required to collect back taxes for the period of time covered by the ruling. If the EC or tax authorities in other jurisdictions were to successfully challenge tax rulings applicable to us in any of the member states in which we are subject to taxation or our internal intercompany arrangements, we could be exposed to increased tax liabilities.

In August 2022, the U.S. government enacted legislation commonly referred to as the “Inflation Reduction Act”, which, among other things, imposes a minimum “book” tax on certain corporations effective for taxable years beginning after December 31, 2022 and creates a new excise tax on stock repurchases made by certain publicly traded corporations after December 31, 2022. We will continue to evaluate its impact as further guidance becomes available.

The N&B Transaction could result in significant tax liability, and we may be obligated to indemnify DuPont for any such tax liability imposed on DuPont.

The completion of the N&B Transaction in 2021 was conditioned upon the receipt by DuPont of an opinion that the transaction generally will qualify as a tax-free reorganization. The tax opinion was based upon various factual representations and assumptions, as well as certain undertakings made by DuPont, IFF and N&B. If any of those factual representations or assumptions were untrue or incomplete in any material respect, any undertaking was or is not complied with, or the facts upon which the opinion was based are materially different from the facts at the closing of the N&B Transaction, the transaction may not qualify (in whole or part) for tax-free treatment.

The N&B spin-off and certain aspects of the pre-spin-off internal reorganizations to form N&B could be taxable to DuPont if N&B or we were to engage in a “Spinco Tainting Act” (as defined in the Tax Matters Agreement, by and among DuPont, N&B and IFF, a form of which is attached to IFF’s registration statement on Form S-4 (Registration Number 333-238072)). A Spinco Tainting Act is generally any action (or inaction) within our control or under the control of N&B or their affiliates, any event involving our common stock or the common stock of N&B or any assets of N&B or its subsidiaries, or any breach by N&B or any of its subsidiaries of any factual representations, assumptions, or undertakings made by it, in each case, that would affect the non-recognition treatment of the spin-off and internal reorganizations for U.S. federal income tax purposes, as described above. Under the Tax Matters Agreement, we and N&B will be required to indemnify DuPont for any taxes resulting from a Spinco Tainting Act. If we were required to indemnify DuPont pursuant to the Tax Matters Agreement as described

above, this indemnification obligation may be substantial and could have a material adverse effect on us, including with respect to our financial condition and results of operations.

Moreover, we are not indemnified for tax liabilities related to pre-spin-off periods. Tax liabilities could increase as an outcome of final determination of tax examinations and could adversely impact our financial results.

If we fail to comply with data protection laws in the U.S. and abroad, we may be subject to fines, penalties and other costs.

Legal requirements relating to the collection, storage, handling, use, disclosure, transfer, and security of personal data continue to evolve, and regulatory scrutiny in this area is increasing around the world. This regulatory environment is increasingly challenging and may present material obligations and risks to our business, including significantly expanded compliance burdens, restrictions on transfer of personal data, costs and enforcement risks. Many governments have enacted or are enacting new or updated data protection laws, including data localization laws that require data to stay within their borders. All of these evolving compliance and operational requirements, restrictions on use of personal data, as well as the uncertain interpretation and enforcement of laws, impose significant costs and regulatory risks that are likely to increase over time. Our failure to comply with these evolving regulations could expose us to fines, sanctions, penalties and other costs that could harm our reputation and adversely impact our financial results.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 1C. CYBERSECURITY.

Risk Management and Strategy

Our comprehensive Incident Response Plan outlines processes to identify, detect, assess, respond to and recover from threats, including cybersecurity threats. We follow those processes to manage material risks from cybersecurity threats, including risks relating to disruption of business operations or financial reporting systems, intellectual property theft; fraud; extortion; harm to employees or customers; violation of privacy laws and other litigation/legal risk; and reputational risk, as part of our overall risk management system and processes.

In addition, our Enterprise Risk Management (“ERM”) program considers cybersecurity risks alongside other company risks. Our enterprise risk professionals consult with cross-organizational leaders to gather information necessary to identify cybersecurity risks, evaluate their likelihood and severity, identify necessary mitigations and assess the potential impact of those mitigations on residual risk. Our ERM Committee, chaired by the Chief Financial Officer (“CFO”) and General Counsel (“GC”), and comprised of senior leaders representing each risk domain, integrates global risks, including cybersecurity and compliance, to ensure appropriate prioritization of resources and alignment across the Company. The ERM Committee meets with our Executive Leadership Team and presents at least annually to our Board of Directors on the ERM process and on our risk mitigation actions, including providing reporting focused on compliance and cybersecurity risks.

Our Chief Information Officer (“CIO”) is responsible for delivering on the Company’s global Information Technology (“IT”) strategy, including infrastructure, data and analytics, application delivery, end user services, cybersecurity risk management and the digital technology transformation program. The IT leadership team leads the implementation of the IT strategy and the day-to-day operations. Under the guidance of the CIO, our Chief Information Security Officer (“CISO”) leads Information Security (“InfoSec”), which includes the Cyber Fusion Center, Infrastructure Security, including network segmentation, firewalls and intrusion detection and prevention systems, Identity and Access Management, Application Security, Data Security and InfoSec Governance, Risk and Compliance. InfoSec is overseen by the InfoSec Steering Committee, comprised of senior leaders representing all corporate functions and business units, and the InfoSec Governance Review Board, comprised of the IT leadership team and the InfoSec leadership team. InfoSec is governed in coordination with IFF’s ERM Committee and is aligned to the U.S. National Institute of Standards and Technology (“NIST”) Cybersecurity Framework.

In addition to our dedicated leadership team overseeing InfoSec, we view InfoSec as a shared responsibility, and to best protect our network, computers and data from threats, we empower our employees to be our first line of defense. To that end, all employees globally complete annual mandatory InfoSec training on email security, password security and our Acceptable Use Policy. We use email security, endpoint security, logging and monitoring, remote access, application security and other tools to deter threat actors, block malicious/phishing emails and avoid IT system interruptions.

Our comprehensive InfoSec Incident Response Plan is updated at least annually, and provides guidance for detecting, containing, eradicating and recovering from potential incidents. It outlines escalation procedures, reporting requirements, incident severity levels, a materiality assessment and roles and responsibilities for key partners, including IT, Legal/Employee Relations, Corporate Communications, Human Resources and other senior leaders. Our escalation procedures include escalation to our Executive Leadership Team, Audit Committee, Disclosure Committee, and Board of Directors, and reporting to

regulators, customers, investors, and others. We also maintain cybersecurity insurance, regularly evaluate the effectiveness of our systems, and test our contingency plans by conducting vulnerability analysis and tabletop exercises with both technical incident responders and senior leaders.

Based on industry baselines and discussions throughout our membership in various global InfoSec communities, we believe that these preventative actions provide adequate measures of protection against information security breaches/incidents and reduce our cybersecurity risks. Given the evolving nature of InfoSec incidents, we regularly engage with our peers on threat intelligence and collaborate with organizations both in our industry and across industries to share best practices.

In connection with our InfoSec risk management processes, we engage third-party assessors and outside counsel. Our program includes review and assessment by external, independent third parties, who assess and report on our overall InfoSec program and identify areas for continued focus and improvement. Our CIO, CISO and GC oversee our technology risk management and privacy teams, which work in partnership with our Internal Audit team to review IT-related controls as part of the overall internal controls process and regulatory requirements. We consult with outside counsel to advise our team and our Board of Directors on best practices for InfoSec oversight, and the evolution of that oversight over time. InfoSec employees regularly speak at and attend industry events to ensure awareness of evolving threats and innovative prevention and remediation techniques. Further, our InfoSec risk management processes extend to the oversight and identification of threats associated with our use of third-party service providers through relationship due diligence, InfoSec assessments and contractual provisions.

Our business strategy, results of operations and financial condition have not been materially affected by risks from cybersecurity threats, including as a result of previous cybersecurity incidents, but we cannot provide assurance that they will not be materially affected in the future by such risks and any future material incidents. For more detailed information about risks related to our cybersecurity, refer to Item 1A, “Risk Factors” – *“A significant data breach or other disruption to our information technology systems could disrupt our operations, result in the loss of confidential information or personal data, and adversely impact our reputation, business or results of operations.”*

Governance

The Board of Directors is responsible for overseeing and reviewing with management the Company’s InfoSec risks and the policies and practices established to manage such risks. In that effort, the Board of Directors delegates certain responsibilities to our Audit Committee. This committee-level focus on InfoSec allows the Board to further enhance its understanding of these issues as it continues to have overall oversight responsibility for risk.

The Audit Committee assists the Board of Directors in its oversight by staying apprised of our InfoSec programs, strategy, policies, standards, architecture, processes and material risks, and by overseeing response to InfoSec incidents. Our Audit Committee receives from management updates, at least quarterly, on material security risks, including any material incidents, relevant industry developments, threat vectors and material risks identified in periodic penetration tests or vulnerability scans. These updates also include material legal and legislative developments concerning InfoSec, our approach to complying with applicable law and material engagement with regulators concerning IT and InfoSec.

The Board of Directors receives regular reports from the Audit Committee which detail (a) InfoSec initiatives, (b) reviews of the policies and practices established to manage these processes, and (c) reviews of the Company’s procedures for monitoring compliance with applicable laws. Additionally, the Board of Directors also receives updates on the Company’s risks through ERM program reports, which include management’s approach to mitigating and managing InfoSec risks.

Members of the Board of Directors stay apprised of the rapidly evolving cyber threat landscape and provide guidance to management, as appropriate, to address the effectiveness of our overall data privacy and cybersecurity program. Recently, members of the Board of Directors and Executive Leadership Team participated in a Cybersecurity Exercise led by our CIO and CISO as training, and, to prepare for incident response. The Board of Directors and Audit Committee also receive regular cybersecurity posture reports from an external third-party, and outside counsel advises the Board of Directors on best practices for the Board’s oversight of InfoSec and the evolution of that oversight over time. Additionally, two members of our Board of Directors and Audit Committee have experience in InfoSec matters.

Our Board of Directors and Audit Committee’s principal role is one of oversight, recognizing that management, led by our CIO and CISO, is responsible for the design, implementation and maintenance of an effective program for identifying, detecting, protecting against, responding to, recovering from and mitigating data privacy and InfoSec risks. Our CIO has more than 30 years of technology experience, including leadership across a variety of enterprise technologies, including InfoSec, and across multiple industries. Our CISO has more than 20 years of experience in InfoSec, across multiple industries, and is a Certified Information Systems Security Professional (CISSP). The CIO and CISO provide, at least, annual updates on IT and InfoSec initiatives to the Board of Directors and quarterly updates to the Audit Committee.

ITEM 2. PROPERTIES.

Our principal owned and leased properties, as of December 31, 2023, are as follows:

	Europe, Africa & the Middle East		North America		Greater Asia		Latin America	
	Owned	Leased	Owned	Leased	Owned	Leased	Owned	Leased
Plant	40	16	18	13	22	7	16	4
Office	2	57	—	6	3	20	—	3
Laboratory	7	13	2	15	—	14	—	3
Warehouse	1	11	—	10	—	2	2	8
Other	4	4	—	7	7	3	3	4
	<u>54</u>	<u>101</u>	<u>20</u>	<u>51</u>	<u>32</u>	<u>46</u>	<u>21</u>	<u>22</u>

Our principal executive offices are located at 521 West 57th Street, New York, New York and 200 Powder Mill Road, Wilmington, Delaware. Our principal sites include facilities which, in the opinion of its management, are suitable and adequate for their use and have sufficient capacity for its current business needs and expected near-term growth.

ITEM 3. LEGAL PROCEEDINGS.

We are subject to various claims and legal actions in the ordinary course of our business. The Company’s material legal proceedings are described in Part II, Item 8 of this Form 10-K in the Notes to Consolidated Financial Statements in Note 19, “Commitments and Contingencies” under the heading “Litigation.” For more detailed information about risks related to legal proceedings, refer to Item 1A, “Risk Factors” – *“Our results of operations may be negatively impacted by the outcome of uncertainties related to legal claims, disputes, investigations and litigation, including the ongoing antitrust and competition investigations and related class actions lawsuits.”*

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.

Market Information.

Our common stock is principally traded on the New York Stock Exchange under the ticker symbol “IFF.”

While we have historically paid dividends on a quarterly basis to shareholders of our common stock, the declaration and payment of future dividends will depend on many factors, including, but not limited to, our earnings, financial condition, business development needs and regulatory considerations. Our Board of Directors may reduce, suspend or discontinue the payment of dividends at any time. See Part II, Item 8 of this Form 10-K in the “Consolidated Statements of Shareholders’ Equity” and in the Notes to Consolidated Financial Statements in Note 12 for additional information.

Approximate Number of Equity Security Holders.

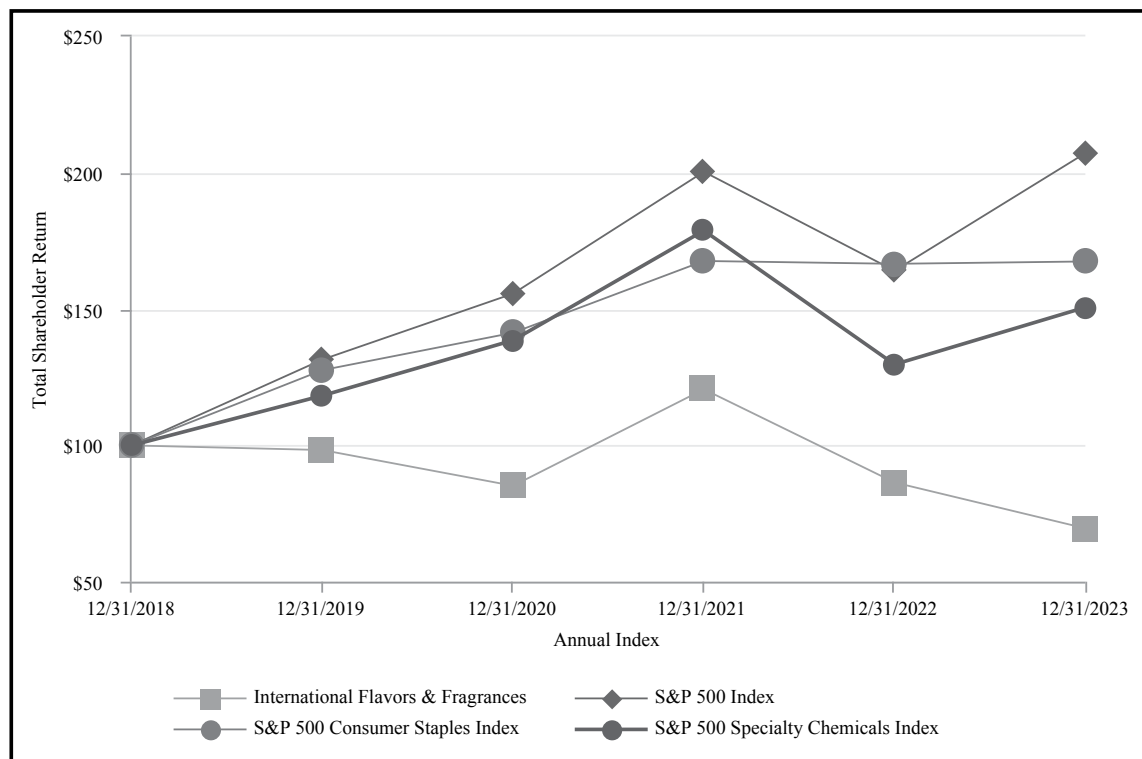
Title of Class	Number of shareholders of record as of February 21, 2024
Common stock, par value 12 ¹ / ₂ ¢ per share	3,249

Issuer Purchases of Equity Securities.

None.

Performance Graph.

The following graph compares a shareholder’s cumulative total return for the last five fiscal years as if such amounts had been invested in: (i) our common stock; (ii) the stocks included in the S&P 500 Index; (iii) the stocks included in the S&P 500 Consumer Staples Index; and (iv) the stocks included in the S&P 500 Specialty Chemicals Index. The graph is based on historical stock prices and measures total shareholder return, which takes into account both changes in stock price and dividends. The total return assumes that dividends were reinvested daily and is based on a \$100 investment on December 31, 2018.



SOURCE: S&P Capital IQ

Year-end Data	2018	2019	2020	2021	2022	2023
International Flavors & Fragrances	\$ 100.00	\$ 98.30	\$ 85.19	\$ 120.59	\$ 86.40	\$ 69.58
S&P 500 Index	\$ 100.00	\$ 131.49	\$ 155.68	\$ 200.37	\$ 164.08	\$ 207.21
S&P 500 Consumer Staples Index	\$ 100.00	\$ 127.61	\$ 141.32	\$ 167.65	\$ 166.61	\$ 167.47
S&P 500 Specialty Chemicals Index	\$ 100.00	\$ 118.26	\$ 138.57	\$ 178.80	\$ 129.71	\$ 150.65

ITEM 6. [RESERVED]

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

(UNLESS INDICATED OTHERWISE, DOLLARS IN MILLIONS EXCEPT PER SHARE AMOUNTS)

OVERVIEW

Company Background

On February 1, 2021, one of our wholly owned subsidiaries merged with and into the N&B Business (the “Merger”), pursuant to a Merger Agreement with DuPont. The shares issued in the Merger represented approximately 55.4% of the common stock of IFF on a fully diluted basis, after giving effect to the Merger, as of February 1, 2021. The N&B Business is an innovation-driven and customer-focused business that provides solutions for the global food and beverage, dietary supplements, home and personal care, energy, animal nutrition and pharma markets. The transaction was made in order to strengthen IFF’s customer base and market presence, with an enhanced position in the food & beverage, home & personal care and health & wellness markets. See Note 3 to the Consolidated Financial Statements for additional information related to the N&B Transaction.

As a result of the N&B Transaction, and following our prior 2018 acquisition of Frutarom Industries Ltd., we have expanded our global leadership positions, which now include high-value ingredients and solutions in the Food & Beverage, Home & Personal Care and Health & Wellness markets, and across key Taste, Texture, Scent, Nutrition, Enzymes, Cultures, Soy Proteins, Pharmaceutical Excipients and Probiotics categories.

We are organized into four segments: Nourish, Health & Biosciences, Scent and Pharma Solutions. Our consolidated financial information for the years ended December 31, 2023 and 2022 reflects the results of N&B for the full twelve months of 2023 and 2022, whereas the year ended December 31, 2021 only reflects the results of N&B for eleven months of 2021.

Our Nourish segment consists of an innovative and broad portfolio of natural-based ingredients to enhance nutritional value, texture and functionality in a wide range of beverage, dairy, bakery, confectionery and culinary applications and consists of Ingredients, Flavors and Food Designs.

Our Health & Biosciences segment consists of the development and production of an advanced biotechnology-derived portfolio of enzymes, food cultures, probiotics and specialty ingredients for food and non-food applications. Among many other applications, this biotechnology-driven portfolio includes cultures for use in fermented foods such as yogurt, cheese and fermented beverages, probiotic strains, many with documented clinical health claims for use as dietary supplements and through industrial fermentation the production of enzymes and microorganisms that provide product and process performance benefits to household detergents, animal feed, ethanol production and brewing. Health & Biosciences is comprised of Health, Cultures & Food Enzymes, Home & Personal Care, Animal Nutrition and Grain Processing.

Our Scent segment creates fragrance compounds, fragrance ingredients and cosmetic ingredients that are integral elements in the world’s finest perfumes and best-known household and personal care products. Consumer insights science and creativity are at the heart of our Scent business, and, along with our unique portfolio of natural and synthetic ingredients, global footprint, innovative technologies and know-how, and customer intimacy, we believe make us a market leader in scent products. The Scent segment is comprised of Fragrance Compounds, Fragrance Ingredients and Cosmetic Ingredients.

Our Pharma Solutions segment produces, among other things, a vast portfolio of cellulose and seaweed-based pharmaceutical excipients, used to improve the functionality and delivery of active pharmaceutical ingredients, including controlled or modified drug release formulations, and enabling the development of more effective pharmaceutical finished dosage formulations. Our excipients are used in prescription and over-the-counter pharmaceuticals and dietary supplements. Our Pharma Solutions products also serve a variety of other specialty and industrial end-uses including coatings, inks, electronics, agriculture and consumer products.

Financial Measures — Currency Neutral

Our financial results include the impact of foreign currency exchange rates. We provide currency neutral calculations in this report to remove the impact of foreign currency exchange rates fluctuations. We calculate currency neutral numbers by translating current year invoiced sale amounts at the exchange rates used for the corresponding prior year period. We use currency neutral results in our analysis of subsidiary and/or segment performance. We also use currency neutral numbers when analyzing our performance against our competitors.

Impairment of Goodwill

During 2023, we determined that the carrying value of the Nourish reporting unit exceeded its fair value and recorded an impairment charge of \$2.623 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2023.

During 2022, we determined that the carrying value of the Health & Biosciences reporting unit exceeded its fair value and recorded a goodwill impairment charge of \$2.250 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2022.

See “Critical Accounting Policies and Use of Estimates” and Note 6 to the Consolidated Financial Statements for additional information. For more detailed information about risks related to impairment of goodwill, refer to Item 1A, “Risk Factors” – “Any impairment of our tangible or intangible long-lived assets, including goodwill, may adversely impact our profitability.”

Impact related to the Israel-Hamas War

We maintain operations in Israel and, additionally, export products to customers in Israel from operations outside the region. We will continue to evaluate the current events and any potential impacts related to this matter, but we do not expect there to be a material impact to our Consolidated Financial Statements.

In 2023, total sales to Israeli customers were approximately 1% of total sales.

Impact related to the Russia-Ukraine War

We maintain operations in both Russia and Ukraine and, additionally, export products to customers in Russia and Ukraine from operations outside the region. In response to the events in Ukraine, we have limited the production and supply of ingredients in and to Russia to only those that meet the essential needs of people, including food, hygiene and medicine.

In 2023, total sales to Russian customers were approximately 1% of total sales. In 2022, total sales to Russian customers were approximately 2% of total sales.

In 2023 and 2022, total sales to Ukrainian customers were both less than 1% of total sales.

We have a reserve of approximately \$3 million related to expected credit losses on receivables from customers located in Russia and Ukraine. During the second quarter of 2022, we also recorded a charge of \$120 million related to the impairment of certain long-lived assets in Russia. See Note 1, Note 5 and Note 6 to the Consolidated Financial Statements for additional information.

For more detailed information about risks related to the Russia-Ukraine war and the Israel-Hamas war, refer to Item 1A, “Risk Factors” - *International conflicts (such as the Russia-Ukraine war and Israel-Hamas war), geopolitical events, natural disasters, public health crises (such as the COVID-19 pandemic), trade wars, terrorist acts, labor strikes, political or economic crises (such as uncertainty related to protracted U.S. federal government funding negotiations), accidents and other events could adversely affect our business and financial results, including by disrupting development, manufacturing, distribution or sale of our products.*

Impact of COVID-19 Pandemic

On March 11, 2020, the World Health Organization designated COVID-19 as a global pandemic. As a result of disruptions or uncertainty relating to the COVID-19 pandemic, we have experienced, and may continue to experience, increased costs, delays or limited availability related to raw materials, strain on shipping and transportation resources, and higher energy prices, which have negatively impacted, and may continue to negatively impact, our margins and operating results. We will continue to evaluate the nature and extent of these potential impacts to our business, consolidated results of operations, segment results, liquidity and capital resources.

For more detailed information about risks related to COVID-19 pandemic, refer to Item 1A, “Risk Factors” - *International conflicts (such as the Russia-Ukraine war and Israel-Hamas war), geopolitical events, natural disasters, public health crises (such as the COVID-19 pandemic), trade wars, terrorist acts, labor strikes, political or economic crises (such as uncertainty related to protracted U.S. federal government funding negotiations), accidents and other events could adversely affect our business and financial results, including by disrupting development, manufacturing, distribution or sale of our products.*

2023 Financial Performance Overview

For a reconciliation between reported and adjusted figures, please refer to the “Non-GAAP Financial Measures” section.

Sales

Sales in 2023 decreased \$961 million, or 8% on a reported basis, to \$11.479 billion compared to \$12.440 billion in the 2022 period. On a currency neutral basis, sales in 2023 decreased 6% compared to the 2022 period. Exchange rate variations had an unfavorable impact on net sales in 2023 of 2%. The effect of exchange rates can vary by business and region, depending upon the mix of sales priced in U.S. dollars as compared to other currencies. In addition, the decrease in sales was primarily driven by volume decreases across various businesses and the net impact of the divestitures of the Microbial Control business unit, the portion of the Savory Solutions business, and Flavor Specialty Ingredients (“FSI”) business and the acquisition of Health Wright Products, Inc. (collectively, the “net impact of the change in business portfolio mix”), which was approximately \$572 million, offset in part by price increases across all businesses.

Our 25 largest customers accounted for approximately 32% of total sales in 2023. In 2023, no customer accounted for more than 10% of sales. A key factor for commercial success is our inclusion on strategic customers’ core supplier lists, which provides opportunities to expand and win new business. We are on the core supplier lists of a large majority of our global and strategic customers.

Gross Profit

Gross profit in 2023 decreased \$470 million, or 11% on a reported basis, to \$3.681 billion (32.1% of sales) compared to \$4.151 billion (33.4% of sales) in the 2022 period. The decrease in gross profit was primarily driven by volume decreases, the net impact of the change in business portfolio mix and unfavorable manufacturing absorption primarily related to our inventory reduction program, offset in part by favorable net pricing and productivity gains.

RESULTS OF OPERATIONS

<i>(DOLLARS IN MILLIONS EXCEPT PER SHARE AMOUNTS)</i>	Year Ended December 31,			Change	
	2023	2022	2021	2023 vs. 2022	2022 vs. 2021
Net sales	\$ 11,479	\$ 12,440	\$ 11,656	(8) %	7 %
Cost of goods sold	7,798	8,289	7,921	(6) %	5 %
Gross profit	3,681	4,151	3,735	(11) %	11 %
Research and development (R&D) expenses	636	603	629	5 %	(4) %
Selling and administrative (S&A) expenses	1,787	1,768	1,749	1 %	1 %
Restructuring and other charges	68	12	41	NMF	(71) %
Amortization of acquisition-related intangibles	680	727	732	(6) %	(1) %
Impairment of goodwill	2,623	2,250	—	17 %	NMF
Impairment of long-lived assets	—	120	—	(100) %	NMF
Gains on sale of assets	(3)	(3)	(1)	— %	200 %
Operating (loss) profit	(2,110)	(1,326)	585	59 %	NMF
Interest expense	380	336	289	13 %	16 %
Other expense (income), net	28	(37)	(58)	(176) %	(36) %
(Loss) income before taxes	(2,518)	(1,625)	354	55 %	NMF
Provision for income taxes	45	239	75	(81) %	219 %
Net (loss) income	(2,563)	(1,864)	279	38 %	NMF
Net income attributable to non-controlling interest	4	7	9	(43) %	(22) %
Net (loss) income attributable to IFF shareholders	\$ (2,567)	\$ (1,871)	\$ 270	37 %	NMF
Net (loss) income per share — diluted	\$ (10.05)	\$ (7.32)	\$ 1.10	37 %	NMF
Gross margin	32.1 %	33.4 %	32.0 %	(130)bps	140 bps
R&D as a percentage of sales	5.5 %	4.8 %	5.4 %	70 bps	(60)bps
S&A as a percentage of sales	15.6 %	14.2 %	15.0 %	140 bps	(80)bps
Operating margin	(18.4)%	(10.7)%	5.0 %	NMF	NMF
Effective tax rate	(1.8)%	(14.7)%	21.2 %	NMF	NMF
Segment net sales					
Nourish	\$ 6,060	\$ 6,829	\$ 6,264	(11) %	9 %
Health & Biosciences	2,081	2,339	2,329	(11) %	— %
Scent	2,393	2,301	2,254	4 %	2 %
Pharma Solutions	945	971	809	(3) %	20 %
Consolidated	\$ 11,479	\$ 12,440	\$ 11,656	(8) %	7 %

NMF: Not meaningful

Cost of goods sold includes the cost of materials and manufacturing expenses. R&D expenses include expenses related to the development of new and improved products and technical product support. S&A expenses include expenses necessary to support our commercial activities and administrative expenses supporting our overall operating activities including compliance with governmental regulations.

2023 IN COMPARISON TO 2022

Sales performance by segment was as follows:

	% Change in Sales - 2023 vs. 2022	
	Reported	Currency Neutral ⁽¹⁾
Nourish	-11%	-9%
Health & Biosciences	-11%	-10%
Scent	4%	6%
Pharma Solutions	-3%	-3%
Total	-8%	-6%

(1) Currency neutral sales is calculated by translating current year invoiced sale amounts at the exchange rates for the corresponding prior year period.

Nourish

Nourish sales in 2023 decreased \$769 million, or 11% on a reported basis, to \$6.060 billion compared to \$6.829 billion in the 2022 period. On a currency neutral basis, Nourish sales decreased 9% in 2023 compared to the 2022 period as exchange rate variations had an unfavorable impact. In addition, performance in the Nourish operating segment was driven by volume decreases across various business units and the divestiture of the portion of the Savory Solutions business, with an impact of approximately \$310 million, offset in part by price increases across all business units.

Health & Biosciences

Health & Biosciences sales in 2023 decreased \$258 million, or 11% on a reported basis, to \$2.081 billion compared to \$2.339 billion in the 2022 period. On a currency neutral basis, Health & Biosciences sales decreased 10% in 2023 compared to the 2022 period as exchange rate variations had an unfavorable impact. In addition, performance in the Health & Biosciences operating segment was driven by the net impact of the divestiture of the Microbial Control business unit and acquisition of Health Wright Products, Inc., which was approximately \$228 million, and volume decreases across various business units, offset in part by price increases across all business units.

Scent

Scent sales in 2023 increased \$92 million, or 4% on a reported basis, to \$2.393 billion compared to \$2.301 billion in the 2022 period. On a currency neutral basis, Scent sales increased 6% in 2023 compared to the 2022 period as exchange rate variations had an unfavorable impact. In addition, performance in the Scent operating segment was driven by price increases, primarily in Fragrance Compounds and Fragrance Ingredients, and volume increases, offset in part by the divestiture of the FSI business, with an impact of approximately \$34 million.

Pharma Solutions

Pharma Solutions sales in 2023 decreased \$26 million, or 3% on a reported basis, to \$945 million compared to \$971 million in the 2022 period. On a currency neutral basis, Pharma Solutions sales also decreased 3% in 2023 compared to the 2022 period as the impact of exchange rate variations was flat. In addition, performance in the Pharma Solutions operating segment was driven by volume decreases, offset in part by price increases.

Cost of Goods Sold

Cost of goods sold decreased \$491 million to \$7.798 billion (67.9% of sales) in 2023 compared to \$8.289 billion (66.6% of sales) in 2022. The decrease in cost of goods sold was primarily driven by volume decreases in sales and the net impact of the change in business portfolio mix, which was approximately \$405 million, offset in part by unfavorable manufacturing absorption primarily related to our inventory reduction program and a write-down of inventory related to Locust Bean Kernel (“LBK”) in Nourish, which was approximately \$72 million.

Research and Development (R&D) Expenses

R&D expenses increased \$33 million to \$636 million (5.5% of sales) in 2023 compared to \$603 million (4.8% of sales) in 2022. The increase in R&D expenses was primarily driven by higher operating expenses for R&D related activities, offset in part by the net impact of the change in business portfolio mix.

Selling and Administrative (S&A) Expenses

S&A expenses increased \$19 million to \$1.787 billion (15.6% of sales) in 2023 compared to \$1.768 billion (14.2% of sales) in 2022. The increase in S&A expenses was primarily driven by higher operating expenses for S&A related activities and legal fees incurred for the ongoing investigations of the fragrance businesses, offset in part by lower professional fees, including consulting costs, and the net impact of the change in business portfolio mix.

Restructuring and Other Charges

Restructuring and other charges increased to \$68 million in 2023 compared to \$12 million in 2022. The increase was driven by higher severance costs incurred as part of the 2023 Restructuring Program, net of reversals of prior severance cost accruals. See Note 2 for additional information.

Amortization of Acquisition-Related Intangibles

Amortization expenses decreased to \$680 million in 2023 compared to \$727 million in 2022. The decrease in amortization expense was primarily driven by the reduction in intangible assets as a result of the divestitures of the Microbial Control business unit in 2022, the portion of the Savory Solutions business and FSI business in 2023, an impairment of intangible assets of an asset group that operates primarily in Russia during 2022 and intangible assets of the portion of the Savory Solutions business, FSI business and Cosmetic Ingredients business being classified as “held for sale,” and therefore no longer recognizing amortization expense on those intangible assets. The portion of the Savory Solutions business and FSI business were classified as held for sale up until May 31, 2023 and August 1, 2023, respectively, when we completed the divestiture of the businesses (see Note 4, Note 6 and Note 21 for additional information). The decrease in amortization expense was offset in part by the impact of acquisitions of intangible assets from Health Wright Products, Inc.

Impairment of Goodwill

The impairment of goodwill was \$2.623 billion in 2023 compared to \$2.250 billion in 2022, which was related to the Nourish and Health & Biosciences reporting units, respectively. See Note 1 and Note 6 for additional information.

Impairment of Long-Lived Assets

There was no impairment of long-lived assets in 2023. Impairment of long-lived assets was \$120 million in 2022. The impairment charge was due to the uncertainties related to our operations in Russia and Ukraine and was allocated on a pro rata basis to intangible assets and property, plant and equipment. See Note 1, Note 5 and Note 6 for additional information.

Interest Expense

Interest expense increased \$44 million to \$380 million in 2023 compared to \$336 million in 2022. The increase in interest expense was due to higher interest rates on our cash pooling arrangements, commercial paper borrowings, outstanding Term Loan Facilities (see Note 9 for additional information) and factoring programs (see Note 1 for additional information).

Other Expense (Income), Net

Other expense (income), net, decreased \$65 million to an expense of \$28 million in 2023 compared to income of \$37 million in 2022. The change was primarily due to higher foreign exchange losses and losses incurred from business divestitures, such as the liquidation of a business in Russia for the sale of the portion of the Savory Solutions business and divestitures of the portion of the Savory Solutions business and FSI business (see Note 4 for additional information), compared to gains incurred from the divestiture of the Microbial Control business unit in 2022, offset in part by the gain resulting from the completion of the China facility relocation (see Note 19 for additional information) and higher pension-related benefits.

Income Taxes

The effective tax rate in 2023 was (1.8)% compared to (14.7)% in 2022. The year-over-year change was primarily driven by book to tax differences related to impairment of goodwill, lower tax charges on business divestitures and the recognition of a deferred tax benefit related to an internal restructuring.

Segment Adjusted Operating EBITDA Results by Business Unit

We use Segment Adjusted Operating EBITDA for internal reporting and performance measurement purposes. Segment Adjusted Operating EBITDA is defined as (Loss) Income Before Taxes before depreciation and amortization expense, interest expense, restructuring and other charges and certain items that are not related to recurring operations. Our determination of reportable segments was made on the basis of our strategic priorities within each segment and corresponds to the manner in which our Chief Operating Decision Maker reviews and evaluates operating performance to make decisions about resources to be allocated to the segment. In addition to our strategic priorities, segment reporting is also based on differences in the products and services we provide.

	For the Year Ended December 31,	
	2023	2022
<i>(DOLLARS IN MILLIONS)</i>		
Segment Adjusted Operating EBITDA		
Nourish	\$ 732	\$ 1,176
Health & Biosciences	588	634
Scent	461	423
Pharma Solutions	199	222
Total	1,980	2,455
Depreciation & Amortization	(1,142)	(1,179)
Interest Expense	(380)	(336)
Other (Expense) Income, net	(28)	37
Restructuring and Other Charges	(68)	(12)
Impairment of Goodwill	(2,623)	(2,250)
Impairment of Long-Lived Assets	—	(120)
Acquisition, Divestiture and Integration Related Costs	(174)	(201)
Strategic Initiatives Costs	(31)	(8)
Regulatory Costs	(50)	—
Other	(2)	(11)
Loss Before Taxes	<u>\$ (2,518)</u>	<u>\$ (1,625)</u>
Segment Adjusted Operating EBITDA margin:		
Nourish	12.1 %	17.2 %
Health & Biosciences	28.3 %	27.1 %
Scent	19.3 %	18.4 %
Pharma Solutions	21.1 %	22.9 %
Consolidated	17.2 %	19.7 %

Nourish Segment Adjusted Operating EBITDA

Nourish Segment Adjusted Operating EBITDA decreased \$444 million, or 38% on a reported basis, to \$732 million (12.1% of segment sales) in 2023 from \$1.176 billion (17.2% of segment sales) in the comparable 2022 period. On a currency neutral basis, Nourish Segment Adjusted Operating EBITDA decreased 30% in 2023 compared to the 2022 period as exchange rate variations had an unfavorable impact. In addition, the performance was primarily driven by volume decreases, unfavorable manufacturing absorption primarily related to our inventory reduction program, a write-down of inventory related to LBK and the impact of the divestiture of the portion of the Savory Solutions business, offset in part by favorable net pricing and productivity gains.

Health & Biosciences Segment Adjusted Operating EBITDA

Health & Biosciences Segment Adjusted Operating EBITDA decreased \$46 million, or 7% on a reported basis, to \$588 million (28.3% of segment sales) in 2023 from \$634 million (27.1% of segment sales) in the comparable 2022 period. On a currency neutral basis, Health & Biosciences Segment Adjusted Operating EBITDA decreased 4% in 2023 compared to the 2022 period as exchange rate variations had an unfavorable impact. In addition, the performance was primarily driven by volume decreases, the net impact of the divestiture of the Microbial Control business unit and acquisition of Health Wright Products, Inc. and unfavorable manufacturing absorption primarily related to our inventory reduction program, offset in part by favorable net pricing and productivity gains.

Scent Segment Adjusted Operating EBITDA

Scent Segment Adjusted Operating EBITDA increased \$38 million, or 9% on a reported basis, to \$461 million (19.3% of segment sales) in 2023 from \$423 million (18.4% of segment sales) in the comparable 2022 period. On a currency neutral basis, Scent Segment Adjusted Operating EBITDA increased 19% in 2023 compared to the 2022 period as exchange rate variations had an unfavorable impact. In addition, the performance was primarily driven by favorable net pricing, productivity gains and volume increases, offset in part by the impact of the divestiture of the FSI business.

Pharma Solutions Segment Adjusted Operating EBITDA

Pharma Solutions Segment Adjusted Operating EBITDA decreased \$23 million, or 10% on a reported basis, to \$199 million (21.1% of segment sales) in 2023 from \$222 million (22.9% of segment sales) in the comparable 2022 period. On a currency neutral basis, Pharma Solutions Segment Adjusted Operating EBITDA also decreased 10% in 2023 compared to the 2022 period as the impact of exchange rate variations was flat. In addition, the performance was primarily driven by volume decreases and unfavorable manufacturing absorption primarily related to our inventory reduction program, offset in part by favorable net pricing and productivity gains.

2022 IN COMPARISON TO 2021

For a comparison of our results of operations for the fiscal years ended December 31, 2022 and December 31, 2021, see “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” of our Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on February 27, 2023.

Liquidity and Capital Resources

Cash and Cash Equivalents

We had cash and cash equivalents of approximately \$729 million, inclusive of \$26 million currently in Assets held for sale on the Consolidated Balance Sheets, at December 31, 2023 compared to \$535 million, inclusive of \$52 million in Assets held for sale on the Consolidated Balance Sheets, at December 31, 2022 and of this balance, a portion was held outside the United States. Cash balances held in foreign jurisdictions are, in most circumstances, available to be repatriated to the United States.

Effective utilization of the cash generated by our international operations is a critical component of our strategy. We regularly repatriate cash from our non-U.S. subsidiaries to fund financial obligations in the U.S. As we repatriate these funds to the U.S. we will be required to pay income taxes in certain U.S. states and applicable foreign withholding taxes during the period when such repatriation occurs. Accordingly, as of December 31, 2023, we had a deferred tax liability of approximately \$155 million for the effect of repatriating the funds to the U.S., attributable to various non-U.S. subsidiaries. There is no deferred tax liability associated with non-U.S. subsidiaries where we intend to indefinitely reinvest the earnings to fund local operations and/or capital projects.

Cash Flows Provided By Operating Activities

Cash flows provided by operating activities in 2023 were \$1.439 billion, or 12.5% of sales, compared to \$397 million, or 3.2% of sales, in 2022 and \$1.437 billion, or 12.3% of sales, in 2021. The increase in cash flows from operating activities from 2022 to 2023 was primarily driven by the decrease in working capital, largely related to inventories and accounts receivable, offset in part by lower cash earnings, excluding the impact of non-cash adjustments. The decrease in cash flows from operating activities from 2021 to 2022 was primarily driven by the increase in working capital, largely related to inventories and accounts payable.

Cash Flows Provided By (Used In) Investing Activities

Cash flows provided by investing activities in 2023 were \$574 million compared to \$745 million in 2022 and cash flows used in investing activities of \$18 million in 2021. The decrease in cash flows from investing activities from 2022 to 2023 was primarily driven by the net impact of the change in net proceeds received from business divestitures and unwinding of derivative instruments, offset by the change in cash paid for acquisitions, net of cash received and higher proceeds from disposal of assets. The increase in cash flows from investing activities from 2021 to 2022 was primarily driven by the change in net proceeds received from business divestiture and unwinding of derivative instruments, offset in part by the change in cash provided by the Merger with N&B, higher spending on property, plant and equipment and cash paid for acquisitions, net of cash received in 2022.

We have evaluated and re-prioritized our capital projects and expect that capital spending in 2024 will be approximately 4.9% of sales (net of potential grants and other reimbursements from government authorities).

Cash Flows Used In Financing Activities

Cash flows used in financing activities in 2023 were \$1.851 billion compared to \$1.229 billion and \$1.304 billion in 2022 and 2021, respectively. The increase in cash flows used in financing activities from 2022 to 2023 was primarily driven by higher repayments of long-term and short-term debts, compared to lower net repayments of long-term and short-term debts in 2022, and higher net repayments of commercial paper. The decrease in cash flows used in financing activities from 2021 to 2022 was primarily driven by lower repayments of long-term debt and an increase in revolving credit facility and short-term borrowings, offset in part by net repayments of commercial paper, compared to proceeds from issuance of commercial paper in 2021, higher cash dividend payments and higher purchases of redeemable non-controlling interests.

We paid dividends totaling \$826 million, \$810 million and \$667 million in 2023, 2022 and 2021, respectively. The cash dividend declared per share in 2023, 2022 and 2021 was \$3.24, \$3.20 and \$3.12, respectively.

Our capital allocation strategy is primarily focused on debt repayment to maintain our investment grade rating. We will also prioritize capital investment in our businesses to support the strategic long-term plans. We are also committed to maintaining our history of paying a dividend to investors determined by our Board of Directors at its discretion based on various factors.

Capital Resources

Operating cash flow provides the primary source of funds for capital investment needs, dividends paid to shareholders and debt service repayments. We anticipate that cash flows from operations, cash proceeds generated from planned business divestitures and availability under our existing credit facilities will be sufficient to meet our investing and financing needs, including our debt service requirements. We regularly assess our capital structure, including both current and long-term debt instruments, as compared to our cash generation and investment needs in order to provide ample flexibility and to optimize our leverage ratios. See Note 9 for additional information.

Transaction with Nutrition & Biosciences, Inc.

On February 1, 2021, the N&B Term Loan Facility was funded, which provided for a senior unsecured term loan credit facility in an aggregate principal amount of \$1.250 billion, comprised of a \$625 million three-year tranche (“2024 Term Loan Facility”) and a \$625 million five-year tranche (“2026 Term Loan Facility”). Following the Merger, we assumed the indebtedness incurred by N&B in the debt financings, which included (i) the 2024 Term Loan Facility and 2026 Term Loan Facility and (ii) a series of Senior Notes in the aggregate amount of \$6.250 billion with maturities ranging from 2 to 30 years. N&B’s indebtedness raised prior to the Merger was used to finance the Special Cash Payment (as defined below) to DuPont, which has been paid, and for the satisfaction of the related transaction fees and expenses. See Note 3 and Note 9 for additional information.

In connection with the N&B Transaction, a wholly owned subsidiary of IFF merged with and into N&B in exchange for 141,740,461 shares of IFF common stock, par value \$0.125 per share (“IFF Common Stock”), which had been approved in the special shareholder meeting that occurred on August 27, 2020 where IFF shareholders voted to approve the issuance of shares of IFF common stock in connection with the N&B Transaction pursuant to the Merger Agreement. In connection with the N&B Transaction, DuPont received a one-time \$7.359 billion special cash payment (the “Special Cash Payment”). The shares issued in the Merger represented approximately 55.4% of the common stock of IFF on a fully diluted basis, after giving effect to the Merger, as of February 1, 2021. See Note 3 for additional information.

Term Loans and Revolving Credit Facility

Our credit agreements contain various covenants, limitations and events of default customary for similar facilities for similarly rated borrowers, including the requirement for us to maintain, at the end of each fiscal quarter, a ratio of net debt for borrowed money to credit adjusted EBITDA in respect of the previous 12-month period. On March 23, 2023, we entered into Term Loan Amendment No. 3, Term Loan Amendment No. 4, Revolver Amendment No. 2 and Revolver Amendment No. 3. On September 19, 2023, we entered into Term Loan Amendment No. 5 and Revolver Amendment No. 4.

Term Loan Amendment No. 3 and Revolver Amendment No. 2, among other things, extended the period during which certain relief was provided with respect to the financial covenant contained in the Existing Term Loan Credit Agreement and the Existing Revolving Credit Agreement, respectively, which have been superseded by Term Loan Amendment No. 5 and Revolver Amendment No. 4, respectively.

Additionally, the reference rate for U.S. dollar-denominated loans was updated from LIBOR to Term SOFR. From March 23, 2023, the Term Loans and Revolving Credit Facility now bear interest at a base rate or a rate equal to Term SOFR plus an adjustment of 0.10% per annum or, in the case of euro-denominated loans, the Euro interbank offered rate, plus, in each case, an applicable margin based on our public debt rating. Loans may be prepaid without premium or penalty, subject to customary breakage costs.

Term Loan Amendment No. 5 and Revolver Amendment No. 4, among other things, extend the period during which a Term Loan Covenant Relief Period and Revolver Covenant Relief Period are provided with respect to the financial covenant contained in the Existing Term Loan Credit Agreement and the Existing Revolving Credit Agreement, respectively, through December 31, 2025, or such earlier date on which the Company elects to terminate such period, by providing that during the Term Loan Covenant Relief Period and Revolver Covenant Relief Period, our consolidated leverage ratio shall not exceed as of the end of the fiscal quarter for the period of the four fiscal quarters then ended: (i) 5.25x for any fiscal quarter ending on or before March 31, 2024, (ii) 4.75x for the fiscal quarter ending June 30, 2024, (iii) 4.50x for the fiscal quarter ending September 30, 2024, (iv) 4.25x for any subsequent fiscal quarter ending on or before March 31, 2025, (v) 4.00x for any subsequent fiscal quarter ending on or before September 30, 2025 and (vi) 3.75x for the fiscal quarter ending December 31, 2025.

During the Term Loan Covenant Relief Period and the Revolver Covenant Relief Period, the amendments prohibit us from (i) effecting share repurchases, (ii) declaring and paying dividends in cash on common stock in excess of \$0.81 per share per fiscal quarter (for an aggregate amount of \$3.24 per fiscal year) and (iii) creating liens to secure debt in excess of the greater of \$300 million and 3.65% of Consolidated Net Tangible Assets (as defined in the Term Loan Credit Agreement and Revolving Credit Agreement), in each case subject to certain exceptions set forth therein. See Note 9 for additional information on the amendments to the credit agreements.

As of December 31, 2023, we had no outstanding borrowings under our \$2.000 billion Revolving Credit Facility. The amount that we are able to draw down under the Revolving Credit Facility is limited by financial covenants as described in more detail below. As of December 31, 2023, our borrowing capacity was approximately \$1.548 billion under the Revolving Credit Facility.

See Note 9 to the Consolidated Financial Statements for additional information on our credit agreements.

Debt Covenants

At December 31, 2023, we were in compliance with all financial and other covenants under our credit agreements, including the net debt to credit adjusted EBITDA⁽¹⁾ ratio. At December 31, 2023 our net debt to credit adjusted EBITDA⁽¹⁾ ratio was 4.51 to 1.0 as defined by the credit facility agreements, which is below the relevant level provided by our financial covenants of existing outstanding debt. The most comparable GAAP measure is the total debt to net loss ratio, which was (3.93) to 1.0 at December 31, 2023.

- (1) Credit adjusted EBITDA and net debt, which are non-GAAP measures used for these covenants, are calculated in accordance with the definition in the debt agreements. In this context, these measures are used solely to provide information on the extent to which we are in compliance with debt covenants and may not be comparable to credit adjusted EBITDA and net debt used by other companies. Reconciliations of credit adjusted EBITDA to net loss and net debt to total debt are as follows:

<i>(DOLLARS IN MILLIONS)</i>	Year Ended December 31, 2023	
Net loss	\$	(2,567)
Interest expense ⁽¹⁾		380
Income taxes		45
Depreciation and amortization		1,142
Specified items ⁽²⁾		2,944
Non-cash items ⁽³⁾		135
Credit Adjusted EBITDA	\$	2,079

- (1) Beginning in the fourth quarter of 2023, certain adjustments were made to interest expense associated with our cash pooling arrangements.
- (2) Specified items consisted of restructuring and other charges, impairment of goodwill, acquisition, divestiture and integration related costs, strategic initiatives costs, regulatory costs and other costs that are not related to recurring operations.
- (3) Non-cash items consisted of gains on sale of assets, losses on business disposals, gain on China facility relocation, write-down of inventory related to LBK and stock-based compensation.

<i>(DOLLARS IN MILLIONS)</i>	December 31, 2023	
Total debt ⁽¹⁾	\$	10,096
Adjustments:		
Cash and cash equivalents ⁽²⁾		729
Net debt	\$	9,367

- (1) Total debt used for the calculation of net debt consisted of short-term debt, long-term debt, short-term finance lease obligations and long-term finance lease obligations.
- (2) Cash and cash equivalents included approximately \$26 million currently in Assets held for sale on the Consolidated Balance Sheets.

Senior Notes

As of December 31, 2023, we had \$9.085 billion aggregate principal amount outstanding in senior unsecured notes, with \$1.435 billion principal amount denominated in EUR and \$7.650 billion principal amount denominated in USD, which includes the N&B Senior Notes assumed as a result of the Merger. The notes bear effective interest rates ranging from 1.22% per year to

5.12% per year, with maturities from March 14, 2024 to December 1, 2050. See Note 9 to the Consolidated Financial Statements for additional information.

Tangible Equity Units - Senior Unsecured Amortizing Notes

On September 14, 2021, the Company notified holders of the tangible equity units (“TEUs”) that the final settlement rate in respect of each of the prepaid stock purchase contracts (“SPCs”) was 0.330911 shares of IFF’s common stock. On September 15, 2021, 5,460,031 shares of IFF’s common stock were issued in settlement of the SPCs. See Note 11 to the Consolidated Financial Statements for additional information.

Other Contingencies

See Note 19 to the Consolidated Financial Statements for information related to Other Contingencies.

Other Commitments

Compliance with existing governmental requirements regulating the discharge of materials into the environment has not materially affected our operations, earnings or competitive position. In 2023 and 2022, we spent approximately \$23 million and \$30 million on capital projects and \$139 million and \$135 million in operating expenses and governmental charges, respectively, for the purpose of complying with such regulations. Expenditures for these purposes will continue for the foreseeable future. In addition, we are party to a number of proceedings brought under the Comprehensive Environmental Response, Compensation and Liability Act or similar state statutes. It is expected that the impact of any judgments in or voluntary settlements of such proceedings will not be material to our financial condition, results of operations or liquidity.

Contractual Obligations

The Company believes its balances of cash and cash equivalents, which totaled approximately \$729 million as of December 31, 2023, inclusive of approximately \$26 million currently in Assets held for sale on the Consolidated Balance Sheets, along with cash generated by ongoing operations and continued access to debt markets, will be sufficient to satisfy its cash requirements and capital return program over the next 12 months and beyond. The Company’s material cash requirements include the following contractual and other obligations.

Borrowings and Interest on Borrowings

As of December 31, 2023, the Company had outstanding floating and fixed rate notes with varying maturities for an aggregate principal amount of approximately \$9.980 billion (collectively the “Notes”), with approximately \$885 million payable within 12 months. Future interest payments associated with the Notes total approximately \$3.965 billion, with approximately \$292 million payable within 12 months.

The Company also issues unsecured short-term promissory notes (“Commercial Paper”) pursuant to a commercial paper program. As of December 31, 2023, the Company had no Commercial Paper outstanding.

As of December 31, 2023, the Company had no borrowings outstanding under the Revolving Credit Facility.

See Note 9 to the Consolidated Financial Statements for a further discussion of our various borrowing facilities.

Leases

The Company has lease arrangements for certain corporate offices, manufacturing facilities, research and development facilities, and certain transportation and office equipment. As of December 31, 2023, the Company had fixed lease payment obligations of approximately \$926 million, with approximately \$122 million payable within 12 months. See Note 8 to the Consolidated Financial Statements for a further discussion of our various lease arrangements.

Pension and Other Postretirement Obligations

As of December 31, 2023, the Company had pension funding obligations of approximately \$854 million, with approximately \$138 million payable within 12 months. See Note 15 to the Consolidated Financial Statements for a further discussion of our retirement plans.

As of December 31, 2023, the Company had postretirement obligations of approximately \$38 million, with approximately \$4 million payable within 12 months.

Purchase Commitments

The Company has various purchase commitments that include agreements for raw material procurement and contractual capital expenditures. As of December 31, 2023, the Company had purchase commitment obligations of approximately \$391 million, with approximately \$229 million payable within 12 months.

U.S. Tax Reform Toll-Charge

The Company has obligations related to a 2017 U.S. tax reform “toll-charge” that is payable in installments over 8 years beginning in 2018. As a result of the Merger with N&B, the remaining toll-charge obligations were accelerated and paid in full in the amount of approximately \$39 million in 2022. As of December 31, 2023, there were no toll-charge obligations remaining.

Critical Accounting Policies and Use of Estimates

Our significant accounting policies are more fully described in Note 1 to the Consolidated Financial Statements. As disclosed in Note 1, the preparation of financial statements in conformity with U.S. generally accepted accounting principles (“GAAP”) requires management to make estimates and assumptions that affect reported amounts and accompanying disclosures. These estimates are based on management’s best judgment of current events and actions that we may undertake in the future. Actual results may ultimately differ from these estimates.

Those areas requiring the greatest degree of management judgment or deemed most critical to our financial reporting involve:

Business Combinations

From time to time we enter into strategic acquisitions in an effort to better service existing customers and to attain new customers. When we acquire a controlling financial interest in an entity or group of assets that are determined to meet the definition of a business, we apply the acquisition method described in ASC Topic 805, Business Combinations. In accordance with GAAP, the results of the acquisitions we have completed are reflected in our financial statements from the date of acquisition forward.

We allocate the purchase consideration paid to acquire the business to the assets acquired and liabilities assumed based on estimated fair values at the acquisition date, with the excess of purchase price over the estimated fair value of the net assets acquired recorded as goodwill. If during the measurement period (a period not to exceed twelve months from the acquisition date) we receive additional information that existed as of the acquisition date but at the time of the original allocation described above was unknown to us, we make the appropriate adjustments to the purchase price allocation in the reporting period in which the amounts are determined.

Significant judgment is required to estimate the intangibles and fair value of fixed assets and in assigning their respective useful lives. Accordingly, we typically engage third-party valuation specialists, who work under the direction of management, to assist in valuing significant tangible and intangible assets acquired.

The fair value estimates are based on available historical information, future expectations and assumptions deemed reasonable by management, but are inherently uncertain.

We typically use an income method to estimate the fair value of intangible assets, which is based on forecasts of the expected future cash flows attributable to the respective assets. Significant estimates and assumptions inherent in the valuations reflect a consideration of other marketplace participants, and include the amount and timing of future cash flows (including expected growth rates, discount rates and profitability), royalty rates used in the relief of royalty method, customer attrition rates, product obsolescence factors, a brand’s relative market position and the discount rate applied to the cash flows. Unanticipated market or macroeconomic events and circumstances may occur, which could affect the accuracy or validity of the estimates and assumptions.

Determining the useful life of an intangible asset also requires significant judgment. All of our acquired intangible assets (e.g., trademarks, product formulas, non-compete agreements and customer relationships) are expected to have finite useful lives. Our estimates of the useful lives of finite-lived intangible assets are based on a number of factors including competitive environment, market share, brand history, operating plans and the macroeconomic environment of the regions in which the brands are sold.

The costs of finite-lived intangible assets are amortized through expense over their estimated lives. The value of residual goodwill is not amortized, but is tested at least annually for impairment as described in the following note. For acquired intangible assets, the remaining useful life of the trade names and trademarks, product formulas, and customer relationships was estimated at the point at which substantially all of the present value of cumulative cash flows have been earned.

The Periodic Assessment of Potential Impairment of Goodwill

As of December 31, 2023, we have goodwill of approximately \$10.635 billion. We test goodwill for impairment at the reporting unit level as of November 30 every year or more frequently if events or changes in circumstances indicate the asset might be impaired. A reporting unit is an operating segment or one level below an operating segment (referred to as a component) to which goodwill is assigned when initially recorded.

We identify our reporting units by assessing whether the components of our operating segments constitute businesses for which discrete financial information is available and management of each operating segment regularly reviews the operating results of those components. Components within a segment that have similar economic characteristics have been aggregated as a single reporting unit. We determined that we have six reporting units under the Nourish, Health & Biosciences, Scent and Pharma Solutions segments: (1) Nourish, (2) Fragrance Compounds, (3) Fragrance Ingredients, (4) Cosmetic Ingredients, (5) Health & Biosciences and (6) Pharma Solutions.

For the annual impairment test as of November 30, 2023, we first utilized Step 0 of the guidance in ASC Topic 350, Intangibles – Goodwill and Other, which allows for the assessment of qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If, based on a review of qualitative factors, it is more likely than not that the fair value of a reporting unit is less than its carrying value, a quantitative impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. Based on a review of qualitative factors, we determined that for one of the reporting units, Cosmetic Ingredients, a quantitative (Step 1) impairment analysis was not necessary to determine if the carrying values of the reporting unit exceeded its fair values. For the other five reporting units, we determined that a Step 1 test was necessary.

We assessed the fair value of the reporting units using an income approach. Under the income approach, we determined the fair value by using a discounted cash flow method at a rate of return that reflects the relative risk of the projected future cash flows of each reporting unit, as well as a terminal value. We used the most current actual and forecasted operating data available. Key estimates and assumptions used in these valuations include revenue growth rates, gross margins, adjusted operating EBITDA margins, terminal growth rates and discount rates.

In performing the quantitative impairment test, we determined that the fair value of four of the five reporting units exceeded their carrying values and determined that there was no further impairment of goodwill in these reporting units as of November 30, 2023. We determined that the carrying value of the Nourish reporting unit exceeded its fair value and recorded an impairment charge of \$2.623 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2023. The primary drivers of the impairment charge was a decrease in fair value due to declines in projections of the reporting unit, impacts of continued inflation and increases in interest rates. Based on the quantitative impairment test performed, we determined that the Health & Biosciences, Fragrance Ingredients and Pharma Solutions reporting units had excess fair value over carrying value of less than 25%. The Health & Biosciences, Fragrance Ingredients and Pharma Solutions reporting units had excess fair value over carrying value of approximately 8%, 18% and 8%, respectively. While we believe that the assumptions used in the impairment test were reasonable, changes in key assumptions, including lower revenue growth, operating margin, terminal growth rates or increase in discount rates could result in a future impairment. Such charge could have a material effect on our Consolidated Statements of Operations and Balance Sheets.

During 2022, based on the quantitative impairment test using the income approach, we determined that the carrying value of the Health & Biosciences reporting unit exceeded its fair value and recorded a goodwill impairment charge of \$2.250 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2022.

See Note 6 to the Consolidated Financial Statements for additional information.

The Periodic Assessment of Potential Impairment of Long-lived Assets

We review long-lived assets for impairment when events or changes in business conditions indicate that their full carrying value may not be recovered. An estimate of undiscounted future cash flows produced by an asset or group of assets is compared to the carrying value to determine whether impairment exists. If assets are determined to be impaired, the loss is measured based on an estimate of fair value using various valuation techniques, including a discounted estimate of future cash flows.

Due to the uncertainties related to our operations in Russia and Ukraine, we recorded a charge of approximately \$120 million related to the impairment of certain long-lived assets in Russia in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2022. See Note 1 to the Consolidated Financial Statements for additional information.

New Accounting Standards

See Note 1 to the Consolidated Financial Statements for a discussion of recent accounting pronouncements.

Non-GAAP Financial Measures

We use non-GAAP financial measures in this Form 10-K, including: (i) currency neutral metrics and (ii) adjusted operating EBITDA and adjusted operating EBITDA margin. We also provide the non-GAAP measure net debt solely for the purpose of providing information on the extent to which the Company is in compliance with debt covenants contained in its debt agreements. Our non-GAAP financial measures are defined below.

These non-GAAP financial measures are intended to provide additional information regarding our underlying operating results and comparable year-over-year performance. Such information is supplemental to information presented in accordance with GAAP and is not intended to represent a presentation in accordance with GAAP. In discussing our historical and expected future results and financial condition, we believe it is meaningful for investors to be made aware of and to be assisted in a better understanding of, on a period-to-period comparable basis, financial amounts both including and excluding these identified items, as well as the impact of exchange rate fluctuations. These non-GAAP measures should not be considered in isolation or as substitutes for analysis of the Company's results under GAAP and may not be comparable to other companies' calculation of such metrics.

Adjusted operating EBITDA and adjusted operating EBITDA margin exclude depreciation and amortization expense, interest expense, other income (expense), net, restructuring and other charges and certain items unrelated to recurring operations such as impairment of goodwill, impairment of long-lived assets, acquisition, divestiture and integration related costs, strategic initiatives costs, regulatory costs, N&B inventory step-up costs and other costs that are not related to recurring operations.

Net debt to credit adjusted EBITDA is the leverage ratio used in our credit agreement and defined as net debt divided by credit adjusted EBITDA. However, as credit adjusted EBITDA for these purposes was calculated in accordance with the provisions of the credit agreement, it may differ from the calculation used for adjusted operating EBITDA.

Cautionary Statement Under the Private Securities Litigation Reform Act of 1995

Statements in this Form 10-K, which are not historical facts or information, are “forward-looking statements” within the meaning of The Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on management's current assumptions, estimates and expectations and include statements concerning (i) expected cash flow and availability of capital resources to fund our operations and meet our debt service requirements; (ii) our ability to execute on our strategic and financial transformation, including the progress and success of our portfolio optimization strategy, through non-core business divestitures and acquisitions, and expectations regarding the implementation of our refreshed growth-focused strategy; (iii) our ability to continue to generate value for, and return cash to, our shareholders; (iv) expectations of the impact of inflationary pressures and the pricing actions to offset exposure to such impacts; (v) the impact of high input costs, including commodities, raw materials, transportation and energy; (vi) the expected impact of global supply chain challenges; (vii) our ability to enhance our innovation efforts, drive cost efficiencies and execute on specific consumer trends and demands; (viii) the growth potential of the markets in which we operate, including the emerging markets; (ix) expectations regarding sales and profit for the fiscal year 2024, including the impact of foreign exchange, pricing actions, raw materials, energy, and sourcing, logistics and manufacturing costs; (x) the impact of global economic uncertainty and recessionary pressures on demand for consumer products; (xi) the success of our integration efforts, following the N&B Transaction, and ability to deliver on our synergy commitments as well as future opportunities for the combined company; (xii) our strategic investments in capacity and increasing inventory to drive improved profitability; (xiii) our ability to drive cost discipline measures and the ability to recover margin to pre-inflation levels; (xiv) expected capital expenditures in 2024; and (xv) the expected costs and benefits of our ongoing optimization of our manufacturing operations, including the expected number of closings. These forward-looking statements should be evaluated with consideration given to the many risks and uncertainties inherent in our business that could cause actual results and events to differ materially from those in the forward-looking statements. Certain of such forward-looking information may be identified by such terms as “expect”, “anticipate”, “believe”, “intend”, “outlook”, “may”, “estimate”, “should”, “predict” and similar terms or variations thereof. Such forward-looking statements are based on a series of expectations, assumptions, estimates and projections about the Company, are not guarantees of future results or performance, and involve significant risks, uncertainties and other factors, including assumptions and projections, for all forward periods. Our actual results may differ materially from any future results expressed or implied by such forward-looking statements. Such risks, uncertainties and other factors include, among others, the following:

- our substantial amount of indebtedness and its impact on our liquidity, credit ratings and ability to return capital to its shareholders;
- our ability to successfully execute the next phase of our strategic transformation;
- our ability to declare and pay dividends which is subject to certain considerations;
- the impact of the outcomes of legal claims, disputes, regulatory investigations and litigation;
- inflationary trends, including in the price of our input costs, such as raw materials, transportation and energy;
- supply chain disruptions, geopolitical developments, including the Russia-Ukraine war, the Israel-Hamas war and wider Middle East developments (including disruptions to the Red Sea passage) or climate-change related events (including severe weather events) that may affect our suppliers or procurement of raw materials;
- our ability to attract and retain key employees, and manage turnover of top executives;
- our ability to successfully market to our expanded and diverse customer base;
- our ability to effectively compete in our market and develop and introduce new products that meet customers' needs;

- changes in demand from large multi-national customers due to increased competition and our ability to maintain “core list” status with customers;
- our ability to successfully develop innovative and cost-effective products that allow customers to achieve their own profitability expectations;
- disruption in the development, manufacture, distribution or sale of our products from international conflicts (such as the Russia-Ukraine war and the Israel-Hamas war), geopolitical events, trade wars, natural disasters (such as the COVID-19 pandemic), public health crises, terrorist acts, labor strikes, political or economic crises (such as the uncertainty related to U.S. government funding negotiations), accidents and similar events;
- the impact of a significant data breach or other disruption in our information technology systems, and our ability to comply with data protection laws in the U.S. and abroad;
- our ability to benefit from our investments and expansion in emerging markets;
- the impact of currency fluctuations or devaluations in the principal foreign markets in which we operate;
- economic, regulatory and political risks associated with our international operations;
- the impact of global economic uncertainty (including increased inflation) on demand for consumer products;
- our ability to integrate the N&B Business and realize anticipated synergies, among other benefits;
- our ability to react in a timely and cost-effective manner to changes in consumer preferences and demands, including increased awareness of health and wellness;
- our ability to meet increasing customer, consumer, shareholder and regulatory focus on sustainability;
- our ability to successfully manage our working capital and inventory balances;
- any impairment on our tangible or intangible long-lived assets;
- our ability to enter into or close strategic transactions or divestments, or successfully establish and manage acquisitions, collaborations, joint ventures or partnerships;
- changes in market conditions or governmental regulations relating to our pension and postretirement obligations;
- the impact of the phase out of the London Interbank Offered Rate (“LIBOR”) on our variable rate interest expense;
- our ability to comply with, and the costs associated with compliance with, regulatory requirements and industry standards, including regarding product safety, quality, efficacy and environment impact;
- defects, quality issues (including product recalls), inadequate disclosure or misuse with respect to the products and capabilities;
- our ability to comply with, and the costs associated with compliance with, U.S. and foreign environmental protection laws;
- the impact of our or our counterparties’ failure to comply with the U.S. Foreign Corrupt Practices Act, similar U.S. or foreign anti-bribery and anti-corruption laws and regulations, applicable sanctions laws and regulations in the jurisdictions in which we operate or ethical business practices and related laws and regulations;
- our ability to protect our intellectual property rights;
- the impact of changes in federal, state, local and international tax legislation or policies and adverse results of tax audits, assessments, or disputes;
- the impact of any tax liability resulting from the N&B Transaction; and
- our ability to comply with data protection laws in the U.S. and abroad.

The foregoing list of important factors does not include all such factors, nor necessarily present them in order of importance. In addition, you should consult other disclosures made by the Company (such as in our other filings with the SEC or in company press releases) for other factors that may cause actual results to differ materially from those projected by the Company. Please refer to Part I. Item 1A., Risk Factors, of this Form 10-K for additional information regarding factors that could affect our results of operations, financial condition and liquidity.

We intend our forward-looking statements to speak only as of the time of such statements and do not undertake or plan to update or revise them as more information becomes available or to reflect changes in expectations, assumptions or results. We can give no assurance that such expectations or forward-looking statements will prove to be correct. An occurrence of, or any material adverse change in, one or more of the risk factors or risks and uncertainties referred to in this report or included in our other periodic reports filed with the SEC could materially and adversely impact our operations and our future financial results.

Any public statements or disclosures made by us following this report that modify or impact any of the forward-looking statements contained in or accompanying this report will be deemed to modify or supersede such outlook or other forward-looking statements in or accompanying this report.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We operate on a global basis and are exposed to currency fluctuation related to the manufacture and sale of our products in currencies other than the U.S. dollar. The major foreign currencies involve the markets in the European Union, Great Britain, Mexico, Brazil, China, India, Indonesia, Australia, Russia and Japan, although all regions are subject to foreign currency fluctuations versus the U.S. dollar. We actively monitor our foreign currency exposures in all major markets in which we operate, and employ a variety of techniques to mitigate the impact of exchange rate fluctuations, including foreign currency hedging activities.

We have established a centralized reporting system to evaluate the effects of changes in interest rates, currency exchange rates and other relevant market risks. Our risk management procedures include the monitoring of interest rate and foreign exchange exposures and hedge positions utilizing statistical analyses of cash flows, market value and sensitivity analysis. However, the use of these techniques to quantify the market risk of such instruments should not be construed as an endorsement of their accuracy or the accuracy of the related assumptions. For the year ended December 31, 2023, our exposure to market risk was estimated using sensitivity analyses, which illustrate the change in the fair value of a derivative financial instrument assuming hypothetical changes in foreign exchange rates and interest rates.

We enter into foreign currency forward contracts with the objective of managing our exchange rate risk related to foreign currency denominated monetary assets and liabilities of our operations. These contracts, and the counterparties to which are major international financial institutions, generally involve the exchange of one currency for a second currency at a future date, have maturities not exceeding twelve months, and are marked-to-market with changes in fair value that are recorded to Other expense (income), net within our Consolidated Statements of (Loss) Income and Comprehensive Loss. Based on a hypothetical decrease or increase of 10% in the applicable balance sheet exchange rates (primarily against the U.S. dollar), the estimated fair value of our foreign currency forward contracts would change by approximately \$153 million as of December 31, 2023. However, any change in the value of the contracts, real or hypothetical, would be significantly offset by a corresponding change in the value of the underlying hedged items.

We use derivative instruments as part of our interest rate risk management strategy. We have entered into certain cross currency swap agreements in order to mitigate a portion of our net European investments from foreign currency risk. As of December 31, 2023, these swaps were in a liability position with an aggregate fair value of \$161 million. Based on a hypothetical decrease or increase of 10% in the value of the U.S. dollar against the Euro, the estimated fair value of our cross currency swaps would change by approximately \$152 million.

At December 31, 2023, the fair value of our EUR fixed rate debt was \$1.384 billion. Based on a hypothetical decrease or increase of 10% in foreign exchange rates, the estimated fair value of our EUR fixed rate debt would change by approximately \$143 million.

At December 31, 2023, the fair value of our USD fixed rate debt was \$6.227 billion. Based on a hypothetical decrease or increase of 10% in interest rates, the estimated fair value of our US fixed rate debt would change by approximately \$623 million.

At December 31, 2023, the total amount of our outstanding debt subject to interest rate fluctuations was \$895 million. Based on a hypothetical decrease or increase of 1% in interest rates, our annual interest expense would change by approximately \$6 million.

We purchase certain commodities, such as natural gas, electricity, petroleum-based products and certain crop related items. We generally purchase these commodities based upon market prices that are established with the vendor as part of the purchase process. In general, with the exception of soy and natural gas, we do not use commodity financial instruments to hedge commodity prices.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

See index to Consolidated Financial Statements on page 50.

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 and Changes in Internal Control over Financial Reporting.***

Our Chief Executive Officer and Chief Financial Officer, with the assistance of other members of our management, have evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Form 10-K. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are effective as of the end of the period covered by this Form 10-K.

We have established controls and procedures designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission’s rules and forms and is accumulated and communicated to management, including the principal executive officer and the principal financial officer, to allow timely decisions regarding required disclosure.

Our Chief Executive Officer and Chief Financial Officer have concluded that there have not been any changes in our internal control over financial reporting during the fourth quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management’s Report on Internal Control Over Financial Reporting.

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

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

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2023. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) in its 2013 *Internal Control — Integrated Framework*.

Based on this assessment, management determined that, as of December 31, 2023, our internal control over financial reporting was effective.

PricewaterhouseCoopers LLP, our independent registered public accounting firm, has audited the effectiveness of our internal control over financial reporting as of December 31, 2023 as stated in their report which is included herein.

ITEM 9B. OTHER INFORMATION.**Rule 10b5-1 Trading Plans**

During the quarter ended December 31, 2023, none of our directors or executive officers adopted or terminated any contract, instruction or written plan for the purchase or sale of our securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) (a “10b5-1 trading arrangement”) or any “non-Rule 10b5-1 trading arrangement” as defined in Item 408(c) of Regulation S-K.

ITEM 9C. DISCLOSURES REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS.

None.

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

The information relating to directors and nominees of the Company is set forth in the IFF 2024 Proxy Statement and is incorporated by reference herein. The information relating to Section 16(a) beneficial ownership reporting compliance that appears in the IFF 2024 Proxy Statement is also incorporated by reference herein. See Part I, Item 1 of this Form 10-K for information relating to the Company’s Executive Officers.

We have adopted a Code of Conduct (the “Code of Conduct”) that applies to all of our employees, including our chief executive officer and our chief financial officer. We have also adopted a Code of Conduct for Directors and a Code of Conduct for Executive Officers (together with the Code of Conduct, the “Codes”). The Codes are available through the Investors — Governance link on our website at <https://ir.iff.com/governance>.

Only the Board of Directors or the Audit Committee of the Board may grant a waiver from any provision of our Codes in favor of a director or executive officer, and any such waiver will be publicly disclosed. We will disclose substantive amendments to and any waivers from the Codes provided to our chief executive officer, principal financial officer or principal accounting officer, as well as any other executive officer or director, on the Company’s website: www.iff.com.

The information regarding the Company’s Audit Committee and its designated audit committee financial experts is set forth in the IFF 2024 Proxy Statement and such information is incorporated by reference herein.

The information concerning procedures by which shareholders may recommend director nominees is set forth in the IFF 2024 Proxy Statement and such information is incorporated by reference herein.

ITEM 11. EXECUTIVE COMPENSATION.

The items required by Part III, Item 11 are incorporated herein by reference from the IFF 2024 Proxy Statement to be filed on or before April 29, 2024, except as to information required pursuant to Item 402(v) of Regulation S-K relating to pay versus performance.

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

The items required by Part III, Item 12 are incorporated herein by reference from the IFF 2024 Proxy Statement to be filed on or before April 29, 2024.

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

The items required by Part III, Item 13 are incorporated herein by reference from the IFF 2024 Proxy Statement to be filed on or before April 29, 2024.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The items required by Part III, Item 14 are incorporated herein by reference from the IFF 2024 Proxy Statement to be filed on or before April 29, 2024.

PART IV**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.**

(a)(1) FINANCIAL STATEMENTS: The following consolidated financial statements, related notes, and independent registered public accounting firm’s report are included in this Form 10-K:

Report of Independent Registered Public Accounting Firm (PCAOB ID: 238)	51
Consolidated Statements of (Loss) Income and Comprehensive Loss for the years ended December 31, 2023, 2022 and 2021	53
Consolidated Balance Sheets as of December 31, 2023 and 2022	54
Consolidated Statements of Cash Flows for the years ended December 31, 2023, 2022 and 2021	55
Consolidated Statements of Shareholders’ Equity for the years ended December 31, 2023, 2022 and 2021	56
Notes to Consolidated Financial Statements	57

(a)(3) EXHIBITS 112

(a)(2) FINANCIAL STATEMENT SCHEDULES

Schedule II — Valuation and Qualifying Accounts and Reserves for the years ended December 31, 2023, 2022 and 2021	S-1
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All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of International Flavors & Fragrances Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of International Flavors & Fragrances Inc. and its subsidiaries (the “Company”) as of December 31, 2023 and 2022, and the related consolidated statements of (loss) income and comprehensive loss, of shareholders’ equity and of cash flows for each of the three years in the period ended December 31, 2023, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)(2) (collectively referred to as the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

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

Goodwill Impairment Assessments - Nourish, Health & Biosciences and Pharma Solutions Reporting Units

As described in Notes 1 and 6 to the consolidated financial statements, the Company’s goodwill balance was \$10.635 billion as of December 31, 2023, and the goodwill related to the Nourish, Health & Biosciences, and Pharma Solutions reportable segments was \$3.489 billion, \$4.391 billion, and \$1.265 billion, respectively. Management has determined that the Nourish, Health & Biosciences, and Pharma Solutions reportable segments are each also a reporting unit. Management tests goodwill for impairment at the reporting unit level as of November 30 every year or more frequently if events or changes in circumstances indicate the asset might be impaired. If a reporting unit’s carrying amount exceeds its fair value, the Company will record an impairment charge based on that difference. Management assessed the fair value of the reporting units using an income approach. Under the income approach, management determined the fair value by using a discounted cash flow method at a rate of return that reflects the relative risk of the projected future cash flows of each reporting unit, as well as a terminal value. Key estimates and assumptions include revenue growth rates, gross margins, EBITDA margins, terminal growth rates, and discount rates. Management determined that the carrying value of the Nourish reporting unit exceeded its fair value and recorded an impairment charge of \$2.623 billion for the year ended December 31, 2023.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessments of the Nourish, Health & Biosciences, and Pharma Solutions reporting units is a critical audit matter are (i) the significant judgment by management when developing the fair value estimate of the Nourish, Health & Biosciences, and Pharma Solutions reporting units; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management’s significant assumptions related to revenue growth rates, gross margins, EBITDA margins, terminal growth rates, and discount rates; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management’s goodwill impairment assessments, including controls over the valuation of the Nourish, Health & Biosciences, and Pharma Solutions reporting units. These procedures also included, among others (i) testing management’s process for developing the fair value estimate of the Nourish, Health & Biosciences, and Pharma Solutions reporting units; (ii) evaluating the appropriateness of the discounted cash flow method used by management; (iii) testing the completeness and accuracy of underlying data used in the discounted cash flow method; and (iv) evaluating the reasonableness of the significant assumptions used by management related to revenue growth rates, gross margins, EBITDA margins, terminal growth rates, and discount rates. Evaluating management’s assumptions related to revenue growth rates, gross margins, and EBITDA margins involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the Nourish, Health & Biosciences, and Pharma Solutions reporting units; (ii) the consistency with external market and industry data; and (iii) whether the assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in evaluating (i) the appropriateness of the discounted cash flow method and (ii) the reasonableness of the terminal growth rate and discount rate assumptions.

/s/ PricewaterhouseCoopers LLP

New York, New York

February 28, 2024

We have served as the Company’s auditor since 1957.

INTERNATIONAL FLAVORS & FRAGRANCES INC.
CONSOLIDATED STATEMENTS OF (LOSS) INCOME AND COMPREHENSIVE LOSS

<i>(DOLLARS IN MILLIONS EXCEPT PER SHARE AMOUNTS)</i>	Year Ended December 31,		
	2023	2022	2021
Net sales	\$ 11,479	\$ 12,440	\$ 11,656
Cost of goods sold	7,798	8,289	7,921
Gross profit	3,681	4,151	3,735
Research and development expenses	636	603	629
Selling and administrative expenses	1,787	1,768	1,749
Restructuring and other charges	68	12	41
Amortization of acquisition-related intangibles	680	727	732
Impairment of goodwill	2,623	2,250	—
Impairment of long-lived assets	—	120	—
Gains on sale of assets	(3)	(3)	(1)
Operating (loss) profit	(2,110)	(1,326)	585
Interest expense	380	336	289
Other expense (income), net	28	(37)	(58)
(Loss) income before taxes	(2,518)	(1,625)	354
Provision for income taxes	45	239	75
Net (loss) income	(2,563)	(1,864)	279
Net income attributable to non-controlling interest	4	7	9
Net (loss) income attributable to IFF shareholders	\$ (2,567)	\$ (1,871)	\$ 270
Net (loss) income per share — basic	\$ (10.05)	\$ (7.32)	\$ 1.11
Net (loss) income per share — diluted	\$ (10.05)	\$ (7.32)	\$ 1.10
Average number of shares outstanding - basic	255	255	243
Average number of shares outstanding - diluted	255	255	243
Statements of Comprehensive Loss			
Net (loss) income	\$ (2,563)	\$ (1,864)	\$ 279
Other comprehensive income (loss), after tax:			
Foreign currency translation adjustments	414	(933)	(848)
Gains on derivatives qualifying as hedges	—	—	8
Pension and postretirement liability adjustment	(112)	158	115
Other comprehensive income (loss)	302	(775)	(725)
Comprehensive loss	(2,261)	(2,639)	(446)
Net income attributable to non-controlling interest	4	7	9
Comprehensive loss attributable to IFF shareholders	\$ (2,265)	\$ (2,646)	\$ (455)

See Notes to Consolidated Financial Statements

INTERNATIONAL FLAVORS & FRAGRANCES INC.
CONSOLIDATED BALANCE SHEETS

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 703	\$ 483
Restricted cash	6	10
Trade receivables (net of allowances of \$52 and \$53, respectively)	1,726	1,818
Inventories	2,477	3,151
Assets held for sale	506	1,200
Prepaid expenses and other current assets	875	770
Total Current Assets	6,293	7,432
Property, plant and equipment, net	4,240	4,203
Goodwill	10,635	13,373
Other intangible assets, net	8,357	9,082
Operating lease right-of-use assets	689	743
Other assets	764	689
Total Assets	\$ 30,978	\$ 35,522
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities:		
Bank borrowings, overdrafts and current portion of long-term debt	\$ 885	\$ 410
Commercial paper	—	187
Accounts payable	1,378	1,418
Accrued payroll and bonus	265	267
Dividends payable	207	206
Liabilities held for sale	46	212
Other current liabilities	977	1,028
Total Current Liabilities	3,758	3,728
Other Liabilities:		
Long-term debt	9,186	10,373
Retirement liabilities	253	231
Deferred income taxes	1,937	2,283
Operating lease liabilities	642	672
Other liabilities	560	491
Total Other Liabilities	12,578	14,050
Commitments and Contingencies (Note 19)		
Redeemable non-controlling interests	—	59
Shareholders' Equity:		
Common stock \$0.125 par value; 500,000,000 shares authorized; 275,726,629 and 275,726,629 shares issued as of December 31, 2023 and December 31, 2022, respectively; and 255,288,535 and 254,968,463 shares outstanding as of December 31, 2023 and December 31, 2022, respectively	35	35
Capital in excess of par value	19,874	19,841
(Accumulated deficit) retained earnings	(2,439)	955
Accumulated other comprehensive loss	(1,896)	(2,198)
Treasury stock, at cost (20,438,094 and 20,758,166 shares as of December 31, 2023 and December 31, 2022, respectively)	(963)	(978)
Total Shareholders' Equity	14,611	17,655
Non-controlling interest	31	30
Total Shareholders' Equity including non-controlling interest	14,642	17,685
Total Liabilities and Shareholders' Equity	\$ 30,978	\$ 35,522

See Notes to Consolidated Financial Statements

**INTERNATIONAL FLAVORS & FRAGRANCES INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year Ended December 31,		
	2023	2022	2021
<i>(DOLLARS IN MILLIONS)</i>			
Cash flows from operating activities:			
Net (loss) income	\$ (2,563)	\$ (1,864)	\$ 279
Adjustments to reconcile to net cash provided by operating activities:			
Depreciation and amortization	1,142	1,179	1,156
Deferred income taxes	(369)	(237)	(236)
Gains on sale of assets	(3)	(3)	(1)
Losses (gains) on business divestitures	23	(11)	(13)
Stock-based compensation	65	49	54
Pension contributions	(36)	(36)	(37)
Amortization of inventory step-up	—	—	368
Impairment of goodwill	2,623	2,250	—
Impairment of long-lived assets	—	120	—
Inventory write-down	72	—	—
Changes in assets and liabilities, net of acquisitions:			
Trade receivables	51	(117)	(169)
Inventories	605	(893)	(363)
Accounts payable	(39)	(57)	419
Accruals for incentive compensation	(2)	(34)	96
Other current payables and accrued expenses	19	92	4
Other assets/liabilities, net	(149)	(41)	(120)
Net cash provided by operating activities	<u>1,439</u>	<u>397</u>	<u>1,437</u>
Cash flows from investing activities:			
Cash paid for acquisitions, net of cash received	—	(110)	—
Additions to property, plant and equipment	(503)	(504)	(393)
Additions to intangible assets	—	(2)	(4)
Proceeds from disposal of assets	27	8	18
Proceeds from unwinding of derivative instruments	—	173	—
Cash provided by the Merger with N&B	—	11	246
Net proceeds received from business divestitures	1,050	1,169	115
Net cash provided by (used in) investing activities	<u>574</u>	<u>745</u>	<u>(18)</u>
Cash flows from financing activities:			
Cash dividends paid to shareholders	(826)	(810)	(667)
Dividends paid to redeemable non-controlling interests	(13)	—	(2)
(Decrease) increase in revolving credit facility and short term borrowings	(99)	104	(105)
Proceeds from issuance of commercial paper (maturities after three months)	—	225	—
Repayments of commercial paper (maturities after three months)	—	(421)	—
Net (repayments) borrowings of commercial paper (maturities less than three months)	(187)	48	324
Deferred financing costs	(5)	—	(3)
Repayments of long-term debt	(655)	(300)	(828)
Purchases of redeemable non-controlling interests	(39)	(47)	—
Proceeds from issuance of long-term debt	—	—	3
Deferred consideration paid	(6)	—	(14)
Employee withholding taxes paid	(13)	(21)	(21)
Other, net	(8)	(7)	9
Net cash used in financing activities	<u>(1,851)</u>	<u>(1,229)</u>	<u>(1,304)</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	21	(77)	(59)
Net change in cash, cash equivalents and restricted cash	183	(164)	56
Cash, cash equivalents and restricted cash at beginning of year	552	716	660
Cash, cash equivalents and restricted cash at end of year	\$ 735	\$ 552	\$ 716
Supplemental Disclosures:			
Interest paid, net of amounts capitalized	\$ 370	\$ 310	\$ 310
Income taxes paid	578	329	289
Accrued capital expenditures	109	150	117

See Notes to Consolidated Financial Statements

**INTERNATIONAL FLAVORS & FRAGRANCES INC.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY**

	Common stock		Capital in excess of par value	Retained earnings (accumulated deficit)	Accumulated other comprehensive (loss) income	Treasury stock		Non-controlling interest	Total
	Shares	Cost				Shares	Cost		
<i>(DOLLARS IN MILLIONS)</i>									
Balance at December 31, 2020	128,526,137	\$ 16	\$ 3,853	\$ 4,156	\$ (698)	(21,588,147)	\$ (1,017)	\$ 12	\$ 6,322
Net income				270				3	273
Cumulative translation adjustment					(848)				(848)
Gain on derivatives qualifying as hedges; net of tax \$(1)					8				8
Pension liability and postretirement adjustment; net of tax \$(4)					115				115
Cash dividends declared (\$3.12 per share)				(785)					(785)
Stock options/SSARs			4			159,222	7		11
Impact of N&B Merger	141,740,461	18	15,936					22	15,976
Conversion of tangible equity units	5,460,031	1	(1)						—
Vested restricted stock units and awards			(18)			276,280	13		(5)
Stock-based compensation			54						54
Redeemable NCI			(2)						(2)
Dividends on non-controlling interest and other								(2)	(2)
Balance at December 31, 2021	275,726,629	\$ 35	\$ 19,826	\$ 3,641	\$ (1,423)	(21,152,645)	\$ (997)	\$ 35	\$ 21,117
Net (loss) income				(1,871)				3	(1,868)
Cumulative translation adjustment					(933)				(933)
Pension liability and postretirement adjustment; net of tax \$(4)					158				158
Cash dividends declared (\$3.20 per share)				(815)					(815)
Stock options/SSARs			11			85,728	4		15
Vested restricted stock units and awards			(41)			308,751	15		(26)
Stock-based compensation			49						49
Purchase of NCI			1					(6)	(5)
Redeemable NCI			(5)						(5)
Dividends on non-controlling interest and other								(2)	(2)
Balance at December 31, 2022	275,726,629	\$ 35	\$ 19,841	\$ 955	\$ (2,198)	(20,758,166)	\$ (978)	\$ 30	\$ 17,685
Net (loss) income				(2,567)				4	(2,563)
Cumulative translation adjustment					414				414
Pension liability and postretirement adjustment; net of tax \$3					(112)				(112)
Cash dividends declared (\$3.24 per share)				(827)					(827)
Stock options/SSARs			(4)			89,850	4		—
Vested restricted stock units and awards			(22)			230,222	11		(11)
Stock-based compensation			65						65
Redeemable NCI			(6)						(6)
Dividends on non-controlling interest and other								(3)	(3)
Balance at December 31, 2023	275,726,629	\$ 35	\$ 19,874	\$ (2,439)	\$ (1,896)	(20,438,094)	\$ (963)	\$ 31	\$ 14,642

See Notes to Consolidated Financial Statements

**INTERNATIONAL FLAVORS & FRAGRANCES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

NOTE 1. NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations

International Flavors & Fragrances Inc. and its subsidiaries (the “Registrant,” “IFF,” “the Company,” “we,” “us” and “our”) is a leading creator and manufacturer of food, beverage, health & biosciences, scent and pharma solutions and complementary adjacent products, including cosmetic active and natural health ingredients, which are used in a wide variety of consumer products. Our products are sold principally to manufacturers of perfumes and cosmetics, hair and other personal care products, soaps and detergents, cleaning products, dairy, meat and other processed foods, beverages, snacks and savory foods, sweet and baked goods, sweeteners, dietary supplements, food protection, infant and elderly nutrition, functional food, and pharmaceutical excipients and oral care products.

Basis of Presentation

On February 1, 2021 (the “Closing Date”), the Company completed the combination (the “Merger”) of IFF and DuPont de Nemours, Inc (“DuPont”) nutrition and biosciences business (the “N&B Business”), which had been transferred to Nutrition and Biosciences, Inc., a Delaware corporation and wholly owned subsidiary of DuPont (“N&B”) in a Reverse Morris Trust transaction. See Note 3 for additional information. As a result, the Company’s Consolidated Financial Statements for the periods ended December 31, 2023 and 2022 reflect the results of N&B for the full twelve months of 2023 and 2022, whereas the period ended December 31, 2021 only reflect the results of N&B from the Closing Date.

Correction of Prior Year Consolidated Financial Statements

The Company revised its Operating lease right-of-use assets from \$636 million to \$743 million and Operating lease liabilities from \$565 million to \$672 million on its Consolidated Balance Sheets as of December 31, 2022. This reflects the correction of an error of \$107 million related to a lease renewal that was not correctly reflected in the prior year period.

In addition, the Company revised its Goodwill from \$13.355 billion to \$13.373 billion and Deferred income tax liabilities from \$2.265 billion to \$2.283 billion on its Consolidated Balance Sheets as of December 31, 2022. This reflects the correction of an error of \$18 million related to deferred income tax liabilities as part of purchase accounting for the Merger with N&B.

The Company also corrected an error related to the fair value of derivative assets and liabilities of cross currency swaps. As a result of this correction, the Company revised its Other assets from \$699 million to \$689 million, which included a \$9 million impact to deferred income taxes, Other liabilities from \$472 million to \$491 million and Accumulated other comprehensive loss from \$2.169 billion to \$2.198 billion on its Consolidated Balance Sheets as of December 31, 2022. The Company also revised its Cumulative translation adjustment from \$(904) million to \$(933) million on its Consolidated Statements of Shareholders’ Equity for the year ended December 31, 2022.

The Company also adjusted the disclosure of its total receivables factored for the years ended December 31, 2022 and 2021 from \$1.030 billion to \$1.451 billion and \$668 million to \$1.167 billion, respectively, and the outstanding principal amounts of receivables from \$212 million to \$157 million as of December 31, 2022.

The impacts of these corrections are also presented in the related footnotes.

Fiscal Year End

The Company uses a calendar year of the twelve-month period from January 1 to December 31.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (“U.S. GAAP”) requires management to make estimates and judgments that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. The inputs into the Company’s judgments and estimates take into account ongoing global current events and adverse macroeconomic impacts on the critical and significant accounting estimates, including estimates associated with future cash flows that are used in assessing the risk of impairment of certain assets. Actual results could differ from those estimates.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of International Flavors & Fragrances Inc. and those of its subsidiaries. Significant intercompany balances and transactions have been eliminated. To the extent a subsidiary is not wholly owned, any related non-controlling interests are included as a separate component of Shareholders’ Equity.

Revenue Recognition

The Company recognizes revenue from contracts with customers when the contract or purchase order has received approval and commitment from both parties, has the rights of the parties and payment terms (which can vary by customer) identified, has commercial substance, collectability of consideration is probable, and control has transferred. The revenue recognized reflects the consideration the Company expects to be entitled to in exchange for those goods. Sales, value added, and other taxes the Company collects are excluded from revenues. The Company receives payment in accordance with standard customer terms.

Sales are reduced, at the time revenue is recognized, for applicable discounts, rebates and sales allowances based on historical experience. Related accruals are included in Other current liabilities in the accompanying Consolidated Balance Sheets. The Company considers shipping and handling activities undertaken after the customer has obtained control of the related goods as a fulfillment activity. Net sales include shipping and handling charges billed to customers. Cost of goods sold includes all costs incurred in connection with shipping and handling.

Contract Assets and Liabilities

With respect to a small number of contracts for the sale of compounds, the Company has an “enforceable right to payment for performance to date” and as the products do not have an alternative use, the Company recognizes revenue for these contracts over time and records a contract asset using the output method. The output method recognizes revenue on the basis of direct measurements of the value to the customer of the goods or services transferred to date relative to the remaining goods or services promised under the contract.

As of December 31, 2023 and 2022, the Company’s gross accounts receivable was \$1.778 billion and \$1.871 billion, respectively. The Company’s contract assets and contract liabilities as of December 31, 2023 and 2022 were not material.

Foreign Currency Translation

The Company translates the assets and liabilities of non-U.S. subsidiaries into U.S. dollars at year-end exchange rates. Income and expense items are translated at average exchange rates during the year. Cumulative translation adjustments are shown as a separate component of Shareholders’ Equity.

Research and Development

Research and development (“R&D”) expenses relate to the development of new and improved products, technical product support and compliance with governmental regulation. All research and development costs are expensed as incurred.

Cash and Cash Equivalents

Cash and cash equivalents include highly liquid investments with maturities of three months or less at date of purchase.

Restricted Cash

Restricted cash is comprised of cash or cash equivalents which has been placed into an account that is restricted for a specific use and from which the Company cannot withdraw the cash on demand.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported on the Company’s balance sheets as of December 31, 2023, 2022 and 2021 to the amounts reported on the Company’s statement of cash flows periods ended December 31, 2023, 2022 and 2021.

<i>(DOLLARS IN MILLIONS)</i>	December 31, 2023	December 31, 2022	December 31, 2021
Current assets			
Cash and cash equivalents	\$ 703	\$ 483	\$ 711
Cash and cash equivalents included in Assets held for sale	26	52	—
Restricted cash	6	10	4
Non-current assets			
Restricted cash included in Other assets	—	7	1
Cash, cash equivalents and restricted cash	\$ 735	\$ 552	\$ 716

Accounts Receivable

The Company has various factoring agreements globally under which it can factor up to approximately \$300 million of its trade receivables (“Company’s own factoring agreements”). In addition, the Company utilizes factoring agreements sponsored by certain customers. Under all of the arrangements, the Company sells the trade receivables on a non-recourse basis to

unrelated financial institutions and accounts for the transactions as sales of receivables. The applicable receivables are removed from the Company's Consolidated Balance Sheets when the cash proceeds are received by the Company.

The Company sold approximately \$1.752 billion, \$1.451 billion and \$1.167 billion of receivables in 2023, 2022 and 2021, respectively, under the Company's own factoring agreements and customer sponsored factoring agreements. The cost of participating in these programs was approximately \$25 million, \$12 million and \$6 million, in 2023, 2022 and 2021, respectively, and is included as a component of interest expense. Under the Company's own factoring agreements for which the Company has continued responsibility to collect receivables and provide to its sponsor, it sold approximately \$843 million, \$547 million and \$197 million of receivables in 2023, 2022 and 2021, respectively. The outstanding principal amounts of receivables under the Company's own factoring agreements amounted to approximately \$196 million and \$157 million as of December 31, 2023 and 2022, respectively. The proceeds from the sales of receivables are included in net cash from operating activities in the Consolidated Statements of Cash Flows.

Expected Credit Losses

The Company is exposed to credit losses primarily through its sales of products. To determine the appropriate allowance for expected credit losses, the Company considers certain credit quality indicators, such as aging of customer receivable balances, loss history and creditworthiness of debtors. The Company also considers current and anticipated future conditions of the general economy in the determination of allowances, including significant aspects of a geographic location and the industries in which the Company operates. The Company's general allowance for credit losses is calculated using a loss rate model that is primarily based on historical write-off experiences and applied to trade receivables. As necessary, additional reserves are established based on other factors, such as aging of receivables, customer credit quality and account collectability and country risk. These allowances are reviewed and approved by the Regional and Global Credit committees.

As of December 31, 2023, the Company reported \$1.726 billion of trade receivables, net of allowances of \$52 million. Based on the aging analysis as of December 31, 2023, approximately 1% of the Company's accounts receivable were past due by over 365 days based on the payment terms of the invoice.

The following is a roll forward of the Company's allowances for bad debts for the years ended December 31, 2022 and 2023:

<i>(DOLLARS IN MILLIONS)</i>	Allowance for Bad Debts
Balance at December 31, 2021	\$ 46
Bad debt expense ⁽¹⁾	19
Foreign exchange	(12)
Balance at December 31, 2022	53
Bad debt expense ⁽²⁾	9
Write-offs	(11)
Foreign exchange	1
Balance at December 31, 2023	<u>\$ 52</u>

(1) Bad debt expense included approximately \$11 million related to expected credit losses on receivables from customers located in Russia and Ukraine (for export and domestic sales) due to the events in those countries.

(2) Bad debt expense included approximately \$13 million related to expected credit losses on receivables from certain customers in Egypt, offset by approximately \$8 million of reversals of allowances on receivables from customers located in Russia and Ukraine. The Company will continue to evaluate its credit exposure related to Egypt, Russia and Ukraine.

Inventories

Inventories are stated at the lower of cost (on a weighted-average basis) or net realizable value. The Company's inventories consisted of the following:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Raw materials	\$ 779	\$ 1,073
Work in process	406	442
Finished goods	1,292	1,636
Total	<u>\$ 2,477</u>	<u>\$ 3,151</u>

Leases

The Company determines if an arrangement is a lease at contract inception. A lease exists when a contract conveys to the customer the right to control the use of identified property, plant or equipment for a period of time in exchange for consideration. The definition of a lease embodies two conditions: (1) there is an identified asset in the contract that is land or a depreciable asset (i.e., property, plant, and equipment), and (2) the customer has the right to control the use of the identified asset.

When the Company determines the arrangement is a lease, or contains a lease, at inception, it then determines whether the lease is an operating lease or a finance lease at the commencement date.

The Company leases property and equipment principally under operating leases and records a right-of-use asset and related obligation at the present value of lease payments. Over the term of the lease, the Company depreciates the right-of-use asset and accretes the related obligation to future value. Some of the leases include rental escalation clauses, renewal options and/or termination options that are factored into the determination of lease payments when appropriate. The Company has elected not to separate non-lease components from lease components for all classes of leased assets.

When available, the Company uses the rate implicit in the lease to discount lease payments to present value, however, most of the Company's leases do not provide a readily determinable implicit rate and the Company calculates the applicable incremental borrowing rate to discount the lease payments based on the term of the lease at lease commencement. The incremental borrowing rate is determined based on the Company's credit rating, currency and lease terms.

Long-Lived Assets

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation is calculated on a straight-line basis, principally over the following estimated useful lives: buildings and improvements, 1 to 40 years; machinery and equipment, 1 to 20 years; information technology hardware and software, 1 to 7 years; and leasehold improvements which are included in buildings and improvements, the estimated life of the improvements or the remaining term of the lease, whichever is shorter.

Interest incurred during the construction period of certain property, plant and equipment is capitalized until the underlying assets are placed in service, at which time straight-line amortization of the capitalized interest begins over the estimated useful lives of the related assets. Capitalized interest was approximately \$17 million, \$13 million and \$9 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Finite-Lived Intangible Assets

Finite-lived intangible assets include customer relationships, patents, trade names, technological know-how and other intellectual property valued at acquisition and are amortized on a straight-line basis over the following estimated useful lives: customer relationships, 10 to 27 years; patents, 11 to 15 years; trade names, 4 to 28 years; and technological know-how, 5 to 28 years.

The Company reviews long-lived assets for impairment when events or changes in business conditions indicate that their carrying value may not be recovered. An estimate of undiscounted future cash flows produced by an asset or group of assets is compared to the carrying value to determine whether impairment exists. If assets are determined to be impaired, the loss is measured based on an estimate of fair value using various valuation techniques, including a discounted estimate of future cash flows.

The Israel-Hamas War

The Company maintains operations in Israel and, additionally, exports products to customers in Israel from operations outside the region. The Company will continue to evaluate the current events and any potential impacts related to this matter, but does not expect there to be a material impact to its Consolidated Financial Statements.

The Russia-Ukraine War

The Company maintains operations in both Russia and Ukraine and, additionally, exports products to customers in Russia and Ukraine from operations outside the region. In response to the events in Ukraine, the Company has limited the production and supply of ingredients in and to Russia to only those that meet the essential needs of people, including food, hygiene and medicine.

Allowances for Bad Debts

As of December 31, 2023, the Company had a reserve of approximately \$3 million related to expected credit losses on receivables from customers located in Russia and Ukraine. The Company will continue to evaluate its credit exposure related to Russia and Ukraine.

Impairment of Long-Lived Assets

During the second quarter of 2022, the sales and margins declined for certain entities within Russia due to supply chain issues, reduced product demand and exchange rate volatility. Further, it was determined that such declines in operating performance were not expected to reverse in the near future. Additionally, future growth was expected to be limited given operating conditions in Russia, which inhibit the required future investment.

In connection with uncertainties related to the Company's operations in Russia and Ukraine, the Company updated its analysis of the undiscounted cash flows of the applicable asset groups to determine if the cash flows exceeded the carrying values of the applicable asset groups. With respect to an asset group in the Nourish segment, that manufactures and sells in Russia and related markets, it was determined that the undiscounted cash flows were insufficient to cover the carrying value and that an impairment charge was required to write-down the long-lived assets to their fair values. The fair value of such asset group was determined based on a discounted cash flow approach which involved estimating the future cash flows for the business discounted to their present values. The discount rate used in the determination of such fair value was based on consideration of the risks inherent in the cash flows and market as of the valuation date.

As a result of this assessment, the Company recognized an impairment charge of \$120 million in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2022, which was allocated on a pro rata basis to intangible assets and property, plant and equipment within the asset group in the amounts of approximately \$92 million and \$28 million, respectively.

Goodwill

Goodwill represents the difference between the total purchase price and the fair value of identifiable assets and liabilities acquired in business acquisitions.

The Company tests goodwill for impairment at the reporting unit level as of November 30 every year or more frequently if events or changes in circumstances indicate the asset might be impaired. A reporting unit is an operating segment or one level below an operating segment (referred to as a component) to which goodwill is assigned when initially recorded.

The Company identifies their reporting units by assessing whether the components of their reporting units constitute businesses for which discrete financial information is available and management of each reporting unit regularly reviews the operating results of those components. The Company determined that it has six reporting units under the Nourish, Health & Biosciences, Scent and Pharma Solutions segments: (1) Nourish, (2) Fragrance Compounds, (3) Fragrance Ingredients, (4) Cosmetic Ingredients, (5) Health & Biosciences and (6) Pharma Solutions. These reporting units were determined based on the level at which the performance is measured and reviewed by segment management. In cases where the components of an operating segment have similar economic characteristics, they are aggregated into a single reporting unit.

When testing goodwill for impairment, the Company has the option of first performing a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than the carrying amount. If the Company elects to bypass the qualitative assessment for any reporting units, or if a qualitative assessment indicates it is more likely than not that the estimated carrying value of a reporting unit exceeds its fair value, the Company performs a quantitative goodwill impairment test.

Under the quantitative goodwill impairment test, if a reporting unit's carrying amount exceeds its fair value, the Company will record an impairment charge based on that difference, and the impairment charge will be limited to the amount of goodwill allocated to that reporting unit.

For the year ended December 31, 2023, the Company determined that the carrying value of the Nourish reporting unit exceeded its fair value and recorded an impairment charge of \$2.623 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2023. During 2022, the Company determined that the carrying value of the Health & Biosciences reporting unit exceeded its fair value and recorded a goodwill impairment charge of \$2.250 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2022. See Note 6 for additional information.

Income Taxes

The Company accounts for taxes under the asset and liability method. Under this method, deferred income taxes are recognized for temporary differences between the financial statement and tax return bases of assets and liabilities, based on enacted tax rates and other provisions of the tax law. The effect of a change in tax laws or rates on deferred tax assets and liabilities is recognized as income in the period in which such change is enacted. Future tax benefits are recognized to the extent that the realization of such benefits is more likely than not, and a valuation allowance is established for any portion of a deferred tax asset that management believes may not be realized.

The Company recognizes uncertain tax positions that it has taken or expects to take on a tax return. Pursuant to accounting requirements, the Company first determines whether it is "more likely than not" its tax position will be sustained if the relevant tax authority were to audit the position with full knowledge of all the relevant facts and other information. For those tax positions that meet this threshold, the Company measures the amount of tax benefit based on the largest amount of tax benefit that it has a greater than 50% chance of realizing in a final settlement with the relevant authority. Those tax positions failing to qualify for initial recognition are recognized in the first interim period in which they meet the more likely than not standard. The Company maintains a cumulative risk portfolio relating to all of its uncertainties in income taxes in order to perform this analysis, but the evaluation of its tax positions requires significant judgment and estimation in part because, in certain cases, tax law is subject to varied interpretation, and whether a tax position will ultimately be sustained may be uncertain.

Interest and penalties related to unrecognized tax benefits are recognized as a component of income tax expense.

Retirement Benefits

Current service costs of retirement plans and postretirement health care and life insurance benefits are accrued. Prior service costs resulting from plan improvements are amortized over periods ranging from 10 to 20 years.

Financial Instruments

Derivative financial instruments are used to manage interest and foreign currency exposures. The gain or loss on the hedging instrument is recorded in earnings at the same time as the transaction being hedged is recorded in earnings. The associated asset or liability related to the open hedge instrument is recorded in Prepaid expenses and Other current assets or Other current liabilities, as applicable.

The Company records all derivative financial instruments on the balance sheet at fair value. Changes in a derivative's fair value are recognized in earnings unless specific hedge criteria are met. If the derivative is designated as a fair value hedge, the changes in the fair value of the derivative and of the hedged item attributable to the hedged risk are recognized in Net (loss) income. If the derivative is designated as a cash flow hedge, the effective portions of changes in the fair value of the derivative are recorded in Accumulated other comprehensive income (loss) ("AOCI") in the accompanying Consolidated Balance Sheets and are subsequently recognized in Net (loss) income when the hedged item affects earnings. Ineffective portions of changes in the fair value of cash flow hedges, if any, are recognized as a charge or credit to earnings.

Software Costs

The Company capitalizes direct internal and external development costs for certain significant projects associated with internal-use software and amortizes these costs over seven years. Neither preliminary evaluation costs nor costs associated with the software after implementation are capitalized. Costs related to projects that are not significant are expensed as incurred.

Net (Loss) Income Per Share

Under the two-class method, earnings are adjusted by accretion of amounts to redeemable non-controlling interests recorded at redemption value. The adjustments represent in-substance dividend distributions to the non-controlling interest holders as the holders have a contractual right to receive a specified amount upon redemption. As a result, earnings are adjusted to reflect this in-substance distribution that is different from other common shareholders. In addition, the Company has unvested share based payment awards with a right to receive nonforfeitable dividends and thus are considered participating securities which are required to be included in the computation of basic and diluted earnings per share.

Basic (loss) income per share represents the amount of earnings available to each share of common stock outstanding during the period. Basic (loss) income per share includes the effect of issuing shares of common stock, where (i) for 2021, the prepaid stock purchase contracts ("SPCs") were converted using the final settlement rate on September 14, 2021 (see Note 11 for additional information), and (ii) an adjustment to (loss) income to reflect adjustments made to record the redeemable value of redeemable non-controlling interests. Diluted (loss) income per share also includes the effect of issuing shares of common stock, assuming (i) stock options and warrants are exercised, (ii) restricted stock units are fully vested under the treasury stock method, and (iii) for 2021, the incremental effect of the prepaid SPCs were converted using the final settlement rate on September 14, 2021 (see Note 11 for additional information).

Stock-Based Compensation

Compensation cost of all stock-based awards is measured at fair value on the date of grant and recognized over the service period for which awards are expected to vest. The cost of such stock-based awards is principally recognized on a straight-line attribution basis over their respective vesting periods, net of estimated forfeitures.

Financing Costs

Costs incurred in the issuance of debt are deferred and amortized as part of interest expense over the stated life of the applicable debt instrument. Unamortized deferred financing costs relating to debt are presented as a reduction in the amount of

debt outstanding on the Consolidated Balance Sheets. Unamortized deferred financing costs relating to the revolving credit facility are recorded in Other assets on the Consolidated Balance Sheets.

Redeemable Non-controlling Interests

Non-controlling interests in subsidiaries that are redeemable for cash or other assets outside of the Company's control are classified as mezzanine equity, outside of equity and liabilities, at the greater of the carrying value or the redemption value. The increases or decreases in the estimated redemption amount are recorded with corresponding adjustments against Capital in excess of par value and are reflected in the computation of earnings per share using the two-class method. As of December 31, 2023, the Company has acquired or sold all of its remaining redeemable non-controlling interests. See Note 20 for additional information.

Held for Sale

Assets and liabilities to be disposed of by sale ("disposal groups") are reclassified into assets and liabilities held for sale on the Company's Consolidated Balance Sheets. The reclassification occurs when an agreement to sell exists, or management has committed to a plan to sell the assets within one year. Disposal groups are measured at the lower of carrying value or fair value less costs to sell and are not depreciated or amortized. When the net realizable value of a disposal group increases during a period, a gain can be recognized to the extent that it does not increase the value of the disposal group beyond its original carrying value when the disposal group was reclassified as held for sale. The fair value of a disposal group, less any costs to sell, is assessed each reporting period it remains classified as held for sale and any remeasurement to the lower of carrying value or fair value less costs to sell is reported as an adjustment to the carrying value of the disposal group. See Note 21 for additional information.

Supply Chain Financing Program

In the fourth quarter of 2023, the Company entered into a supply chain financing ("SCF") program. The program is expected to be available to U.S. based suppliers starting in the second quarter of 2024. The Company makes continuous efforts to improve working capital efficiency and has worked with suppliers to optimize payment terms and conditions. The Company's current payment terms with a majority of suppliers generally range from 0 to 180 days, which is deemed to be commercially reasonable. The Company's voluntary SCF program will allow its suppliers to elect to sell the receivables owed to them by the Company to a third-party financial institution. The suppliers, at their own discretion, will determine the invoices they want to sell and directly negotiate the arrangements with the participating third-party financial institution. Supplier participation in the program is solely the decision of the supplier and has no bearing on the Company's payment terms and amounts due with the supplier. The Company's responsibility will be limited to making payments based upon the agreed upon contractual terms and arrangements. The Company will not provide any form of guarantees under the SCF program and will have no economic interest in the suppliers' decision to participate in the SCF program. Amounts due to suppliers that elect to participate in the SCF program will be included in Accounts payable on the Consolidated Balance Sheets. The Company, or the third-party financial institution, may choose to terminate the agreement of the program at any time upon 30 days' prior written notice. The third-party financial institution may also terminate the agreement of the program at any time upon three business days' prior written notice in the event there are insufficient funds available for disbursements. As of December 31, 2023 and 2022, there were no amounts outstanding related to suppliers' participation in the SCF program.

Recent Accounting Pronouncements

In December 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures." The ASU was issued to further enhance income tax disclosures, primarily through standardization and disaggregation of rate reconciliation categories and income taxes paid by jurisdiction. This guidance is effective for fiscal years beginning after December 15, 2024, with early adoption permitted, and may be applied either prospectively or retrospectively. The Company is currently evaluating the impact that this guidance will have on its Consolidated Financial Statements and income tax disclosures.

In November 2023, the FASB issued ASU 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures." The ASU intends to improve reportable segment disclosure requirements, primarily through enhanced disclosures of significant segment expenses that are regularly provided to the Chief Operating Decision Maker and included within segment profit and loss. This guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted, and applied retrospectively to all prior periods presented in the financial statements. The Company is currently evaluating the impact that this guidance will have on its Consolidated Financial Statements and reportable segment disclosures.

In December 2022, the FASB issued ASU 2022-06, "Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848." The ASU was issued to provide an update on ASU 2020-04 and ASU 2021-01 that were issued in March 2020 and January 2021, respectively, which provided optional accounting guidance for a limited period of time to ease the potential burden in accounting for reference rate reform. The guidance provides optional expedients and exceptions to existing accounting requirements for contract modifications and hedge accounting related to transitioning from discontinued reference rates, such as London Interbank Offered Rate ("LIBOR"), to alternative reference rates, if certain criteria are met. With the issuance of ASU 2022-06, the sunset date of Topic 848 has been deferred from December 31, 2022 to December 31, 2024, after which entities will no longer be permitted to apply the relief in Topic 848. The Company has adopted this guidance on January 1, 2023, which did not have a material impact on its Consolidated Financial Statements. On March 23, 2023, the Company amended certain existing debt agreements where the interest rate benchmark was updated from LIBOR to the Secured Overnight Financing Rate ("Term SOFR"). The Company applied Topic 848 to its recent amendments of its debt agreements. See Note 9 for additional information on the amendments to the debt agreements.

In September 2022, the FASB issued ASU 2022-04, "Liabilities - Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations." The ASU requires that a buyer in a supplier finance program disclose sufficient information about the program to allow users of the financial statements to understand the program's nature, activity during the period, changes from period to period and potential magnitude. The buyer should disclose qualitative and quantitative information about its supplier finance programs. The ASU requires the buyer's annual disclosure to include a roll forward of the obligations under the supplier finance programs during the annual period, including the amount of obligations confirmed and subsequently paid. This guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, except for the amendment on roll forward information, which is effective for fiscal years beginning after December 15, 2023, and early adoption is permitted. The Company has adopted this guidance on January 1, 2023, which did not have a material impact on its Consolidated Financial Statements.

NOTE 2. RESTRUCTURING AND OTHER CHARGES

Restructuring and other charges primarily consist of separation costs for employees including severance, outplacement and other employee benefit costs ("Severance"), charges related to the write-down of fixed assets of plants to be closed ("Fixed asset write-down") and all other related restructuring ("Other") costs. All restructuring and other charges are separately stated on the Consolidated Statements of (Loss) Income and Comprehensive Loss.

Frutarom Integration Initiative

In connection with the acquisition of Frutarom, the Company executed an integration plan that, among other initiatives, sought to optimize its manufacturing network (the "Frutarom Integration Initiative"). Since the inception of the initiative, the Company closed 22 sites and expensed total costs of approximately \$36 million. As of the first quarter of 2023, the Frutarom Integration Initiative was completed.

2019 Severance Program

During 2019, the Company incurred severance charges related to approximately 190 headcount reductions, excluding those previously mentioned under the Frutarom Integration Initiative. The headcount reductions were primarily related to the Scent segment associated with the establishment of a new shared service center in Europe. Since the program's inception, the Company expensed approximately \$15 million. As of the third quarter of 2022, the program was completed.

N&B Merger Restructuring Liability

For 2023, the Company incurred approximately \$2 million of charges related to a lease impairment. Since the inception of the restructuring activities, there have been a total of approximately 215 headcount reductions and the Company has expensed approximately \$47 million. As of December 31, 2023, the restructuring activities were completed related to employee exits. The Company continues to evaluate its owned and leased properties following the Merger with N&B and may incur additional costs to further consolidate its footprint.

2023 Restructuring Program

In December 2022, the Company announced a restructuring program mainly related to headcount reduction to improve its organizational and operating structure, drive efficiencies and achieve cost savings. For the year ended December 31, 2023, the Company incurred approximately \$70 million of charges related to severance and there have been a total of approximately 680 actual and planned headcount reductions.

Changes in Restructuring Liability

Changes in restructuring liabilities during 2021, 2022 and 2023 were as follows:

<i>(DOLLARS IN MILLIONS)</i>	Balance at January 1, 2021	Additional Charges (Reversals), Net	Non-Cash Charges	Cash Payments	Balance at December 31, 2021
Frutarom Integration Initiative					
Severance	\$ 3	\$ 5	\$ —	\$ (3)	\$ 5
Fixed asset write down	—	5	(5)	—	—
Other ⁽¹⁾	3	—	—	—	3
2019 Severance Program					
Severance	6	—	—	(1)	5
Other Restructuring Charges					
Severance	2	—	—	(1)	1
Other ⁽²⁾	—	1	—	(1)	—
N&B Merger Restructuring Liability					
Severance	—	27	—	(12)	15
Other ⁽³⁾	—	3	(3)	—	—
Total Restructuring and other charges	\$ 14	\$ 41	\$ (8)	\$ (18)	\$ 29
<i>(DOLLARS IN MILLIONS)</i>	Balance at January 1, 2022	Additional Charges (Reversals), Net	Non-Cash Charges	Cash Payments	Balance at December 31, 2022
Frutarom Integration Initiative					
Severance	\$ 5	\$ 1	\$ —	\$ (2)	\$ 4
Fixed asset write down	—	3	(3)	—	—
Other ⁽¹⁾	3	(2)	—	(1)	—
2019 Severance Program					
Severance	5	(5)	—	—	—
Other Restructuring Charges					
Severance	1	—	—	—	1
N&B Merger Restructuring Liability					
Severance	15	8	—	(14)	9
Other ⁽³⁾	—	7	(2)	(4)	1
Total Restructuring and other charges	\$ 29	\$ 12	\$ (5)	\$ (21)	\$ 15
<i>(DOLLARS IN MILLIONS)</i>	Balance at January 1, 2023	Additional Charges (Reversals), Net	Non-Cash Charges	Cash Payments	Balance at December 31, 2023
Frutarom Integration Initiative					
Severance	\$ 4	\$ (3)	\$ —	\$ (1)	\$ —
Other Restructuring Charges					
Severance	1	(1)	—	—	—
N&B Merger Restructuring Liability					
Severance	9	—	—	(9)	—
Other ⁽³⁾	1	2	(2)	(1)	—
2023 Restructuring Program					
Severance	—	70	—	(56)	14
Total Restructuring and other charges	\$ 15	\$ 68	\$ (2)	\$ (67)	\$ 14

- (1) Includes supplier contract termination costs, consulting and advisory fees.
- (2) Includes charges related to legal settlement costs.
- (3) Includes lease impairment charges and losses incurred from restructuring activities related to the Merger with N&B.

Charges by Segment

The following table summarizes the total amount of costs incurred in connection with these restructuring programs and activities by segment:

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Nourish	\$ 37	\$ 8	\$ 32
Health & Biosciences	13	2	5
Scent	15	1	3
Pharma Solutions	3	1	1
Total Restructuring and other charges	\$ 68	\$ 12	\$ 41

NOTE 3. ACQUISITIONS

Acquisition of Health Wright Products, Inc.

On April 1, 2022 (“Acquisition Date”), the Company completed its acquisition of Health Wright Products, Inc. (“Health Wright”). IFF acquired 100% of the equity of Health Wright pursuant to a purchase agreement entered into on February 16, 2022. Health Wright is known in the consumer Health and Nutrition industries for providing high quality nutritional supplements. The acquisition was made in order to strengthen formulation and finished format capabilities to IFF’s Health & Biosciences probiotics, natural extracts and botanical businesses.

The acquisition was accounted for under the purchase method. The fair value of consideration transferred was approximately \$157 million, including cash and estimated contingent consideration of \$31 million. The purchase price allocation was performed and resulted in intangible assets of approximately \$75 million, and approximately \$45 million of goodwill (which is deductible for income tax purposes). The intangible assets primarily consisted of customer relationships of approximately \$74 million that have been fair valued using the Multi-Period Excess Earning Method and which are being amortized over a period of approximately 19 years.

The purchase price allocation was finalized as of the end of 2022 when the Company finalized the valuation of the acquired goodwill, intangible assets (trade names and customer relationships) and inventory, in addition to ensuring all other assets and liabilities and contingencies have been identified and recorded. The measurement period adjustments were recorded during the year ended December 31, 2022.

During the year ended December 31, 2022, the Company remeasured the fair value of contingent consideration obligations, and, as a result, recognized a credit of approximately \$5 million presented in Selling and administrative expenses on the Consolidated Statements of (Loss) Income and Comprehensive Loss. The reduction in the fair value of contingent consideration primarily resulted from changes in the probability assessment of achieving the performance targets. As of December 31, 2022, there was approximately \$26 million of earnout liabilities presented in Other liabilities on the Consolidated Balance Sheets.

During the year ended December 31, 2023, the Company remeasured the fair value of contingent consideration obligations, and, as a result, recognized an expense of approximately \$6 million presented in Selling and administrative expenses on the Consolidated Statements of (Loss) Income and Comprehensive Loss. As of December 31, 2023, there was approximately \$32 million of earnout liabilities presented in Other current liabilities on the Consolidated Balance Sheets.

No pro forma information for 2022 was presented as the acquisition was not material to the Consolidated Financial Statements.

Transaction with Nutrition & Biosciences, Inc.

On February 1, 2021, IFF completed the Merger with N&B. Pursuant to the transaction related agreements, DuPont transferred its N&B Business to N&B, a wholly-owned subsidiary of DuPont, and N&B merged with and into a wholly owned subsidiary of IFF in exchange for 141,740,461 shares of IFF common stock, par value \$0.125 per share (“IFF Common Stock”).

The Company completed its Merger with N&B in a Reverse Morris Trust transaction (the “Transactions”), pursuant to which the Company acquired the N&B Business of DuPont. In the Transactions, among other steps (i) DuPont transferred the N&B Business to N&B (the “Separation”); (ii) N&B made a cash distribution to DuPont of approximately \$7.359 billion, subject to certain adjustments (the “Special Cash Payment”); (iii) DuPont distributed to its stockholders all of the issued and outstanding shares of N&B common stock by way of an exchange offer (the “Distribution”), and; (iv) N&B merged with and into a wholly owned subsidiary of IFF. As a result of the Merger, the existing shares of N&B common stock were automatically converted into the right to receive a number of shares of IFF Common Stock. Immediately after the Merger, holders of DuPont’s common stock that received shares of N&B common stock in the Distribution owned approximately 55.4% of the outstanding shares of IFF Common Stock on a fully diluted basis and existing holders of IFF Common Stock owned approximately 44.6% of the outstanding shares of IFF on a fully diluted basis.

The Merger was accounted for using the purchase method of accounting in accordance with ASC Topic 805, Business Combinations, with IFF identified as the acquirer. As a result of the Merger, N&B’s assets, liabilities and the operating results of N&B were included in the Company’s financial statements from the Closing Date. N&B contributed net sales of approximately \$6.084 billion and net income of approximately \$11 million for the year ended December 31, 2021, which included the effects of purchase accounting adjustments, primarily related to changes in amortization of intangible assets, depreciation of property, plant and equipment and amortization of stepped up inventory.

Prior to the Distribution, N&B incurred new indebtedness in the form of term loans and senior notes in an aggregate principal amount of \$7.500 billion to pay the Special Cash Payment made to DuPont stockholders. See Note 9 for additional information regarding the term loans and senior notes incurred by N&B and subsequently assumed by IFF.

Purchase Price

The following table summarizes the aggregate purchase price consideration paid to acquire N&B (in millions, except share and per share data):

<i>(DOLLARS IN MILLIONS)</i>		
Fair value of common stock issued to DuPont stockholders ⁽¹⁾	\$	15,929
Fair value attributable to pre-merger service for replacement equity awards ⁽²⁾		25
Pension funding adjustment ⁽³⁾		(12)
Total purchase consideration	\$	<u>15,942</u>

(1) The fair value of common stock issued to DuPont stockholders represents 141,740,461 shares of the Company’s common stock determined based on the number of fully diluted shares of IFF common stock, immediately prior to the Closing Date, multiplied by the quotient of 55.4%/44.6% and IFF common stock closing share price of \$112.38 on the New York Stock Exchange on the Closing Date.

(2) At the time of the Transactions, each outstanding stock option, cash-settled stock appreciation right (“SAR”), restricted stock unit (“RSU”) award, and restricted stock award (“RSA”) with respect to DuPont common stock held by employees of N&B were canceled and converted into similar classes of equity awards of IFF’s Class A Common Stock. Further, each outstanding Performance Share Unit (“PSU”) award with respect to DuPont common stock held by employees of N&B were canceled and converted into IFF’s RSU awards. The conversion was based on the ratio of the volume-weighted average per share closing price of DuPont stock on the twenty trading days prior to the Closing Date and IFF’s stock on the twenty trading days following the Closing Date. The fair value of replacement equity-based awards attributable to pre-Merger service was recorded as part of the consideration transferred in the Merger (see Note 13 for additional information).

(3) The Merger related agreements provided that if the net pension balance of N&B as of the Closing Date differs from \$220 million, such differential amount would be settled in cash. The Company estimated the amount that it would receive and, accordingly, made an adjustment of \$12 million to the total purchase consideration.

The Company incurred transaction-related costs of approximately \$91 million in 2021, which primarily consisted of merger and acquisition advisory, legal and professional fees.

Pro Forma Financial Information

The following unaudited pro forma financial information presents the combined results of operations of IFF and N&B as if the Merger had been completed as of January 1, 2020. The unaudited pro forma financial information is presented for informational purposes and is not indicative of the results of operations that would have been achieved if the Merger and related borrowings had taken place on January 1, 2020, nor are they indicative of future results. The unaudited pro forma financial information for the year ended December 31, 2021 includes IFF results, including the post-Merger results of N&B, since February 1, 2021, and pre-Merger results of N&B for the period January 1, 2021 through January 31, 2021.

The unaudited pro forma results for the year ended December 31, 2021 were as follows:

<i>(DOLLARS IN MILLIONS)</i>	Year Ended December 31, 2021	
Unaudited pro forma net sales	\$	12,163
Unaudited pro forma net income attributable to the Company		687

The unaudited pro forma results for all periods include adjustments made to account for certain costs and transactions that would have been incurred had the Merger been completed as of January 1, 2020, including amortization charges for acquired intangibles assets, adjustments for transaction costs, adjustments for depreciation expense for property, plant and equipment, inventory step-up and adjustments to interest expense. These adjustments are net of any applicable tax impact and were included to arrive at the pro forma results above.

NOTE 4. BUSINESS DIVESTITURES

Divestiture of the Flavor Specialty Ingredients Business

During the fourth quarter of 2022, the Company announced it had entered into an agreement to sell its Flavor Specialty Ingredients (“FSI”) business, which was a part of the Scent segment. The Company completed the divestiture on August 1, 2023 and received cash proceeds of approximately \$205 million, which included \$1 million related to the delayed transfer of the control of specific assets and liabilities of non-U.S. jurisdiction business. In addition, approximately \$15 million of proceeds were held in escrow and have been released upon satisfaction of certain conditions. Concurrent with the completion of the business divestiture, the Company entered into a supply agreement arrangement with the buyer. Based on the terms of the supply agreement, an adjustment of \$4 million was made against the fair value of sale consideration. The sale consideration is subject to certain post-closing adjustments, which is primarily related to cash, indebtedness and working capital balances.

The following table summarizes the fair value of sale consideration received in connection with the business divestiture:

<i>(DOLLARS IN MILLIONS)</i>		
Cash proceeds from the buyer	\$	205
Advance receipt for business to be transferred		(1)
Direct costs to sell		(5)
Proceeds attributable to supply agreement		(4)
Fair value of sale consideration	\$	<u>195</u>

The net proceeds received from the business divestiture presented under Cash flows from investing activities represent the cash portion of the sale consideration, which was determined as the fair value of sale consideration adjusted by the direct costs to sell, advance receipt for business to be transferred and the cash transferred to the buyer as part of the transaction. The following table summarizes the different components of net proceeds received from business divestiture presented under Cash flows from investing activities:

<i>(DOLLARS IN MILLIONS)</i>		
Fair value of sale consideration	\$	195
Direct costs to sell		5
Advance receipt for business to be transferred		1
Cash transferred to the buyer		(1)
Net proceeds received from business divestiture	\$	<u>200</u>

The carrying amount of net assets associated with the business unit, adjusted for currency translation adjustment, was approximately \$205 million. The major classes of assets and liabilities sold consisted of the following:

<i>(DOLLARS IN MILLIONS)</i>	August 1, 2023	
Assets		
Cash and cash equivalents	\$	1
Trade receivables, net		13
Inventories		45
Property, plant and equipment, net		29
Goodwill		44
Other intangible assets, net		73
Other assets		10
Total assets		215
Liabilities		
Accounts payable		(4)
Deferred tax liability		(1)
Other liabilities		(6)
Total liabilities		(11)
Equity		
Accumulated other comprehensive income - currency translation adjustment		1
Total equity		1
Carrying value of net assets (adjusted for currency translation adjustment)	\$	205

As a result of the business divestiture, the Company recognized a pre-tax loss of approximately \$10 million, subject to certain post-closing adjustments, presented in Other expense (income), net on the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2023. The Company has also recognized income tax effects associated with the business divestiture across multiple periods. The total income tax expense recognized was approximately \$21 million, with approximately \$3 million that was recognized during the year ended December 31, 2022.

Divestiture of a Portion of the Savory Solutions Business

During the fourth quarter of 2022, the Company announced it had entered into an agreement to sell a portion of its Savory Solutions business, which was part of the Nourish segment. The Company completed the divestiture on May 31, 2023 and received cash proceeds of approximately \$840 million. In addition, a receivable of approximately \$37 million was recorded, which reflected the remaining sale consideration that was received in January 2024.

The following table summarizes the fair value of sale consideration received in connection with the business divestiture:

<i>(DOLLARS IN MILLIONS)</i>		
Cash proceeds from the buyer	\$	840
Receivable from the buyer		37
Direct costs to sell		(20)
Fair value of sale consideration	\$	857

The net proceeds received from the business divestiture presented under Cash flows from investing activities represent the cash portion of the sale consideration, which was determined as the fair value of sale consideration adjusted by the amount receivable from the buyer, direct costs to sell and the cash transferred to the buyer as part of the transaction. The following table summarizes the different components of net proceeds received from business divestiture presented under Cash flows from investing activities:

<i>(DOLLARS IN MILLIONS)</i>		
Fair value of sale consideration	\$	857
Direct costs to sell		20
Receivable from the buyer		(37)
Cash transferred to the buyer (including restricted cash)		(19)
Net proceeds received from business divestiture	\$	821

The carrying amount of net assets associated with the business unit, adjusted for currency translation and pension adjustments, was approximately \$860 million. The major classes of assets and liabilities sold consisted of the following:

<i>(DOLLARS IN MILLIONS)</i>	May 31, 2023	
Assets		
Cash and cash equivalents	\$	15
Restricted cash		4
Trade receivables, net		69
Inventories		116
Property, plant and equipment, net		77
Goodwill		317
Other intangible assets, net		367
Right-of-use assets		20
Other assets		24
Total assets		1,009
Liabilities		
Accounts payable		(44)
Deferred tax liability		(92)
Other liabilities		(54)
Total liabilities		(190)
Equity		
Accumulated other comprehensive income - currency translation adjustment		42
Accumulated other comprehensive income - pension liability and postretirement		(1)
Total equity		41
Carrying value of net assets (adjusted for currency translation and pension adjustments)	\$	860

As a result of the business divestiture, the Company recognized a pre-tax loss of approximately \$3 million presented in Other expense (income), net on the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2023. The Company has also recognized income tax effects associated with the business divestiture across multiple periods. The total income tax expense recognized was approximately \$108 million, with approximately \$72 million that was recognized during the year ended December 31, 2022.

Liquidation of a Business in Russia

As part of the liquidation of a business in Russia for the sale of the portion of the Savory Solutions business, the Company recognized a pre-tax loss of approximately \$10 million presented in the Other expense (income), net, and tax benefits of approximately \$2 million presented in Provision for income taxes on the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2023.

Divestiture of Microbial Control

During the third quarter of 2021, the Company announced it had entered into an agreement to sell its Microbial Control business unit, which was a part of the Health & Biosciences segment. The Company acquired the Microbial Control business unit as part of the Merger with N&B.

The Company completed the divestiture on July 1, 2022 and received cash proceeds of approximately \$1.254 billion, of which approximately \$36 million was attributable to future services to be provided under certain transition service agreements as described below. Certain transaction costs related to the divestiture of approximately \$11 million, which was contingent upon the consummation of the divestiture, were determined to be direct costs to sell and, as such, were adjusted against the fair value of the sale consideration. In addition, approximately \$15 million of cash proceeds held in escrow were released to the Company upon satisfaction of certain conditions. The sale consideration was further reduced by approximately \$3 million for certain post-closing adjustments, which were primarily related to cash, indebtedness and working capital balances.

The Company entered into transition services agreements with the buyer for providing certain general accounting, information technology and other services up to 19 months following the date of the sale for minimal consideration. The fair value of these transition services agreements was determined to be approximately \$36 million, which was adjusted against the sale consideration and recognized as deferred transition services income.

For the years ended December 31, 2023 and 2022, the transition services income under the transition services agreements were approximately \$25 million and \$11 million, respectively, and was recognized as a reduction to the costs incurred to provide services under the transition services agreements, which was included in Selling and administrative expenses on the Consolidated Statements of (Loss) Income and Comprehensive Loss.

The following table summarizes the fair value of the sale consideration received in connection with the business divestiture:

<i>(DOLLARS IN MILLIONS)</i>	
Cash proceeds from the buyer	\$ 1,254
Escrow proceeds	15
Proceeds attributable to transition service agreements	(36)
Direct costs to sell	(11)
Net cash settlement for post-closing adjustments	(3)
Fair value of sale consideration	<u>\$ 1,219</u>

The net proceeds received from business divestiture presented under Cash flows from investing activities represent the cash portion of the sale consideration, which was determined as the fair value of sale consideration reduced by the amount held in escrow and the Cash transferred to the buyer on the closing balance sheet as part of the transaction. The following table summarizes the different components of net proceeds received from business divestiture presented under Cash flows from investing activities:

<i>(DOLLARS IN MILLIONS)</i>	
Fair value of sale consideration	\$ 1,219
Cash transferred to the buyer on the closing balance sheet	(49)
Employee reimbursement receivable	(1)
Net proceeds received from business divestiture	<u>\$ 1,169</u>

The carrying amount of net assets associated with the Microbial Control business unit was approximately \$1.208 billion. The major classes of assets and liabilities sold consisted of the following:

<i>(DOLLARS IN MILLIONS)</i>	June 30, 2022
Assets	
Current assets	\$ 263
Goodwill and other intangible assets, net	867
Equity method investment	74
Other assets	80
Total assets	1,284
Liabilities	
Accounts payable	41
Other liabilities	35
Total liabilities	76
Carrying value of net assets	<u>\$ 1,208</u>

As a result of the business divestiture, the Company recognized a pre-tax gain of approximately \$11 million presented in Other expense (income), net on the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2022. The Company also recognized the income tax expense associated with the divestiture of approximately \$96 million during the year ended December 31, 2022.

NOTE 5. PROPERTY, PLANT AND EQUIPMENT, NET

Property, plant and equipment, net consisted of the following amounts:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Land	\$ 195	\$ 199
Buildings and improvements	1,822	1,697
Machinery and equipment	3,752	3,344
Information technology	473	291
Construction in process	400	649
Total Property, plant and equipment	6,642	6,180
Accumulated depreciation	(2,402)	(1,977)
Total Property, plant and equipment, net	<u>\$ 4,240</u>	<u>\$ 4,203</u>

Depreciation

Depreciation expense was \$462 million, \$452 million and \$424 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Impairment of Property, Plant and Equipment

As discussed in Note 1, for the year ended December 31, 2022, an impairment charge of approximately \$28 million was recorded in connection with property, plant and equipment, primarily buildings and improvements, of an asset group that operates primarily in Russia.

NOTE 6. GOODWILL AND OTHER INTANGIBLE ASSETS, NET

Goodwill

Movements in goodwill attributable to each reportable segment during the years ended December 31, 2022 and 2023 were as follows:

<i>(DOLLARS IN MILLIONS)</i>	Nourish	Health & Biosciences	Scent	Pharma Solutions	Total
Balance at December 31, 2021	\$ 6,559	\$ 6,763	\$ 1,828	\$ 1,282	\$ 16,432
Acquisitions ⁽¹⁾	—	45	—	—	45
Impairment	—	(2,250)	—	—	(2,250)
Transferred to assets held for sale ⁽²⁾	(306)	—	(42)	—	(348)
Foreign exchange	(199)	(223)	(41)	(43)	(506)
Balance at December 31, 2022	6,054	4,335	1,745	1,239	13,373
Impairment	(2,623)	—	—	—	(2,623)
Transferred to assets held for sale ⁽³⁾	—	—	(267)	—	(267)
Reduction from business divestiture	(14)	—	—	—	(14)
Foreign exchange	72	56	12	26	166
Balance at December 31, 2023	<u>\$ 3,489</u>	<u>\$ 4,391</u>	<u>\$ 1,490</u>	<u>\$ 1,265</u>	<u>\$ 10,635</u>

(1) Related to the acquisition of Health Wright. See Note 3 for additional information.

(2) Related to the portion of the Savory Solutions business and FSI business that were classified as held for sale as of December 31, 2022. The Company completed the divestitures of the businesses on May 31, 2023 and August 1, 2023, respectively. See Note 4 and Note 21 for additional information.

(3) Related to the Cosmetic Ingredients business that was classified as held for sale as of December 31, 2023. See Note 21 for additional information.

The goodwill balance at December 31, 2023 included \$2.623 billion and \$2.250 billion of accumulated impairment related to the Nourish and Health & Biosciences reportable segments, respectively. The goodwill balance at December 31, 2022

included \$2.250 billion of accumulated impairment related to the Health & Biosciences reportable segment. The accumulated impairment relates to impairment charges recorded in 2023 and 2022.

Goodwill Impairment Test

For the annual impairment test as of November 30, 2023, the Company first utilized Step 0 of the guidance in ASC Topic 350, Intangibles – Goodwill and Other, which allows for the assessment of qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If, based on a review of qualitative factors, it is more likely than not that the fair value of a reporting unit is less than its carrying value, a quantitative impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. Based on a review of qualitative factors, the Company determined that for one of the reporting units, Cosmetic Ingredients, a quantitative (Step 1) impairment analysis was not necessary to determine if the carrying values of the reporting unit exceeded its fair values. For the other five reporting units, the Company determined that a Step 1 test was necessary.

The Company assessed the fair value of the reporting units using an income approach. Under the income approach, the Company determined the fair value by using a discounted cash flow method at a rate of return that reflects the relative risk of the projected future cash flows of each reporting unit, as well as a terminal value. The Company used the most current actual and forecasted operating data available. Key estimates and assumptions used in these valuations include revenue growth rates, gross margins, adjusted operating EBITDA margins, terminal growth rates and discount rates.

In performing the quantitative impairment test, the Company determined that the fair value of four of the five reporting units exceeded their carrying values and determined that there was no further impairment of goodwill in these reporting units as of November 30, 2023. The Company determined that the carrying value of the Nourish reporting unit exceeded its fair value and recorded an impairment charge of \$2.623 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2023. The primary drivers of the impairment charge was a decrease in fair value due to declines in projections of the reporting unit, impacts of continued inflation and increases in interest rates. Based on the quantitative impairment test performed, the Company determined that the Health & Biosciences, Fragrance Ingredients and Pharma Solutions reporting units had excess fair value over carrying value of less than 25%. As of November 30, 2023, the Health & Biosciences, Fragrance Ingredients and Pharma Solutions reporting units had excess fair value over carrying value of approximately 8%, 18% and 8%, respectively, and goodwill of approximately \$4.381 billion, \$295 million and \$1.263 billion, respectively.

While management believes that the assumptions used in the impairment test were reasonable, changes in key assumptions, including lower revenue growth, operating margin, terminal growth rates or increase in discount rates could result in a future impairment. Such charge could have a material effect on the Consolidated Statements of Operations and Balance Sheets.

During 2022, the Company determined that goodwill impairment triggering events occurred for its Nourish, Health & Biosciences and Pharma Solutions reporting units. The primary indicators that were deemed to be triggering events were declines in the Company's projections across various reporting units and ongoing adverse macroeconomic impacts such as inflation, increases in interest rates and unfavorable effects from exchange rates.

Based on the quantitative impairment test, using the income approach, the Company determined that the carrying value of the Health & Biosciences reporting unit exceeded its fair value and recorded a goodwill impairment charge of \$2.250 billion in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the year ended December 31, 2022.

Other Intangible Assets

Other intangible assets, net consisted of the following amounts:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Asset Type		
Customer relationships	\$ 8,211	\$ 8,318
Technological know-how	2,355	2,339
Trade names & patents	337	358
Other	44	47
Total carrying value	10,947	11,062
Accumulated Amortization		
Customer relationships	(1,619)	(1,252)
Technological know-how	(813)	(589)
Trade names & patents	(117)	(97)
Other	(41)	(42)
Total accumulated amortization	(2,590)	(1,980)
Other intangible assets, net	\$ 8,357	\$ 9,082

Amortization

Amortization expense was \$680 million for the year ended December 31, 2023, \$727 million for the year ended December 31, 2022 and \$732 million for the year ended December 31, 2021. Amortization expense for the next five years, based on valuations and determinations of useful lives, is expected to be as follows:

<i>(DOLLARS IN MILLIONS)</i>	December 31,				
	2024	2025	2026	2027	2028
Estimated future intangible amortization expense	\$ 678	\$ 676	\$ 674	\$ 577	\$ 558

Impairment of Intangible Assets

As discussed in Note 1, for the year ended December 31, 2022, an impairment charge of approximately \$92 million was recorded in connection with intangible assets, primarily customer relationships and technological know-how, of an asset group that operated primarily in Russia, which was included within accumulated amortization.

NOTE 7. OTHER CURRENT ASSETS AND LIABILITIES, AND OTHER ASSETS

Prepaid expenses and other current assets consisted of the following amounts:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Value-added tax receivable	\$ 187	\$ 212
Prepaid income taxes	178	129
Packaging materials and supplies	161	148
Prepaid expenses	184	144
Other	165	137
Total	\$ 875	\$ 770

Other assets consisted of the following amounts:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Finance lease right-of-use assets	\$ 26	\$ 22
Deferred income taxes	278	167
Overfunded pension plans	139	180
Cash surrender value of life insurance contracts	49	45
Equity method investments	11	10
Other ⁽¹⁾	261	265
Total	\$ 764	\$ 689

(1) Includes land usage rights in China, long-term deposits and receivables on certain derivative instruments.

Other current liabilities consisted of the following amounts:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Rebates and incentives payable	\$ 105	\$ 99
Value-added tax payable	77	65
Interest payable	65	55
Current pension and other postretirement benefit obligation	13	10
Accrued insurance (including workers' compensation)	9	9
Earn outs payable	32	—
Accrued restructuring	14	15
Current operating lease obligation	85	86
Accrued freight	14	18
Accrued commissions payable	10	11
Accrued income taxes	194	313
Accrued expenses payable	262	256
Other	97	91
Total	\$ 977	\$ 1,028

NOTE 8. LEASES

The Company has leases for corporate offices, manufacturing facilities, research and development facilities and certain transportation and office equipment, the majority of which are operating leases. The Company's leases have remaining lease terms of up to 50 years, some of which include options to extend the leases for up to 15 years.

The components of lease expense were as follows:

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Operating leases			
Operating lease cost	\$ 137	\$ 134	\$ 133
Variable lease cost	56	53	35
Total operating lease cost	\$ 193	\$ 187	\$ 168
Finance leases			
Finance lease cost	\$ 10	\$ 8	\$ 7

Supplemental cash flow information related to leases was as follows:

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows for operating leases	\$ 122	\$ 135	\$ 129
Operating cash flows for finance leases	1	—	—
Financing cash flows for finance leases	8	7	6
Right-of-use assets obtained in exchange for lease obligations			
Operating leases	49	174	88
Finance leases	22	7	15

Supplemental balance sheet information related to leases was as follows:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Operating Leases		
Operating lease right-of-use assets	\$ 689	\$ 743
Current operating lease obligations ⁽²⁾	85	86
Operating lease liabilities	642	672
Total operating lease liabilities	\$ 727	\$ 758
Finance Leases		
Finance lease right-of-use assets ⁽¹⁾	\$ 26	\$ 22
Current finance lease obligations ⁽²⁾	7	5
Finance lease liabilities ⁽³⁾	18	12
Total finance lease liabilities	\$ 25	\$ 17

(1) Presented in Other assets on the Consolidated Balance Sheets.

(2) Presented in Other current liabilities on the Consolidated Balance Sheets.

(3) Presented in Other liabilities on the Consolidated Balance Sheets.

Weighted average remaining lease term and discount rate were as follows:

	December 31,	
	2023	2022
Weighted average remaining lease term in years		
Operating leases	9.9	10.6
Finance leases	3.5	4.0
Weighted average discount rate		
Operating leases	4.24 %	3.83 %
Finance leases	4.33 %	2.59 %

Maturities of lease liabilities as of December 31, 2023 were as follows:

<i>(DOLLARS IN MILLIONS)</i>	Operating Leases	Finance Leases	Total
2024	\$ 113	\$ 9	\$ 122
2025	110	8	118
2026	101	7	108
2027	87	4	91
2028	77	—	77
Thereafter	410	—	410
Total undiscounted liabilities	898	28	926
Less: Imputed interest	(171)	(3)	(174)
Total lease liabilities	\$ 727	\$ 25	\$ 752

Right-of-use assets and lease liabilities acquired from N&B were remeasured at the present value of the future minimum lease payments over the remaining lease term utilizing an updated incremental borrowing rate of the Company as if the acquired leases were new leases as of the Closing Date. Right-of-use assets were further adjusted for any off-market terms of the lease. The remaining lease term is based on the remaining term at the Closing Date plus any renewal or extension options that the Company is reasonably certain will be exercised. Additionally, the Company has elected short-term lease treatment for those acquired lease contracts which, at the Closing Date, have a remaining lease term of 12 months or less. For the leases acquired through the Transactions, the Company will retain the previous lease classification. This resulted in an increase in both operating lease right-of-use assets and operating lease liabilities of approximately \$525 million and \$523 million, respectively, as of the Closing Date.

As a result of the Company's acquisition of Health Wright, there was an increase of approximately \$22 million in finance lease right-of-use assets and \$21 million in finance lease liabilities as of the Acquisition Date. In the fourth quarter of 2022, the Company exercised its option to purchase the asset and, as such, de-recognized the finance lease right-of-use assets and finance lease liabilities.

NOTE 9. DEBT

Debt consisted of the following at December 31:

<i>(DOLLARS IN MILLIONS)</i>	Effective Interest Rate	2023	2022
2023 Notes ⁽¹⁾	3.30 %	\$ —	\$ 300
2024 Euro Notes ⁽¹⁾	1.88 %	552	532
2025 Notes ⁽¹⁾	1.22 %	1,000	1,000
2026 Euro Notes ⁽¹⁾	1.93 %	879	845
2027 Notes ⁽¹⁾	1.56 %	1,212	1,215
2028 Notes ⁽¹⁾	4.57 %	398	398
2030 Notes ⁽¹⁾	2.21 %	1,508	1,510
2040 Notes ⁽¹⁾	3.04 %	773	774
2047 Notes ⁽¹⁾	4.44 %	495	495
2048 Notes ⁽¹⁾	5.12 %	787	787
2050 Notes ⁽¹⁾	3.21 %	1,569	1,571
2024 Term Loan Facility ⁽²⁾	3.75 %	270	625
2026 Term Loan Facility ⁽²⁾	5.83 %	625	625
Commercial Paper ⁽³⁾		—	187
Revolving Credit Facility ⁽⁴⁾		—	100
Bank overdrafts and other		3	6
Total debt		\$ 10,071	\$ 10,970
Less: Short term borrowings ⁽⁵⁾		(885)	(597)
Total Long-term debt		\$ 9,186	\$ 10,373

(1) Amount is net of unamortized discount and debt issuance costs.

(2) Amount is recorded at fair value.

(3) The effective interest rate of commercial paper issuances fluctuate as short-term interest rates and demand fluctuate, and deferred debt issuance costs are immaterial. Additionally, the effective interest rate of commercial paper is not meaningful as issuances do not materially differ from short-term interest rates.

(4) The interest rate on the Revolving Credit Facility is, at the applicable borrower's option, a per annum rate equal to either (x) an eurocurrency rate plus an applicable margin varying from 1.125% to 1.750% or (y) a base rate plus an applicable margin varying from 0.125% to 0.750%, in each case depending on the public debt ratings for non-credit enhanced long-term senior unsecured debt issued by the Company.

(5) Includes bank borrowings, overdrafts, current portion of long-term debt and commercial paper.

Term Loan Facility and Senior Notes assumed as part of the N&B Merger

Following the Merger, the Company assumed the indebtedness incurred by N&B in the debt financings completed prior to the Distribution. This indebtedness includes (i) a Term Loan Facility of \$1.250 billion pursuant to the term loan credit agreement (the "N&B Term Loan Facility") and (ii) a series of Senior Notes in the aggregate amount of \$6.250 billion with maturities ranging from 2 to 30 years as further described below. N&B's indebtedness raised prior to the Merger was used to finance the Special Cash Payment to DuPont, which has been paid, and for the satisfaction of the related transaction fees and expenses. See Note 3 for additional information.

N&B Term Loan Facility

The N&B Term Loan Facility was funded on February 1, 2021, and provides for a senior unsecured term loan credit facility in an aggregate principal amount of \$1.250 billion, comprised of a \$625 million three-year tranche ("2024 Term Loan Facility") and a \$625 million five-year tranche ("2026 Term Loan Facility"). Interest for each tranche equals, at the Company's option, a per annum rate equal to either (x) an adjusted LIBOR rate plus an applicable margin varying from 0.750% to 2.000% for the three-year tranche and from 1.125% to 2.375% for the five-year tranche or (y) a base rate plus an applicable margin varying from 0.000% to 1.000% for the three-year tranche and from 0.125% to 1.375% for the five-year tranche, in each case depending on the class of IFF's non-credit-enhanced, senior unsecured long-term debt credit rating.

The 2024 Term Loan Facility and 2026 Term Loan Facility are subject to customary affirmative and negative covenants and events of default after the Closing Date of the Merger. On and after the Closing Date of the N&B Transaction, the 2024 Term Loan Facility and 2026 Term Loan Facility are also subject to financial covenant maintenance requirements.

On September 19, 2023, the Company entered into Amendment No. 5 ("Term Loan Amendment No. 5") to amend that certain term loan credit agreement, dated January 17, 2020 (as amended by that certain Amendment No. 1 to Credit Agreement, dated as of August 25, 2020, as further supplemented by that certain Icon Debt Assumption Supplement, dated as of March 4, 2021, as further amended by that certain Amendment No. 2 to Credit Agreement, dated as of August 4, 2022, as further amended by that certain Amendment No. 3 ("Term Loan Amendment No. 3") to Credit Agreement, dated as of March 23, 2023, as further amended by that certain Amendment No. 4 ("Term Loan Amendment No. 4") to Credit Agreement, dated as of March 23, 2023, the "Existing Term Loan Credit Agreement", and the Existing Term Loan Credit Agreement, as amended by the Term Loan Amendment, the "Term Loan Credit Agreement"), among the Company (as successor to Nutrition & Biosciences, Inc.), the lenders party thereto and Morgan Stanley Senior Funding, Inc., as administrative agent. The related deferred financing costs for the amendments in 2023 were not material.

Term Loan Amendment No. 3, among other things, extended the period during which certain relief was provided with respect to the financial covenant contained in the Existing Term Loan Credit Agreement which has been superseded by Term Loan Amendment No. 5.

Term Loan Amendment No. 4, among other things, replaces LIBOR with Term SOFR (as defined in the Term Loan Credit Agreement) as the reference rate for U.S. dollar-denominated loans. From March 23, 2023, loans under the Term Loan Credit Agreement now bear interest at a base rate or a rate equal to Term SOFR plus an adjustment of 0.10% per annum, plus, in each case, an applicable margin based on the Company's public debt rating. Loans may be prepaid without premium or penalty, subject to customary breakage costs.

Term Loan Amendment No. 5, among other things, extends the period during which certain relief is provided with respect to the financial covenant contained in the Existing Term Loan Credit Agreement through December 31, 2025, or such earlier date on which the Company elects to terminate such period (the "Term Loan Covenant Relief Period"), by providing that during the Term Loan Covenant Relief Period, the Company's Leverage Ratio (as defined in the Term Loan Credit Agreement) shall not exceed as of the end of the fiscal quarter for the period of the four fiscal quarters then ended: (i) 5.25x for any fiscal quarter ending on or before March 31, 2024, (ii) 4.75x for the fiscal quarter ending June 30, 2024, (iii) 4.50x for the fiscal quarter ending September 30, 2024, (iv) 4.25x for any subsequent fiscal quarter ending on or before March 31, 2025, (v) 4.00x for any subsequent fiscal quarter ending on or before September 30, 2025 and (vi) 3.75x for the fiscal quarter ending December 31, 2025.

During the Term Loan Covenant Relief Period, the amendments prohibit the Company from (i) effecting share repurchases, (ii) declaring and paying dividends in cash on common stock in excess of \$0.81 per share per fiscal quarter (for an aggregate amount of \$3.24 per fiscal year) and (iii) creating liens to secure debt in excess of the greater of \$300 million and 3.65% of Consolidated Net Tangible Assets (as defined in the Term Loan Credit Agreement), subject to certain exceptions set forth in the Term Loan Amendment No. 5. The Company was in compliance with all covenants as of December 31, 2023.

Loans may be prepaid without premium or penalty, subject to customary breakage costs, and during the Term Loan Covenant Relief Period, there will be a mandatory prepayment of the loans with 100% of the net cash proceeds from non-ordinary course asset sales, subject to certain exceptions set forth in the Term Loan Amendment No. 5 and by a Term Loan Amendment No. 6, dated January 26, 2024, which provides additional exceptions to the mandatory prepayment requirements with respect to the sale of the Company's Cosmetic Ingredients business. The applicable margin for the loans, which is based on the Company's Public Debt Rating (as defined in the Term Loan Credit Agreement), will also increase by 0.125% for the duration of the Term Loan Covenant Relief Period.

During 2023, the Company made voluntary debt repayments of \$355 million related to the 2024 Term Loan Facility.

N&B Senior Notes

On September 16, 2020, N&B issued \$6.250 billion in aggregate principal amount of senior unsecured notes consisting of: (i) \$300 million senior unsecured notes which matured on September 15, 2022 (the "2022 Notes"), bearing interest at a rate of 0.697% per year, payable semi-annually on March 15 and September 15 of each year, beginning March 15, 2021; (ii) \$1.000 billion senior unsecured notes maturing on October 1, 2025 (the "2025 Notes"), bearing interest at a rate of 1.230% per year, payable semi-annually on April 1 and October 1 of each year, beginning April 1, 2021; (iii) \$1.200 billion senior unsecured notes maturing on October 15, 2027 (the "2027 Notes"), bearing interest at a rate of 1.832% per year, payable semi-annually on April 15 and October 15 of each year, beginning April 15, 2021; (iv) \$1.500 billion senior unsecured notes maturing on November 1, 2030 (the "2030 Notes"), bearing interest at a rate of 2.300% per year, payable semi-annually on May 1 and November 1 of each year, beginning May 1, 2021; (v) \$750 million senior unsecured notes maturing on November 15, 2040 (the "2040 Notes"), bearing interest at a rate of 3.268% per year, payable semi-annually on May 15 and November 15 of each year, beginning May 15, 2021, and; (vi) \$1.500 billion senior unsecured notes maturing on December 1, 2050 (the "2050 Notes"), bearing interest at a rate of 3.468% per year, payable semi-annually on June 1 and December 1 of each year, beginning June 1, 2021.

Interest on each series of notes began accruing from September 16, 2020 payable semi-annually in arrears as described above. Interest is computed on the basis of a 360-day year comprised of twelve 30-day months.

On September 15, 2022, the Company repaid the full \$300 million outstanding of its 2022 Notes at maturity.

Revolving Credit Facility

The Revolving Credit Facility is available for general corporate purposes of each borrower and its subsidiaries. The obligations under the Revolving Credit Facility are unsecured and the Company has guaranteed the obligations of each other borrower under the Revolving Credit Facility. The Company pays a commitment fee on the aggregate unused commitments; such fee is not material. The Revolving Credit Agreement contains various covenants, limitations and events of default customary for similar facilities for similarly rated borrowers, including a maximum permitted ratio of Net Debt to Consolidated EBITDA. In connection with the initial issuance of the Revolving Credit Facility, the Company incurred \$1 million of debt issuance costs.

On September 19, 2023, the Company and certain of its subsidiaries (collectively, the "Loan Parties") entered into Amendment No. 4 (the "Revolver Amendment No. 4") to amend that certain Third Amended and Restated Credit Agreement, dated July 28, 2021 (as amended by that certain Amendment No. 1 to Credit Agreement, dated August 4, 2022, as further amended by that certain Amendment No. 2 ("Revolver Amendment No. 2") to Credit Agreement, dated as of March 23, 2023, as further amended by that certain Amendment No. 3 ("Revolver Amendment No. 3") to Credit Agreement, dated as of March 23, 2023, the "Existing Revolving Credit Agreement", and the Existing Revolving Credit Agreement, as amended by the Revolver Amendment, the "Revolving Credit Agreement"), among the Loan Parties, the lenders party thereto and Citibank, N.A., as administrative agent. The related deferred financing costs for the amendments in 2023 were not material.

Revolver Amendment No. 2, among other things, extended the period during which certain relief was provided with respect to the financial covenant contained in the Existing Revolving Credit Agreement which has been superseded by Revolver Amendment No. 4.

Revolver Amendment No. 3, among other things, replaces LIBOR with Term SOFR (as defined in the Revolving Credit Agreement) as the reference rate for U.S. dollar-denominated loans. From March 23, 2023, loans under the Revolving Credit Agreement now bear interest at a base rate or, in the case of U.S. dollar-denominated loans, a rate equal to Term SOFR plus an adjustment of 0.10% per annum or, in the case of Euro-denominated loans, the Euro interbank offered rate, plus, in each case, an applicable margin based on the Company's public debt rating. Loans may be prepaid without premium or penalty, subject to customary breakage costs.

Revolver Amendment No. 4, among other things, extends the period during which certain relief is provided with respect to the financial covenant contained in the Existing Revolving Credit Agreement through December 31, 2025, or such earlier date on which the Company elects to terminate such period (the "Revolver Covenant Relief Period"), by providing that during the Revolver Covenant Relief Period, the Company's Leverage Ratio (as defined in the Revolving Credit Agreement) shall not exceed as of the end of the fiscal quarter for the period of the four fiscal quarters then ended: (i) 5.25x for any fiscal quarter ending on or before March 31, 2024, (ii) 4.75x for the fiscal quarter ending June 30, 2024, (iii) 4.50x for the fiscal quarter ending September 30, 2024, (iv) 4.25x for any subsequent fiscal quarter ending on or before March 31, 2025, (v) 4.00x for any subsequent fiscal quarter ending on or before September 30, 2025 and (vi) 3.75x for the fiscal quarter ending December 31, 2025.

During the Revolver Covenant Relief Period, the amendments prohibit (i) the Company from effecting share repurchases, (ii) the Company from declaring and paying dividends in cash on common stock in excess of \$0.81 per share per fiscal quarter (for an aggregate amount of \$3.24 per fiscal year) and (iii) the Loan Parties from creating liens to secure debt in excess of the greater of \$300 million and 3.65% of Consolidated Net Tangible Assets (as defined in the Revolving Credit Agreement), subject to certain exceptions set forth in the Revolver Amendment No. 4. The Company was in compliance with all covenants as of December 31, 2023.

Loans may be prepaid without premium or penalty, subject to customary breakage costs, and during the Revolver Covenant Relief Period, the applicable margin for the loans, which is based on the Company's Public Debt Rating (as defined in the Revolving Credit Agreement), will increase by 0.125%.

As of December 31, 2023, total capacity under the Revolving Credit Facility was \$2.000 billion, with no outstanding borrowings. Under the amended terms of the Revolver Credit Agreement, the Revolving Credit Facility increased from \$1.000 billion to \$2.000 billion, maturing on July 28, 2026. At the option of the Company, the facility may be increased to \$2.500 billion subject to certain conditions. As the Revolving Credit Facility is a multi-year revolving credit agreement, the Company classifies as long-term debt the portion that it has the intent and ability to maintain outstanding longer than 12 months.

During 2023, the Company had drawdowns of \$800 million and repayments of \$900 million under the Revolving Credit Facility. During 2022, the Company had drawdowns of \$550 million and repayments of \$450 million under the Revolving Credit Facility.

2018 Senior Unsecured Notes

On September 25, 2018, the Company issued €800 million aggregate principal amount of senior unsecured notes that mature on September 25, 2026 (the "2026 Euro Notes"). The 2026 Euro Notes bear interest at a rate of 1.8% per year, payable annually on September 25 of each year, beginning September 25, 2019. Total proceeds from the issuance of the 2026 Notes, net of underwriting discounts and offering costs, were €794 million (\$932 million in USD).

On September 26, 2018, the Company issued \$400 million aggregate principal amount of senior unsecured notes that mature on September 26, 2028 (the "2028 Notes"). The 2028 Notes bear interest at a rate of 4.45% per year, payable semi-annually on March 26 and September 26 of each year, beginning March 26, 2019. Total proceeds from the issuance of the 2028 Notes, net of underwriting discounts and offering costs, were \$397 million.

On September 26, 2018, the Company issued \$800 million aggregate principal amount of senior unsecured notes that mature on September 26, 2048 (the "2048 Notes" and collectively with the 2026 Euro Notes, 2020 Notes, 2028 Notes, the "2018 Senior Unsecured Notes"). The 2048 Notes bear interest at a rate of 5.0% per year, payable semi-annually on March 26 and September 26 of each year, beginning March 26, 2019. Total proceeds from the issuance of the 2048 Notes, net of underwriting discounts and offering costs, were \$787 million.

As discussed in Note 16, the 2026 Euro Notes have been designated as a hedge of the Company's net investment in certain subsidiaries.

2023 Notes

On April 4, 2013, the Company issued \$300 million aggregate principal amount of senior unsecured notes that mature on May 1, 2023 ("2023 Notes"). The 2023 Notes bear interest at a rate of 3.20% per year, payable semi-annually on May 1 and

November 1 of each year, beginning November 1, 2013. Total proceeds from the issuance of the 2023 Notes, net of underwriting discounts and offering costs, were \$298 million.

On May 1, 2023, the Company repaid the full \$300 million outstanding of its 2023 Notes at maturity.

2024 Euro Notes

On March 14, 2016, the Company issued €500 million aggregate principal amount of senior unsecured notes that mature on March 14, 2024 (“2024 Euro Notes”). The 2024 Euro Notes bear interest at a rate of 1.75% per year, payable annually on March 14 of each year, beginning March 14, 2017. Total proceeds from the issuance of the 2024 Euro Notes, net of underwriting discounts and offering costs, were €496 million. In connection with the debt issuance, the Company entered into pre-issuance hedging transactions that were settled upon issuance of the debt and resulted in a loss of approximately \$3 million. The discount, deferred financing costs and pre-issuance hedge loss are being amortized as interest expense over the eight year term of the debt.

As discussed in Note 16, the 2024 Euro Notes have been designated as a hedge of the Company’s net investment in certain subsidiaries.

2047 Notes

On May 18, 2017, the Company issued \$500 million aggregate principal amount of senior unsecured notes that mature on June 1, 2047 (“2047 Notes”). The 2047 Notes bear interest at a rate of 4.375% per year, payable semi-annually on June 1 and December 1 of each year, beginning December 1, 2017. Total proceeds from the issuance of the 2047 Notes, net of underwriting discounts and offering costs, were \$494 million. In addition, the Company incurred \$1 million in legal and professional costs associated with the issuance and such costs were recorded as deferred financing costs. In connection with the debt issuance, the Company entered into pre-issuance hedging transactions that were settled upon issuance of the debt and resulted in a loss of approximately \$5 million. The discount, deferred financing costs and pre-issuance hedge loss are being amortized as interest expense over the 30 year term of the debt.

Commercial Paper

During 2023, the Company had gross issuances of \$5.694 billion and repayments of \$5.881 billion under the commercial paper program. The commercial paper issued had original maturities of less than 86 days. During 2022, the Company had gross issuances of \$6.040 billion and repayments of \$6.177 billion under the commercial paper program.

The Commercial Paper Program is backed by the borrowing capacity available under the Revolving Credit Facility. The effective interest rate of commercial paper issuances does not materially differ from short-term interest rates, which fluctuate due to market conditions and as a result may impact our interest expense.

Redemption Provisions

The 2024 Euro Notes, 2026 Euro Notes, 2028 Notes, 2047 Notes, and 2048 Notes (collectively, the “Notes”) share the same redemption provisions. Upon 30 days’ notice to holders of the Notes, the Company may redeem the Notes at any time at the greater of 100% or the discounted present value of the remaining scheduled payments of principal and interest from the redemption date to the maturity date at the Treasury Rate or the Comparable Government Bond Rate (as defined in the applicable agreements) plus (i) 30 basis points in the case of the 2024 Euro Notes, (ii) 25 basis points in the case of the 2026 Euro Notes, (iii) 25 basis points in the case of the 2028 Notes, (iv) 25 basis points in the case of the 2047 Notes and (v) 30 basis points in the case of the 2048 Notes. The redemption dates of each of the Notes are provided in the below table:

Note	Redemption Date
2024 Euro Notes	December 14, 2023
2026 Euro Notes	June 25, 2026
2028 Notes	June 26, 2028
2047 Notes	December 1, 2046
2048 Notes	March 26, 2048

The 2025 Notes, 2027 Notes, 2030 Notes, 2040 Notes and 2050 Notes (collectively, the “N&B Senior Notes”) were assumed as a result of the Merger and share the same redemption provisions. Upon 15 days’ notice to holders of the N&B Senior Notes, the Company may redeem the N&B Senior Notes at any time at the greater of 100% or the discounted present value of the remaining scheduled payments of principal and interest from the redemption date to the maturity date at the Treasury Rate (as defined in the applicable agreements) plus (i) 15 basis points in the case of the 2025 Notes, (ii) 25 basis points in the case of the 2027 Notes, (iii) 25 basis points in the case of the 2030 Notes, (iv) 30 basis points in the case of the 2040 Notes and (v) 30 basis points in the case of the 2050 Notes. The redemption dates of each of the N&B Senior Notes are provided in the table below:

Note	Redemption Date
2025 Notes	September 1, 2025
2027 Notes	August 15, 2027
2030 Notes	August 1, 2030
2040 Notes	May 15, 2040
2050 Notes	June 1, 2050

On or after the applicable redemption dates, each series of the Notes and N&B Senior Notes (collectively, the “IFF Notes”) may be redeemed by the issuer at a redemption price equal to 100% of the principal amount of the IFF Notes to be redeemed, plus accrued and unpaid interest on the notes to be redeemed to, but excluding, the redemption date.

The indenture of the IFF Notes provides for customary events of default and contains certain negative covenants that limit the ability of the Company and its subsidiaries to grant liens on assets, or to enter into sale-leaseback transactions. In addition, subject to certain limitations, in the event of the occurrence of both (1) a change of control of the Company and (2) ratings of the IFF Notes is under publicly announced consideration or is downgraded below investment grade by either Moody’s Investors Services, Inc. or Standard & Poor’s Ratings Services within a specified time period, the Company will be required to make an offer to repurchase the IFF Notes at a price equal to 101% of the principal amount of the IFF Notes, plus accrued and unpaid interest to the date of repurchase.

Outstanding Borrowings

The following table shows the contractual maturities of the Company’s long-term debt as of December 31, 2023.

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
<i>(DOLLARS IN MILLIONS)</i>					
Total Outstanding Borrowings	\$ 9,980	\$ 885	\$ 2,445	\$ 1,600	\$ 5,050

Subsequent Event

On February 1, 2024, the Company repaid the remaining \$270 million outstanding on its 2024 Term Loan Facility.

NOTE 10. INCOME TAXES

Earnings before income taxes consisted of the following:

	December 31,		
	2023	2022	2021
<i>(DOLLARS IN MILLIONS)</i>			
U.S. loss before taxes	\$ (1,777)	\$ (1,918)	\$ (493)
Foreign (loss) income before taxes	(741)	293	847
Total (loss) income before taxes	\$ (2,518)	\$ (1,625)	\$ 354

The income tax provision consisted of the following:

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Current tax provision			
Federal	\$ 55	\$ 102	\$ (5)
State and local	—	49	13
Foreign	359	325	303
Total current tax provision	414	476	311
Deferred tax provision			
Federal	(113)	(77)	(121)
State and local	32	(111)	(34)
Foreign	(288)	(49)	(81)
Total deferred tax benefit	(369)	(237)	(236)
Total provision for income taxes	\$ 45	\$ 239	\$ 75

Effective Tax Rate Reconciliation

Reconciliation between the U.S. federal statutory income tax rate to the actual effective tax rate was as follows:

	December 31,		
	2023	2022	2021
Statutory tax rate	21.0 %	21.0 %	21.0 %
Tax effect of non-deductible goodwill impairment	(20.4)	(29.1)	—
Difference in effective tax rate on foreign earnings and remittances ⁽¹⁾	(0.2)	—	8.0
Tax benefit from supply chain optimization	0.5	0.8	(5.8)
Unrecognized tax benefit, net of reversals	(0.8)	0.9	0.7
Tax impact on business divestitures	(3.7)	(5.9)	4.0
Deferred taxes on deemed repatriation ⁽²⁾	0.5	(5.6)	2.7
Global intangible low-taxed income	(0.4)	(0.8)	4.1
Foreign-derived intangible income	—	1.1	(1.6)
U.S. foreign tax credit - general limitation	0.2	0.1	(3.1)
Research and development credit	0.5	0.8	(1.4)
Acquisition costs	—	—	2.4
Establishment (release) of valuation allowance on state deferred	—	—	(3.0)
State and local taxes including rate changes ⁽³⁾	(1.7)	4.3	(4.8)
Tax impact on internal asset transfer	5.3	—	—
Other, net	(2.6)	(2.3)	(2.0)
Effective tax rate	(1.8)%	(14.7)%	21.2 %

(1) For 2021, the rate includes rate change impacts related to the Netherlands and United Kingdom.

(2) For 2022 and 2023, the rate includes the establishment of the held for sale deferred tax liabilities due to a change in assertion.

(3) For 2022 and 2023, the rate includes rate change impacts related to the remeasurement of the state tax rate on deferred taxes.

The effective tax rate reflects the recording of the tax effects of the divestitures of the portion of the Savory Solutions business and Flavor Specialty Ingredients business and book to tax differences related to the impairment of goodwill in the Nourish reporting unit.

The Company has elected to treat global intangible low-taxed income (“GILTI”) as a current period cost if and when incurred. This tax position resulted in a net income tax expense of approximately \$64 million for the year ended December 31, 2023, offset in part by foreign tax credits of approximately \$54 million.

Deferred Taxes

The deferred tax assets and liabilities consisted of the following amounts:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Employee and retiree benefits	\$ 118	\$ 61
Credit and net operating loss carryforwards	332	315
Amortizable research and development expenses	125	84
Interest limitation	127	3
Inventory	35	19
Lease obligations	170	151
Other, net	114	131
Gross deferred tax assets	1,021	764
Property, plant and equipment, net	(239)	(229)
Intangible assets ⁽¹⁾	(1,792)	(2,049)
Right-of-use assets	(170)	(151)
Loss on foreign currency translation	—	(23)
Deferred taxes on deemed repatriation	(155)	(166)
Gross deferred tax liabilities	(2,356)	(2,618)
Valuation allowance	(324)	(262)
Total net deferred tax liabilities	\$ (1,659)	\$ (2,116)

(1) Includes deferred taxes on intangible assets owned by a fully consolidated partnership.

Net operating loss carryforwards were approximately \$311 million and \$301 million as of December 31, 2023 and 2022, respectively. If unused, approximately \$106 million will expire between 2024 and 2043. The remainder, totaling approximately \$205 million, may be carried forward indefinitely. Tax credit carryforwards were approximately \$21 million and \$14 million as of December 31, 2023 and 2022, respectively. If unused, the \$21 million will expire between 2024 and 2043.

Of the deferred tax assets at December 31, 2023, the Company considers it unlikely that a portion of the tax benefit will be realized. Accordingly, a valuation allowance of approximately \$324 million has been established against these deferred tax assets.

Uncertain Tax Positions

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Balance of unrecognized tax benefits at beginning of year	\$ 112	\$ 130	\$ 99
Gross amount of increases in unrecognized tax benefits as a result of positions taken during a prior year ⁽¹⁾	1	1	42
Gross amount of decreases in unrecognized tax benefits as a result of positions taken during a prior year	—	(18)	(3)
Gross amount of increases in unrecognized tax benefits as a result of positions taken during the current year	19	31	5
The amounts of decreases in unrecognized benefits relating to settlements with taxing authorities	(3)	(27)	(1)
Reduction in unrecognized tax benefits due to the lapse of applicable statute of limitation	(6)	(5)	(12)
Balance of unrecognized tax benefits at end of year	\$ 123	\$ 112	\$ 130

(1) For 2021, the amount includes positions related to N&B opening balance sheet amounts.

As of December 31, 2023, 2022 and 2021, there were approximately \$123 million, \$98 million and \$130 million, respectively, of unrecognized tax benefits recorded to Other liabilities. There were no amounts recorded to Other current liabilities for 2023. There were approximately \$14 million and less than \$1 million recorded to Other current liabilities for 2022 and 2021, respectively. If these unrecognized tax benefits were recognized, all the benefits and related interest and penalties would be recorded as a benefit to income tax expense.

The Company increased its liabilities for interest and penalties by approximately \$12 million, net, for the year ended December 31, 2023. The Company decreased its liabilities for interest and penalties by approximately \$1 million, net, and increased its liabilities for interest and penalties by approximately \$19 million, net, for the years ended December 31, 2022 and 2021, respectively. As of December 31, 2023, 2022 and 2021, the Company had accrued approximately \$47 million, \$31 million and \$36 million, respectively, of interest and penalties classified as Other liabilities. As of December 31, 2023, the Company had no accruals of interest and penalties classified as Other current liabilities. As of December 31, 2022 and 2021, the Company had accrued approximately \$4 million and less than \$1 million, respectively, of interest and penalties classified as Other current liabilities.

As of December 31, 2023, the Company's aggregate provision for unrecognized tax benefits, including interest and penalties, was approximately \$170 million associated with various tax positions principally asserted in foreign jurisdictions.

As of December 31, 2023, all the unrecognized tax benefits, if recognized, would affect the effective tax rate. The total changes to uncertain tax positions over the next 12 months is impracticable to estimate and is dependent on the resolution of new or existing tax disputes.

Other

Tax benefits credited to Shareholders' equity were not material for the years ended December 31, 2023, 2022 and 2021 associated with stock option exercises and PRSU dividends.

The Company regularly repatriates earnings from non-U.S. subsidiaries. As the Company repatriates these funds to the U.S., there will be required income taxes payable in certain U.S. states and applicable foreign withholding taxes during the period when such repatriation occurs. Accordingly, as of December 31, 2023, the Company had a deferred tax liability of approximately \$155 million for the effect of repatriating the funds to the U.S., attributable to various non-U.S. subsidiaries. There is no deferred tax liability associated with non-U.S. subsidiaries where the Company intends to indefinitely reinvest the earnings to fund local operations and/or capital projects.

The Company has ongoing income tax audits and legal proceedings which are at various stages of administrative or judicial review. In addition, the Company has other ongoing tax audits and legal proceedings that relate to indirect taxes, such as value-added taxes, capital tax, sales and use and property taxes, which are discussed in Note 19.

The Company also has several other tax audits in process and has open tax years with various taxing jurisdictions that range primarily from 2010 to 2022.

NOTE 11. NET (LOSS) INCOME PER SHARE

Basic and diluted net (loss) income per share is based on the weighted average number of shares outstanding. A reconciliation of shares used in the computation of basic and diluted net (loss) income per share is as follows:

<i>(AMOUNTS IN MILLIONS EXCEPT PER SHARE AMOUNTS)</i>	December 31,		
	2023	2022	2021
Net (Loss) Income			
Net (loss) income attributable to IFF shareholders	\$ (2,567)	\$ (1,871)	\$ 270
Adjustment related to decrease (increase) in redemption value of redeemable non-controlling interests in excess of earnings allocated	2	3	(2)
Net (loss) income available to IFF shareholders	<u>\$ (2,565)</u>	<u>\$ (1,868)</u>	<u>\$ 268</u>
Shares			
Weighted average common shares outstanding (basic) ⁽¹⁾	255	255	243
Weighted average shares assuming dilution (diluted)	255	255	243
Net (Loss) Income per Share			
Net (loss) income per share - basic ⁽²⁾	\$ (10.05)	\$ (7.32)	\$ 1.11
Net (loss) income per share - diluted ⁽³⁾	(10.05)	(7.32)	1.10

- (1) On September 15, 2021, additional shares of IFF's common stock were issued in settlement of the SPC portion of the TEUs. See below for additional information.
- (2) For the years ended December 31, 2023, 2022 and 2021, the basic net (loss) income per share cannot be recalculated based on the information presented in the table above due to the effects of rounding.
- (3) For the years ended December 31, 2023 and 2022, the diluted net loss per share cannot be recalculated based on the information presented in the table above due to the effects of rounding.

As of the effective time of the Merger, each issued and outstanding share of common stock of N&B (except for shares of common stock of N&B held by N&B as treasury stock or by DuPont, which were canceled and ceased to exist and no consideration was delivered in exchange therefor) was converted into the right to receive one share of common stock of IFF. The Merger was completed in exchange for 141,740,461 shares of IFF common stock, par value \$0.125 per share (or cash payment in lieu of fractional shares), which had been approved in the special shareholder meeting that occurred on August 27, 2020 where IFF shareholders voted to approve the issuance of shares of IFF common stock in connection with the N&B Transaction, pursuant to the Merger Agreement. The shares issued in the Merger represented approximately 55.4% of the common stock of IFF on a fully diluted basis, after giving effect to the Merger, as of February 1, 2021.

The Company issued 16,500,000 TEUs, consisting of a prepaid SPC and a senior amortizing note, for net proceeds of approximately \$800 million on September 17, 2018. On September 14, 2021, the Company notified holders of the TEUs that the final settlement rate in respect of each SPC was 0.330911 shares of IFF's common stock. On September 15, 2021, 5,460,031 shares of IFF's common stock were issued in settlement of the SPCs. The SPC conversion factor is based on the volume-weighted average price ("VWAP") per share of the Company's common stock. For purposes of calculating basic net income per share, the settlement rate of 0.330911 shares per SPC, the final settlement rate, was used on December 31, 2021. For purposes of calculating diluted net income per share, the settlement rate of 0.330911 shares per SPC, the final settlement rate, was used on December 31, 2021.

The Company has issued shares of Purchased Restricted Stock Units ("PRSUs") which contain non-forfeitable rights to dividends and thus are considered participating securities which are required to be included in the computation of basic and diluted earnings per share pursuant to the two-class method. The two-class method was not presented since there was no difference between basic net (loss) income per share for both common shareholders and PRSU holders for the years ended December 31, 2023, 2022 and 2021, and there was no difference between diluted net loss per share for both common shareholders and PRSU holders for the years ended December 31, 2023 and 2022. The difference between diluted net income per share for both common shareholders and PRSU holders was less than \$0.01 per share for the year ended December 31, 2021. In addition, for each year, the number of PRSUs outstanding as of December 31, 2023, 2022 and 2021 was not material. Net loss allocated to such PRSUs during 2023 and 2022 was not material and net income allocated to such PRSUs during 2021 was not material.

There were approximately 0.2 million and 0.3 million potentially dilutive securities excluded from the computation of diluted net loss per share for the years ended December 31, 2023 and 2022, respectively, because there was a net loss attributable to IFF for the periods and, as such, the inclusion of these securities would have been anti-dilutive.

For the years ended December 31, 2023 and 2022, there were approximately 0.4 million and 0.3 million share equivalents that had an anti-dilutive effect and therefore were excluded from the computation of diluted net loss per share. There were no share equivalents excluded from the computation of diluted net income per share for the year ended December 31, 2021.

NOTE 12. SHAREHOLDERS' EQUITY

Dividends

Cash dividends declared per share were \$3.24, \$3.20 and \$3.12 for the years ended December 31, 2023, 2022 and 2021, respectively. The Consolidated Balance Sheets reflect \$207 million of dividends payable at December 31, 2023. This amount relates to a cash dividend of \$0.81 per share declared in December 2023 and paid in January 2024. Dividends declared, but not paid as of December 31, 2022 and December 31, 2021 were \$206 million (\$0.81 per share) and \$201 million (\$0.79 per share), respectively.

NOTE 13. STOCK COMPENSATION PLANS

The Company has various equity plans under which its officers, senior management, other key employees and Board of Directors may be granted options to purchase IFF common stock or other forms of stock-based awards.

The cost of all employee stock-based awards are principally recognized on a straight-line attribution basis over their respective vesting periods, net of estimated forfeitures. Total stock-based compensation expense included in the Consolidated Statements of (Loss) Income and Comprehensive Loss was as follows:

	December 31,		
	2023	2022	2021
<i>(DOLLARS IN MILLIONS)</i>			
Equity-based awards	\$ 65	\$ 49	\$ 54
Liability-based awards	2	2	8
Total stock-based compensation	67	51	62
Less: Tax benefit	(11)	(8)	(13)
Total stock-based compensation, net of tax	<u>\$ 56</u>	<u>\$ 43</u>	<u>\$ 49</u>

The shareholders of the Company approved the Company's 2021 Stock Award and Incentive Plan (the "2021 Plan") on May 5, 2021. The 2021 Plan replaced the Company's 2015 Stock Award and Incentive Plan (the "2015 Plan") and the Company's 2010 Stock Award and Incentive Plan (the "2010 Plan"), and provides the source for future deferrals of cash into deferred stock under the Company's Deferred Compensation Plan (with the Deferred Compensation Plan being deemed a subplan under the 2010 Plan for the sole purpose of funding deferrals under the IFF Share Fund).

Under the 2021 Plan, a total of 2,290,000 shares were authorized for issuance. As of December 31, 2023, 1,817,519 shares were subject to outstanding awards and 748,082 shares remained available for future awards under all of the Company's equity award plans, including the 2015 Plan and 2010 Plan (excluding shares not yet issued under open cycles of the Company's Long-Term Incentive Plan).

The Company offers a Long-Term Incentive Plan ("LTIP") for senior management. The targeted payout is principally 50% cash and 50% IFF common stock at the end of the three-year cycle. Beginning 2023, the targeted payout for all new cycles is 100% IFF common stock at the end of the three-year cycle.

For the 2021-2023 cycle, the LTIP awards are earned based on the achievement of: (i) an annual Leverage Ratio for 2021, 2022 and 2023 (representing one-half of the award value) and (ii) Relative TSR targets (representing one-half of the award value). For the 2022-2024 and 2023-2025 cycles, the LTIP awards are earned based on the achievement of: (i) 3-year cumulative Return on Invested Capital ("ROIC") (representing one-half of the award value) and (ii) Relative TSR targets (representing one-half of the award value).

The Leverage Ratio measures Net debt as compared to a measure profitability. The ROIC measures adjusted net operating profit after tax against average invested capital. When the award is granted, 50% of the target dollar value of the award is converted to a number of "notional" shares based on the closing price at the beginning of the cycle. For those shares whose payout is based on Relative TSR, compensation expense is recognized using a graded-vesting attribution method, while compensation expense for the remainder of the performance shares (Leverage Ratio or ROIC targets for the applicable cycle) is recognized on a straight-line basis over the vesting period based on the probable outcome of the performance condition.

The 2019-2021 cycle concluded at the end of 2021 and no shares of common stock were issued in March 2022. The 2020-2022 cycle concluded at the end of 2022 and no shares of common stock were issued in March 2023. The 2021-2023 cycle concluded at the end of 2023 and 5,333 shares of common stock will be issued in March 2024.

In 2006, the Board of Directors approved the Equity Choice Program (the "Program") for senior management. This program continued under the 2021 Plan. Eligible employees were allowed to choose from among three equity alternatives and were granted such equity awards up to certain dollar awards depending on the participant's employment grade level. A participant was able to choose among (1) Stock-Settled Appreciation Rights ("SSARs"), (2) Restricted Stock Units ("RSUs") or (3) PRSUs. Beginning 2023, the Company no longer offers the choice from among three equity alternatives and all eligible employees are granted RSUs.

Transaction with Nutrition and Biosciences, Inc.

In connection with the Merger, N&B employees' outstanding (unvested and/or vested and unexercised) equity awards were converted into equity awards denominated in shares of the Company's common stock based on a defined exchange ratio. N&B employees' equity awards were converted into 335,347 IFF stock options, 258,572 IFF RSU awards and 5,816 IFF SAR awards.

For converted RSU awards, the fair value of the equity award is based on the Closing Date market price of IFF stock. For converted stock options and SAR awards, the exercise price per share of the converted award is equal to the exercise price per share of the N&B award immediately prior to the Merger divided by the exchange ratio. The fair value of the IFF stock options and SAR awards that the Company issued in connection with the Merger was estimated using the Black Scholes model.

The converted awards were generally issued with the same terms and conditions as were applicable prior to the Transaction. At the Closing Date, approximately \$25 million of the fair value of the replacement awards granted to N&B employees was attributable to pre-combination service and was included in the purchase price. As of December 31, 2023, there

was no remaining post-combination expense to be recognized related to the replacement awards over the remaining post-combination service period, which was approximately up to three years.

SSARs and Options

SSARs are a contractual right to receive the value, in shares of Company stock, of the appreciation in our stock price from the grant date to the date the SSARs are exercised by the participant. SSARs granted become exercisable on the third anniversary of the grant date and have a maximum term of seven years. SSARs do not require a financial investment by the SSARs grantee. Stock options require the participant to pay the exercise price at the time they exercise their stock options. No stock options were granted in 2023, 2022 or 2021.

SSARs and options activity was as follows:

<i>(SHARE AMOUNTS IN THOUSANDS)</i>	Shares Subject to SSARs/Options	Weighted Average Exercise Price	SSARs/ Options Exercisable
December 31, 2022	331	\$ 115.35	182
Granted	—	—	
Exercised	(8)	68.67	
Canceled	(8)	122.28	
December 31, 2023	<u>315</u>	<u>\$ 116.26</u>	<u>194</u>
Expected to Vest at December 31, 2023	118	\$ 126.99	

The weighted average exercise price of SSARs and options exercisable at December 31, 2023, 2022 and 2021 were \$109.59, \$109.50 and \$109.77, respectively.

SSARs and options outstanding at December 31, 2023 was as follows:

Price Range	Number Outstanding (in thousands)	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions)
Over \$65	315	4.71	\$ 116.26	\$ —

SSARs and options exercisable as of December 31, 2023 was as follows:

Price Range	Number Exercisable (in thousands)	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions)
Over \$65	194	4.33	\$ 109.59	\$ —

The total intrinsic value of options/SSARs exercised during 2023 was less than \$1 million and approximately \$2 million for 2022 and \$3 million for 2021.

As of December 31, 2023, the total unrecognized compensation cost related to non-vested SSARs granted was approximately \$1 million; such cost is expected to be recognized over a weighted average period of approximately 1.14 years.

Restricted Stock Units

The Company has granted RSUs to eligible employees and members of the Board of Directors. The Company has granted both time-based RSUs, which contain no performance criteria provisions, and performance-based RSUs. Such RSUs are subject to forfeitures or adjustments if certain conditions are not met, including service period or pre-established cumulative performance targets. RSUs principally vest 100% at the end of three years. An RSU's fair value is calculated based on the market price of the Company's stock at date of grant, with an adjustment to reflect the fact that such awards do not participate in dividend rights. The aggregate fair value is amortized to expense ratably over the vesting period.

RSU activity was as follows:

<i>(SHARE AMOUNTS IN THOUSANDS)</i>	Number of Shares	Weighted Average Grant Date Fair Value Per Share
December 31, 2022	937	\$ 120.81
Granted	843	87.31
Vested	(315)	119.15
Forfeited	(78)	105.63
Change due to performance conditions, net	(20)	134.04
December 31, 2023	<u>1,367</u>	<u>\$ 101.50</u>

The total fair value of RSUs that vested during the year ended December 31, 2023 was approximately \$38 million.

As of December 31, 2023, there was approximately \$67 million of total unrecognized compensation cost related to non-vested RSUs granted under the equity incentive plans; such cost is expected to be recognized over a weighted average period of approximately 1.94 years.

Purchased Restricted Stock Units

The grant of awards under the Program provided for eligible employees to purchase shares of IFF common stock and deposit them into an escrow account. For each share deposited in escrow by the eligible employee, the Company matched with the grant of a restricted stock unit. The shares of restricted stock units generally vest on the third anniversary of the grant date, are subject to continued employment and other specified conditions, and pay dividends if and when paid by the Company. Holders of restricted stock units have, in most instances, all of the rights of shareholders, except that they may not sell, assign, pledge or otherwise encumber such shares. PRSUs pay dividend equivalents and do not have voting rights.

The following table summarizes the Company's PRSU activity for the years ended December 31, 2023, 2022 and 2021:

<i>(DOLLARS IN MILLIONS)</i>	Issued Shares	Aggregate Purchases	Covered Shares
2023	—	\$ —	—
2022	43,690	\$ 6	21,845
2021	61,870	\$ 9	30,935

PRSU activity was as follows:

<i>(SHARE AMOUNTS IN THOUSANDS)</i>	Number of Shares	Weighted Average Grant Date Fair Value Per Share
December 31, 2022	90	\$ 133.36
Granted	—	—
Vested	(26)	131.31
Forfeited	(3)	138.98
December 31, 2023	<u>61</u>	<u>\$ 133.96</u>

The total fair value of PRSUs that vested during the year ended December 31, 2023 was approximately \$3 million.

As of December 31, 2023, there was approximately \$1 million of total unrecognized compensation cost related to non-vested PRSUs granted under the equity incentive plans; such cost is expected to be recognized over a weighted average period of approximately 1.06 years.

Liability Awards

The Company has granted cash-settled RSUs ("Cash RSUs") to eligible employees that are paid out 100% in cash upon vesting. Such RSUs are subject to forfeiture if certain conditions are not met. Cash RSUs principally vest 100% at the end of three years and contain no performance criteria provisions. A Cash RSU's fair value is calculated based on the market price of the Company's stock at the date of the closing period and is accounted for as a liability award. The aggregate fair value is amortized to expense ratably over the vesting period.

Cash RSU activity was as follows:

<i>(SHARE AMOUNTS IN THOUSANDS)</i>	Cash RSUs	Weighted Average Fair Value Per Share
December 31, 2022	119	\$ 104.84
Granted	19	80.97
Vested	(40)	94.72
Forfeited	(7)	82.24
December 31, 2023	<u>91</u>	<u>\$ 80.97</u>

The total fair value of Cash RSUs that vested during the year ended December 31, 2023 was approximately \$4 million.

As of December 31, 2023, there was approximately \$2 million of total unrecognized compensation cost related to non-vested Cash RSUs granted under the equity incentive plans; such cost is expected to be recognized over a weighted average period of approximately 1.45 years. The aggregate compensation cost will be adjusted based on changes in the Company's stock price.

NOTE 14. SEGMENT INFORMATION

The Company is organized into four reportable operating segments: Nourish, Health & Biosciences, Scent and Pharma Solutions. These segments align with the internal structure to manage these businesses. The Company's Chief Operating Decision Maker regularly reviews financial information to allocate resources and assess performance utilizing these segments.

Nourish is comprised of Ingredients, Flavors and Food Designs, with a diversified portfolio across natural and plant-based specialty food ingredients, flavor compounds, and systems and inclusions, respectively. Ingredients provide texturizing solutions to the food industry, food protection solutions used in food and beverage products, specialty soy and pea protein with value-added formulations, emulsifiers and sweeteners. Flavors provide a range of flavor compounds and natural taste solutions that are ultimately used by IFF's customers in savory products, beverages, sweets and dairy products. Flavors also provide value-added spices and seasoning ingredients for meat, food service, convenience, alternative protein and culinary products. Food Designs provide blends and systems that combine key ingredients tailored to IFF customers' specific needs. Additionally, Food Designs provide inclusion products that help with taste and texture by, among other things, combining flavorings with fruit, vegetables, and other natural ingredients for a wide range of food products, such as health snacks, baked goods, cereals, pastries, ice cream and other dairy products.

Health & Biosciences is comprised of Health, Cultures & Food Enzymes, Home & Personal Care, Animal Nutrition and Grain Processing, with a biotechnology-driven portfolio of products that serve the health and wellness, food, consumer and industrial markets. Products within this portfolio range from enzymes, food cultures, probiotics and specialty ingredients for non-food applications. Health provides ingredients for dietary supplements, food and beverage, specialized nutrition and pharma. Cultures & Food Enzymes provide products that aim to serve the global demand for healthy, natural, clean label and fermented food for fresh dairy, cheese, bakery and brewing products. This is accomplished by providing IFF's customers with products that allow for extended shelf life and stability, which help to improve customers' products and performance. The enzyme solution also allows IFF's customers to provide low sugar, high fiber and lactose-free dairy products. Home & Personal Care produces enzymes for detergents, cleaning and textile processing products in the laundry, dishwashing, textiles and industrials and personal care markets that help to enhance product and process performances. Animal Nutrition produces enzymes that help to improve the product and process performance of animal feed products, which aim to lessen environmental impact by reducing farm waste. Grain Processing produces enzymes for biofuel production and carbohydrate processing.

Scent is comprised of (1) Fragrance Compounds, which are ultimately used by IFF's customers in two broad categories: Fine Fragrances, including perfumes and colognes, and Consumer Fragrances, including fragrance compounds for personal care (e.g., soaps), household products (e.g., detergents and cleaning agents) and beauty care, including toiletries; (2) Fragrance Ingredients, consisting of synthetic and natural ingredients that can be combined with other materials to create unique fine fragrance and consumer fragrance compounds; and (3) Cosmetic Ingredients, consisting of active and functional ingredients, botanicals and delivery systems to support our customers' cosmetic and personal care product lines. Major fragrance customers include the cosmetics industry, including perfume and toiletries manufacturers, and the household products industry, including manufacturers of soaps, detergents, fabric care, household cleaners and air fresheners.

Pharma Solutions is comprised of a vast portfolio, including cellulose and seaweed-based pharmaceutical excipients, used to improve the functionality and delivery of active pharmaceutical ingredients, including controlled or modified drug release formulations, and enabling the development of more effective pharmaceutical finished dosage formats. Pharma Solutions excipients are used in prescription and over-the-counter pharmaceuticals and dietary supplements. Pharma Solutions products

also serve a variety of other specialty and industrial end-uses including coatings, inks, electronics, agriculture and consumer products.

The Company's Chief Operating Decision Maker evaluates the performance of these reportable segments based on Segment Adjusted Operating EBITDA, which is defined as (Loss) Income Before Taxes before depreciation and amortization expense, interest expense, restructuring and other charges and certain items that are not related to recurring operations.

Reportable segment information is as follows:

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Net sales			
Nourish	\$ 6,060	\$ 6,829	\$ 6,264
Health & Biosciences	2,081	2,339	2,329
Scent	2,393	2,301	2,254
Pharma Solutions	945	971	809
Consolidated	<u>\$ 11,479</u>	<u>\$ 12,440</u>	<u>\$ 11,656</u>

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Segment assets		
Nourish	\$ 12,893	\$ 17,062
Health & Biosciences	10,666	10,924
Scent	4,274	4,309
Pharma Solutions	3,145	3,227
Consolidated	<u>\$ 30,978</u>	<u>\$ 35,522</u>

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Segment Adjusted Operating EBITDA:			
Nourish	\$ 732	\$ 1,176	\$ 1,172
Health & Biosciences	588	634	625
Scent	461	423	463
Pharma Solutions	199	222	165
Total	1,980	2,455	2,425
Depreciation & Amortization	(1,142)	(1,179)	(1,156)
Interest Expense	(380)	(336)	(289)
Other (Expense) Income, net	(28)	37	58
Restructuring and Other Charges (a)	(68)	(12)	(41)
Impairment of Goodwill (b)	(2,623)	(2,250)	—
Impairment of Long-Lived Assets (c)	—	(120)	—
Acquisition, Divestiture and Integration Related Costs (d)	(174)	(201)	(240)
Strategic Initiatives Costs (e)	(31)	(8)	—
Regulatory Costs (f)	(50)	—	—
N&B Inventory Step-Up Costs (g)	—	—	(368)
Other (h)	(2)	(11)	(35)
(Loss) Income Before Taxes	<u>\$ (2,518)</u>	<u>\$ (1,625)</u>	<u>\$ 354</u>

(a) Represents costs primarily related to severance as part of the Company's restructuring efforts.

(b) For 2023, represents costs related to the impairment of goodwill in the Nourish reporting unit. For 2022, represents costs related to the impairment of goodwill in the Health & Biosciences reporting unit.

(c) Represents costs related to the impairment of intangible and fixed assets of an asset group that operated primarily in Russia.

(d) For 2023, 2022 and 2021, primarily represents costs related to the Company's actual and planned acquisitions and divestitures and integration related activities primarily for N&B. These costs primarily consisted of external consulting fees, professional and legal fees and salaries of individuals who are fully dedicated to such efforts. For 2023, acquisition costs primarily relate to earn-out adjustments. For 2022, acquisition costs primarily relate to consulting fees, legal fees and earn-out adjustments. For 2021, acquisition costs primarily relate to legal and professional fees for the transaction with N&B. Tax expenses for business divestiture costs included establishments of deferred tax liabilities related to planned sales of businesses.

For 2023, business divestiture, integration and acquisition related costs were approximately \$108 million, \$59 million and \$7 million, respectively. For 2022, business divestiture, integration and acquisition related costs were approximately \$110 million, \$94 million and a credit of \$3 million, respectively. For 2021, business divestiture, integration and acquisition related costs were approximately \$42 million, \$105 million and \$93 million, respectively.

(e) Represents costs related to the Company's strategic assessment and business portfolio optimization efforts and reorganizing the Global Shared Services Centers, primarily consulting fees.

(f) Represents costs primarily related to legal fees incurred for the ongoing investigations of the fragrance businesses.

(g) Represents costs related to fair value step-up of inventory for the acquired inventory through the Merger with N&B.

(h) For 2023, represents gains from sale of assets and costs related to severance, including accelerated stock compensation expense, for a certain executive who will separate from the Company in 2024. For 2022 and 2021, represents gains from sale of assets, costs related to severance, including accelerated stock compensation expense, for certain employees and executives who have been separated from the Company in 2022 and 2021, respectively, and shareholder activist related costs, primarily professional fees.

The Company has not disclosed revenues at a lower level than provided herein, such as revenues from external customers by product, as it is impracticable for it to do so.

The Company had no customers that accounted for greater than 10% of consolidated net sales in 2023, 2022 and 2021.

Long-lived assets, net, by country, consisted as follows:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
United States	\$ 1,742	\$ 1,771
China	228	258
Denmark	262	250
Finland	214	212
France	199	187
Germany	171	181
Other	1,424	1,344
Consolidated	<u>\$ 4,240</u>	<u>\$ 4,203</u>

Segment capital expenditures and depreciation and amortization consisted as follows:

<i>(DOLLARS IN MILLIONS)</i>	Capital Expenditures			Depreciation and Amortization		
	2023	2022	2021	2023	2022	2021
Nourish	\$ 252	\$ 215	\$ 183	\$ 553	\$ 596	\$ 594
Health & Biosciences	85	160	139	374	363	353
Scent	62	56	41	78	81	84
Pharma Solutions	104	73	30	137	139	125
Consolidated	<u>\$ 503</u>	<u>\$ 504</u>	<u>\$ 393</u>	<u>\$ 1,142</u>	<u>\$ 1,179</u>	<u>\$ 1,156</u>

Net sales are attributed to individual regions based upon the destination of product delivery and are as follows:

<i>(DOLLARS IN MILLIONS)</i>	Net Sales by Geographic Area		
	2023	2022	2021
Europe, Africa and Middle East	\$ 3,834	\$ 4,219	\$ 4,093
Greater Asia	2,677	2,876	2,728
North America	3,477	3,853	3,499
Latin America	1,491	1,492	1,336
Consolidated	<u>\$ 11,479</u>	<u>\$ 12,440</u>	<u>\$ 11,656</u>

	Net Sales by Geographic Area		
	2023	2022	2021
<i>(DOLLARS IN MILLIONS)</i>			
Net sales related to the U.S.	\$ 3,185	\$ 3,611	\$ 3,211
Net sales attributed to all foreign countries	8,294	8,829	8,445

No non-U.S. country had net sales greater than 7% of total consolidated net sales for 2023 and net sales greater than 6% and 7% of total consolidated net sales for 2022 and 2021, respectively.

NOTE 15. EMPLOYEE BENEFITS

The Company has pension and/or other retirement benefit plans covering approximately 20% of active employees. In 2007, the Company amended its U.S. qualified and non-qualified pension plans under which accrual of future benefits was suspended for all participants that did not meet the rule of 70 (age plus years of service equal to at least 70 as of December 31, 2007). Pension benefits are generally based on years of service and compensation during the final years of employment. Plan assets consist primarily of equity securities and corporate and government fixed income securities. Substantially all pension benefit costs are funded as accrued; such funding is limited, where applicable, to amounts deductible for income tax purposes. Certain other retirement benefits are provided by general corporate assets.

As of the Closing Date of the Merger with N&B, the Company assumed responsibility for approximately 20 additional defined benefit plans and recognized liabilities in the aggregate amount of \$221 million.

The Company sponsors a qualified defined contribution plan covering substantially all U.S. employees. Under this plan, effective January 1, 2023, the Company matches 100% of the first 6% of participants' contributions. Prior to this, the Company matched 100% of participants' contributions up to 4% of compensation and 75% of participants' contributions from over 4% to 8%. Employees that are still eligible to accrue benefits under the pension plans are limited to a 50% match of up to 6% of the participants' compensation.

In addition to pension benefits, certain health care and life insurance benefits are provided to qualifying U.S. employees upon retirement from IFF. Such coverage is provided through insurance plans with premiums based on benefits paid. The Company does not generally provide health care or life insurance coverage for retired employees of foreign subsidiaries; such benefits are provided in most foreign countries by government-sponsored plans, and the cost of these programs is not material.

The Company offers a non-qualified Deferred Compensation Plan ("DCP") for certain key employees and non-employee directors. Eligible employees and non-employee directors may elect to defer receipt of salary, incentive payments and Board of Directors' fees into participant-directed investments which are generally invested by the Company in individual variable life insurance contracts it owns that are designed to informally fund savings plans of this nature. The cash surrender value of life insurance is based on the net asset values of the underlying funds available to plan participants. At December 31, 2023 and December 31, 2022, the Consolidated Balance Sheets reflect liabilities of approximately \$52 million and \$53 million, respectively, related to the DCP in Other liabilities and approximately \$17 million and \$25 million, respectively, included in Capital in excess of par value related to the portion of the DCP that will be paid out in IFF shares.

The total cash surrender value of life insurance contracts the Company owns in relation to the DCP and post-retirement life insurance benefits amounted to \$49 million and \$45 million at December 31, 2023 and 2022, respectively, and are recorded in Other assets in the Consolidated Balance Sheets.

The plan assets and benefit obligations of the defined benefit pension plans are measured at December 31 of each year.

	U.S. Plans			Non-U.S. Plans		
	2023	2022	2021	2023	2022	2021
<i>(DOLLARS IN MILLIONS)</i>						
Components of net periodic benefit cost						
Service cost for benefits earned ⁽¹⁾	\$ —	\$ 1	\$ 1	\$ 21	\$ 34	\$ 41
Interest cost on projected benefit obligation ⁽²⁾	25	15	71	36	17	10
Expected return on plan assets ⁽²⁾	(31)	(21)	(106)	(47)	(42)	(55)
Net amortization of deferrals ⁽²⁾	2	8	29	(1)	11	19
Settlements and curtailments ⁽²⁾	—	—	—	(8)	—	(10)
Net periodic benefit (income) cost	(4)	3	(5)	1	20	5
Defined contribution and other retirement plans	30	33	36	51	29	33
Total expense	\$ 26	\$ 36	\$ 31	\$ 52	\$ 49	\$ 38
Changes in plan assets and benefit obligations recognized in OCI						
Net actuarial loss (gain)	\$ 27	\$ —	\$ —	\$ 70	\$ (143)	\$ —
Recognized actuarial (loss) gain	(1)	(8)	—	9	(12)	—
Recognized prior service credit	—	—	—	1	1	—
Currency translation adjustment	—	—	—	9	(27)	—
Total loss (gain) recognized in OCI (before tax effects)	\$ 26	\$ (8)	\$ —	\$ 89	\$ (181)	\$ —

(1) Included as a component of Operating (loss) profit.

(2) Included as a component of Other expense (income), net.

	Postretirement Benefits		
	2023	2022	2021
<i>(DOLLARS IN MILLIONS)</i>			
Components of net periodic benefit cost			
Service cost for benefits earned	\$ —	\$ 1	\$ 1
Interest cost on projected benefit obligation	3	1	7
Net amortization and deferrals	(6)	(5)	(20)
Total credit	\$ (3)	\$ (3)	\$ (12)
Changes in plan assets and benefit obligations recognized in OCI			
Net actuarial loss (gain)	\$ 3	\$ (16)	\$ —
Recognized actuarial loss	—	(1)	—
Recognized prior service credit	5	6	—
Total recognized in OCI (before tax effects)	\$ 8	\$ (11)	\$ —

The weighted-average actuarial assumptions used to determine expense at December 31 of each year are:

	U.S. Plans			Non-U.S. Plans		
	2023	2022	2021	2023	2022	2021
Discount rate	5.42 %	2.86 %	2.51 %	3.98 %	1.43 %	0.85 %
Expected return on plan assets	6.00 %	3.80 %	3.80 %	4.92 %	3.52 %	4.21 %
Rate of compensation increase	3.75 %	3.25 %	3.25 %	3.01 %	2.72 %	2.56 %

Changes in the postretirement benefit obligation and plan assets, as applicable, are detailed in the following table:

	U.S. Plans		Non-U.S. Plans		Postretirement Benefits	
	2023	2022	2023	2022	2023	2022
	<i>(DOLLARS IN MILLIONS)</i>					
Benefit obligation at beginning of year	\$ 500	\$ 662	\$ 930	\$ 1,501	\$ 50	\$ 66
Service cost for benefits earned	—	1	21	34	—	1
Interest cost on projected benefit obligation	25	15	36	17	3	2
Actuarial (gain) loss	38	(139)	77	(468)	3	(16)
Adjustments for expense/tax contained in service cost	—	—	(2)	(2)	—	—
Plan participants' contributions	—	—	4	4	—	—
Benefits paid	(39)	(38)	(33)	(32)	(3)	(2)
Curtailments/settlements	(1)	—	(21)	(21)	—	—
Translation adjustments	—	—	45	(104)	—	—
Other	1	(1)	(1)	1	(1)	(1)
Benefit obligation at end of year	\$ 524	\$ 500	\$ 1,056	\$ 930	\$ 52	\$ 50
Fair value of plan assets at beginning of year	\$ 498	\$ 649	\$ 920	\$ 1,320		
Actual return on plan assets	41	(118)	50	(286)		
Employer contributions	5	5	31	31		
Participants' contributions	—	—	4	4		
Benefits paid	(39)	(38)	(33)	(32)		
Settlements	—	—	(21)	(21)		
Translation adjustments	—	—	44	(96)		
Other	—	—	5	—		
Fair value of plan assets at end of year	\$ 505	\$ 498	\$ 1,000	\$ 920		
Funded status at end of year	\$ (19)	\$ (2)	\$ (56)	\$ (10)		

The amounts recognized in the balance sheet are detailed in the following table:

	U.S. Plans		Non-U.S. Plans	
	2023	2022	2023	2022
	<i>(DOLLARS IN MILLIONS)</i>			
Other assets	\$ 30	\$ 51	\$ 109	\$ 129
Other current liabilities	(5)	(6)	(4)	(1)
Retirement liabilities	(44)	(47)	(161)	(138)
Net amount recognized	\$ (19)	\$ (2)	\$ (56)	\$ (10)

The amounts recognized in AOCI are detailed in the following table:

	U.S. Plans		Non-U.S. Plans		Postretirement Benefits	
	2023	2022	2023	2022	2023	2022
	<i>(DOLLARS IN MILLIONS)</i>					
Net actuarial (gain) loss	\$ 155	\$ 129	\$ 198	\$ 110	\$ —	\$ (3)
Prior service cost (credit)	—	—	(2)	(3)	(4)	(9)
Total AOCI (before tax effects)	\$ 155	\$ 129	\$ 196	\$ 107	\$ (4)	\$ (12)

	U.S. Plans		Non-U.S. Plans	
	2023	2022	2023	2022
	<i>(DOLLARS IN MILLIONS)</i>			
Accumulated Benefit Obligation — end of year	\$ 520	\$ 495	\$ 988	\$ 870
Information for Pension Plans with an Accumulated Benefit Obligation (“ABO”) in excess of Plan Assets:				
Accumulated benefit obligation	\$ 47	\$ 49	\$ 165	\$ 150
Fair value of plan assets	—	—	36	41
Information for Pension Plans with a Projected Benefit Obligation (“PBO”) in excess of Plan Assets:				
Projected benefit obligation	\$ 47	\$ 49	\$ 185	\$ 169
Fair value of plan assets	—	—	41	45
Weighted-average assumptions used to determine obligations at December 31				
Discount rate	4.47 %	5.42 %	3.59 %	4.02 %
Rate of compensation increase	3.75 %	3.75 %	2.83 %	3.00 %

	U.S. Plans		Non-U.S. Plans		Postretirement Benefits	
	<i>(DOLLARS IN MILLIONS)</i>					
	Estimated Future Benefit Payments					
2024	\$ 99	\$ 39	\$ 4			
2025	38	36	4			
2026	38	41	4			
2027	37	40	4			
2028	36	45	4			
2029 - 2033	166	239	18			
Contributions						
Required Company Contributions in the Following Year (2024)	\$ 5	\$ 20	\$ —			

The Company considers a number of factors in determining and selecting assumptions for the overall expected long-term rate of return on plan assets. The Company considers the historical long-term return experience of its assets, the current and expected allocation of its plan assets and expected long-term rates of return. The Company derives these expected long-term rates of return with the assistance of its investment advisors. The Company bases its expected allocation of plan assets on a diversified portfolio consisting of domestic and international equity securities, fixed income, property and alternative asset classes. The asset allocation is monitored on an ongoing basis.

The Company considers a variety of factors in determining and selecting its assumptions for the discount rate at December 31. For the U.S. plans, the discount rate was based on the internal rate of return for a portfolio of high quality bonds rated Aa or higher by either Moody's or Standard & Poor's with maturities that are consistent with the projected future benefit payment obligations of the plan. For the Non-U.S. Plans, the discount rates were determined by region and are based on high quality long-term corporate bonds. Consideration has been given to the duration of the liabilities in each plan when selecting the bonds to be used in determining the discount rate. The rate of compensation increase for all plans and the medical cost trend rate for the applicable U.S. plans are based on plan experience.

The percentage of assets in the Company's pension plans, by type, is as follows:

	U.S. Plans		Non-U.S. Plans	
	2023	2022	2023	2022
	<i>(DOLLARS IN MILLIONS)</i>			
Cash and cash equivalents	1 %	2 %	3 %	3 %
Equities	13 %	47 %	16 %	18 %
Fixed income	86 %	51 %	42 %	37 %
Property	— %	— %	8 %	9 %
Alternative and other investments	— %	— %	31 %	33 %

With respect to the U.S. plans, the expected return on plan assets was determined based on an asset allocation model using the current target allocation, real rates of return by asset class and an anticipated inflation rate. The target investment allocation is 10% equity securities and 90% fixed income securities.

The expected annual rate of return for the non-U.S. plans employs a similar set of criteria adapted for local investments, inflation rates and in certain cases specific government requirements. Each plan has its own target asset allocation, which is reviewed periodically and rebalanced when necessary.

The following tables present the Company's plan assets for the U.S. and non-U.S. plans using the fair value hierarchy as of December 31, 2023 and 2022. The plans' assets were accounted for at fair value and are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of fair value assets and their placement within the fair value hierarchy levels. For more information on a description of the fair value hierarchy, see Note 16.

**U.S. Plans for the Year Ended
December 31, 2023**

<i>(DOLLARS IN MILLIONS)</i>	Level 1	Level 2	Level 3	Total
Cash Equivalents	\$ —	\$ 6	\$ —	\$ 6
Fixed Income Securities				
Government & Government Agency Bonds	—	5	—	5
Corporate Bonds	—	82	—	82
Municipal Bonds	—	5	—	5
Assets measured at net asset value⁽¹⁾				406
Total	<u>\$ —</u>	<u>\$ 98</u>	<u>\$ —</u>	<u>\$ 504</u>
Receivables				\$ 1
Total				<u>\$ 505</u>

**U.S. Plans for the Year Ended
December 31, 2022**

<i>(DOLLARS IN MILLIONS)</i>	Level 1	Level 2	Level 3	Total
Cash Equivalents	\$ —	\$ 9	\$ —	\$ 9
Fixed Income Securities				
Government & Government Agency Bonds	—	6	—	6
Corporate Bonds	—	73	—	73
Municipal Bonds	—	5	—	5
Assets measured at net asset value⁽¹⁾				404
Total	<u>\$ —</u>	<u>\$ 93</u>	<u>\$ —</u>	<u>\$ 497</u>
Receivables				\$ 1
Total				<u>\$ 498</u>

(1) Investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in the table above are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the Consolidated Balance Sheets. The total amount measured at net asset value includes approximately \$65 million and \$234 million in pooled equity funds and \$341 million and \$170 million in fixed income mutual funds for the years ended December 31, 2023 and 2022, respectively.

**Non-U.S. Plans for the Year Ended
December 31, 2023**

<i>(DOLLARS IN MILLIONS)</i>	Level 1	Level 2	Level 3	Total
Cash	\$ 27	\$ —	\$ —	\$ 27
Equity Securities				
U.S. Large Cap	90	—	—	90
U.S. Mid Cap	8	—	—	8
U.S. Small Cap	1	—	—	1
Non-U.S. Large Cap	50	—	—	50
Non-U.S. Mid Cap	5	—	—	5
Non-U.S. Small Cap	1	—	—	1
Emerging Markets	8	—	—	8
Fixed Income Securities				
U.S. Corporate Bonds	29	—	—	29
Non-U.S. Treasuries/Government Bonds	194	—	—	194
Non-U.S. Corporate Bonds	50	88	—	138
Non-U.S. Asset-Backed Securities	—	56	—	56
Non-U.S. Other Fixed Income	2	—	—	2
Alternative Types of Investments				
Insurance Contracts	—	247	—	247
Derivative Financial Instruments	—	28	—	28
Absolute Return Funds	3	2	—	5
Private Equity Funds	—	27	—	27
Property				
Non-U.S. Property	7	—	77	84
Total	<u>\$ 475</u>	<u>\$ 448</u>	<u>\$ 77</u>	<u>\$ 1,000</u>

**Non-U.S. Plans for the Year Ended
December 31, 2022**

<i>(DOLLARS IN MILLIONS)</i>	Level 1	Level 2	Level 3	Total
Cash	\$ 14	\$ 9	\$ —	\$ 23
Equity Securities				
U.S. Large Cap	73	—	—	73
U.S. Mid Cap	6	—	—	6
Non-U.S. Large Cap	79	—	—	79
Non-U.S. Mid Cap	4	—	—	4
Non-U.S. Small Cap	1	—	—	1
Emerging Markets	7	—	—	7
Fixed Income Securities				
U.S. Corporate Bonds	35	—	—	35
Non-U.S. Treasuries/Government Bonds	144	—	—	144
Non-U.S. Corporate Bonds	34	75	—	109
Non-U.S. Asset-Backed Securities	—	46	—	46
Non-U.S. Other Fixed Income	2	—	—	2
Alternative Types of Investments				
Insurance Contracts	—	177	—	177
Derivative Financial Instruments	—	56	—	56
Absolute Return Funds	4	2	—	6
Other	—	64	3	67
Property				
Non-U.S. Property	4	—	81	85
Total	<u>\$ 407</u>	<u>\$ 429</u>	<u>\$ 84</u>	<u>\$ 920</u>

Cash and cash equivalents are primarily held in registered money market funds which are valued using a market approach based on the quoted market prices of identical instruments. Other cash and cash equivalents are valued daily by the fund using a market approach with inputs that include quoted market prices for similar instruments.

Equity securities are primarily valued using a market approach based on the quoted market prices of identical instruments. Pooled funds are typically common or collective trusts valued at their net asset values (NAVs).

Fixed income securities are primarily valued using a market approach with inputs that include broker quotes and benchmark yields.

Derivative instruments are valued by the custodian using closing market swap curves and market derived inputs.

Property values are primarily based on valuation of the underlying investments, which include inputs such as cost, discounted future cash flows, independent appraisals and market comparable data.

Hedge funds are valued based on valuation of the underlying securities and instruments within the funds. Quoted market prices are used when available and NAVs are used for unquoted securities within the funds.

Absolute return funds are actively managed funds mainly invested in debt and equity securities and are valued at their NAVs.

The following table presents a reconciliation of Level 3 non-U.S. plan assets held during the year ended December 31, 2023:

<i>(DOLLARS IN MILLIONS)</i>	Non-U.S. Plans		
	Property	Hedge Funds	Total
Ending balance as of December 31, 2022	\$ 81	\$ 3	\$ 84
Actual return on plan assets	(4)	—	(4)
Purchases, sales and settlements	—	(3)	(3)
Ending balance as of December 31, 2023	<u>\$ 77</u>	<u>\$ —</u>	<u>\$ 77</u>

The following weighted average assumptions were used to determine the postretirement benefit expense and obligation for the years ended December 31:

	Expense		Liability	
	2023	2022	2023	2022
Discount rate	5.40 %	2.90 %	5.10 %	5.40 %
Current medical cost trend rate	6.50 %	6.75 %	7.25 %	6.50 %
Ultimate medical cost trend rate	4.75 %	4.75 %	4.75 %	4.75 %
Medical cost trend rate decreases to ultimate rate in year	2030	2030	2034	2030

The Company contributed \$31 million to its non-U.S. pension plans in 2023. No contributions were made to the Company's qualified U.S. pension plans in 2023. The Company contributed \$5 million with respect to its non-qualified U.S. pension plan. In addition, \$3 million of payments were made with respect to the Company's other postretirement plans.

NOTE 16. FINANCIAL INSTRUMENTS

Fair Value

Accounting guidance on fair value measurements specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions. These two types of inputs create the following fair value hierarchy:

- Level 1 — Quoted prices for *identical* instruments in active markets.
- Level 2 — Quoted prices for *similar* instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.
- Level 3 — Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value. The Company determines the fair value of structured liabilities (where performance is linked to structured interest rates, inflation or currency risks) using the Term SOFR swap curve and forward interest and exchange rates at period end. Such instruments are classified as Level 2 based on the observability of significant inputs to the model. The Company does not have any instruments classified as Level 3, other than those included in pension asset trusts included in Note 15. These valuations take into consideration the Company's credit risk and its counterparties' credit risk.

The carrying value and the estimated fair values of financial instruments at December 31 consisted of the following:

<i>(DOLLARS IN MILLIONS)</i>	2023		2022	
	Carrying Value	Fair Value	Carrying Value	Fair Value
LEVEL 1				
Cash and cash equivalents ⁽¹⁾	\$ 703	\$ 703	\$ 483	\$ 483
LEVEL 2				
Credit facilities and bank overdrafts ⁽²⁾	3	3	106	106
Derivatives				
Derivative assets ⁽³⁾	41	41	1	1
Derivative liabilities ⁽³⁾	165	165	75	75
Commercial paper ⁽²⁾	—	—	187	187
Long-term debt:				
2023 Notes ⁽⁴⁾	—	—	300	298
2024 Euro Notes ⁽⁴⁾	552	549	532	519
2025 Notes ⁽⁴⁾	1,000	924	1,000	884
2026 Euro Notes ⁽⁴⁾	879	835	845	774
2027 Notes ⁽⁴⁾	1,212	1,049	1,215	1,006
2028 Notes ⁽⁴⁾	398	389	398	380
2030 Notes ⁽⁴⁾	1,508	1,240	1,510	1,188
2040 Notes ⁽⁴⁾	773	536	774	535
2047 Notes ⁽⁴⁾	495	382	495	390
2048 Notes ⁽⁴⁾	787	678	787	685
2050 Notes ⁽⁴⁾	1,569	1,029	1,571	1,021
2024 Term Loan Facility ⁽⁵⁾	270	270	625	625
2026 Term Loan Facility ⁽⁵⁾	625	625	625	625

- (1) The carrying amount of cash and cash equivalents approximates fair value due to the short maturity of those instruments.
- (2) The carrying amount approximates fair value as the interest rate is reset frequently based on current market rates as well as the short maturity of those instruments.
- (3) The carrying amount approximates fair value as the instruments are marked-to-market and held at fair value on the Consolidated Balance Sheets.
- (4) The fair value of the Note is obtained from pricing services engaged by the Company, and the Company receives one price for each security. The fair value provided by the pricing services are estimated using pricing models, where the inputs to those models are based on observable market inputs or recent trades of similar securities. The inputs to the valuation techniques applied by the pricing services are typically benchmark yields, benchmark security prices, credit spreads, reported trades and broker-dealer quotes, all with reasonable levels of transparency.
- (5) The carrying amount approximates fair value as the Term Loans were assumed at fair value and the interest rate is reset frequently based on current market rates.

Derivatives

Foreign Currency Forward Contracts

The Company periodically enters into foreign currency forward contracts with the objective of managing our exchange rate risk related to foreign currency denominated monetary assets and liabilities of our operations. These contracts generally involve the exchange of one currency for a second currency at a future date, have maturities not exceeding twelve months and are with counterparties which are major international financial institutions.

Commodity Contracts

The Company utilizes options that are not designated as hedging instruments to reduce exposure to commodity price fluctuations on purchases of inventory such as soybeans, soybean oil and soybean meal.

The Company also uses options, futures and swaps that are designated as hedging instruments to reduce exposure to commodity price fluctuations on purchases of natural gas used in our manufacturing process.

Cash Flow Hedges

Through the third quarter of 2021, the Company maintained several forward currency contracts which qualified as cash flow hedges. The objective of these hedges is to protect against the currency risk associated with forecasted U.S. dollar (“USD”) denominated raw material purchases made by Euro (“EUR”) functional currency entities which result from changes in the EUR/USD exchange rate. The effective portions of cash flow hedges are recorded in other comprehensive income (“OCI”) as a component of Gains on derivatives qualifying as hedges in the accompanying Consolidated Statements of (Loss) Income and Comprehensive Loss. Realized gains/(losses) in accumulated other comprehensive income (loss) (“AOCI”) related to cash flow hedges of raw material purchases are recognized as a component of Cost of goods sold in the accompanying Consolidated Statements of (Loss) Income and Comprehensive Loss in the same period as the related costs are recognized.

There were no cash flow hedges as of December 31, 2023 and December 31, 2022.

Hedges Related to Issuances of Debt

Subsequent to the issuance of the 2026 Euro Notes during the third quarter of 2018, the Company designated the debt as a hedge of a portion of its net European investments. Accordingly, the change in the value of the debt that is attributable to foreign exchange movements is recorded in OCI as a component of foreign currency translation adjustments in the accompanying Consolidated Statements of (Loss) Income and Comprehensive Loss.

Subsequent to the issuance of the 2024 Euro Notes during the first quarter of 2016, the Company designated the debt as a hedge of a portion of its net European investments. Accordingly, the change in the value of the debt that is attributable to foreign exchange movements is recorded in OCI as a component of foreign currency translation adjustments in the accompanying Consolidated Statements of (Loss) Income and Comprehensive Loss.

During the first quarter of 2016, the Company entered into and terminated two Euro interest rate swap agreements to hedge the anticipated issuance of fixed-rate debt. These swaps were designated as cash flow hedges. The effective portions of cash flow hedges are recorded in OCI as a component of Losses on derivatives qualifying as hedges in the accompanying Consolidated Statements of (Loss) Income and Comprehensive Loss. The Company incurred a loss of €3 million (\$3 million) due to the termination of these swaps. The loss is being amortized as interest expense over the life of the 2024 Euro Notes as discussed in Note 9.

During the fourth quarter of 2016 and the first quarter of 2017, the Company entered into interest rate swap agreements to hedge the anticipated issuance of fixed-rate debt, which are designated as cash flow hedges. The various hedge instruments were settled upon issuance of the debt on May 18, 2017 and resulted in a loss of approximately \$5 million. As discussed in Note 9, the loss is being amortized as interest expense over the life of the 2047 Notes.

Cross Currency Swaps

During the third quarter of 2022, the Company entered into a transaction to unwind the fourteen outstanding EUR/USD cross currency swaps designated as net investment hedges issued between the third quarter of 2019 and the first quarter of 2022. The Company received proceeds of approximately \$183 million, including \$11 million of interest income. The gain arising from the termination of the swaps has been included as a component of Accumulated other comprehensive loss.

Following the unwinding of the existing swaps, during the third quarter of 2022, the Company entered into twelve new EUR/USD cross currency swaps, with a notional value of \$1.400 billion that mature through November 2030. The swaps all qualified as net investment hedges in order to mitigate a portion of the Company’s net European investments from foreign currency risk. As of December 31, 2023, the twelve remaining swaps were in a liability position with an aggregate fair value of \$161 million which were classified as Other liabilities on the Consolidated Balance Sheets. Changes in fair value related to cross currency swaps are recorded in OCI.

The following table shows the notional amount of the Company’s derivative instruments outstanding as of December 31, 2023 and December 31, 2022:

<i>(DOLLARS IN MILLIONS)</i>	December 31,	
	2023	2022
Foreign currency contracts ⁽¹⁾	\$ (1,400)	\$ 92
Commodity contracts ⁽¹⁾	7	(1)
Cross currency swaps	1,400	1,400

- (1) Foreign currency contracts and commodity contracts are presented net of contracts bought and sold.

The following tables show the Company's derivative instruments measured at fair value (Level 2 of the fair value hierarchy) as reflected in the Consolidated Balance Sheets as of December 31, 2023 and December 31, 2022:

December 31, 2023			
<i>(DOLLARS IN MILLIONS)</i>	Fair Value of Derivatives Designated as Hedging Instruments	Fair Value of Derivatives Not Designated as Hedging Instruments	Total Fair Value
Derivative assets⁽¹⁾			
Foreign currency contracts	\$ —	\$ 41	\$ 41
Total derivative assets	\$ —	\$ 41	\$ 41
Derivative liabilities⁽²⁾			
Foreign currency contracts	\$ —	\$ 4	\$ 4
Cross currency swaps	161	—	161
Total derivative liabilities	\$ 161	\$ 4	\$ 165

December 31, 2022			
<i>(DOLLARS IN MILLIONS)</i>	Fair Value of Derivatives Designated as Hedging Instruments	Fair Value of Derivatives Not Designated as Hedging Instruments	Total Fair Value
Derivative assets⁽¹⁾			
Foreign currency contracts	\$ —	\$ 1	\$ 1
Derivative liabilities⁽²⁾			
Cross currency swaps	\$ 75	\$ —	\$ 75

(1) Derivative assets are recorded to Prepaid expenses and other current assets on the Consolidated Balance Sheets.

(2) Derivative liabilities are recorded to Other current liabilities and Other liabilities on the Consolidated Balance Sheets.

The following table shows the effect of the Company's derivative instruments which were not designated as hedging instruments in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the years ended December 31, 2023 and 2022:

<i>(DOLLARS IN MILLIONS)</i>	Amount of Gain (Loss) For the year ended December 31,		Location of Gain (Loss) Recognized in Income on Derivative
	2023	2022	
Foreign currency contracts ⁽¹⁾	\$ (11)	\$ 7	Other expense (income), net
Commodity contracts	2	—	Cost of goods sold
Total	\$ (9)	\$ 7	

(1) The foreign currency contract net gains (losses) offset any recognized gains (losses) arising from the revaluation of the related intercompany loans during the same respective periods.

The following table shows the effect of the Company's derivative instruments designated as net investment hedging instruments, net of tax, in the Consolidated Statements of (Loss) Income and Comprehensive Loss for the years ended December 31, 2023 and 2022:

<i>(DOLLARS IN MILLIONS)</i>	Amount of Gain (Loss) Recognized in OCI on Derivative and Non-Derivative (Effective Portion)		Location of Gain (Loss) Reclassified from AOCI into Income (Effective Portion)	Amount of Gain (Loss) Reclassified from AOCI into Income (Effective Portion)	
	For the years ended December 31,			For the years ended December 31,	
	2023	2022		2023	2022
Derivatives in Net Investment Hedging Relationships:					
Cross currency swaps	\$ (67)	\$ (16)	N/A	\$ —	\$ —
Non-Derivatives in Net Investment Hedging Relationships:					
2024 Euro Notes	(16)	27	N/A	—	—
2026 Euro Notes	(26)	43	N/A	—	—
Total	\$ (109)	\$ 54		\$ —	\$ —

The ineffective portion of the above noted net investment hedges was approximately \$15 million and \$10 million for the years ended December 31, 2023 and 2022, respectively, and was recorded as a reduction to interest expense on the Consolidated Statements of (Loss) Income and Comprehensive Loss.

At December 31, 2023, based on current market rates, the Company does not expect any derivative losses (net of tax), included in AOCI, to be reclassified into earnings within the next 12 months.

NOTE 17. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The following tables present changes in the accumulated balances for each component of other comprehensive income (loss), including current period other comprehensive income (loss) and reclassifications out of accumulated other comprehensive income (loss):

<i>(DOLLARS IN MILLIONS)</i>	Foreign Currency Translation Adjustments	Gains (Losses) on Derivatives Qualifying as Hedges	Pension and Postretirement Liability Adjustment	Total
	Accumulated other comprehensive (loss) income, net of tax, as of December 31, 2022	\$ (2,066)	\$ 1	\$ (133)
OCI before reclassifications	367	—	(100)	267
Reclassifications due to business divestitures	47	—	(1)	46
Amounts reclassified from AOCI	—	—	(11)	(11)
Net current period other comprehensive income (loss)	414	—	(112)	302
Accumulated other comprehensive (loss) income, net of tax, as of December 31, 2023	\$ (1,652)	\$ 1	\$ (245)	\$ (1,896)

<i>(DOLLARS IN MILLIONS)</i>	Foreign Currency Translation Adjustments	Gains (Losses) on Derivatives Qualifying as Hedges	Pension and Postretirement Liability Adjustment	Total
	Accumulated other comprehensive (loss) income, net of tax, as of December 31, 2021	\$ (1,133)	\$ 1	\$ (291)
OCI before reclassifications	(933)	—	148	(785)
Amounts reclassified from AOCI	—	—	10	10
Net current period other comprehensive income (loss)	(933)	—	158	(775)
Accumulated other comprehensive (loss) income, net of tax, as of December 31, 2022	\$ (2,066)	\$ 1	\$ (133)	\$ (2,198)

<i>(DOLLARS IN MILLIONS)</i>	Foreign Currency Translation Adjustments	Gains (Losses) on Derivatives Qualifying as Hedges	Pension and Postretirement Liability Adjustment	Total
Accumulated other comprehensive (loss) income, net of tax, as of December 31, 2020	\$ (285)	\$ (7)	\$ (406)	\$ (698)
OCI before reclassifications	(848)	1	97	(750)
Amounts reclassified from AOCI	—	7	18	25
Net current period other comprehensive income (loss)	(848)	8	115	(725)
Accumulated other comprehensive (loss) income, net of tax, as of December 31, 2021	\$ (1,133)	\$ 1	\$ (291)	\$ (1,423)

The following table provides details about reclassifications out of Accumulated other comprehensive loss to the Consolidated Statements of (Loss) Income and Comprehensive Loss:

<i>(DOLLARS IN MILLIONS)</i>	Year Ended December 31,			Affected Line Item in the Consolidated Statements of (Loss) Income and Comprehensive Loss
	2023	2022	2021	
Gains (losses) on derivatives qualifying as hedges				
Foreign currency contracts	\$ —	\$ —	\$ (7)	Cost of goods sold
Interest rate swaps	—	—	(1)	Interest expense
Tax	—	—	1	Provision for income taxes
Total	\$ —	\$ —	\$ (7)	Total, net of income taxes
Gains (losses) on pension and postretirement liability adjustments				
Prior service cost	\$ 6	\$ 7	\$ 7 ⁽¹⁾	
Actuarial gains (losses)	8	(21)	(38) ⁽¹⁾	
Other items	—	—	17 ⁽²⁾	
Tax	(3)	4	(4)	Provision for income taxes
Total	\$ 11	\$ (10)	\$ (18)	Total, net of income taxes

(1) The amortization of prior service cost and actuarial loss is included in the computation of net periodic benefit cost. See Note 15 for additional information regarding net periodic benefit cost.

(2) Represents certain amounts of pension income that were corrected in 2021.

NOTE 18. CONCENTRATIONS OF CREDIT RISK

The Company does not have significant concentrations of risk in financial instruments. Temporary investments are made in a well-diversified portfolio of high-quality, liquid obligations of government, corporate and financial institutions. There are also limited concentrations of credit risk with respect to trade receivables because the Company has a large number of customers who are spread across many industries and geographic regions. The Company's larger customers are each spread across many sub-categories of its segments and geographical regions. The Company had no customer that accounted for more than 10% of its consolidated net sales for the years ended 2023, 2022 and 2021.

NOTE 19. COMMITMENTS AND CONTINGENCIES

Guarantees and Letters of Credit

The Company has various bank guarantees, letters of credit and surety bonds which are used to support its ongoing business operations, satisfy governmental requirements associated with pending litigation in various jurisdictions and the payment of customs duties.

As of December 31, 2023, the Company had a total capacity of approximately \$229 million of bank guarantees, commercial guarantees, standby letters of credit and surety bonds with various financial institutions. Included in the above aggregate amount was a total of approximately \$11 million for other assessments in Brazil for various income tax and indirect

tax disputes related to fiscal years 1998-2011. There was a total of approximately \$61 million outstanding under the bank guarantees, standby letters of credit and commercial guarantees as of December 31, 2023.

In order to challenge the assessments in these cases in Brazil, the Company has been required to, and has separately pledged assets, principally property, plant and equipment, to cover assessments in the amount of approximately \$8 million as of December 31, 2023.

Lines of Credit

The Company has various lines of credit which are available to support its ongoing business operations. As of December 31, 2023, the Company had a total capacity of approximately \$1.848 billion of lines of credit with various financial institutions, in addition to the \$1.548 billion of capacity under the Revolving Credit Facility. Pursuant to these lines of credit as of December 31, 2023, the total drawdowns were not material.

Litigation

The Company assesses contingencies related to litigation and/or other matters to determine the degree of probability and range of possible loss. A loss contingency is accrued in the Company's Consolidated Financial Statements if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable resolutions could occur, assessing contingencies is highly sensitive and requires judgments about future events. On at least a quarterly basis, the Company reviews contingencies related to litigation to determine the adequacy of accruals. The amount of ultimate loss may differ from these estimates and further events may require the Company to increase or decrease the amounts it has accrued on any matter.

Periodically, the Company assesses its insurance coverage for all known claims, where applicable, taking into account aggregate coverage by occurrence, limits of coverage, self-insured retentions and deductibles, historical claims experience and claims experience with its insurance carriers. The liabilities are recorded at management's best estimate of the probable outcome of the lawsuits and claims, taking into consideration the facts and circumstances of the individual matters as well as past experience on similar matters. At each balance sheet date, the key issues that management assesses are whether it is probable that a loss as to asserted or unasserted claims has been incurred and if so, whether the amount of loss can be reasonably estimated. The Company records the expected liability with respect to claims in Other liabilities and expected recoveries from its insurance carriers in Other assets. The Company recognizes a receivable when it believes that realization of the insurance receivable is probable under the terms of the insurance policies and its payment experience to date.

Litigation Matters

On August 12, 2019, Marc Jansen filed a putative securities class action against IFF, its then Chairman and CEO, and its then-CFO, in the United States District Court for the Southern District of New York. The lawsuit was filed after IFF disclosed that preliminary results of investigations indicated that Frutarom businesses operating principally in Russia and Ukraine had made improper payments to representatives of customers. On March 16, 2020, an amended complaint was filed, which added Frutarom and certain former officers of Frutarom as defendants. The amended complaint alleges, among other things, that defendants made materially false and misleading statements or omissions concerning IFF's acquisition of Frutarom, the integration of the two companies, and the companies' financial reporting and results. The amended complaint asserts claims under Section 10(b) of the Securities Exchange Act of 1934 and SEC Rule 10b-5, and under the Israeli Securities Act-1968, against all defendants, and under Section 20(a) of the Securities Exchange Act of 1934 against the individual defendants, on behalf of a putative class of persons and entities who purchased or otherwise acquired IFF securities on the New York Stock Exchange between May 7, 2018 and August 12, 2019 and persons and entities who purchased or otherwise acquired IFF securities on the Tel Aviv Stock Exchange between October 9, 2018 and August 12, 2019. The amended complaint seeks an award of unspecified compensatory damages, costs, and expenses. IFF, its officers, and Frutarom filed a motion to dismiss the case on June 26, 2020, which was granted on March 30, 2021. On April 28, 2021, lead plaintiffs filed a notice of appeal to the United States Court of Appeals for the Second Circuit. Lead plaintiffs are pursuing the appeal only against Frutarom and certain former officers of Frutarom. The parties have submitted their briefs to the Court of Appeals. The Second Circuit held oral argument on February 10, 2022. On September 30, 2022, the Second Circuit affirmed the dismissal of Plaintiffs' claims. On October 14, 2022, Plaintiffs filed a Petition for Rehearing En Banc, which the Second Circuit denied on January 4, 2023. Plaintiffs did not seek review in the United States Supreme Court. The matter is therefore fully resolved in defendants' favor.

Two motions to approve securities class actions were filed in the Tel Aviv District Court, Israel, in August 2019, similarly alleging, among other things, false and misleading statements largely in connection with IFF's acquisition of Frutarom and the above-mentioned improper payments. One motion ("Borg") asserts claims under the U.S. federal securities laws against IFF, its former Chairman and CEO, and its former CFO. On November 8, 2020, IFF and its officers filed their response to the Borg motion. On April 20, 2021, Mr. Borg filed a motion to stay the proceeding pending an appellate decision in the U.S. proceeding. On June 15, 2021, August 11, 2021, November 9, 2021, January 9, 2022, April 7, 2022 and July 10, 2022, the U.S. lead plaintiffs filed update notices with the Israeli court regarding the appeal in the U.S. proceeding. On June 12, 2023, the petitioner filed a withdrawal motion, which the court then granted. The Borg case is now dismissed. The other motion ("Oman") (following an initial amendment) asserted claims under the Israeli Securities Act-1968 against IFF, its former Chairman and CEO, and its former CFO, and against Frutarom and certain former Frutarom officers and directors, as well as claims under the Israeli Companies Act-1999 against certain former Frutarom officers and directors. On February 17, 2021, the court granted a motion by the Oman plaintiff to remove IFF and its officers from the motion and to add factual allegations from the US amended complaint. The amended Oman motion was filed on July 4, 2021. On August 29, 2021, the former Frutarom officers and certain former Frutarom directors filed a motion to dismiss the case. On September 30, 2021, Frutarom notified the court that it joins the legal arguments made in the motion to dismiss. On February 22, 2022, the court denied the motion to dismiss. On July 14, 2022, the court approved the parties' motion to mediate the dispute, which postpones all case deadlines until after the mediation. In addition, a request to appeal the court's denial of the motion to dismiss filed by the former Frutarom officers and certain former Frutarom directors has been stayed. The parties held mediation meetings on September 13, 2022, November 22, 2022, March 1, 2023 and November 2023.

On October 29, 2019, IFF and Frutarom filed a claim in the Tel Aviv District Court, Israel, against Ori Yehudai, the former President and CEO of Frutarom, and against certain former directors of Frutarom, challenging the bonus of US \$20 million granted to Yehudai in 2018. IFF and Frutarom allege, among other things, that Yehudai was not entitled to receive the bonus because he breached his fiduciary duty by, among other things, knowing of the above-mentioned improper payments and failing to prevent them from being made. The parties agreed, pursuant to the court's recommendation, to attempt to resolve the dispute through mediation, and a court decision is pending with regard to the order in which this claim and the class action described below will be heard.

On March 11, 2020, an IFF shareholder filed a motion to approve a class action in Israel against, among others, Frutarom, Yehudai, and Frutarom's former board of directors, alleging that former minority shareholders of Frutarom were harmed as a result of the US \$20 million bonus paid to Yehudai. The parties to this motion agreed to attempt to resolve the dispute through mediation to take place regarding the aforesaid claim against Yehudai. On July 27, 2021, counsel to the movant in the class action filed a notice with the court that the mediation process ended without an agreement. On August 26, 2021, a motion to dismiss the class action application was filed by Yehudai and certain former directors of Frutarom. On September 9, 2021, an additional motion to dismiss was filed by other former directors of Frutarom together with ICC Industries, Inc. and its affiliates. On December 9, 2021, the court denied the motions to dismiss. Responses to the class action motion were filed in May 2022, and applicant's response was filed in December 2022. An evidentiary hearing is set for March 2024.

Since March 2023, various putative class action lawsuits have been filed against IFF, Firmenich International SA, Givaudan SA, and Symrise AG and/or certain affiliates thereof in the Quebec Superior Court, the Federal Court of Canada, Ontario Superior Court, Supreme Court of British Columbia and, in several cases, the United States District Court for the District of New Jersey. These actions allege violations of the Canadian Competition Act and the Sherman Act, as applicable, and other related claims, and seek damages and other relief. IFF may face additional civil suits, in the United States or elsewhere, relating to such alleged conduct. At this time, IFF is unable to predict the potential outcome of these lawsuits or any potential effect they may have on the Company's results of operations, liquidity or financial condition.

Investigation

On June 3, 2020, the Israel Police's National Fraud Investigation Unit and the Israeli Securities Authority commenced an investigation into Frutarom and certain of its former executives, based on suspected bribery of foreign officials, money laundering, and violations of the Israeli Securities Act-1968. As part of the investigation, the National Fraud Investigation Unit and the Israeli Securities Authority have provided IFF and Frutarom with various orders, mainly requesting that IFF and Frutarom provide certain documents and materials. In addition, a seizure of assets was imposed on Frutarom and certain of its affiliates. IFF has been working to ensure compliance with such orders, all in accordance with, and subject to, Israeli law. On August 25, 2021, the Israeli Police informed Frutarom that they have decided to remove the temporary criminal seizure of assets order from the real estate assets of Frutarom and its related companies, which was done in parallel with the transfer of the case to the District Attorney's Office in Israel. On February 26, 2024, the Israeli authorities informed Frutarom that the authorities decided to close the criminal investigation.

On March 7, 2023, the European Commission ("EC") and the United Kingdom Competition and Markets Authority ("CMA") carried out unannounced inspections of certain of IFF's facilities. On the same day, IFF was served with a grand jury subpoena by the Antitrust Division of the U.S. Department of Justice ("DOJ"). IFF understands the EC, CMA, DOJ and the Swiss Competition Commission are investigating potential anticompetitive conduct as it relates to IFF's fragrance businesses. IFF has been and intends to continue cooperating with these investigations. IFF is unable, however, to predict or determine at this time the duration or outcome of the investigations, or whether the outcome of the investigations will materially impact the Company's results of operations, liquidity or financial condition.

China Facilities

Zhejiang Ingredients Plant

In the fourth quarter of 2017, the Company concluded discussions with the government regarding the relocation of its Fragrance Ingredients plant in Zhejiang and, based on the agreements reached, expects to receive total compensation payments up to approximately \$50 million. The relocation compensation will be paid to the Company over the period of the relocation. The Company received payments totaling \$30 million through the end of 2019. Production at the facility ceased during 2019. In the second quarter of 2020, the Company transferred ownership of the site to the government and the remaining net book value of the plant was written off. In the third quarter of 2020, the Company received a payment of approximately \$13 million. The land remediation activities were completed in November 2022 and the final land restoration activities to restore the land to its original height, per the government's request, were completed in April 2023. Upon completion of these activities, the land was returned to the government in April 2023 and a final payment of approximately \$5 million was received in June 2023.

During the second quarter of 2023, the Company recognized a pre-tax gain of approximately \$22 million related to this transaction presented in Other expense (income), net on the Consolidated Statements of (Loss) Income and Comprehensive Loss. The Company also recognized approximately \$6 million of income taxes presented in Provision for income taxes on the Consolidated Statements of (Loss) Income and Comprehensive Loss. The calculation of the applicable income taxes related to this transaction was sent to the local tax authorities for review and final approval was received in the fourth quarter of 2023.

Products previously manufactured at the Zhejiang Ingredients plant are now being produced at the Company's Ingredients plant in Jiande, China.

Total China Operations

The total net book value of all plants in China was approximately \$215 million as of December 31, 2023.

If the Company is required to close a plant, or operate one at significantly reduced production levels on a permanent basis, the Company may be required to record charges that could have a material impact on its consolidated financial results of operations, financial position and cash flows in future periods.

Environmental Proceedings

The Company is reporting the following environmental matter in compliance with SEC requirements to disclose environmental proceedings where a governmental authority is a party and that involve potential monetary sanctions of \$300,000 or greater. On May 27, 2022, the Solae, LLC Memphis site ("Solae") was served an Administrative Order and Assessment (the "Order") by the City of Memphis related to alleged wastewater discharge violations. Solae submitted an appeal of the Order on June 24, 2022. Discussions with the City regarding potential resolution of the violations and penalties related to said violations are ongoing. Additionally, the Solae facility has undertaken capital project efforts, some of which began prior to the issuance of the Order, that are anticipated to address, on a schedule consistent with the Order, deadlines for attaining compliance with current wastewater permit requirements. This matter is not expected to have a material adverse effect on the Company's financial position, cash flows or results of operations.

Other Contingencies

The Company has contingencies involving third parties (such as labor, contract, technology or product-related claims or litigation) as well as government-related items in various jurisdictions in which it operates pertaining to such items as value-added taxes, other indirect taxes, customs and duties and sales and use taxes. It is possible that cash flows or results of operations, in any period, could be materially affected by the unfavorable resolution of one or more of these contingencies.

The most significant government-related contingencies exist in Brazil. With regard to the Brazilian matters, the Company believes it has valid defenses for the underlying positions under dispute; however, in order to pursue these defenses, the Company is required to, and has provided, bank guarantees and pledged assets in the aggregate amount of approximately \$19 million. The Brazilian matters take an extended period of time to proceed through the judicial process and there are a limited number of rulings to date.

Brazil Tax Credits

In 2017, the Brazilian Supreme Court (“BSC”) ruled that Brazilian tax authorities should not include a value added tax known as “ICMS” in the calculation of certain indirect taxes (“PIS/COFINS”). By removing the ICMS from the calculation of the indirect tax base, the Court effectively eliminated a “tax on tax.” The Brazilian tax authorities filed an appeal seeking clarification of certain matters, including the amount of ICMS to which taxpayers would be entitled in order to reduce their indirect tax base (i.e. the gross rate or the net rate). In light of the BSC’s decision, in November 2017, the Company filed suit consistent with the BSC decision to require that ICMS be excluded from the PIS/COFINS calculation and received a favorable preliminary decision that was confirmed by the BSC in September 2018. This preliminary ruling granted the Company the right to prospectively exclude ICMS amounts from the PIS/COFINS calculation, but left open the issue of whether the Company could recover the gross or net amount of ICMS amounts paid on PIS/COFINS for the period from November 2011 to December 2018.

In January 2020, the Company was informed of a favorable ruling from the Brazilian tax authorities confirming that the Company was entitled to recover the overpayments of PIS/COFINS for the period from November 2011 to December 2018, plus interest on the amount of the overpayments. The overpayments arose from the inclusion of a value added tax known as ICMS in the calculation of the PIS/COFINS tax. The ruling did not, however, settle the question of whether the Company is eligible to recover overpayments based on the gross or the net amount of ICMS amounts paid on PIS/COFINS. The Company calculated the amount of overpayments using the gross method which yields a higher amount than the application of the net method. A final ruling on the gross versus net amount issue was made by the BSC who affirmed the use of the gross calculation with respect to claims submitted prior to March 2017. Although the Company had not submitted a claim until after March 2017, the Company believes that the Supreme Court, whilst confirming the use of the gross method of calculation, does not override the January 2020 ruling by the Brazilian tax authorities with respect to the timeframe for the calculation.

In addition to the \$8 million recognized in the fourth quarter of 2019, during the first quarter of 2020 the Company recognized \$4 million as an additional recovery on the existing claim. During 2020, the Company also recognized \$3 million related to a claim from another of its subsidiaries in Brazil. The income was recognized as a reduction in Selling and administrative expenses.

In February 2023, the BSC made an unfavorable court resolution for the Company related to the use of the gross method, which was only granted to claims submitted prior to March 2017. As a result of this unfavorable court resolution, the Company wrote off its remaining receivables of approximately \$6 million related to this matter during the first quarter of 2023.

Avicel® PH NF (Pharma Solutions)

The Company has determined that certain grades of microcrystalline cellulose (Avicel® PH 101, 102, and 200 NF and Avicel® RC-591 NF) were found to be out-of-specification (collectively, “OOS Avicel® NF”). The Company does not expect the OOS conductivity issue to affect the functionality of Avicel® NF grades or to pose a human health hazard. Corrective actions have been implemented to improve operational and laboratory conditions. Based on the information available, as of December 31, 2023, payments associated with this matter were approximately \$46 million, and the Company no longer had an accrual related to this matter. The total amount of exposure may increase if additional customers present claims or other exposures are identified.

Other

The Company determines estimates of reasonably possible losses or ranges of reasonably possible losses in excess of related accrued liabilities, if any, when it has determined that either a loss is reasonably possible or a loss in excess of accrued amounts is reasonably possible and the amount of losses or range of losses is determinable. For all third party contingencies (including labor, contract, technology, tax, product-related claims and business litigation), the Company currently estimates that the aggregate range of reasonably possible losses in excess of any accrued liabilities is \$0 to approximately \$75 million. The estimates included in this amount are based on the Company’s analysis of currently available information and, as new information is obtained, these estimates may change. Due to the inherent subjectivity of the assessments and the unpredictability of outcomes of legal proceedings, any amounts accrued or included in this aggregate amount may not represent the ultimate loss to the Company from the matters in question. Thus, the Company’s exposure and ultimate losses may be higher or lower, and possibly significantly so, than the amounts accrued or the range disclosed above.

NOTE 20. REDEEMABLE NON-CONTROLLING INTERESTS

Through certain subsidiaries of the Company’s Frutarom acquisition, there were certain non-controlling interests that carried redemption features. The non-controlling interest holders had the right, over a stipulated period of time, to sell their respective interests to Frutarom, and Frutarom had the option to purchase these interests (subject to the same timing). In most cases, these options carried similar price and conditions of exercise, and were settled on a pre-agreed formula based on a multiple of the average EBITDA of consecutive quarters to be achieved during the period ending prior to the exercise date.

The following table sets forth the details of the Company’s redeemable non-controlling interests:

	Redeemable Non-controlling Interests
<i>(DOLLARS IN MILLIONS)</i>	
Balance at December 31, 2020	\$ 98
Impact of foreign exchange translation	1
Share of profit or loss attributable to redeemable non-controlling interests	6
Redemption value adjustment for the current period	2
Dividends paid	(2)
Balance at December 31, 2021	\$ 105
Impact of foreign exchange translation	(6)
Share of profit or loss attributable to redeemable non-controlling interests	4
Redemption value adjustment for the current period	5
Exercises of redeemable non-controlling interests	(49)
Balance at December 31, 2022	\$ 59
Impact of foreign exchange translation	(8)
Redemption value adjustment for the current period	(2)
Dividends paid	(13)
Exercises of redeemable non-controlling interests	(25)
Disposal of redeemable non-controlling interests ⁽¹⁾	(11)
Balance at December 31, 2023	\$ —

(1) The disposal of redeemable non-controlling interests was related to the sale of the Company’s investment in the Sonarome business. The total proceeds received from the sale transaction was approximately \$29 million.

NOTE 21. ASSETS AND LIABILITIES HELD FOR SALE

During the third quarter of 2023, the Company announced the sale process of its Cosmetic Ingredients business within the Scent segment, and in the fourth quarter of 2023, the Company entered into an agreement to sell its Cosmetic Ingredients business. The transaction is subject to customary closing conditions and is expected to close in the first quarter of 2024.

The planned sale does not constitute a strategic shift of the Company’s operations and does not have major effects on the Company’s operations and financial results. Therefore, the transaction does not meet the discontinued operations criteria.

The Company determined that the assets and liabilities of the business met the criteria to be presented as “held for sale.” As a result, as of December 31, 2023, such assets and liabilities were classified as held for sale and are reported on the Consolidated Balance Sheets. The Company expects that the sale proceeds less costs to sell will exceed the preliminary estimate of the carrying value of the net assets for the business. The carrying value is subject to change based on developments leading up to the closing date.

Included in the Company's Consolidated Balance Sheets as of December 31, 2023 and 2022 are the following carrying amounts of the assets and liabilities held for sale:

<i>(DOLLARS IN MILLIONS)</i>	December 31, 2023		December 31, 2022 ⁽²⁾	
Assets				
Cash and cash equivalents	\$	26	\$	52
Trade receivables, net		15		85
Inventories		18		157
Property, plant and equipment, net		7		92
Goodwill		276		348
Other intangible assets, net		146		428
Operating lease right-of-use assets		9		13
Other assets		9		25
Total assets held-for-sale	\$	506	\$	1,200
Liabilities				
Accounts payable	\$	4	\$	56
Deferred tax liability ⁽¹⁾		24		92
Other liabilities		18		64
Total liabilities held-for-sale	\$	46	\$	212

(1) The Company is currently analyzing the tax impact of the sale of the Cosmetic Ingredients business and has included preliminary numbers for the deferred tax liability, which are subject to further updates.

(2) The amounts for December 31, 2022 represent the carrying amounts of the portion of the Savory Solutions business and FSI business that were classified as held for sale. The Company completed the divestitures of the businesses on May 31, 2023 and August 1, 2023, respectively. See Note 4 for additional information.

NOTE 22. OTHER (EXPENSE) INCOME, NET

Other (expense) income, net consisted of the following:

<i>(DOLLARS IN MILLIONS)</i>	December 31,		
	2023	2022	2021
Foreign exchange (losses) gains	\$ (77)	\$ (12)	\$ 3
Interest income	5	15	8
(Losses) gains on business divestitures	(23)	11	13
Gain on China facility relocation	22	—	—
Pension-related benefit	28	19	34
Other	17	4	—
Other (expense) income, net	\$ (28)	\$ 37	\$ 58

(a)(3) EXHIBITS

Exhibit Number	Description
2.1	Agreement and Plan of Merger, dated May 7, 2018, by and among the Registrant, Frutarom Industries Ltd. and Icon Newco Ltd., incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed on May 9, 2018.
2.2	Amendment No. 1 to Agreement and Plan of Merger, dated August 25, 2018, by and among International Flavors & Fragrances, Inc., Frutarom Industries Ltd. and Icon Newco Ltd. incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed on August 27, 2018.
2.3	Agreement and Plan of Merger, dated December 15, 2019, by and among DuPont de Nemours Inc., Nutrition & Biosciences, Inc., International Flavors & Fragrances Inc. and Neptune Merger Sub I Inc., incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed on December 18, 2019.
2.4	Separation and Distribution Agreement, dated as of December 15, 2019, by and among DuPont de Nemours Inc., Nutrition & Biosciences, Inc. and International Flavors & Fragrances Inc., incorporated by reference to Exhibit 2.2 to the Registrant's Current Report on Form 8-K filed on December 18, 2019.
2.4(i)	Amendment No. 1 to the Separation and Distribution Agreement, dated January 22, 2021, by and among DuPont de Nemours, Inc., Nutrition & Biosciences, Inc., International Flavors & Fragrances Inc. and Neptune Merger Sub II LLC, incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed on January 25, 2021.
2.4(ii)	Amendment No. 2 to the Separation and Distribution Agreement, dated February 1, 2021, by and among DuPont de Nemours, Inc., Nutrition & Biosciences, Inc., International Flavors & Fragrances Inc. and Neptune Merger Sub II LLC, incorporated by reference to Exhibit 2.4 to the Registrant's Current Report on Form 8-K filed on February 3, 2021.
3.1	Restated Certificate of Incorporation of the Registrant, incorporated by reference to Exhibit 10(g) to the Registrant's Quarterly Report on Form 10-Q filed on August 12, 2002.
3.2	Bylaws of International Flavors & Fragrances Inc., effective as of November 1, 2023, incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on November 7, 2023.
4.1	Indenture, dated as of April 4, 2013, between the Registrant and U.S. Bank National Association, as Trustee (including the form of Notes), incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on April 4, 2013.
4.2	Indenture, dated as of March 2, 2016, between the Registrant and U.S. Bank National Association, as Trustee (including the form of Debt Security), incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-3 (Registration No. 333-209889) filed on March 2, 2016.
4.2(i)	First Supplemental Indenture, dated as of March 14, 2016, between the Registrant and U.S. Bank National Association, as Trustee (including the form of Notes), incorporated by reference to Exhibit 4.7 to the Registrant's Current Report on Form 8-K filed on March 14, 2016.
4.2(ii)	Second Supplemental Indenture, dated as of May 18, 2017, between the Registrant and U.S. Bank National Association, as Trustee (including the form of Notes), incorporated by reference to Exhibit 4.7 to the Registrant's Current Report on Form 8-K filed on May 18, 2017.
4.2(iii)	Third Supplemental Indenture, dated as of September 17, 2018, between International Flavors & Fragrances Inc. and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.5 to the Registrant's Current Report on Form 8-K filed on September 17, 2018.
4.2(iv)	Fourth Supplemental Indenture, dated as of September 25, 2018, between International Flavors & Fragrances Inc. and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on September 25, 2018.
4.2(v)	Fifth Supplemental Indenture, dated as of September 26, 2018, between International Flavors & Fragrances Inc. and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on September 26, 2018.
4.3	Form of Amortizing Note, incorporated by reference to Exhibit 4.5 to the Registrant's Current Report on Form 8-K filed on September 17, 2018.
4.4	Purchase Contract Agreement, dated September 17, 2018, between International Flavors & Fragrances Inc. and U.S. Bank National Association, as purchase contract agent, as attorney-in-fact for holders of the purchase contracts referred to therein and as trustee under the indenture referred to therein, incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on September 17, 2018.
4.5	Form of Unit, incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on September 17, 2018.
4.6	Form of Purchase Contract, incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on September 17, 2018.

**Exhibit
Number Description**

- 4.7 Form of Global Note for the 2021 Notes, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on September 25, 2018.
- 4.8 Form of Global Note for the 2026 Notes, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on September 25, 2018.
- 4.9 Form of Global Note for the 2020 Notes, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on September 26, 2018.
- 4.10 Form of Global Note for the 2028 Notes, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on September 26, 2018.
- 4.11 Form of Global Notes for the 2048 Notes, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on September 26, 2018.
- 4.12 Indenture, dated as of September 16, 2020, between the N&B and U.S. Bank National Association, as Trustee (including the form of Notes), incorporated by reference to Exhibit 99.16 to the Registrant's Registration Statement on Form S-4 (Registration No. 333-238072) filed on October 5, 2020.
- 4.12(i) First Supplemental Indenture, dated as of February 1, 2021, among Nutrition & Biosciences, Inc., International Flavors & Fragrances Inc. and U.S. Bank National Association, as Trustee. Incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on February 4, 2021.
- 4.12(ii) Second Supplemental Indenture, dated as of March 4, 2021, among Nutrition & Biosciences, Inc., International Flavors & Fragrances Inc. and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on March 4, 2021.
- 4.13 Icon Debt Assumption Supplement, dated as of March 4, 2021, among Neptune Merger Sub II LLC (as successor by merger to Nutrition & Biosciences, Inc.) and International Flavors & Fragrances Inc., and as acknowledged by Morgan Stanley Senior Funding, Inc., as administrative agent, incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on March 4, 2021.
- 4.14 Description of Securities, incorporated by reference to Exhibit 4.17 to the Registrant's Annual Report on Form 10-K filed on March 3, 2020.
- *10.1 Letter Agreement between International Flavors & Fragrances Inc. and Franklin K. Clyburn, Jr., effective January 18, 2022, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on January 20, 2022.
- *10.2 Supplemental Retirement Plan, incorporated by reference to Exhibit 10.5 to the Registrant's Annual Report on Form 10-K filed on February 27, 2008.
- *10.3 2021 Stock Award and Incentive Plan, incorporated by reference to Annex 1 to the Registrant's Proxy Statement filed with the Commission on March 23, 2021.
- *10.4 Form of Restricted Stock Units Agreement – Non-Employee Director under the 2021 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.5 to the Registrant's Annual Report on Form 10-K, filed on February 28, 2022.
- *10.5 Form of Restricted Stock Units Award Agreement under the 2021 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.6 to the Registrant's Annual Report on Form 10-K, filed on February 28, 2022.
- *10.6 Form of Equity Choice Program Award Agreement under the 2021 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.7 to the Registrant's Annual Report on Form 10-K, filed on February 28, 2022.
- *10.7 Form of Performance-Based Restricted Stock Units Award Agreement under the 2021 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K, filed on February 28, 2022.
- *10.8 2015 Stock Award and Incentive Plan, as amended and restated February 7, 2017, incorporated by reference to Exhibit 10.13 to the Registrant's Annual Report on Form 10-K filed on February 28, 2017.
- *10.9 Form of Annual Incentive Plan Award Agreement under the 2015 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015.
- *10.10 Form of Long-Term Incentive Plan Award Agreement under the 2015 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015.
- *10.11 Form of Equity Choice Program Award Agreement under the 2015 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015.

**Exhibit
Number Description**

- *10.12 Form of Restricted Stock Units Award Agreement under the 2015 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015.
- *10.13 Form of Non-Employee Director Restricted Stock Units Award Agreement under the 2015 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015.
- *10.14 Form of Equity Choice Program Award Agreement under the 2015 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 9, 2015.
- *10.15 Form of Long-Term Incentive Plan Award Agreement under the 2015 Stock Award and Incentive Plan, incorporated by reference to Exhibit 10.25 to the Registrant's Annual Report on Form 10-K filed on March 1, 2016.
- *10.16 Amended and Restated Executive Severance Policy, as amended through and including November 1, 2017, incorporated by reference to Exhibit 10.17 to the Registrant's Annual Report on Form 10-K filed on February 27, 2018 (the "Executive Severance Policy").
- *10.17 Amendment to the Executive Severance Policy dated November 3, 2020, incorporated by reference to Exhibit 10.18 to the Registrant's Annual Report on Form 10-K filed on February 22, 2021.
- *10.18 Amended and Restated Executive Severance Policy, as amended and restated on February 1, 2023 (the "Executive Severance Policy"), incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q filed on May 10, 2023.
- *10.19 Form of Director/Officer Indemnification Agreement, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on July 28, 2008.
- *10.20 Form of Executive Death Benefit Program - Plan Agreement, incorporated by reference to Exhibit 10.27 to the Registrant's Annual Report on Form 10-K filed on February 28, 2012.
- *10.21 Deferred Compensation Plan (the "2023 Deferred Compensation Plan"), incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement on Form S-8 filed on November 29, 2022.
- 10.22 Credit Agreement, dated as of November 9, 2011, amended and restated as of December 2, 2016, among the Registrant, International Flavors & Fragrances (Luxembourg) S.à.r.l., International Flavors & Fragrances (Nederland) Holding B.V., International Flavors & Fragrances I.F.F. (Nederland) B.V. and International Flavors & Fragrances (Greater Asia) PTE. Ltd., as borrowers, the banks, financial institutions and other institutional lenders party thereto, and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.28 to the Registrant's Current Report on Form 8-K filed on December 5, 2016.
- 10.22(i) Amendment No. 1 to Credit Agreement, dated as of May 21, 2018, among the Registrant, International Flavors & Fragrances (Nederland) Holding B.V., International Flavors & Fragrances I.F.F. (Nederland) B.V. and International Flavors & Fragrances (Greater Asia) PTE. Ltd., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on May 24, 2018.
- 10.22(ii) Amendment No. 2 to Credit Agreement, dated as of June 6, 2018, among the Registrant, International Flavors & Fragrances (Nederland) Holding B.V., International Flavors & Fragrances I.F.F. (Nederland) B.V. and International Flavors & Fragrances (Greater Asia) PTE. Ltd., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on June 8, 2018.
- 10.22(iii) Amendment No. 3 to Credit Agreement, dated as of July 13, 2018, among the Registrant, International Flavors & Fragrances (Nederland) Holding B.V., International Flavors & Fragrances I.F.F. (Nederland) B.V. and International Flavors & Fragrances (Greater Asia) PTE. Ltd., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed on August 7, 2018.
- 10.22(iv) Amendment No. 4 to Credit Agreement, dated as of January 17, 2020 among International Flavors & Fragrances Inc., International Flavors & Fragrances (Nederland) Holding B.V., International Flavors & Fragrances I.F.F. (Nederland) B.V. and International Flavors & Fragrances (Greater Asia) PTE. Ltd., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on January 22, 2020.
- 10.22(v) Second Amended and Restated Credit Agreement, dated as of August 25, 2020 among International Flavors & Fragrances Inc., International Flavors & Fragrances (Nederland) Holding B.V. and International Flavors & Fragrances I.F.F. (Nederland) B.V., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on August 28, 2020.

Exhibit Number	Description
10.22(vi)	Third Amended and Restated Credit Agreement, dated as of July 28, 2021 among International Flavors & Fragrances Inc., International Flavors & Fragrances (Nederland) Holding B.V. and International Flavors & Fragrances I.F.F. (Nederland) B.V., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on 8-K filed on July 28, 2021.
10.22(vii)	Amendment No.1 to Third Amended and Restated Credit Agreement, dated as of August 4, 2022, among the Registrant, International Flavors & Fragrances (Nederland) Holding B.V. and International Flavors & Fragrances I.F.F. (Nederland) B.V., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on August 8, 2022.
10.22(viii)	Amendment No. 2 to Third Amended and Restated Revolving Credit Agreement, dated as of March 23, 2023, among the Registrant, International Flavors & Fragrances (Nederland) Holding B.V. and International Flavors & Fragrances I.F.F. (Nederland) B.V., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on March 27, 2023.
10.22(ix)	Amendment No. 3 to Third Amended and Restated Revolving Credit Agreement, dated as of March 23, 2023, among the Registrant, International Flavors & Fragrances (Nederland) Holding B.V. and International Flavors & Fragrances I.F.F. (Nederland) B.V., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed on March 27, 2023.
10.22(x)	Amendment No. 4 to Third Amended and Restated Revolving Credit Agreement, dated as of September 19, 2023, among the Registrant, International Flavors & Fragrances (Nederland) Holding B.V. and International Flavors & Fragrances I.F.F. (Nederland) B.V., as borrowers, the lenders signatory thereto and Citibank, N.A., as administrative agent, incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on November 8, 2023.
10.23	Term Loan Credit Agreement, dated as of June 6, 2018, among the Registrant, as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc. as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on June 8, 2018.
10.23(i)	Amendment No 1. to Credit Agreement, dated as of July 13, 2018, among the Registrant, as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc. as administrative agent, incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q filed on August 7, 2018.
10.23(ii)	Amendment No. 2 to Credit Agreement, dated as of January 17, 2020 among International Flavors & Fragrances Inc., as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc. as administrative agent, incorporated by reference to Exhibit 10.2 to the Registrant's Current Report filed on Form 8-K filed on January 22, 2020.
10.23(iii)	Amendment No. 3 to Credit Agreement, dated as of August 25, 2020 among International Flavors & Fragrances Inc., as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc. as administrative agent, incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on August 28, 2020.
10.24	Employee Matters Agreement, dated as of December 15, 2019, by and among DuPont de Nemours Inc., Nutrition & Biosciences, Inc. and International Flavors & Fragrances Inc, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on December 18, 2019.
10.24(i)	Amendment to the Employee Matters Agreement, dated January 22, 2021, by and among International Flavors & Fragrances Inc., DuPont de Nemours, Inc. and Nutrition & Biosciences, Inc., incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on January 25, 2021.
10.25	Term Loan Credit Agreement, dated as of May 15, 2020 among International Flavors & Fragrances Inc., as borrower, the lenders signatory thereto and China Construction Bank Corporation, New York Branch, as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on May 21, 2020.
10.25(i)	Amendment No. 1 to Credit Agreement, dated as of August 25, 2020, among the Company, as borrower, the lenders signatory thereto and China Construction Bank Corporation, New York Branch as administrative agent, incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on August 28, 2020.
10.26	Term Loan Credit Agreement, dated as of January 17, 2020, by and among Nutrition & Biosciences, Inc., as borrower, and Morgan Stanley Senior Funding Inc., as administrative agent, and the other lenders party thereto, incorporated by reference to Exhibit 99.14 to the Registrant's Form S-4 Registration Statement filed on October 5, 2020.

Exhibit Number	Description
10.26(i)	Amendment No. 1 to Credit Agreement, dated as of August 25, 2020, by and among Nutrition & Biosciences, Inc., the lenders signatory thereto and Morgan Stanley Senior Fund, Inc., as administrative agent, incorporated by reference to Exhibit 99.15 to the Registrant's Form S-4 Registration Statement filed on October 5, 2020.
10.26(ii)	Amendment No. 2 to Term Loan Credit Agreement, dated as of August 4, 2022, among International Flavors & Fragrances Inc., as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc., as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on August 8, 2022.
10.26(iii)	Amendment No. 3 to Term Loan Credit Agreement, dated as of March 23, 2023, among International Flavors & Fragrances Inc., as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc., as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on March 27, 2023.
10.26(iv)	Amendment No. 4 to Term Loan Credit Agreement, dated as of March 23, 2023, among International Flavors & Fragrances Inc., as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc., as administrative agent, incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on March 27, 2023.
10.26(v)	Amendment No. 5 to Term Loan Credit Agreement, dated as of September 19, 2023, among International Flavors & Fragrances Inc., as borrower, the lenders signatory thereto and Morgan Stanley Senior Funding, Inc., as administrative agent, incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 8, 2023.
10.27	Cooperation Agreement, dated as of February 1, 2023, by and among International Flavors & Fragrances Inc. and Icahn Group, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 2, 2023.
10.28	Tax Matters Agreement, dated as of February 1, 2021, by and among DuPont de Nemours, Inc., Nutrition & Biosciences, Inc. and International Flavors & Fragrances Inc., incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 4, 2021.
10.29	Intellectual Property Cross-License Agreement, dated as of February 1, 2021, by and between Nutrition & Biosciences, Inc. and DuPont de Nemours, Inc., incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on February 4, 2021.
21	List of Principal Subsidiaries.
23	Consent of PricewaterhouseCoopers LLP.
31.1	Certification of J. Erik Fyrwald pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Glenn Richter pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification of J. Erik Fyrwald and Glenn Richter pursuant to 18 U.S.C. Section 1350 as adopted pursuant to the Sarbanes-Oxley Act of 2002.
97	International Flavors & Fragrances Inc. Policy for the Recovery of Erroneously Awarded Compensation
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extensions Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

* Management contract or compensatory plan or arrangement

ITEM 16. FORM 10-K SUMMARY.

None.

INTERNATIONAL FLAVORS & FRAGRANCES INC. AND SUBSIDIARIES
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
(IN MILLIONS)

For the Year Ended December 31, 2023

	Balance at beginning of period	Additions (deductions) charged to costs and expenses	Acquisitions	Accounts written off	Translation adjustments	Other	Balance at end of period
Allowance for doubtful accounts	\$ 53	\$ 9	\$ —	\$ (11)	\$ 1	\$ —	\$ 52
Valuation allowance on credit and operating loss carryforwards and other net deferred tax assets	262	76	—	—	(23)	9	324

For the Year Ended December 31, 2022

	Balance at beginning of period	Additions charged to costs and expenses	Acquisitions	Accounts written off	Translation adjustments	Other	Balance at end of period
Allowance for doubtful accounts	\$ 46	\$ 19	\$ —	\$ —	\$ (12)	\$ —	\$ 53
Valuation allowance on credit and operating loss carryforwards and other net deferred tax assets	232	51	—	—	(21)	—	262

For the Year Ended December 31, 2021

	Balance at beginning of period	Additions charged to costs and expenses	Acquisitions	Accounts written off	Translation adjustments	Other ⁽¹⁾	Balance at end of period
Allowance for doubtful accounts	\$ 21	\$ 6	\$ —	\$ (1)	\$ —	\$ 20	\$ 46
Valuation allowance on credit and operating loss carryforwards and other net deferred tax assets	257	(18)	9	—	(16)	—	232

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(1) The amount relates to adjustment to allowances for bad debts as a result of purchase price allocation related to the Merger with N&B.

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BOARD OF DIRECTORS

Kathryn J. Boor ^{3, 4 *}

Dean of the Graduate School and
Vice Provost for Graduate Education
Cornell University

Barry A. Bruno ^{1, 2}

Executive Vice President,
Chief Marketing Officer and President, U.S.
Church & Dwight Co., Inc.

Mark J. Costa ^{1, 2}

Chairman & Chief Executive Officer
Eastman Chemical Company

Carol Anthony (John) Davidson ^{1*}

Former Senior Vice President,
Controller and Chief Accounting Officer
Tyco International

Roger W. Ferguson, Jr. ^{3, +}

Former President and Chief Executive Officer
TIAA

John F. Ferraro ^{2*}

Former Global Chief Operating Officer
Ernst & Young

J. Erik Fyrwald ⁴

Chief Executive Officer
International Flavors & Fragrances Inc.

Christina Gold ^{2, 3*}

Former Chief Executive Officer,
President and Director
The Western Union Company

Gary Hu ^{1, 4}

Portfolio Manager
Icahn Capital LP

Kevin O'Byrne ^{1, 4}

Former Chief Financial Officer and Director
J Sainsbury Plc

Dawn C. Willoughby ^{2, 3}

Former Executive Vice President
and Chief Operating Officer
The Clorox Company

¹ Audit Committee

² Human Capital & Compensation Committee

³ Governance & Corporate Responsibility Committee

⁴ Innovation Committee

* Indicates Chair

+ Chair of the Board

Information as of February 6, 2024

EXECUTIVE LEADERSHIP TEAM

J. Erik Fyrwald

Chief Executive Officer

Yuvraj Arora

President, Nourish

Deborah Borg

Executive Vice President, Chief Human Resources,
Communications and DE&I Officer

Michael DeVeau

Senior Vice President, Corporate Finance
and Investor Relations

Ralf Finzel

Executive Vice President,
Global Operations Officer

Simon Herriott

President, Health and Biosciences and Scent

Jennifer Johnson

Executive Vice President,
General Counsel and Corporate Secretary

Glenn Richter

Executive Vice President, Chief Financial
and Business Transformation Officer

Angela Strzelecki

President, Pharma Solutions

Ana Paula Teles de Mendonça

Senior Vice President,
Commercial Excellence

Vic Verma

Executive Vice President,
Chief Information Officer

Casper Vroemen

Executive Vice President,
Chief Research & Development Officer



INTERNATIONAL FLAVORS & FRAGRANCES INC.

GLOBAL HEADQUARTERS

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