FMC Corporation

2022 ANNUAL REPORT

FMC

An Agricultural Sciences Company

Message to Shareholders

FMC delivered record business performance in 2022. Annual revenue of $5.8 billion increased 15 percent compared to the previous year. Adjusted EBITDA* of $1.407 billion was up 7 percent and Adjusted Earnings Per Share* of $7.41 increased 8 percent. In December, we raised FMC's dividend, the fifth consecutive annual increase. Since establishing FMC's current dividend policy in December 2018, we have increased dividends at a compound annual growth rate of 10 percent.

Resilience and Agility

FMC's record 2022 performance is a testament to the resilience, resolve and agility of our organization. Throughout the year, FMC and the industry continued to face unprecedented challenges, including lockdowns in China related to COVID, Russia's invasion of Ukraine, increasing energy costs and rising inflation.

FMC's Manufacturing, Procurement, Supply Chain and Logistics teams once again demonstrated why they are among the best in the business. These cross-functional groups work together to ensure FMC is prepared for world or regional events that could affect our business. As complexities and challenges evolve, our teams respond with solutions that mitigate potential impacts on our ability to safely and efficiently manufacture, transport and sell our leading crop protection products.

When necessary, we take difficult but appropriate decisions to address complex events. FMC was the first major crop protection company to exit the Russian market following the outbreak of war in February 2022. With more than 80 employees in Russia prior to the war, as well as a formulation plant and a robust business presence, the impact of our departure from the Russian market was meaningful. But it was the right decision considering overwhelming reports of potential war crimes, human rights abuses and other atrocities.

Safety, Sustainability and Diversity

Safety is embedded in every aspect of our company—not just in manufacturing, but across the organization, including in offices, research sites, field stations and among our commercial teams. It is a core value and mindset embraced by every employee. Not a single meeting begins at FMC without a "safety share" where employees remind their colleagues about staying focused on safe behaviors. In 2022, FMC achieved an annual injury rate of 0.0795, slightly higher than the previous year's record low. This injury rate maintains FMC's position in the top decile of American Chemistry Council (ACC) companies for safety, and we're proud to have been named ACC Company of the Year for the fourth time since 2017.

FMC continued to make substantial progress in our sustainability and net zero journey. As previously announced, we were one of the first crop protection companies to commit to a net zero goal, and among very few companies to pursue an aggressive net zero timeline of less than 15 years. In 2022 we reduced our Scope 1 and Scope 2 greenhouse gas emissions at FMC operating sites, while at the same time growing our overall production. Furthermore, our consistent progress on various ESG metrics was recognized by several raters that moved FMC up in their rankings in 2022. Today FMC is at or above the industry average ranking across many leading ESG raters.

We made great strides in our Diversity, Equity and Inclusion (DEI) programs and strategy. Employee engagement is an important aspect of our success in DEI. Regional Inclusion Councils, which include workstreams that represent our Employee Resource Groups, such as The Bridge (multicultural), i-Gen (intergenerational), Women's Initiative Network, SPECTRUM (LGBTQ+), and others, drive awareness, dialog and overall employee experiences across our company. We continued to make improvements in both of our workforce diversity goals for representation of women globally and Black/African Americans in our U.S. workforce. In both, we increased the overall representation, closing 2022 at 31.7 percent women globally and 10.1 percent Black/African Americans in our U.S. workforce.

Innovation and Growth Investments

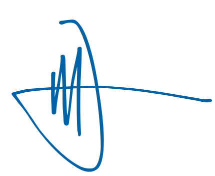
We operate one of the most productive research organizations in the industry. Farmers rely on FMC's fungicides, herbicides and insecticides—including our growing portfolio of biological products—to protect their crops from diseases, weeds and insects that can negatively impact crop quality and yield. Our R&D pipeline features 23 new active ingredients in discovery and 11 new active ingredients in development. More than 18 of these molecules feature new modes of action, which is critical to address a pest's resistance to older technologies. New products launched in 2022 from our pipeline contributed approximately $100 million in revenue, while new products launched in the last five years contributed revenue of more than $600 million. In FMC Plant Health, we launched 17 new biological products around the world, as well as 2 new micronutrient products.

In addition to innovation from our R&D labs, FMC expanded its biologicals portfolio with the acquisition of BioPhero ApS. This Danish-based company is a pioneer in biologically produced pheromone technology featuring a patented fermentation platform, enabling significantly lower cost production of pheromones compared to current industry practices.

We also continue to assess technology outside of FMC that can support or augment our current capabilities. FMC Ventures expanded its portfolio in 2022 with strategic investments in start-ups and early-stage companies working on new or disruptive technologies. These engagements span several important technology segments, including robotics, drone technology, Ag-FinTech, pathogen detection, soil health, peptides and pheromones. For example, FMC increased its investment in Micropep, a start-up developing short natural peptide molecules that target and regulate plant genes and proteins. In addition, we entered a strategic collaboration with Micropep late last year to develop solutions to control herbicide-resistant weeds.

In Precision Agriculture, we are growing our Arc™ farm intelligence platform, FMC's proprietary mobile solution that helps farmers identify and manage pest pressure through predictive modeling. Arc™ farm intelligence is currently deployed across 20 million acres spanning over 20 countries. The platform delivers field-level insights that drive farmer engagement, improve return on investment and support the sustainable use of FMC products. Furthermore, we have found that farmers who use Arc™ farm intelligence tend to buy a broader range of products from FMC.

Our 6,600 employees are committed to supporting farmers around the world with sustainable technologies that protect their crops and help feed the world's growing population. We are passionate about our purpose and focused on continuing to deliver market-leading performance.



Mark Douglas
President and Chief Executive Officer
FMC Corporation

**Denotes a non-GAAP term. The adjusted EBITDA non-GAAP reconciliation is included within the Form 10-K on page 22. Adjusted EPS is not included in the Form 10-K. See inside back cover for chart that reconciles it to the closest GAAP term.*

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2022

or

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

For the transition period from _______ to _______

Commission File Number 1-2376

FMC An Agricultural Sciences Company

FMC CORPORATION

(Exact name of registrant as specified in its charter)

DELAWARE	**94-0479804**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
2929 Walnut Street **Philadelphia** **Pennsylvania**	**19104**
(Address of principal executive offices)	*(Zip Code)*

Registrant's telephone number, including area code: 215-299-6000

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 $0.10 per share	**FMC**	**New York Stock Exchange**

SECURITIES REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT:
NONE

Indicate by check mark	YES	NO
• if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.	☑	☐
• if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.	☐	☑
• 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.	☑	☐
• 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).	☑	☐
• whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.		
Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐		
• If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.		☐
• 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.		☐
• 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).		☐
• whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act)	☐	☑

The aggregate market value of voting stock held by non-affiliates of the registrant as of June 30, 2022, the last day of the registrant's second fiscal quarter was $13,407,027,345. The market value of voting stock held by non-affiliates excludes the value of those shares held by executive officers and directors of the registrant.

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

As of December 31, 2022, there were 125,110,804 of the registrant's common shares outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

DOCUMENT	FORM 10-K REFERENCE
Portions of Proxy Statement for 2023 Annual Meeting of Stockholders	**Part III**

Table of Contents

PART I

FMC Corporation was incorporated in 1928 under Delaware law and has its principal executive offices at 2929 Walnut Street, Philadelphia, Pennsylvania 19104. Throughout this annual report on Form 10-K, except where otherwise stated or indicated by the context, "FMC", the "Company", "We," "Us," or "Our" means FMC Corporation and its consolidated subsidiaries and their predecessors. Copies of the annual, quarterly and current reports we file with the Securities and Exchange Commission ("SEC"), and any amendments to those reports, are available on our website at *www.fmc.com* as soon as practicable after we furnish such materials to the SEC.

ITEM 1 Business

General

FMC Corporation is a global agricultural sciences company dedicated to helping growers produce food, feed, fiber and fuel for an expanding world population while adapting to a changing environment. FMC's innovative crop protection solutions enable growers, crop advisers and turf and pest management professionals to address their toughest challenges economically without compromising safety or the environment. FMC is committed to discovering new insecticide, herbicide and fungicide active ingredients, product formulations and pioneering technologies that are consistently better for the planet.

FMC Strategy

We have streamlined our portfolio over the past ten years to become a tier-one leader and the fifth largest global innovator in the agricultural chemicals market. Our strong competitive position is driven by our technology and innovation, as well as our geographic balance and crop diversity, which helped FMC to take share in 2020, 2021 and 2022 in our key markets.

Our leading insecticides, herbicides and fungicides, including our biological technologies, that farmers rely on to protect their crops from disease and pests were produced at five active ingredient plants, 16 formulation and packaging sites and sold in approximately 120 countries. Helping farmers grow more food sustainably on less arable land requires a continual stream of new products and technologies. We are investing in one of the agricultural industry's most productive crop protection pipeline, featuring 23 new active ingredients in discovery and 11 new active ingredients in development. More than 18 of these molecules feature new modes of action.

We own and operate a total of 21 manufacturing plants, and we have the scale to operate with strong resources and global reach to address changing market conditions. Our supply chain organization effectively managed to continue supplying customers and growing our business, despite multiple shutdowns and other disruptions in the chemical sector in the last several years.

FMC revenues grew approximately 15 percent, or 18 percent organically[1] excluding the impacts of foreign currency, year over year in 2022, driven by strong volume growth and pricing gains in North America and Latin America. Approximately $600 million in 2022 sales came from products launched in the last five years, representing 10 percent of the total revenue. In 2022, we had new product launches in Canada of Coragen® Max insecticide based on Rynaxypyr® active and in Brazil of Boral® Full, our new herbicide mixture product. We had new product launches in Argentina and Paraguay of Onsuva® fungicide based on our new Fluindapyr active ingredient. Products launched in 2022 accounted for approximately $100 million in sales. Our diamides, Rynaxypyr® and Cyazypyr® active ingredients, continued to be a significant part of our portfolio, representing approximately $2.1 billion in combined sales and approximately 36 percent of the total revenue in 2022. We also grew our Plant Health program, which includes FMC's biologicals platform, by 8 percent. Plant Health is now over $230 million in sales and outpacing market growth.

FMC performed better than the overall crop protection market in 2022, which we estimate grew in the low-double digit percentage range versus 2021. Foreign currency was a headwind to full-year revenue. As mentioned above, our revenue growth rate was 15 percent, and excluding the impact of foreign currency, our organic[1] growth rate was 18 percent. FMC's innovation, from our current portfolio of advanced products to our R&D discovery, development and new formulations, contributed to our performance. Our technology portfolio includes specific innovations in plant health, application technology and delivery systems, as well as advanced agronomic insights through Arc™ farm intelligence, our precision agriculture platform that leverages artificial intelligence and machine learning.

(1) Organic revenue growth is a non-GAAP term which excludes the impact of foreign currency changes. Refer to the "Results of Operations" section of our Management's Discussion and Analysis in Item 7 for our organic revenue non-GAAP reconciliation.

Acquisitions and Divestitures

On June 29, 2022, we announced a definitive agreement to acquire BioPhero ApS ("BioPhero"), a Denmark-based pheromone research and production company. The acquisition adds state-of-the-art biologically produced pheromone insect control technology to our product portfolio and R&D pipeline, underscoring our role as a leader in delivering innovative and sustainable crop protection solutions. The purchase price of approximately $193 million was primarily paid at closing on July 19, 2022. The acquisition included all of BioPhero's technology, IP, supply agreements, employees and net assets of the business.

We continued to make investments through FMC Ventures, our venture capital arm which we formed in 2020 to target strategic investments in start-ups and early-stage companies that are developing and applying emerging technologies in the agricultural industry.

In May 2020, FMC entered into a binding offer with Isagro S.p.A ("Isagro") to acquire the remaining rights for Fluindapyr active ingredient assets from Isagro. In July 2020, we entered into an asset sale and purchase agreement with Isagro. On October 2, 2020, we closed on the transaction with a purchase price of approximately $65 million. Fluindapyr has been jointly developed by FMC and Isagro under a 2012 research and development collaboration agreement. The transaction provided FMC with full global rights to the Fluindapyr active ingredient, including key U.S., European, Asian, and Latin American fungicide markets. The transaction transferred to FMC all intellectual property, know-how, registrations, product formulations and other global assets of the proprietary broad-spectrum fungicide molecule. The acquired assets have been classified as in-process research and development. See Note 9 to the consolidated financial statements included within this Form 10-K for accounting considerations. The transaction has expanded our fungicide portfolio by giving us full global rights to the Fluindapyr active ingredient and is an important strategic addition to our product line. In 2022, we launched Onsuva™ fungicide which is based on the Fluindapyr active in Argentina and Paraguay. Onsuva™ fungicide targets diseases in soy and peanut crops.

Financial Information About Our Business

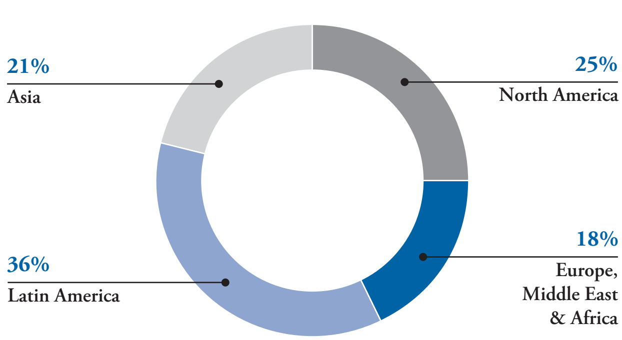
(Financial Information in Millions)

The following table shows the principal products produced by our business, its raw materials and uses:

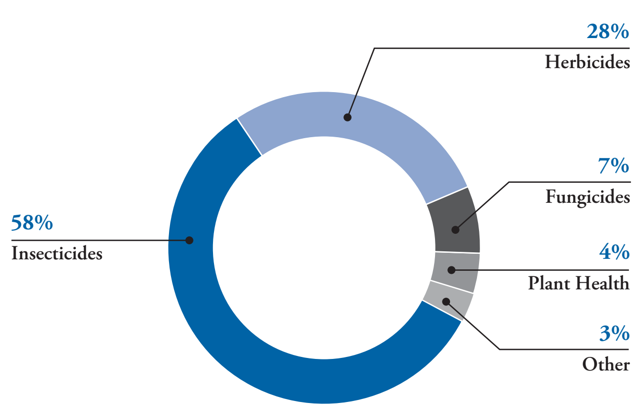
Product	Raw Materials	Uses
Insecticides	Synthetic chemical intermediates	Protection of crops, including soybean, corn, fruits and vegetables, cotton, sugarcane, rice, and cereals, from insects and for non-agricultural applications including pest control for home, garden and other specialty markets
Herbicides	Synthetic chemical intermediates	Protection of crops, including cotton, sugarcane, rice, corn, soybeans, cereals, fruits and vegetables from weed growth and for non-agricultural applications including turf and roadsides
Fungicides	Synthetic chemical intermediates	Protection of crops, including cereals, fruits and vegetables from fungal disease
Plant Health	Biological intermediates	Protection of crops, including soybean, corn, fruits and vegetables, cotton, sugarcane, rice, and cereals, from insects and diseases and enhancement of yields

Our worldwide manufacturing and distribution infrastructure enables us to respond rapidly to global customer needs, offset downward economic trends in one region with positive trends in another and match local revenues to local costs to reduce the impact of currency volatility. The following charts detail our sales by major geographic region and major product category.

REVENUE BY REGION - 2022
REVENUE: $5,802.3 MILLION



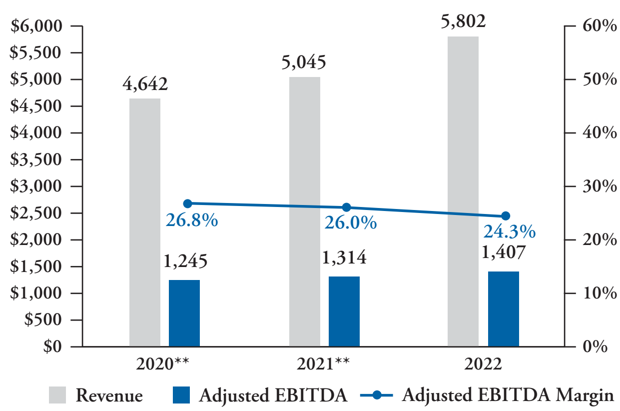
REVENUE BY PRODUCT CATEGORY - 2022



The following table provides our long-lived assets by major geographical region:

(in Millions)	December 31, 2022	December 31, 2021
Long-lived assets		
North America	$ 1,060.7	$ 1,091.3
Latin America	759.0	742.6
Europe, Middle East, and Africa	1,684.1	1,499.0
Asia	2,018.2	2,092.3
TOTAL	**$ 5,522.0**	**$ 5,425.2**

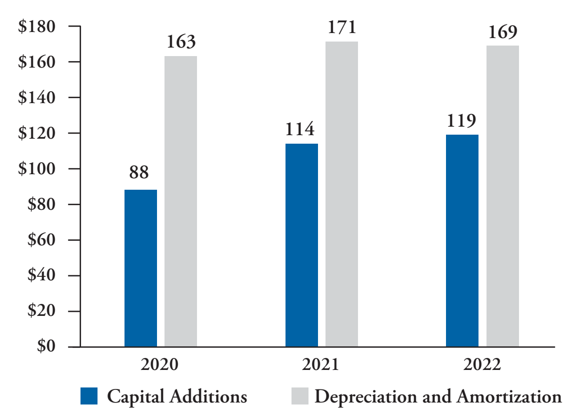
REVENUE AND ADJUSTED EBITDA MARGIN*



* *Represents a Non-GAAP financial measure. Refer to the "Results of Operations" section of Item 7 included within this Form 10-K for a reconciliation from the most directly comparable GAAP measure.*

** *Adjusted EBITDA and Margin have been adjusted to reflect changes in accounting principles (See Note 1).*

CAPITAL ADDITIONS* AND DEPRECIATION AND AMORTIZATION



* *Includes capital expenditures, expenditures related to contract manufacturers and other investing activities.*

Products and Markets

Our portfolio is comprised of three major pesticide categories: insecticides, herbicides and fungicides. The majority of our product lines consist of insecticides and herbicides, and we have a growing portfolio of fungicides mainly used in high value crop segments. Our insecticides are used to control a wide spectrum of pests, while our herbicide portfolio primarily targets a large variety of difficult-to-control weeds. In addition, we are also investing substantially in our Plant Health program which includes biologicals, crop nutrition, and seed treatment products. Biological technologies developed by FMC's R&D team in Denmark offer excellent sustainability profiles and serve as strong complements to our synthetic products. Our biologicals feature attributes that exceed the competition, such as high stability, long shelf life, low use rates and compatibility with other chemistries.

We have our own sales and marketing organizations and access the market through a combination of distributors, retailers and co-ops in all four regions. In addition, we sell directly to large growers in select countries such as Brazil. Through these and other alliances, along with our own targeted marketing efforts, access to novel technologies and our innovation initiatives, we expect to maintain and enhance our access in key agricultural and non-crop markets and develop new products that will help us continue to compete effectively.

Industry Overview

The three principal categories of agricultural and non-crop chemicals are: insecticides, herbicides, and fungicides, representing approximately 40 percent, 29 percent and 28 percent of global industry revenue, respectively.

The agrochemicals industry is more consolidated following several mergers of the leading crop protection companies, which now include FMC, ChemChina (owner of Syngenta Group, which includes the former Syngenta and Adama), Bayer AG (acquired Monsanto in 2018), BASF AG and Corteva Agriscience. These five innovation companies currently represent approximately 71 percent of the crop protection industry's global sales. The next group of agrochemical producers include UPL Ltd., Sumitomo Chemical Company Ltd., and Nufarm Ltd. FMC employs various differentiated strategies and competes with unique technologies focusing on certain crops, markets and geographies, while also being supported by a low-cost manufacturing model.

Growth

We are among the leading agrochemical producers in the world. Several products from our portfolio are based on patent-protected active ingredients and continue to grow well above market patterns. Our complementary technologies combine improved formulation capabilities and a broader innovation pipeline, resulting in new and differentiated products. We continue to take advantage of enhanced market access positions and an expanded portfolio to deliver near-term growth.

We continue to grow by obtaining new and approved uses for existing product lines and acquiring, accessing, developing, marketing, distributing and/or selling complementary chemistries, biologicals, and related technologies in order to strengthen our product portfolio and our capabilities to effectively service our target markets and customers.

Our growth efforts focus on developing environmentally compatible and sustainable solutions that can effectively increase farmers' yields and provide alternatives to products which may be prone to resistance. We are committed to providing unique, differentiated products to our customers by acquiring and further developing technologies as well as investing in innovation to extend product life cycles. Our external growth efforts include product acquisitions, in-licensing of chemistries and technologies and alliances that bolster our market access, complement our existing product portfolio or provide entry into adjacent spaces. We have entered into a range of development and distribution agreements with other companies that provide access to new technologies and products which we can subsequently commercialize.

In FMC Precision Agriculture, we are broadening our award-winning Arc™ farm intelligence platform, a proprietary mobile solution that helps farmers better understand and manage pest pressure through predictive modeling based on real-time and historical data, entomological models, hyper-local weather information and in-field sensors. Arc™ farm intelligence, which is now available in over 20 countries across 20 million acres, allows growers to address pest pressure more efficiently, manage infestations before they escalate and target applications in a more sustainable manner.

Our venture capital arm, FMC Ventures, continued to build its portfolio in 2022 with new collaborations and strategic investments in start-ups and early stage companies working on new or disruptive technologies. These engagements, which support or augment our internal capabilities, span several important technology segments, including robotics, drone technology, Ag-FinTech, pathogen detection, soil health, peptides and pheromones. In 2022, FMC Ventures increased its investment in Micropep, a startup developing short natural peptide molecules that target and regulate plant genes and proteins. The venture capital arm also agreed to an investment in Traive, an Ag-FinTech startup addressing working capital needs of growers in Brazil. FMC Ventures continues to scout for and invest in game changing innovations that shape the future of crop protection.

Diamide Growth Strategy

Our product portfolio features two key diamide-class molecules – Rynaxypyr® (chlorantraniliprole) and Cyazypyr® (cyantraniliprole) actives – with combined annual revenues of approximately $2.1 billion in 2022. These two molecules are industry-leading in terms of performance, combining highly effective low dose rates with fast-acting, systemic, long residual control. These attributes quickly established Rynaxypyr® active as the world's leading insect control technology and we expect it to continue a strong growth trajectory notwithstanding the expiration of composition of matter patents covering Rynaxypyr® active in certain countries which started in late 2022. Our Cyazypyr® active, a second-generation diamide, is growing quickly as we obtain more product registrations. We expect Cyazypyr® active to continue to grow strongly notwithstanding the expiration of its active ingredient composition of matter patents starting in the mid-2020s. This expectation is based not only on our broad patent estate and the timing of key patent milestones, but also on other critical elements that will allow FMC to continue to profitably grow the diamide franchise well beyond the expiration of key patents. Some of the critical elements supporting diamide growth include registration and data protection, commercial strategies, brand recognition, as well as manufacturing and supply chain complexity and FMC efficiencies.

Patents and Trade Secrets

The FMC diamide insect control patent estate is made up of many different patent families which cover: Composition of matter – both active ingredients and certain intermediates; Manufacturing processes – both active ingredients and certain intermediates; Formulations; Uses; and Applications. For Rynaxypyr® and Cyazypyr® actives related patents, as of December 31, 2022, we had 33 families with granted patents filed in up to 76 countries, with a total of 727 active granted patents as well as numerous pending patent applications. See "Patents, Trademarks and Licenses" within this Item 1 for more details. FMC's process patents cover the manufacturing processes for both active ingredients – chlorantraniliprole and cyantraniliprole – as well as key intermediates that are used to make the final products. Chlorantraniliprole is a complex molecule to produce, requiring 16 separate steps; FMC owns granted patents covering many of these 16 process steps and several of the intermediate chemicals, and we protect other aspects of the manufacturing processes by trade secret. Cyantraniliprole is similarly complex and covered by a comparable range of intellectual property. Many of these intermediate process patents run well past the expiration of the composition of matter patents, and in some cases stretch until the end of this decade. Third parties that intend to manufacture and sell generic chlorantraniliprole or cyantraniliprole and rely on FMC's extensive product safety data will be required to demonstrate that their product has an equivalent regulatory safety profile as FMC's Rynaxypyr® and Cyazypyr® actives. To meet regulatory requirements for such difficult-to-manufacture molecules, we believe that third parties will have to produce these active ingredients using the same processes that are patented by FMC and if so, would be infringing before patent expiration and subject to our challenge for infringement. FMC also owns formulation patents which cover the use of chlorantraniliprole or cyantraniliprole in specific formulations found in commercially important end-use products.

Regulatory Data Protection

In addition to the patent estate, various pesticide laws and regulations around the world offer added protection to the initial active ingredient registrant in the form of data protection that can extend after the composition or process patents have expired. These rules can effectively provide a product innovator and initial active ingredient registrant such as FMC with a further period of exclusive use of the key reference data even after the applicable active ingredient composition of matter patents have expired. Further, in certain countries, even after the period of exclusive use has expired, a generic entrant seeking to rely on the initial registrant's reference data may have to pay significant compensation to the initial registrant. For FMC's diamide products, such rights apply in key markets including United States and the European Union.

Growing the FMC Diamide Franchise

FMC is executing a strategy to supply end-use products containing Rynaxypyr® and Cyazypyr® actives to a broad range of companies prior to patent expiration, and in return establishing long-term purchase commitments from these companies. These arrangements may also include limited patent, data and/or trademark licenses. Such partner relationships allow us to grow our business by having others develop and sell diamide-based products to meet farmers' needs not within our current portfolio, offering those farmers a better alternative to competing insecticides with product safety or efficacy profiles which are less attractive than Rynaxypyr® or Cyazypyr® actives. These agreements can require the third-party to use the well-known and trusted Rynaxypyr® or Cyazypyr® brand names on the end-use products formulated with active ingredient supplied by FMC. As of December 31, 2022, we had global agreements with five major multinational companies and approximately 50 separate local-country agreements covering over 15 countries. We are continuing to explore opportunities with additional companies beyond those with whom we are already engaged. Furthermore, FMC is developing an extensive portfolio of new diamide-containing products to address grower needs around the world. The first of these products, under the trademarks Elevest®, Vantacor®, and Altacor® eVo, were launched in the US and other countries, including Canada and Australia, starting in late 2020 through 2022 and will be launched in additional countries in 2023 onward. Our current diamide pipeline contains approximately 20 new products to be launched this decade and we continue to explore further innovations based on the diamide chemistry.

Complexity of manufacturing

Today FMC manufactures all the required intermediates in the multi-step processes, as well as the final Rynaxypyr® and Cyazypyr® actives, at our own active ingredient manufacturing plants or through key contract manufacturers who produce under long-term exclusive technology-license agreements. A third-party replicating this complex supply chain and manufacturing network would be a major undertaking with very large capital requirements. In addition, given our manufacturing know-how, scale of our operations, and continual investment in manufacturing process improvement, we believe FMC's manufacturing costs will be substantially lower than any other party seeking to produce these diamide products in compliance with all applicable laws.

Collectively, these four factors – deep patent estate, proprietary regulatory data, strong commercial approach leveraging our brand recognition, and capabilities of managing large scale manufacturing complexity – provide us the basis for our expectation that FMC will be the company of choice to supply chlorantraniliprole and cyantraniliprole products to third-party partners, and ultimately to farmers, well into the future.

Source and Availability of Raw Materials

We utilize numerous vendors to supply raw materials and intermediate chemicals to support operations. These materials are sourced on a global basis to strategically balance FMC's vendor portfolio.

Patents, Trademarks and Licenses

As an agricultural sciences company, FMC believes in innovation and in protecting that innovation through intellectual property rights. We own and license a significant number of U.S. and foreign patents, trademarks, trade secrets and other intellectual property that are cumulatively important to our business. In addition, we seek to license our proprietary technologies through partnering arrangements that effectively allow us to capitalize from our intellectual property. The FMC intellectual property estate provides us with a significant competitive advantage which we seek to expand and renew on a continual basis. We manage our technology investment to discover and develop new active ingredients and biological products, as well as to continue to improve manufacturing processes and existing active ingredients through new formulations, mixtures or other concepts. FMC's technology innovation processes capture those innovations and protect them through the most appropriate form of intellectual property rights. We also in-license certain active ingredients and other technologies under patents held by third parties, and have granted licenses to certain of our patents to third parties.

Our patents cover many aspects of our business, including our chemical and biological active ingredients, intermediate chemicals, manufacturing processes to produce such active ingredients or intermediates, formulations, and product uses, as well as many aspects of our research and development activities that support the FMC new product pipeline. Patents are granted by individual jurisdictions and the duration of our patents depends on their respective jurisdictions and payment of annuities.

As of December 31, 2022, the Company owned a total of approximately 200 active granted U.S. patents and 2,600 active granted foreign patents (includes Supplemental Patent Certificates); we also have approximately 2,100 patent applications pending globally.

In our current product portfolio, our diamide insect control products based on Rynaxypyr® (Chlorantraniliprole) and Cyazypyr® (Cyantraniliprole) active ingredients have a substantial patent estate which will remain in force well into the future. More details regarding our diamide granted patent estate are set forth in the tables below:

Numbers of active Granted Patents by type*: Chlorantraniliprole and Cyantraniliprole, as of December 31, 2022

	United States	Foreign
Active Ingredients	2	162
Intermediates and Methods of Manufacturing	19	230
Formulations/Mixtures/Applications	6	308
TOTAL	**27**	**700**

**Patent families were only placed under one type but may cover several types.*

Remaining Life of Granted Patents: Chlorantraniliprole and Cyantraniliprole, as of December 31, 2022

	United States	Foreign
Through December 31, 2027	11	520
2028 - 2032	14	163
2033 - 2038	2	17
TOTAL	**27**	**700**

We also own many trademarks that are well recognized by customers or product end-users. Unlike patents, ownership rights in trademarks can be continued indefinitely so long as the trademarks are properly used and renewal fees are paid.

We actively monitor and manage our patents and trademarks to maintain our rights in these assets and we strategically take aggressive action when we believe our intellectual property rights are being infringed. During 2022, we initiated proceedings to enforce several of our patents and trademarks against generic producers and infringers, resulting in multiple favorable judgments and settlements, including in India and China. In early 2022, we received notice that certain third parties are seeking to invalidate our Chinese patents on a certain intermediate involved in producing chlorantraniliprole and a process to produce chlorantraniliprole; we intend to defend vigorously the validity of both patents. During the third quarter of 2022, the China Patent Review Board issued rulings which held that the two challenged patents were not valid in China. We believe the Review Board's decisions are seriously flawed both on procedural and substantive ground and we have filed appeals. Under Chinese law, the patents remain valid but are not enforceable pending appeal. Given the unique and specific Chinese patent laws and legal procedures at issue in that situation, we do not believe that the China Patent Review Board's decisions would materially impact our enforcement of similar patents in other countries. Patent challenges in response to enforcement efforts is expected as an ordinary defense tactic in patent enforcement cases, and have been raised in several of our enforcement cases to date; we intend to defend vigorously any diamide patents that are challenged. While we believe that the invalidity or loss of any particular patent, trademark or license after appeal would be an unlikely possibility, our patent and trademark estate related to our diamide insect control products based on Rynaxypyr® and Cyazypyr® active ingredients in the aggregate are of material importance to our operations.

The composition of matter patent that covers chlorantraniliprole (also known as Rynaxypyr® active) expired in a number of countries in August 2022; this patent will continue to remain in force in other countries throughout the world, expiring on a country-by-country basis at various dates through 2027. We are deploying a multi-pronged strategy to defend that business after active ingredient patent expiration, including enforcement of our patents in many countries which continue to cover chemical intermediates and manufacturing processes that are essential in the production of chlorantraniliprole. Patents involve complex factual and legal issues and thus each case is being litigated on the merits; we often seek preliminary injunctive relief to stop sales of products which we believe to be infringing – since equitable relief at the early stage of a litigation is subject to a higher standard of proof than decisions made after a trial on the merits, we may have difficulty prevailing in all cases at that preliminary stage. However, even in situations in which we are not able to prevail on interim relief, we intend to continue litigating in such cases and seek permanent injunctive relief and recovery of damages after a full trial.

Seasonality

The seasonal nature of the crop protection market and the geographic spread of our business can result in significant variations in quarterly earnings among geographic locations. Our products sold in the northern hemisphere (North America, Europe and parts of Asia) serve seasonal agricultural markets from March through September, generally resulting in significant earnings in the first and second quarters, and to a lesser extent in the fourth quarter. Markets in the southern hemisphere (Latin America and parts of the Asia Pacific region, including Australia) are served from July through February, generally resulting in earnings in the third, fourth and first quarters.

Competition

We encounter substantial competition in our business. We market our products through our own sales organization and through alliance partners, independent distributors and sales representatives. The number of our principal competitors varies from market to market. In general, we compete by providing advanced technology, high product quality, reliability, quality customer and technical service, and by operating in a cost-efficient manner.

Our business competes primarily in the global crop protection market for insecticides, herbicides and fungicides. Industry products include crop protection chemicals and biologicals, for certain major competitors, genetically engineered (crop biotechnology) products. Competition from generic agrochemical producers is significant as a number of key product patents have expired in the last two decades. In general, we compete as an innovator by focusing on product development, including novel formulations, proprietary mixes, and advanced delivery systems and by acquiring or licensing (mostly) proprietary chemistries or technologies that complement our product and geographic focus. We also differentiate ourselves by our global cost-competitiveness through our manufacturing strategies, establishing effective product stewardship programs and developing strategic alliances that strengthen market access in key countries and regions.

Research and Development Expense

The R&D efforts in our business focus on discovering and developing environmentally sound solutions — both new active ingredients and new product formulations — that meet the needs of farmers to maximize yields and control pests. On June 24, 2019, we announced our investment of more than $50 million at our FMC Stine Research Center in Newark, Delaware, to upgrade infrastructure. We anticipate that the investment in this project will continue in 2023 with expected completion in 2024.

Environmental Laws and Regulations

A discussion of environmental related factors can be found in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in Note 12 "Environmental Obligations" in the notes to our consolidated financial statements included in this Form 10-K.

Human Capital

Employees

We employ approximately 6,600 people with about 1,600 people in our domestic operations and 5,000 people in our foreign operations.

Approximately 3 percent of our U.S.-based and 37 percent of our foreign-based employees, respectively, are represented by collective bargaining agreements. We have successfully concluded our recent contract negotiations without any material work stoppages. We cannot predict, however, the outcome of future contract negotiations. In 2023, 5 foreign collective-bargaining agreements will be expiring. These contracts affect approximately 21 percent of our foreign-based employees. There are no U.S. collective-bargaining agreements expiring in 2023.

Talent Engagement and Retention

At FMC, it is important that we focus our programs and initiatives on sustaining strong leaders who are committed to engaging and developing employees, so they can lead competitively, innovate change, improve business performance, and successfully maintain a competitive advantage. FMC provides leadership development through structured leadership programs worldwide. FMC's program components include in-class and self-paced learning, development planning and stretch assignments, project-based action learning and rotational learning, mentoring and coaching, and leadership and functional assessments. Our programs are designed to provide engaging, collaborative, and creative learning environments. Employees leverage their experiences in these programs to develop leadership abilities to their highest levels, enabling them to deliver innovative solutions, strong results and continued growth.

FMC creates an environment where we promote our values, embrace diversity, and build an inclusive culture. We achieve this through a variety of programs and initiatives such as quarterly Town Hall meetings, employee engagement surveys, focus groups, learning opportunities, and philanthropic initiatives, and we continue to enable Employee Resource Groups ("ERGs") to help foster an inclusive workplace for employees.

FMC continually strives to meet the needs of our employees, shareholders, and customers through competitive rewards, policies, and practices that support the company as an employer of choice in every market where we compete for talent. FMC compensates employees through total reward programs that are aligned with performance and competencies. Performance-based direct pay programs include competitive base pay, annual bonus opportunities, sales incentive plans, and long-term incentives. These compensation elements along with benefits, work-life flexibility, recognition awards, talent and career development, enable FMC to offer a comprehensive total reward package designed for employees throughout their career.

Culture and Inclusion

Diversity Equity & Inclusion ("DEI") is central to our growth strategy, and we continue to make FMC more diverse, equitable and inclusive for all employees and stakeholders. In 2022, we realigned our global DEI program to ensure we are prioritizing objectives related to workforce diversity, equitable processes, and inclusive culture. We made good progress toward our representation goals related to women globally and Black/African Americans in our U.S. workforce. We increased the overall percent representation and net additions of women and Black/African Americans, closing 2022 with positive results across all regions and at various levels of the organization.

In addition to an intentional focus on the goals throughout our hiring processes, our progress was driven by strategic investments and community partnerships. For example, in our Brazil manufacturing organization, we took steps to build a pipeline of female candidates for our Uberaba plant by developing strong partnerships with local educational institutions and peers, which included providing education and professional training as well as apprenticeship programs for women. These investments resulted in a strong pool of female candidates prepared for job opportunities in manufacturing operations. We were able to hire more women through these efforts at our Uberaba plant, increasing the percentage of female employees to 42 percent in the Brazil manufacturing organization. We also increased the percentage of women in our commercial sales organization in many countries across North America, Latin America, Europe, and Asia Pacific. A good portion of this growth can also be attributed to strategic investments and community partnerships. Notably, we launched our first student symposium for research and development ("Advancing Diversity in Science"), hosting students at our global R&D center in Newark, Delaware, from the University of Delaware and local historically black colleges and universities ("HBCUs") including Delaware State University and University of Maryland Eastern Shore. The special event helped students learn about FMC, engage with FMC employees in STEM careers, showcase their own research and explore the possibilities of careers in STEM at FMC.

We balanced our recruiting and hiring efforts with initiatives to increase retention. FMC implemented a formal retention program and the Retention & Belonging Office aimed at supporting current employees as they navigate their career journeys (e.g., career coaching program). Throughout the implementation and ongoing promotion of the program, we have been intentional about reaching underrepresented groups, ensuring they take full advantage of and achieve the benefits from our retention programs. In addition, we better equipped managers and employees on talent management and development methodologies with enhanced processes and tools that can help guide and navigate careers of our diverse talent across the company. Our network of Regional Inclusion Councils and ERGs remain critical to driving strong employee engagement, providing learning/awareness initiatives, and building greater allyship and advocacy for our employees across various dimensions of diversity. As we look ahead, our focus is on expanding efforts to build more diverse candidate pools, driving greater retention of diverse employees and strengthening our culture of inclusion and belonging with the understanding that diverse views, backgrounds, and experiences will always be key to our success.

Safety

Safety is a core value of FMC. At FMC, people come first. We strive for an injury-free workplace, where every person returns home the same way they arrived. We encourage a culture of open reporting, to learn from our mistakes and work towards continuous improvement in behaviors and processes. As a result of our firm commitment to safety, our Total Recordable Incident Rate ("TRIR") of 0.0795 continues to be among the lowest in the industry globally and in the top decile of peer companies in North America, placing our company among the safest organizations in the chemical industry. This level of performance underscores our collective commitment to work safely every day. We empower our people to always put safety first. 2022 continued to challenge us with issues related to the COVID pandemic, as well as the war in Ukraine and continued growth of our business. FMC responded by collaborating across functions to ensure safe operation at all of our sites. In 2023, we continue our journey, focusing on improving management systems and tools. In addition, we continue to engage our global workforce through focused campaigns which address issues and trends identified through analysis of our environment, health and safety data.

Sustainability

We are committed to delivering products that maintain a safe and secure food supply and to do so in a way that protects the environment for future generations. To reflect this commitment, we established sustainability goals to challenge ourselves and ensure that we are helping to create a better world. We recognize that sustainability goes beyond reducing emissions, it also encompasses how we utilize scarce resources, such as water, and the importance of nature, including biodiversity. FMC is aligned with the UN Sustainable Development Goals ("SDGs") #2 (Zero Hunger), #8 (Decent Work and Economic Growth), #13 (Climate Action) and #15 (Life on Land). Our goals include achieving (i) 100 percent research and development spend on developing sustainable products by 2025, (ii) <0.1 TRIR by 2025, (iii) net-zero Greenhouse Gas ("GHG") emissions across the value chain (Scopes 1, 2, and 3) by 2035, (iv) 100% waste to beneficial reuse by 2035, (v) 100% implementation of sustainable water practices by 2035, and (vii) a 100 on the Community Engagement Index by 2025. In 2022, FMC continued to make progress towards meeting its commitments on the updated goals and progress will be reported in our annual sustainability report. FMC is committed to the Science Based Target initiative ("SBTi"), Net-Zero Standard, in line with keeping the global temperature at 1.5°C above pre-industrial time. In 2022, FMC submitted our near-term and long-term targets to SBTi. FMC has committed to expected near-term targets of a 42% reduction in Scopes 1 and 2, and 25% reduction in Scope 3 by 2030. The long-term expected target is to achieve net-zero across the value chain by 2035.

FMC developed and utilizes its award-winning Sustainability Assessment Tool to determine the sustainability of new active ingredients and formulated products in the research and development pipeline. This assessment, along with other stewardship processes and tools, ensures the introduction and use of environmentally sustainable agricultural solutions.

At FMC we promote stewardship at each stage of the product life cycle, and stewardship priorities are built into the core of research and development, portfolio and marketing strategies for a truly proactive approach. We continue to strive for open and transparent communications about our product stewardship successes and challenges. FMC is continuing to phase out Highly Hazardous Pesticides ("HHPs") from our product portfolio. In 2022, HHPs accounted for approximately 0.2 percent of our total sales. This reduction of HHPs in our portfolio can be attributed to our internal processes which include continuous evaluation, close monitoring and subsequent phase out along with strong stewardship actions.

SEC Filings

SEC filings are available free of charge on our website, www.fmc.com. Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports are posted as soon as practicable after we furnish such materials to the SEC.

Regulation FD Disclosures

The Company's investor relations website, located at https://investors.fmc.com, should be considered as a recognized channel of distribution, and the Company may periodically post important information to the web site for investors, including information that the Company may wish to disclose publicly for purposes of complying with the federal securities laws and our disclosure obligations under the SEC's Regulation FD. We encourage investors and others interested in the Company to monitor our investor relations website for material disclosures. Our website address is included in this Form 10-K as a textual reference only and the information on the website is not incorporated by reference into this Form 10-K.

ITEM 1A Risk Factors

Among the factors that could have an impact on our ability to achieve operating results and meet our other goals are:

Industry Risks

Pricing and volumes in our markets are sensitive to a number of industry specific and global issues and events including:

- Competition and new agricultural technologies - Our business faces competition, which could affect our ability to maintain or raise prices, successfully enter certain markets or retain our market position. Competition for our business includes not only generic suppliers of the same pesticidal active ingredients but also alternative proprietary pesticide chemistries and crop protection technologies that are bred into or applied onto seeds. Increased generic presence in agricultural chemical markets has been driven by the number of significant product patents and product data protections that have expired in the last decade, and this trend is expected to continue. Also, there are changing competitive dynamics in the agrochemical industry as some of our competitors have consolidated, resulting in them having greater scale and diversity, as well as market reach. These competitive differences may not be overcome and may erode our business. Agriculture in many countries is changing and new technologies (e.g., precision pest prediction or application, data management) continue to emerge. At this time, the scope and potential impact of these technologies are largely unknown but could have the potential to disrupt our business.
- Climatic conditions - Our markets are affected by climatic conditions, both chronic and acute, which could adversely impact crop pricing and pest infestations. For example, drought may reduce the need for fungicides, which could result in fewer sales and greater unsold inventories in the market, whereas excessive rain could lead to increased plant disease or weed growth requiring growers to purchase and use more pesticides. Drought and/or increased temperatures may change insect pest pressures, requiring growers to use more, less, or different insecticides. Natural disasters can impact production at our facilities in various parts of the world. The nature of these events makes them difficult to predict.
- Geographic cyclicality - While our business is well balanced geographically, in any given calendar quarter a certain geography(ies) will predominate in light of seasonal variations in the demand for our products given the nature of the crop protection market and the geographic regions in which we operate. Unexpected market conditions in any such predominating geography(ies), such as adverse weather, pest pressures, or other risks described herein, may impact our business if occurring during a calendar quarter in which such geography(ies) is predominating.
- Changing regulatory environment and public perception - Changes in the regulatory environment, particularly in the U.S., Brazil, China, India, Argentina and the European Union, could adversely impact our ability to continue producing and/or selling certain products in our domestic and foreign markets or could increase the cost of doing so. We are sensitive to regulatory risk given the need to obtain and maintain pesticide registrations in every country in which we sell our products. Moreover, we are required to comply with protocols or applicable regulatory requirements of biological products. Protocols and regulations may change, or regulatory agencies may determine

that a biological product is not approvable. There is a risk that future regulatory requirements may lead to delays in development of biologicals or limit growth from biologicals. Many countries require re-registration of pesticides to meet new and more challenging requirements; while we defend our products vigorously, these re-registration processes may result in significant additional data costs, reduced number of permitted product uses, or potential product cancellation. Compliance with changing laws and regulations may involve significant costs or capital expenditures or require changes in business practice that could result in reduced profitability. In the European Union, the regulatory risk specifically includes the chemicals regulation known as REACH (Registration, Evaluation, and Authorization of Chemicals), which requires manufacturers to verify through a special registration system that their chemicals can be marketed safely. Changes to the regulatory environment may be influenced by non-government public pressure as a result of negative perception regarding the use of our crop protection products. Products reviewed by regulators and labeled safe for use may still be challenged by others which could lead to negative public perception or regulatory action. Competing products labeled safe for use were subject to lawsuits or claims, and a similar situation for our products could result in negative impacts. In addition, climate change may result in changes to the governmental policy around greenhouse gases, including emission caps, trade regulations and other mechanisms to promote reduction of carbon emissions. Depending on their nature and scope, this could subject our manufacturing operations and suppliers to significant additional costs or limits on operations and affect the sources and supply of energy.

- Geographic presence outside of U.S. - We have a strong presence in Latin America, Europe and Asia, as well as in the U.S. We have continued to grow our geographic footprint particularly in Europe and key Asian countries such as India, which means that developments outside the U.S. will generally have a more significant effect on our operations than in the past. Our operations outside the U.S. are subject to special risks and restrictions, including: fluctuations in currency values; exchange control regulations; changes in local political or economic conditions; governmental pricing directives; import and trade restrictions or tariffs; import or export licensing requirements and trade policy; restrictions on the ability to repatriate funds; and other potentially detrimental domestic and foreign governmental practices or policies affecting U.S. companies doing business abroad.
- Climate change and land use impacts - Climate change may impact markets in which we sell our products, where, for example, a prolonged drought may result in decreased demand for our products. The more gradual effects of persistent temperature change in geographies with significant agricultural lands may result in changes in lands suitable for agriculture or changes in the mix of crops suitable for cultivation and the pests that may be present in such geographies. These shifts in pests may become more rapid and persistent with rising temperatures and increasing GHG levels. For example, prolonged increase in average temperature may make northern lands suitable for growing crops not grown historically in such climes, leading growers to shift from crops such as wheat to soybean and may result in new or different weed, plant disease or insect pressures on such crops – such changes would impact the mix of pesticide products growers would purchase, which may be adverse for us, depending on the local market and our product mix. Growers may need more climate-adaptive products as climate change impacts global crop yields and shifts harvestable regions and pest pressures.
- Fluctuations in commodity prices - Our operating results could be significantly affected by the cost of commodities such as chemical raw material commodities, energy commodities, and harvested crop commodities. We may not be able to raise prices or improve productivity sufficiently to offset future increases in chemical raw material or energy commodity pricing. Accordingly, increases in such commodity prices may negatively affect our financial results. We use hedging strategies to address energy and material commodity price risks, where hedging strategies are available on reasonable terms. However, we are unable to avoid the risk of medium- and long-term increases. Additionally, fluctuations in harvested crop commodity prices could negatively impact our customers' ability to sell their products at previously forecasted prices resulting in reduced customer liquidity. Inadequate customer liquidity could affect our customers' abilities to pay for our products and, therefore, affect existing and future sales or our ability to collect on customer receivables.
- Supply arrangements - Certain raw materials are critical to our production processes and our purchasing strategy and supply chain design are complex. We are closely monitoring raw material and supply chain costs. While we have made supply arrangements to meet planned operating requirements, an inability to obtain the critical raw materials or operate under contract manufacturing arrangements would adversely impact our ability to produce certain products and could lead to operational disruption and increase uncertainties around business performance. We source critical intermediates and finished products from a number of suppliers, largely outside of the U.S. and principally in China. An inability to obtain these products or execute under contract sourcing arrangements would adversely impact our ability to sell products. Our supply chain and business operations could be disrupted from the temporary closure of third-party supplier and manufacturer facilities, interruptions in product supply or restrictions on the export or shipment of our products. Any disruption of our suppliers and contract manufacturers could impact our sales and operating results. We have seen some logistics challenges, pointed supply chain shortages, and increased cost of goods due to the energy crisis and inflation.

Operational Risks

- Global catastrophic events - A global catastrophic event (e.g., nuclear incident, pandemic, natural disaster) could endanger the lives and safety of our employees, limit market access, constrain supply and would require high levels of cross-functional coordination to maintain business continuity. If not properly managed, FMC could suffer substantial financial losses should the event negatively impact our operations or those of our customers. Global catastrophic events could also result in social, economic, and labor instability in the countries in which we or our customers and suppliers operate. These uncertainties could have a material adverse effect on our business and our results of operation and financial condition. A widespread health crisis could adversely affect the global economy, resulting in an economic downturn that could impact demand for our products. The COVID-19 pandemic caused significant disruptions in the U.S. and global economies. The extent to which COVID will continue to impact us will depend on future developments, many of which remain uncertain and cannot be predicted with confidence, including the duration of the pandemic, further actions to be taken to contain the pandemic or mitigate its impact, and the extent of the direct and indirect economic effects of the pandemic and containment measures, among others.

- Business disruptions - We produce products through a combination of owned facilities and contract manufacturers. We own and operate large-scale active ingredient manufacturing facilities in the U.S. (Mobile), Puerto Rico (Manati), China (Jinshan), Denmark (Ronland), and India (Panoli). Our operating results are dependent in part on the continued operation of these production facilities. Interruptions at these facilities may materially reduce the productivity of a particular manufacturing facility, or the profitability of our business as a whole. Although we take precautions to enhance the safety of our operations and minimize the risk of disruptions, our operations and those of our contract manufacturers are subject to hazards inherent in chemical manufacturing and the related storage and transportation of raw materials, products and wastes. These potential hazards include explosions, fires, severe weather and natural disasters, mechanical failure, unscheduled downtimes, supplier disruptions, labor shortages or other labor difficulties, information technology systems outages, disruption in our supply chain or manufacturing and distribution operations, transportation interruptions, chemical spills, discharges or releases of toxic or hazardous substances or gases, shipment of contaminated or off-specification product to customers, storage tank leaks, other environmental risks, cyberattacks, or other sudden disruption in business operations beyond our control as a result of events such as acts of sabotage, terrorism or war, civil or political unrest, natural disasters, large scale power outages and public health epidemics/pandemics. Some of these hazards may cause severe damage to or destruction of property and equipment or personal injury and loss of life and may result in suspension of operations or the shutdown of affected facilities.
- Climate change and physical risk to operation sites - The acute and chronic effects of climate change such as rising sea levels, drought, flooding, hurricanes, excessive heat and general volatility in seasonal temperatures could adversely affect our operations globally. Extreme weather events attributable to climate change may result in, among other things, physical damage to our property and equipment, increased resource scarcity, including water, and interruptions to our supply chain.
- Litigation and environmental risks - Current reserves relating to our ongoing litigation and environmental liabilities may ultimately prove to be inadequate. Products reviewed by regulators and labeled safe for use may still be challenged by others which could result in lawsuits or claims.
- Hazardous materials - We manufacture and transport certain materials that are inherently hazardous due to their toxic or volatile nature. While we take precautions to handle and transport these materials in a safe manner, if they are mishandled or released into the environment, they could cause property damage or result in personal injury claims against us.
- Environmental compliance - We are subject to extensive federal, state, local, and foreign environmental and safety laws, regulations, directives, rules and ordinances concerning, among other things, emissions in the air, discharges to land and water, and the generation, handling, treatment, disposal and remediation of hazardous waste and other materials. We may face liability arising out of the normal course of business, including alleged personal injury or property damage due to exposure to chemicals or other hazardous substances at our current or former facilities or chemicals that we manufacture, handle or own. We take our environmental responsibilities very seriously, but there is a risk of environmental impact inherent in our manufacturing operations and transportation of chemicals. Any substantial liability for environmental damage could have a material adverse effect on our financial condition, results of operations and cash flows.

Technology Risks

- Technological and new product discovery/development - Our ability to compete successfully depends in part upon our ability to maintain a superior technological capability and to continue to identify, develop and commercialize new and innovative, high value-added products for existing and future customers. Our investment in the discovery and development of new pesticidal active ingredients relies on discovery of new chemical molecules or biological strains. Such discovery processes depend on our scientists being able to find new molecules and strains, which are novel and outside of patents held by others, and such molecules/strains being efficacious against target pests, and our ability to develop those molecules and strains into new products without creating an undue risk to human health and the environment, and then meeting applicable regulatory criteria. The timeline from active ingredient discovery through full development and product launch averages 8-10 years depending on local regulatory requirements; the complexity and duration of developing new products create risks that product concepts may fail during development or, when launched, may not meet then-current market needs or competitive conditions.

Portfolio Management Risks

- Portfolio management risks - We continuously review our portfolio which includes the evaluation of potential business acquisitions that may strategically fit our business and strategic growth initiatives. If we are unable to successfully integrate and develop our acquired businesses, we could fail to achieve anticipated synergies which would include expected cost savings and revenue growth. Failure to achieve these anticipated synergies could materially and adversely affect our financial results. In addition to strategic acquisitions we evaluate the diversity of our portfolio in light of our objectives and alignment with our growth strategy. In implementing this strategy we may not be successful in separating underperforming or non-strategic assets. The gains or losses on the divestiture of, or lost operating income from, such assets (e.g., divesting) may affect the Company's earnings. Moreover, we may incur asset impairment charges related to acquisitions or divestitures that reduce earnings.
- Innovation and intellectual property - Our innovation efforts are protected by patents, trade secrets and other intellectual property rights that cover many of our current products, manufacturing processes, and product uses, as well as many aspects of our research and development activities supporting our new product pipeline. Trademarks protect valuable brands associated with our products. Patents and trademarks are granted by individual jurisdictions and

the duration of our patents depends on their respective jurisdictions and payment of annuities. Our future performance will depend on our ability to address active ingredient composition of matter patent expirations through effective enforcement of our patents that continue to cover key chemical intermediates and process patents, as well as portfolio life cycle management, particularly for our high value diamide insecticides (see "Diamide Growth Strategy" and "Patents, Trademarks and Licenses" in Item 1 for more details). If our innovation efforts fail to continue to make process improvements to reduce costs, such conditions could impede our competitive position. Some of our competitors may secure patents on production methods or uses of products that may limit our ability to compete cost-effectively.

- Enforcement of intellectual property rights - The composition of matter patents on our Rynaxypyr® active ingredient are expiring in several key countries. We have a broad estate of additional patents regarding the production of Rynaxypyr® active ingredient, as well as trademark and data exclusivity protection in certain countries that extend well beyond the active ingredient composition of matter patents. (See "Diamide Growth Strategy" and "Patents, Trademarks and Licenses" in Item 1). We intend to strategically and vigorously enforce our patents and other forms of intellectual property and have done so already against several third parties. Other third parties may seek to enter markets with infringing products or may find alternative production methods that avoid infringement or we may not be successful in litigating to enforce our patents due to the risks inherent in any litigation. Patents involve complex factual and legal issues and, thus, the scope, validity or enforceability of any patent claims we have or may obtain cannot be clearly predicted. Patents may be challenged in the courts, as well as in various administrative proceedings before U.S. or foreign patent offices, and may be deemed unenforceable, invalidated or circumvented. We are currently and may in the future be a party to various lawsuits or administrative proceedings involving our patents. (See "Patents, Trademarks and Licenses" in Item 1). Such challenges can result in some or all of the claims of the asserted patent being invalidated or deemed unenforceable. Two such proceedings in China are currently on appeal. (See "Patents, Trademarks and Licenses" in Item 1). In such circumstances, an adverse patent enforcement decision which could lead to the entry of competing chlorantraniliprole products in relevant markets may materially and adversely impact our financial results.
- ERP change governance - In the fourth quarter of 2020, we completed the go-live on a single global instance of SAP S/4 HANA. There are change management activities that may affect our ability to operationalize and monetize the investment made in the Enterprise Resource Planning ("ERP") system. Unmanaged or poorly managed system and hardware changes across the enterprise may disrupt operations, introduce vulnerabilities, and result in increased maintenance while decreasing user acceptance and adoption.
- Potential tax implications of FMC Lithium separation - We have received an opinion from outside counsel to the effect that the spin-off of FMC Lithium as a distribution to our stockholders, completed in March 2019, qualified as a non-taxable transaction for U.S. federal income tax purposes. The opinion is based on certain assumptions and representations as to factual matters from both FMC and FMC Lithium, as well as certain covenants by those parties. The opinion cannot be relied upon if any of the assumptions, representations or covenants is incorrect, incomplete or inaccurate or is violated in any material respect. The opinion of counsel is not binding upon the IRS or the courts and there is no assurance that the IRS or a court will not take a contrary position. It is possible that the IRS or a state or local taxing authority could take the position that aforementioned transaction results in the recognition of significant taxable gain by FMC, in which case FMC may be subject to material tax liabilities.

Financial Risks

- Foreign exchange rate risks - We are an international company operating in many countries around the world, and thus face foreign exchange rate risks in the normal course of our business. We are particularly sensitive to the Brazilian real, Chinese yuan, Indian rupee, Euro, Mexican peso and Argentine peso. While we engage in hedging and other strategies to mitigate those risks, unexpected severe changes in foreign exchange may create risks that could materially and adversely affect our expected performance.
- Uncertain tax rates - Our future effective tax rates may be materially impacted by numerous items such as: a future change in the composition of earnings from foreign and domestic tax jurisdictions, as earnings in foreign jurisdictions are typically taxed at different statutory rates than the U.S. federal statutory rate; accounting for uncertain tax positions; business combinations; expiration of statute of limitations or settlement of tax audits; changes in valuation allowance; changes in tax law; currency gains and losses; and decisions to repatriate certain future foreign earnings on which U.S. or foreign withholding taxes have not been previously accrued.
- Uncertain recoverability of investments in long-lived assets - We have significant investments in long-lived assets and continually review the carrying value of these assets for recoverability in light of changing market conditions and alternative product sourcing opportunities. We may recognize future impairments of long-lived assets which could adversely affect our results of operations.
- Pension and postretirement plans - Our U.S. Qualified Plan has been fully funded for the last several years and as such, the primary investment strategy is a liability hedging approach with an objective of maintaining the funded status of the plan such that the funded status volatility is minimized and the likelihood that we will be required to make significant contributions to the plan is limited. The portfolio is comprised of 100 percent fixed income securities and cash. Our plan assets and obligation under our U.S. Qualified Plan is in excess of $1 billion. Additionally, obligations related to our pension and postretirement plans reflect certain assumptions. To the extent actual experience differs from these assumptions, our costs and funding obligations could increase or decrease significantly. While we provide other defined benefit, defined contribution and postretirement benefits to our employees and retirees, our risk is focused on our U.S. Qualified Plan given its size to our consolidated financial position.

General Risk Factors

- Market access risk - Our results may be affected by changes in distribution channels, which could impact our ability to access the market. Consolidation of the value chain may limit FMC's access in certain markets. Acquisition of retailers and wholesalers, particularly by competitors, could restrict FMC's distribution footprint. Failure to adapt to similar trends in Business to Business and Business to Consumer could place FMC at a competitive disadvantage.
- Compliance with laws and regulations - The global regulatory environment is becoming increasingly complex and requires more resources to effectively manage, which may increase the potential for misunderstanding or misapplication of regulatory standards.
- Talent engagement and ethics/culture - The inability to recruit and retain key personnel, the unexpected loss of key personnel, or other external and internal factors and events could culminate in employee attrition and may adversely affect our operations. In addition, our future success depends in part on our ability to identify and develop talent to succeed senior management and other key members of the organization. We operate in markets where business ethics and local customs may differ from our company standards, increasing the risk of impropriety and regulatory enforcement. Significant effort will likely be required to ensure that the right mix of resources are trained, engaged and focused on achieving business objectives while adhering to our core values of safety, ethics and compliance.
- Economic and geopolitical change - Our business has been and could continue to be adversely affected by economic and political changes in the markets where we compete including: trade restrictions, tariff increases or potential new tariffs, foreign ownership restrictions and economic embargoes imposed by the U.S. or any of the foreign countries in which we do business; changes in laws, taxation, and regulations and the interpretation and application of these laws, taxes, and regulations; restrictions imposed by the U.S. government or foreign governments through exchange controls or taxation policy; nationalization or expropriation of property, undeveloped property rights, and legal systems or political instability; other governmental actions; inflation rates and inflationary pressures leading to higher input costs, recessions; and other external factors over which we have no control. Continued inflationary pressures may negatively impact our revenue, gross and operating margins, and net income. For additional details, refer to the "Inflation" section of our Management's Discussion and Analysis in Item 7. Economic and political conditions within the U.S. and foreign jurisdictions or strained relations between countries could result in fluctuations in demand, price volatility, loss of property, state sponsored cyberattacks, supply disruptions, or other disruptions. An open conflict or war across any region significant to our business could result in plant closures, employee displacement, and an inability to obtain key supplies and materials. In mid-April 2022, we announced the decision to discontinue our operations and business in Russia. Our values as a company did not allow us to operate and grow our business in Russia. The current military conflict between Russia and Ukraine could disrupt or otherwise adversely impact our operations in Ukraine; and related sanctions, export controls or other actions that may be initiated by nations including the U.S., the European Union or Russia (e.g., potential cyberattacks, disruption of energy flows, etc.) could adversely affect our business and/or our supply chain, business partners or customers in other countries beyond Ukraine. In Argentina, continued inflation and foreign exchange controls could adversely affect our business. Realignment of change in regional economic arrangements could have an operational impact on our businesses. Our enforcement of intellectual property rights in jurisdictions outside of the United States may be impacted by geopolitical tensions between the United States and those other countries. In China, unpredictable enforcement of environmental regulations could result in unanticipated shutdowns in broad geographic areas, impacting our contract manufacturers and raw material suppliers.
- Information technology security and data privacy risks - As with all enterprise information systems, our information technology systems and systems operated by our vendors and third parties could be penetrated by outside parties' intent on observing or gathering information, extracting information, corrupting information, deploying ransomware, or disrupting business processes. Remote and other work arrangements may leave the Company more vulnerable to a cyberattack. Our systems have in the past been, and likely will in the future be, subject to unauthorized access attempts. Implementing system updates or security patches in an untimely manner could leave our company exposed to security breaches. Unauthorized access to our networks or systems could disrupt our business operations and potentially result in failures or interruptions in our information systems, lockouts due to ransomware, or in the loss of assets and could have a material adverse effect on our business, financial condition or results of operations. We engage in response planning, simulations, trainings, tabletop exercises, and other efforts to mitigate risks associated with cybersecurity. Breaches of our security measures or the accidental loss, inadvertent disclosure, or unapproved dissemination of proprietary, sensitive, or confidential information about the Company, our employees, our vendors, or our customers, could result in litigation, violations of various data privacy regulations in some jurisdictions, and potentially result in a liability. We have not experienced a significant or material impact from these events to date and we may need to expend significant resources to maintain or continue to mature our protective and preventative measures to stay abreast of the ever-changing cybersecurity threat. We maintain a multifaceted cybersecurity program designed to identify, protect, detect, respond, and recover from a cybersecurity event and recently completed an independent NIST Cybersecurity Framework assessment which concluded we maintain a robust and mature cybersecurity program. Additionally, we continually engage in response planning, simulations, trainings, tabletop exercises, and other efforts to mitigate risk and prepare for a rapid response to any cybersecurity events. While we have taken measures to assess the requirements of, and to comply with the rapidly growing cybersecurity and data privacy regulations in multiple jurisdictions, these measures may be challenged by authorities that regulate cybersecurity and data-related compliance. We could incur significant expense in facilitating and responding to investigations and if the measures we have taken prove to be inadequate, we could face fines or penalties. This could damage our reputation, or otherwise harm our business, financial condition, or results of operations.
- Access to debt and capital markets - We rely on cash generated from operations and external financing to fund our growth and working capital needs. Limitations on access to external financing could adversely affect our operating results. Moreover, interest payments, dividends and the expansion of our business or other business opportunities may require significant amounts of capital. We believe that our cash from operations and available borrowings under our revolving credit facility will be sufficient to meet these needs in the foreseeable future.

However, if we need external financing, our access to credit markets and pricing of our capital will be dependent upon maintaining sufficient credit ratings from credit rating agencies and the state of the capital markets generally. There can be no assurances that we would be able to obtain equity or debt financing on terms we deem acceptable, and it is possible that the cost of any financings could increase significantly, thereby increasing our expenses and decreasing our net income. If we are unable to generate sufficient cash flow or raise adequate external financing, including as a result of significant disruptions in the global credit markets, we could be forced to restrict our operations and growth opportunities, which could adversely affect our operating results.

- Credit default risks - We may use our existing revolving credit facility to meet our cash needs, to the extent available. In the event of a default in this credit facility or any of our senior notes, we could be required to immediately repay all outstanding borrowings and make cash deposits as collateral for all obligations the facility supports, which we may not be able to do. Any default under any of our credit arrangements could cause a default under many of our other credit agreements and debt instruments. Without waivers from lenders party to those agreements, any such default could have a material adverse effect on our ability to continue to operate.
- Exposure to global economic conditions - Deterioration in the global economy and worldwide credit and foreign exchange markets could adversely affect our business. A worsening of global or regional economic conditions or financial markets could adversely affect both our own and our customers' ability to meet the terms of sale or our suppliers' ability to perform all their commitments to us. A slowdown in economic growth in our international markets, or a deterioration of credit or foreign exchange markets could adversely affect customers, suppliers and our overall business there. Customers in weakened economies may be unable to purchase our products, or it could become more expensive for them to purchase imported products in their local currency, or sell their commodities at prevailing international prices, and we may be unable to collect receivables from such customers.

ITEM 1B Unresolved Staff Comments

None.

ITEM 2 Properties

FMC leases executive offices in Philadelphia, Pennsylvania and operates 21 manufacturing facilities in 16 countries. Our major research and development facilities are in Newark, Delaware; Shanghai, China and Copenhagen, Denmark.

We believe our facilities are in good operating condition. The number and location of our owned or leased production properties for continuing operations are as follows:

	North America	Latin America	Europe, Middle East and Africa	Asia	Total
TOTAL	**5**	**1**	**6**	**9**	**21**

ITEM 3 Legal Proceedings

Like hundreds of other industrial companies, we have been named as one of many defendants in asbestos-related personal injury litigation. Most of these cases allege personal injury or death resulting from exposure to asbestos in premises of FMC or to asbestos-containing components installed in machinery or equipment manufactured or sold by discontinued operations. The machinery and equipment businesses we owned or operated did not fabricate the asbestos-containing component parts at issue in the litigation, and to this day, neither the U.S. Occupational Safety and Health Administration nor the Environmental Protection Agency has banned the use of these components. Further, the asbestos-containing parts for this machinery and equipment were accessible only at the time of infrequent repair and maintenance. A few jurisdictions have permitted claims to proceed against equipment manufacturers relating to insulation installed by other companies on such machinery and equipment. We believe that, overall, the claims against FMC are without merit.

As of December 31, 2022, there were approximately 10,561 premises and product asbestos claims pending against FMC in several jurisdictions. Since the 1980s, approximately 120,000 asbestos claims against FMC have been discharged, the overwhelming majority of which have been dismissed without any payment to the claimant. Since the 1980s, settlements with claimants have totaled approximately $182 million.

We intend to continue managing these asbestos-related cases in accordance with our historical experience. We have established a reserve for this litigation within our discontinued operations and believe that any exposure of a loss in excess of the established reserve cannot be reasonably estimated. Our experience has been that the overall trends in asbestos litigation have changed over time. Over the last several years, we have seen changes in the jurisdictions where claims against FMC are being filed and changes in the mix of products named in the various claims. Because these claim trends have yet to form a predictable pattern, we are presently unable to reasonably estimate our asbestos liability with respect to claims that may be filed in the future.

Please see Note 1 “Principal Accounting Policies and Related Financial Information” - Environmental obligations, Note 12 “Environmental Obligations” and Note 20 “Guarantees, Commitments and Contingencies” in the notes to our consolidated financial statements included in this Form 10-K, the content of which are incorporated by reference to this Item 3.

ITEM 4 Mine Safety Disclosures

Not Applicable.

ITEM 4A Information About our Executive Officers

The executive officers of FMC Corporation, the offices they currently hold, their business experience during the previous five years and their ages as of December 31, 2022, are as follows. Each executive officer has been employed by the Company for more than five years.

Name	Age	Office and year of election
Mark A. Douglas	60	President, Chief Executive Officer, and Director (20-present); President and Chief Operating Officer (18-19), President, FMC Agricultural Solutions (12-18); President, Industrial Chemicals Group (11-12); Vice President, Global Operations and International Development (10-11); Vice President, President Asia, Dow Advanced Materials (09-10); Board Member, Quaker Houghton (13-present); Board Member CropLife International (17-present); Board Member Pennsylvania Academy of the Fine Arts (16-present)
Andrew D. Sandifer	53	Executive Vice President and Chief Financial Officer (18-present); Vice President and Treasurer (16-18); Vice President, Corporate Transformation (14-16); Vice President, Strategic Development (10–14); Board Member, Philabundance (14-22); Board Trustee, Germantown Academy (17-present)
Ronaldo Pereira	50	Executive Vice President and President, FMC Americas (21-Present); President, FMC Americas (19-21); Vice President, FMC LATAM (17-19); General Director, Brazil (16); Regional Head Brazil, Rotam (14-15); various Director positions, FMC Corporation (06-14)
Michael F. Reilly	59	Executive Vice President, General Counsel, Chief Compliance Officer and Secretary (19-present); Vice President, Associate General Counsel and Chief Compliance Officer (16-19); Associate General Counsel (13-16); Board Member, First State Montessori Academy, Inc. (18-present)
Dr. Kathleen Shelton	61	Executive Vice President, Chief Technology Officer (21-present); Vice President, Chief Technology Officer (18-21); Director of Research and Development (17-18); Global Science and Technology Director, DuPont Crop Protection (14-17); Director, Haskell Global Centers for Health and Environmental Science (12-13)
Diane Allemang	63	Executive Vice President, Chief Marketing Officer (21-present); Vice President, Chief Marketing Officer (18-21); Global Marketing Director (15-18); Executive Vice President, North America, Cheminova Inc (11-15); Vice President, Global Regulatory Affairs, Cheminova Inc (08-11)

All officers are elected to hold office for one year or until their successors are elected and qualified. No family relationships exist among any of the above-listed officers, and there are no arrangements or understandings between any of the above-listed officers and any other person pursuant to which they serve as an officer. The above-listed officers have not been involved in any legal proceedings during the past ten years of a nature for which the SEC requires disclosure that are material to an evaluation of the ability or integrity of any such officer.

EXECUTIVE OFFICER DIVERSITY

Gender:	Male	Female
Number of executive officers based on gender identity	4	2
Ethnically/Racially diverse	1	0

PART II

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

FMC common stock of $0.10 par value is traded on the New York Stock Exchange (Symbol: FMC). There were 2,196 registered common stockholders as of December 31, 2022.

FMC's annual meeting of stockholders will be held at 2:00 p.m. on Thursday, April 27, 2023 via live webcast at https://www.virtualshareholdermeeting.com/FMC2022. Notice of the meeting, together with instructions on how to access proxy materials, will be mailed approximately five weeks prior to the meeting to stockholders of record as of March 1, 2023.

Transfer Agent and Registrar of Stock:

EQ Shareowner Services
1110 Centre Pointe Curve, Suite 101
Mendota Heights, MN 55120-4100
Phone: 1-800-468-9716
(651-450-4064 local and outside the U.S.)
https://equiniti.com/us/

or
P.O. Box 64874
St. Paul, MN 55164-0874

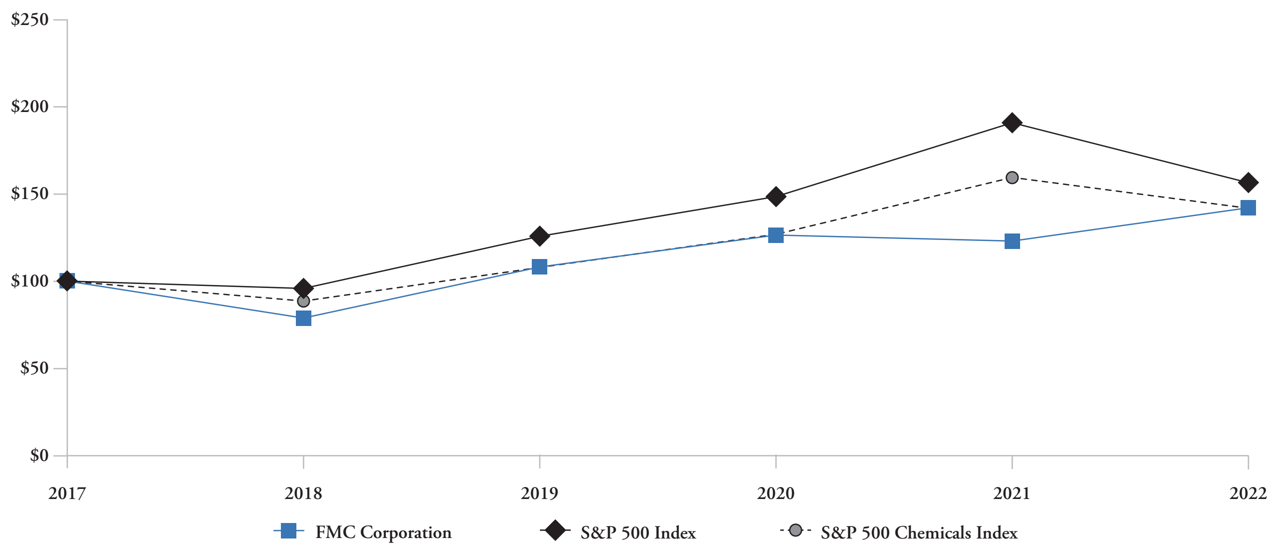
Stockholder Return Performance Presentation

The graph that follows shall not be deemed to be incorporated by reference into any filing made by FMC under the Securities Act of 1933 or the Securities Exchange Act of 1934.

The following Stockholder Performance Graph compares the five-year cumulative total return on FMC's Common Stock with the S&P 500 Index and the S&P 500 Chemicals Index. The comparison assumes $100 was invested on December 31, 2017, in FMC's Common Stock and in both of the indices, and the reinvestment of all dividends.

	2017	2018	2019	2020	2021	2022
FMC Corporation	$ 100.00	$ 78.83	$ 108.10	$ 126.37	$ 122.94	$ 141.99
S&P 500 Index	$ 100.00	$ 95.78	$ 125.68	$ 148.41	$ 190.71	$ 156.33
S&P 500 Chemicals Index	$ 100.00	$ 88.56	$ 107.84	$ 126.81	$ 159.38	$ 141.72

STOCK PERFORMANCE CHART



The following table summarizes information with respect to the purchase of our common stock during the three months ended December 31, 2022:

ISSUER PURCHASES OF EQUITY SECURITIES

			Publicly Announced Program		
Period	Total Number of Shares Purchased[(1)]	Average Price Paid Per Share	Total Number of Shares Purchased	Total Dollar Amount Purchased	Maximum Dollar Value of Shares that May Yet be Purchased
October	875,724	$ 114.22	875,480	$ 99,999,895	$ 900,000,105
November	399	120.29	—	—	900,000,105
December	33	126.61	—	—	900,000,105
TOTAL	**876,156**	**$ 114.23**	**875,480**	**$ 99,999,895**	

(1) Includes shares purchased in open market transactions by the independent trustee of the FMC Corporation Non-Qualified Savings and Investment Plan ("NQSP").

In 2022, 875,480 shares were repurchased under the publicly announced repurchase program. At December 31, 2022, approximately $900 million remained unused under our Board-authorized repurchase program. In February 2022, the Board of Directors authorized the repurchase of up to $1 billion of the Company's common stock. The $1 billion share repurchase program is replacing in its entirety the previous authorization. This repurchase program does not include a specific timetable or price targets and may be suspended or terminated at any time. Shares may be purchased through open market or privately negotiated transactions at the discretion of management based on its evaluation of market conditions and other factors. We also reacquire shares from time to time from employees in connection with the vesting, exercise and forfeiture of awards under our equity compensation plans. In addition, the independent trustee of our non-qualified deferred compensation plan reacquires shares from time to time through open-market purchases relating to investments by employees in our common stock, one of the investment options available under the Plan.

ITEM 6 [RESERVED]

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

Overview

FMC Corporation is a global agricultural sciences company dedicated to helping growers produce food, feed, fiber and fuel for an expanding world population while adapting to a changing environment. We operate in a single distinct business segment. We develop, market and sell all three major classes of crop protection chemicals (insecticides, herbicides and fungicides) as well as biologicals, crop nutrition, and seed treatment products, which we group as plant health. FMC's innovative crop protection solutions enable growers, crop advisers and turf and pest management professionals to address their toughest challenges economically without compromising safety or the environment. FMC is committed to discovering new insecticide, herbicide, and fungicide active ingredients, product formulations and pioneering technologies that are consistently better for the planet.

Forward-Looking Information

Statement under the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995: FMC and its representatives may from time to time make written or oral statements that are "forward-looking" and provide other than historical information, including statements contained herein, in FMC's other filings with the SEC, and in reports or letters to FMC stockholders.

In some cases, FMC has identified forward-looking statements by such words or phrases as "will likely result," "is confident that," "expect," "expects," "should," "could," "may," "will continue to," "believe," "believes," "anticipates," "predicts," "forecasts," "estimates," "projects," "potential," "intends" or similar expressions identifying "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including the negative of those words and phrases. Such forward-looking statements are based on management's current views and assumptions regarding future events, future business conditions and the outlook for the company based on currently available information. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any results, levels of activity, performance or achievements expressed or implied by any forward-looking statement. With respect to forward-looking statements made in connection with our acquisition of BioPhero ApS, such factors include that (1) BioPhero is still in its early stages of development or growth and it may be affected by risks inherent in operating a business of its nature., and (2) that the products and technologies of BioPhero have not yet been implemented at large commercial scale, and thus our statements regarding the future, including potential revenue opportunities, are subject to uncertainties related to development, registration, production and commercialization of pheromones through use of the BioPhero production technology. Additional factors include, among other things, the risk factors and other cautionary statements filed with the SEC included within this Form 10-K as well as other SEC filings and public communications. FMC cautions readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made. Forward-looking statements are qualified in their entirety by the above cautionary statement. FMC undertakes no obligation, and specifically disclaims any duty, to update or revise any forward-looking statements to reflect events or circumstances arising after the date on which they were made, except as otherwise required by law.

Russia's Invasion of Ukraine

In mid-April of 2022, we announced the decision to discontinue our operations and business in Russia. Our values as a company did not allow us to operate and grow our business in Russia. We recorded exit charges of approximately $76.8 million for the year ended December 31, 2022. See Note 9 for more information. We are closely monitoring any potential impacts on our raw material and supply chain costs arising out of Russia's invasion of Ukraine.

Inflation

Current global inflationary pressures have affected our business, primarily due to higher than normal input costs, primarily raw materials, resulting in pressure on our operating margins. Costs impacted by inflation include labor and overhead costs, costs of certain raw materials, freight and logistics costs, tolling services, and equipment costs. We have partially mitigated inflation headwinds through pricing actions, cost saving initiatives, and alternate sourcing options. Costs overall are anticipated to remain a headwind throughout 2023; however, we are seeing deceleration of input cost inflation. We believe input costs could become a tailwind in the second half of 2023.

COVID-19 Pandemic

As an agricultural sciences company, we are considered an "essential" industry in the countries in which we operate; we have avoided significant plant closures and all our manufacturing facilities and distribution warehouses remain operational and properly staffed. Our research laboratories and greenhouses also have continued to operate throughout the pandemic. Although we have averted any material disruptions throughout the pandemic, we are aware of the potential for disruptions or constraints on the availability of critical materials. The extent to which COVID will continue to impact us will depend on future developments, many of which remain uncertain and cannot be predicted with confidence, including the duration of the pandemic, further actions to be taken to contain the pandemic or mitigate its impact, and the extent of the direct and indirect economic effects of the pandemic and containment measures, among others. We will continue to monitor the economic environment related to the pandemic on an ongoing basis and assess the impacts on our business.

2022 Highlights

The following are the more significant developments in our businesses during the year ended December 31, 2022:

- Revenue of $5,802.3 million in 2022 increased $757.1 million or approximately 15 percent versus last year. A more detailed review of revenues is included under the section entitled "Results of Operations". On a regional basis, sales in North America increased 29 percent, driven by strong volume growth and price increases, sales in Latin America increased by 28 percent driven by strong volume growth and price increases, sales in Europe, Middle East and Africa remained flat with strong volume growth and price increases entirely offset by unfavorable currency headwinds, and sales in Asia decreased 1 percent, with growth from launches and pricing actions more than offset by unfavorable currency headwinds and a decrease in volume due to weather challenges. Approximately $600 million in revenues came from products launched in the last five years, of which $100 million in sales came from products launched in 2022. Additionally, diamides grew in the mid-to-high single digit range for the year.
- Our gross margin of $2,326.8 million increased $165.5 million or approximately 8 percent versus last year. The increase in gross margin was primarily driven by top line revenue growth which was partially offset by higher costs due to rising input costs from inflationary pressures, as well as foreign currency headwinds. Gross margin as a percent of revenue of 40 percent decreased from 43 percent in the prior year period, due to higher input costs and unfavorable currency headwinds.
- Selling, general and administrative expenses increased from $714.1 million to $775.2 million, or approximately 9 percent. Spending increased globally as a result of our revenue growth, inflation from labor costs and third party spend, and market access expansion.
- Research and development expenses of $314.2 million increased $9.5 million or 3 percent. The increase in research and development expenditures is related to continued investment in our new active ingredient pipeline as well as inflation and labor cost increases.
- Net income (loss) attributable to FMC stockholders of $736.5 million decreased $3.1 million from $739.6 million in the prior year period. The higher revenue and gross profit discussed above were partially offset by higher selling, general and administrative expenses and the provision for income taxes. The provision for income taxes was higher by $52.7 million, primarily due to the geographic mix of earnings among our global subsidiaries as well as changes in various tax reserves. Additionally, interest expense, net increased $20.7 million compared to the prior year due to higher outstanding debt balances and the rising interest rates. Adjusted after-tax earnings from continuing operations attributable to FMC stockholders of $938.4 million increased $51.7 million or approximately 6 percent. See the disclosure of our adjusted earnings Non-GAAP financial measurement under the section titled "Results of Operations".

Other 2022 Highlights

On June 29, 2022, we announced a definitive agreement to acquire BioPhero ApS ("BioPhero"), a Denmark-based pheromone research and production company. The acquisition adds state-of-the-art biologically produced pheromone insect control technology to our product portfolio and R&D pipeline, underscoring our role as a leader in delivering innovative and sustainable crop protection solutions. We expect pheromones and pheromone-based products to contribute approximately $1 billion in revenue at above company-average EBITDA margin by 2030. The purchase price of approximately $193 million was primarily paid at closing on July 19, 2022. See Note 5 for additional information.

During the third quarter of 2022, we made certain accounting policy changes for inventory costing and net periodic pension plan cost. The effects of these changes in accounting principle have been retrospectively applied to all periods presented and as such certain prior period amounts have been adjusted. Impacts to our Consolidated Statements of Income (Loss) were not material. See Note 1 for further information.

2023 Outlook

We expect 2023 revenue will be in the range of approximately $6.08 billion to $6.22 billion, up approximately 6 percent at the midpoint versus 2022. New launches and market access initiatives are expected to help drive volume growth with mid-single digit pricing expected for the full year. Foreign currency is expected to be a moderate headwind to topline results. We expect adjusted EBITDA[(1)] of $1.48 billion to $1.56 billion, up 8 percent at the midpoint versus 2022 results. Price is anticipated to be the primary driver of EBITDA growth in the year with cost headwinds expected to be significantly lower than those experienced last year. Increases in the input cost portion of cost headwinds are anticipated to decelerate as the year progresses and become a year-over-year tailwind in the second half. 2023 adjusted earnings are expected to be in the range of $7.20 to $8.00 per diluted share[(1)], up approximately 3 percent at the midpoint versus 2022, negatively impacted by higher interest and tax rates. The estimate for adjusted earnings excludes any impact from potential share repurchases in 2023. For cash flow outlook, refer to the liquidity and capital resources section below.

(1) Although we provide forecasts for adjusted earnings per share and adjusted EBITDA (Non-GAAP financial measures), we are not able to forecast the most directly comparable measures calculated and presented in accordance with U.S. GAAP. Certain elements of the composition of the U.S. GAAP amounts are not predictable, making it impractical for us to forecast. Such elements include, but are not limited to, restructuring, acquisition charges, and discontinued operations. As a result, no U.S. GAAP outlook is provided.

Results of Operations — 2022, 2021 and 2020

Overview

The following charts provide a reconciliation of adjusted EBITDA, adjusted earnings and organic revenue growth, all of which are Non-GAAP financial measures, from the most directly comparable GAAP measure. Adjusted EBITDA and organic revenue are provided to assist the readers of our financial statements with useful information regarding our operating results. Our operating results are presented based on how we assess operating performance and internally report financial information. For management purposes, we report operating performance based on earnings before interest, income taxes, depreciation and amortization, discontinued operations, and corporate special charges. Our adjusted earnings measure excludes corporate special charges, net of income taxes, discontinued operations attributable to FMC stockholders, net of income taxes, and certain Non-GAAP tax adjustments. These are excluded by us in the measure we use to evaluate business performance and determine certain performance-based compensation. These items are discussed in detail within the "Other Results of Operations" section that follows. Organic revenue growth excludes the impacts of foreign currency changes, which we believe is a meaningful metric to evaluate our revenue changes. In addition to providing useful information about our operating results to investors, we also believe that excluding the effect of corporate special charges, net of income taxes, and certain Non-GAAP tax adjustments from operating results and discontinued operations allows management and investors to compare more easily the financial performance of our underlying business from period to period. These measures should not be considered as substitutes for net income (loss) or other measures of performance or liquidity reported in accordance with U.S. GAAP.

	Year Ended December 31,		
(in Millions)	**2022**	**2021**	**2020**
Revenue	**$ 5,802.3**	**$ 5,045.2**	**$ 4,642.1**
Costs and Expenses			
Costs of sales and services	3,475.5	2,883.9	2,595.4
Gross Margin	**$ 2,326.8**	**$ 2,161.3**	**$ 2,046.7**
Selling, general and administrative expenses	775.2	714.1	729.7
Research and development expenses	314.2	304.7	287.9
Restructuring and other charges (income)	93.1	108.0	132.2
Total costs and expenses	**$ 4,658.0**	**$ 4,010.7**	**$ 3,745.2**
Income from continuing operations before non-operating pension and postretirement charges (income), interest income, interest expense, and provision for income taxes(1)	$ 1,144.3	$ 1,034.5	$ 896.9
Non-operating pension and postretirement charges (income)	8.6	5.6	14.7
Interest income	—	—	(0.1)
Interest expense	151.8	131.1	151.3
Income from continuing operations before income taxes	$ 983.9	$ 897.8	$ 731.0
Provision for income taxes	145.2	92.5	151.2
Income (loss) from continuing operations	$ 838.7	$ 805.3	$ 579.8
Discontinued operations, net of income taxes	(97.2)	(68.2)	(28.3)
Net income (loss) (GAAP)	**$ 741.5**	**$ 737.1**	**$ 551.5**
Adjustments to arrive at Adjusted EBITDA (Non-GAAP):			
Corporate special charges (income):			
Restructuring and other charges (income)(3)	$ 93.1	$ 108.0	$ 132.2
Non-operating pension and postretirement charges (income)(4)	8.6	5.6	14.7
Transaction-related charges(5)	—	0.4	53.3
Discontinued operations, net of income taxes	97.2	68.2	28.3
Interest expense, net	151.8	131.1	151.2
Depreciation and amortization	169.4	170.9	162.7
Provision (benefit) for income taxes	145.2	92.5	151.2
ADJUSTED EBITDA (NON-GAAP)(2)	**$ 1,406.8**	**$ 1,313.8**	**$ 1,245.1**

(1) *Referred to as operating profit.*

(2) *Adjusted EBITDA is defined as operating profit excluding corporate special charges (income) and depreciation and amortization expense.*

(3) *See Note 9 to the consolidated financial statements included within this Form 10-K for details of restructuring and other charges (income).*

(4) *Our non-operating pension and postretirement charges (income) are defined as those costs (benefits) related to interest, expected return on plan assets, amortized actuarial gains and losses and the impacts of any plan curtailments or settlements. These are excluded from our operating results and are primarily related to changes in pension plan assets and liabilities which are tied to financial market performance and we consider these costs to be outside our operational performance. We continue to include the service cost and amortization of prior service cost in our operating results noted above. These elements reflect the current year operating costs to our business for the employment benefits provided to active employees.*

(5) Charges relate to transaction costs, costs for transitional employees, other acquired employee related costs, integration related legal and professional third-party fees. We completed the integration of the DuPont Crop Protection Business in 2020, other than the completion of certain in-flight initiatives associated with the finalization of our worldwide ERP system in early 2021. Any related restructuring charges associated with the DuPont program are complete as of December 31, 2022 and any future charges are not expected to be material.

	Year Ended December 31,		
(in Millions)	2022	2021	2020
DuPont Crop Protection Business Acquisition[1]			
Legal and professional fees[2]	$ —	$ 0.4	$ 53.3
TOTAL TRANSACTION-RELATED CHARGES	**$ —**	**$ 0.4**	**$ 53.3**

(1) As previously disclosed, in November 2017, we acquired certain assets relating to the crop protection business of E. I. du Pont de Nemours and Company, and the related research and development organization (the "DuPont Crop Protection Business").

(2) Represents transaction costs, costs for transitional employees, other acquired employees related costs, and transactional-related costs such as legal and professional third-party fees. These charges are recorded as a component of "Selling, general and administrative expense" on the consolidated statements of income (loss).

ADJUSTED EARNINGS RECONCILIATION

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Net income (loss) attributable to FMC stockholders (GAAP)	**$ 736.5**	**$ 739.6**	**$ 552.4**
Corporate special charges (income), pre-tax[1]	101.7	114.0	200.2
Income tax expense (benefit) on Corporate special charges (income)[2]	1.5	(20.3)	(22.4)
Corporate special charges (income), net of income taxes	$ 103.2	$ 93.7	$ 177.8
Adjustment for noncontrolling interest, net of tax on Corporate special charges (income)	6.8	—	—
Discontinued operations attributable to FMC Stockholders, net of income taxes	97.2	68.2	28.3
Non-GAAP tax adjustments[3]	(5.3)	(14.8)	46.3
ADJUSTED AFTER-TAX EARNINGS FROM CONTINUING OPERATIONS ATTRIBUTABLE TO FMC STOCKHOLDERS (NON-GAAP)	**$ 938.4**	**$ 886.7**	**$ 804.8**

(1) Represents restructuring and other charges (income), non-operating pension and postretirement charges (income) and transaction-related charges.

(2) The income tax expense (benefit) on Corporate special charges (income) is determined using the applicable rates in the taxing jurisdictions in which the Corporate special charge or income occurred and includes both current and deferred income tax expense (benefit) based on the nature of the non-GAAP performance measure.

(3) We exclude the GAAP tax provision, including discrete items, from the Non-GAAP measure of income, and instead include a Non-GAAP tax provision based upon the annual Non-GAAP effective tax rate. The GAAP tax provision includes certain discrete tax items including, but not limited to: income tax expenses or benefits that are not related to current year ongoing business operations; tax adjustments associated with fluctuations in foreign currency remeasurement of certain foreign operations; certain changes in estimates of tax matters related to prior fiscal years; certain changes in the realizability of deferred tax assets; and changes in tax law. Management believes excluding these discrete tax items assists investors and securities analysts in understanding the tax provision and the effective tax rate related to ongoing operations thereby providing investors with useful supplemental information about FMC's operational performance.

ORGANIC REVENUE GROWTH RECONCILIATION

	Twelve Months Ended December 31, 2022 vs. 2021
Total Revenue Change (GAAP)	**15%**
Less: Foreign Currency Impact	3%
ORGANIC REVENUE CHANGE (NON-GAAP)	**18%**

Results of Operations

In the discussion below, all comparisons are between the periods unless otherwise noted.

Revenue

2022 vs. 2021

Revenue of $5,802.3 million increased $757.1 million, or approximately 15 percent versus the prior year period. The increase was driven by higher volumes, which accounted for an approximate 11 percent increase, as well as favorable pricing which accounted for an approximate 7 percent increase. Volume growth was primarily driven by Latin America and North America. Foreign currency tailwinds had an unfavorable impact of approximately 3 percent on revenue. Excluding foreign currency impacts, revenue increased approximately 18 percent.

2021 vs. 2020

Revenue of $5,045.2 million increased $403.1 million, or approximately 9 percent versus the prior year period. The increase was driven by higher volumes, which accounted for an approximate 7 percent increase, as well as favorable pricing which accounted for an approximate 1 percent increase. Growth in volumes was broad-based across synthetic and biological portfolios, with North America, Latin America and Asia delivering strong results. Foreign currency tailwinds had a favorable impact of approximately 1 percent on revenue. Excluding foreign currency impacts, revenue increased approximately 8 percent.

See below for a discussion of revenue by region.

TOTAL REVENUE BY REGION

	Year Ended December 31,		
(in Millions)	2022	2021	2020
North America	$ 1,435.8	$ 1,117.2	$ 1,032.5
Latin America	2,088.2	1,633.4	1,456.5
Europe, Middle East and Africa (EMEA)	1,039.7	1,040.0	1,046.3
Asia	1,238.6	1,254.6	1,106.8
TOTAL REVENUE	**$ 5,802.3**	**$ 5,045.2**	**$ 4,642.1**

2022 vs. 2021

North America: Revenue increased approximately 29 percent in the year ended December 31, 2022, driven by strong volumes and pricing actions. In the US, growth was driven by sales of herbicides, insecticides, and fungicides. In Canada our results were driven by low channel inventory of insecticides, strength in selective herbicides, and the successful launch of Coragen® MaX insecticide.

Latin America: Revenue increased approximately 28 percent, or approximately 25 percent excluding foreign currency tailwinds, for the year ended December 31, 2022 compared to the prior year period, driven by strong volumes and price increases. Growth in the region was primarily driven by Brazil and Argentina. Double digit gains across all segments were driven by commodity price and acreage increases. Our investments in market access also contributed to growth in the region.

EMEA: Revenue remained flat versus the prior year period; however, revenue increased approximately 12 percent excluding foreign currency headwinds. The lack of growth from prior year was largely impacted by foreign currency headwinds as well as weather in Southern Europe and the absence of Russian sales. Results were driven by strong pricing actions as well as volume growth, led by Northern Europe, Germany, and Turkey, demand for selective herbicides on cereals and other crops, and demand for our diamides on fruits and vegetables.

Asia: Revenue decreased approximately 1 percent versus the prior year period, however revenue increased approximately 5 percent excluding foreign currency headwinds. The change in revenue from prior year was primarily impacted by foreign currency headwinds, a reduction in rice acres in India, and weather conditions, particularly in India and Pakistan. These impacts were partially offset by price actions and strong performance in Australia.

For 2023, full-year revenue is expected to be in the range of approximately $6.08 billion to $6.22 billion, which represents an increase of approximately 6 percent at the midpoint versus 2022.

2021 vs. 2020

North America: Revenue increased approximately 8 percent in the year ended December 31, 2021, driven by sales growth for herbicides and diamides, and strong product launches of Xyway™ fungicide and Vantacor™ insect control. The increase was partially offset by a shift of diamide partner sales from North America to other regions.

Latin America: Revenue increased approximately 12 percent, or approximately 14 percent excluding foreign currency headwinds, for the year ended December 31, 2021 compared to the prior year period due to strong volume growth across all countries and pricing actions. Growth was broad-based across segments with insecticides, fungicides and biologicals increasing double digits.

EMEA: Revenue decreased approximately 1 percent versus the prior year period, or approximately 4 percent excluding foreign currency tailwinds, driven by a shift of diamide partner sales from EMEA to other regions. Volume and price contributed to the region's revenue driven by diamides, herbicides, biologicals and fungicides.

Asia: Revenue increased approximately 13 percent versus the prior year period, or approximately 10 percent excluding foreign currency tailwinds, primarily driven by growth in Australia, India, ASEAN zone and Korea. We had strong sales for our new Overwatch® herbicide and Vantacor™ insect control. Sales of our diamides were robust across the region despite erratic rainfall in several countries.

Gross margin

2022 vs. 2021

Gross margin of $2,326.8 million increased by $165.5 million, or approximately 8 percent versus the prior year period. The increase was primarily due to top line revenue growth which was partially offset by higher costs due to rising input costs from inflationary pressures and foreign currency headwinds.

Gross margin percent of approximately 40 percent decreased from 43 percent in the prior year period, driven by significant cost headwinds, primarily due to input cost inflation, and foreign currency headwinds.

2021 vs. 2020

Gross margin of $2,161.3 million increased by $114.6 million, or approximately 6 percent versus the prior year period. The increase was primarily due to higher revenues driven by increased volumes, partially offset by higher cost of goods sold.

Gross margin percent of approximately 43 percent slightly decreased from approximately 44 percent in the prior year period, driven by higher costs primarily increases in raw materials, packaging, and logistics.

Selling, general and administrative expenses

2022 vs. 2021

Selling, general and administrative expenses of $775.2 million increased by $61.1 million, or approximately 9 percent versus the prior year period. Spending increased globally to support our revenue growth. Additionally, spending was driven by inflation from labor costs and third party spend, as well as market access expansion.

2021 vs. 2020

Selling, general and administrative expenses of $714.1 million decreased by $15.6 million, or approximately 2 percent versus the prior year period due to lower transaction-related charges resulting from the finalization of our worldwide ERP system in the first quarter 2021. Selling, general and administrative expenses, excluding transaction-related charges, increased $37.3 million, or approximately 6 percent, versus the prior year driven by resuming normal spending following cost-saving measures taken in the prior year due to the pandemic.

Research and development expenses

2022 vs. 2021

Research and development expenses of $314.2 million increased by $9.5 million, or approximately 3 percent versus the prior year period. The increase in research and development expenditures is related to continued investment in our new active ingredient pipeline as well as inflation and labor cost increases.

2021 vs. 2020

Research and development expenses of $304.7 million increased by $16.8 million, or approximately 6 percent versus the prior year period. During 2020, we phased some research and development projects differently to allow for lower costs in response to the pandemic without fundamentally impacting long-term timelines. In 2021, we resumed research and development expenses related to these projects.

Other Results of Operations

Depreciation and amortization

2022 vs. 2021

Depreciation and amortization of $169.4 million decreased $1.5 million, or approximately 1 percent, as compared to 2021 of $170.9 million.

2021 vs. 2020

Depreciation and amortization of $170.9 million increased $8.2 million, or approximately 5 percent, as compared to 2020 of $162.7 million. The increase was mostly driven by the impacts of the amortization effects of the completion of various phases of our ERP implementation which increased amortization expense by approximately $5 million.

Interest expense, net

2022 vs. 2021

Interest expense, net of $151.8 million increased by $20.7 million, or approximately 16 percent, compared to $131.1 million in 2021. The increase was driven by higher interest rates and higher debt balances which increased interest expense by approximately $28 million for domestic debt and $7 million for foreign debt, partially offset by the benefits of the refinancing activity completed in the fourth quarter of 2021 which decreased interest expense by approximately $12 million.

2021 vs. 2020

Interest expense, net of $131.1 million decreased by $20.1 million, or approximately 13 percent, compared to $151.2 million in 2020. The decrease was driven by lower foreign debt balances and rates which decreased interest expense by approximately $9 million and, lower short term interest rates which decreased interest expense by approximately $10 million.

Corporate special charges (income)

Restructuring and other charges (income)

Our restructuring and other charges (income) are comprised of restructuring, assets disposals and other charges (income) as described below:

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Restructuring charges	$ (26.1)	$ 41.1	$ 42.6
Other charges (income), net	119.2	66.9	89.6
TOTAL RESTRUCTURING AND OTHER CHARGES (INCOME)[(1)]	**$ 93.1**	**$ 108.0**	**$ 132.2**

(1) See Note 9 to the consolidated financial statements included in this Form 10-K for more information.

2022

Restructuring and other charges (income) is primarily comprised of a gain of $50.5 million recognized on the disposition of land related to a closed manufacturing facility. Restructuring and other charges (income) is also comprised of charges of $5.9 million of severance and employee separation costs, $11.2 million related to fixed asset charges, and $7.3 million of other restructuring related charges incurred as part of various restructuring initiatives disclosed in previous periods.

Other charges (income) is primarily comprised of $76.8 million in exit charges related to our decision to cease operations and business in Russia. Additional charges of $42.4 million relate primarily to environmental charges, which were impacted by higher inflation rates.

2021

Restructuring charges in 2021 primarily consisted of $16.7 million of charges associated with the integration of the DuPont Crop Protection Business which was completed in 2020 except for certain in-flight initiatives. These charges primarily reflect non-cash charges and to a lesser extent remaining severance. Restructuring charges associated with the DuPont program were largely complete. There were other restructuring charges of $13.4 million related to various actions to improve organizational structure as well as regional alignment activities which primarily included the move of our European headquarters. Types of costs primarily relate to facility-related shut down costs including asset impairments as well as employee-related costs.

Other charges (income), net in 2021 includes $33.5 million of charges related to the establishment of reserves for certain historical India indirect tax matters that were triggered during the period of which approximately half are non-cash charges. See Note 20 to the consolidated financial statements included within this Form 10-K for further information regarding this matter. Additional charges of $27.1 million consists of charges of environmental sites.

2020

Restructuring charges in 2020 primarily consisted of $40.2 million of charges associated with the integration of the DuPont Crop Protection Business which was completed in 2020 except for certain in-flight initiatives. These charges included severance, accelerated depreciation on certain fixed assets, and other costs (benefits). There were other miscellaneous restructuring charges $2.4 million.

Other charges (income), net in 2020 includes $65.6 million of charges related to our acquisition of the remaining rights for Fluindapyr active ingredient assets from Isagro. See Note 9 to the consolidated financial statements included within this Form 10-K for further information regarding this matter. Additional charges of $24.9 million consists of charges of environmental sites.

Non-operating pension and postretirement charges (income)

2022 vs. 2021

The charge for 2022 was $8.6 million compared to $5.6 million in 2021. The increase is primarily due to rising interest rates during 2022 compared to 2021 partially offset by higher expected return on plan assets.

2021 vs. 2020

The charge for 2021 was $5.6 million compared to $14.7 million in 2020. Comparing 2020 and 2021 expense, the difference is because of lower interest rates in 2021 compared to 2020, partially offset by a lower expected return on assets.

As previously disclosed, we changed our method of accounting to the fair value approach for our liability hedging asset class, which does not involve deferring the impact of excess plan asset gains or losses in the determination of these two components of net periodic benefit cost. This class of assets is comprised solely of fixed income securities and therefore, provides a natural hedge (liability hedging assets) against the changes in the recorded amount of net periodic pension cost. No change is being made to the accounting principle for the other classes of pension assets; however our U.S. qualified pension plan reached fully funded status during 2018 and since that point the portfolio has been invested 100 percent in fixed income securities and cash. As a result of this change, we do not expect significant volatility in this line item going forward.

Transaction-related charges

A detailed description of the transaction related charges is included in Note 5 to the consolidated financial statements included within this Form 10-K. Transaction related charges, which consisted entirely of those for the DuPont Crop acquisition, ended in early 2021.

Provision for income taxes

Provision for income taxes for 2022 was expense of $145.2 million resulting in an effective tax rate of 14.8 percent. Provision for income taxes for 2021 was expense of $92.5 million resulting in an effective tax rate of 10.3 percent. Provision for income taxes for 2020 was expense of $151.2 million resulting in an effective tax rate of 20.7 percent. Note 13 to the consolidated financial statements included in this Form 10-K includes more details on the drivers of the GAAP effective rate and year-over-year changes.

We believe showing the reconciliation below of our GAAP to Non-GAAP effective tax rate provides investors with useful supplemental information about our tax rate on the core underlying business.

	Year Ended December 31,								
	2022			2021			2020		
(in Millions)	Income (Expense)	Tax Provision (Benefit)	Effective Tax Rate	Income (Expense)	Tax Provision (Benefit)	Effective Tax Rate	Income (Expense)	Tax Provision (Benefit)	Effective Tax Rate
GAAP - Continuing operations	**$ 983.9**	**$ 145.2**	**14.8%**	**$ 897.8**	**$ 92.5**	**10.3%**	**$ 731.0**	**$ 151.2**	**20.7%**
Corporate special charges (income)(1)	101.7	(1.5)		114.0	20.3		200.2	22.4	
Tax adjustments(2)		5.3			14.8			(46.3)	
NON-GAAP - CONTINUING OPERATIONS	**$ 1,085.6**	**$ 149.0**	**13.7%**	**$ 1,011.8**	**$ 127.6**	**12.6%**	**$ 931.2**	**$ 127.3**	**13.7%**

(1) Primarily our decision to cease operations and business in Russia in 2022. As a result, we recorded a pre-tax charge of $76.8 million with minimal tax benefit.

(2) Tax adjustments in 2021 and 2020 are materially attributable to the effects of certain changes in various tax reserves. See Note 13 to the consolidated financial statements included within this Form 10-K.

The primary drivers for the fluctuations in the effective tax rate for each period are provided in the table above. Excluding the items in the table above, the changes in the non-GAAP effective tax rate were primarily due to the impact of geographic mix of earnings among our global subsidiaries. See Note 13 to the consolidated financial statements included within this Form 10-K for additional details related to the provisions for income taxes on continuing operations, as well as items that significantly impact our effective tax rate.

Discontinued operations, net of income taxes

Our discontinued operations primarily reflect adjustments to retained liabilities from previously discontinued operations and include environmental liabilities, other postretirement benefit liabilities, self-insurance, long-term obligations related to legal proceedings and historical restructuring activities. See Note 11 to the consolidated financial statements included within this Form 10-K for additional details on our discontinued operations.

2022 vs. 2021

Discontinued operations, net of income taxes represented a loss of $97.2 million in 2022 compared to a loss of $68.2 million in 2021. The loss during both periods was primarily due to adjustments related to the retained liabilities from our previously discontinued operations. Higher inflation rates negatively impacted adjustments to our environmental and other retained liabilities in 2022. Offsetting the losses in 2021 was the gain on sales of land in our discontinued sites of $15 million, net of taxes.

2021 vs. 2020

Discontinued operations, net of income taxes represented a loss of $68.2 million in 2021 compared to a loss of $28.3 million in 2020. The loss during both periods was primarily due to adjustments related to the retained liabilities from our previously discontinued operations. Offsetting the losses in 2021 and 2020 were the gain on sales of land in our discontinued sites of $15 million and $24 million, net of taxes, respectively.

Net income (loss)

2022 vs. 2021

Net income increased to $741.5 million from $737.1 million. The higher results were driven by higher revenues and margins. However, these increases were mainly offset by higher selling, general and administrative costs, interest expense, income taxes, and discontinued operations expenses.

The only difference between Net income (loss) and Net income (loss) attributable to FMC stockholders is noncontrolling interest. The 2022 noncontrolling interest includes the portion of the $50.5 million gain on the land disposition (see Corporate special charges (income) section above) attributable to the other partner.

2021 vs. 2020

Net income increased to $737.1 million from $551.5 million. The higher results were driven by higher revenues and margins as well as lower selling, general and administrative costs primarily resulting from lower transaction-related charges. Additionally, we had lower restructuring and other charges of $24.2 million, interest expense, net of $20.1 million, and tax expense of $58.7 million. These reductions were offset by higher discontinued operations charges of $39.9 million resulting from higher adjustments to retained liabilities and lower gains from real estate sales.

The only difference between Net income (loss) and Net income (loss) attributable to FMC stockholders is noncontrolling interest, which period over period is immaterial.

Adjusted EBITDA (Non-GAAP)

2022 vs. 2021

Adjusted EBITDA of $1,406.8 million increased $93.0 million, or approximately 7 percent versus the prior year period. The increase was due to higher pricing and higher volume which accounted for approximately 28 percent and 20 percent increases respectively. These factors more than offset significant cost increases, primarily attributable to raw materials, which had an unfavorable impact of approximately 35 percent and foreign currency fluctuations which had an unfavorable impact of approximately 6 percent on adjusted EBITDA.

2021 vs. 2020

Adjusted EBITDA of $1,313.8 million increased $68.7 million, or approximately 6 percent versus the prior year period. The increase was due to higher volumes and higher pricing which accounted for approximately 20 percent and 3 percent increases respectively. These factors more than offset cost increases in raw materials, packaging, and logistics costs, and to a lesser extent the reversal of some temporary cost savings in the prior year, which had an unfavorable impact of approximately 15 percent and foreign currency fluctuations which had an unfavorable impact of approximately 2 percent on adjusted EBITDA.

Liquidity and Capital Resources

As a global agricultural sciences company, we require cash primarily for seasonal working capital needs, capital expenditures, and return of capital to shareholders. We plan to meet these liquidity needs through available cash, cash generated from operations, commercial paper issuances and borrowings under our committed revolving credit facility as well as other liquidity facilities, and in certain instances access to debt capital markets. We believe our strong financial standing and credit ratings will ensure adequate access to the debt capital markets on favorable conditions. Information involving our material cash requirements is detailed below.

Cash

Cash and cash equivalents at December 31, 2022 and 2021, were $572.0 million and $516.8 million, respectively. Of the cash and cash equivalents balance at December 31, 2022, $551.1 million was held by our foreign subsidiaries. We have established plans to repatriate cash from certain foreign subsidiaries with minimal tax on a go forward basis. Other cash held by foreign subsidiaries is generally used to finance subsidiaries' operating activities and future foreign investments. See Note 13 to the consolidated financial statements included within this Form 10-K for more information on our indefinite reinvestment assertion.

Outstanding debt

At December 31, 2022, we had total debt of $3,274.0 million as compared to $3,172.5 million at December 31, 2021. Total debt included $2,733.2 million and $2,731.7 million of long-term debt (excluding current portions of $88.5 million and $84.5 million) at December 31, 2022 and 2021, respectively. On June 17, 2022, we amended our Revolving Credit Facility and on June 27, 2022 we amended our 2021 Term Loan Agreement. The Revolving Credit Facility Amendment primarily increased the borrowing capacity from $1.5 billion to $2 billion and extended the maturity date by an additional year to 2027. As of December 31, 2022, we were in compliance with all of our debt covenants. See Note 14 to the consolidated financial statements included within this Form 10-K for further details. We remain committed to solid investment grade credit metrics, and full-year average leverage was in line with this commitment in 2022.

Our short-term debt consists of foreign borrowings and borrowings under our commercial paper program. Foreign borrowings decreased from $112.2 million at December 31, 2021 to $81.8 million at December 31, 2022 while outstanding commercial paper increased from $244.1 million at December 31, 2021 to $370.5 million at December 31, 2022. We provide parent-company guarantees to lending institutions providing credit to our foreign subsidiaries.

Our total debt maturities, excluding discounts, is $3,290.8 million at December 31, 2022, with $540.8 million payable in the next 12 months. As of December 31, 2022, we had contractual interest obligations of $950.1 million outstanding, with $118.8 million payable in the next 12 months. Contractual interest is the interest we are contracted to pay on our long-term debt obligations. We had $800.0 million of long-term debt subject to variable interest rates at December 31, 2022. The rate assumed for the variable interest component of the contractual interest obligation was the rate in effect at December 31, 2022. Variable rates are determined by the market and will fluctuate over time.

Access to credit and future liquidity and funding needs

At December 31, 2022, our remaining borrowing capacity under our credit facility was $1,469.5 million. See Note 14 to the consolidated financial statements included within this Form 10-K for discussion of the amendments to the Revolving Credit Facility and Term Loan Agreements undertaken in the current year. Our commercial paper program allows us to borrow at rates generally more favorable than those available under our credit facility. At December 31, 2022, we had $370.5 million borrowings outstanding under the commercial paper program at an average borrowing rate of 4.9 percent. Our commercial paper balances fluctuate from year to year depending on working capital needs. Based on cash generated from operations, our existing liquidity facilities, which includes the revolving credit agreement with the option to increase capacity up to $2.75 billion, and our continued access to debt capital markets, we have adequate liquidity to meet any of the company's debt obligations in the near term.

Working Capital Initiatives

The Company works with suppliers to optimize payment terms and conditions on accounts payable to improve working capital and cash flows. The Company offers to a select group of suppliers a voluntary Supply Chain Finance ("SCF") program with a global financial institution. The suppliers, at their sole discretion, may sell their receivables to the financial institution based on terms negotiated between them. Our obligations to our suppliers are not impacted by our suppliers' decisions to sell under these arrangements. Agreements under these supplier financing programs are recorded within Accounts payable in our Consolidated Balance Sheets and the associated payments are included in operating activities within our Consolidated Statements of Cash Flows. We do not believe that changes in the availability of the supply chain finance program would have a significant impact on our liquidity.

From time to time, the Company may sell receivables on a non-recourse basis to third-party financial institutions. These sales are normally driven by specific market conditions, including, but not limited to, foreign exchange environments, customer credit management, as well as other factors where the receivables may lay. See Note 10 for more information on receivables factoring.

Commitments

We provide guarantees to financial institutions on behalf of certain customers, principally customers in Brazil, and to a lesser extent Asia, for their seasonal borrowing. The total of these guarantees was $156.7 million at December 31, 2022. These guarantees arise during the ordinary course of business from relationships with customers and nonconsolidated affiliates. Non-performance by the guaranteed party triggers the obligation requiring us to make payments to the beneficiary of the guarantee. Based on our experience these types of guarantees have not had a material effect on our consolidated financial position or on our liquidity. Our expectation is that future payment or performance related to the non-performance of others is considered unlikely.

In connection with certain of our property and asset sales and divestitures, we have agreed to indemnify the buyer for certain liabilities, including environmental contamination and taxes that occurred prior to the date of sale. Our indemnification obligations with respect to these liabilities may be indefinite as to duration and may or may not be subject to a deductible, minimum claim amount or cap. In cases where it is not possible for us to predict the likelihood that a claim will be made or to make a reasonable estimate of the maximum potential loss or range of loss, no specific liability has been recorded. If triggered, we may be able to recover certain of the indemnity payments from third parties. In cases where it is possible, we have recorded a specific liability within our Reserve for Discontinued Operations. Refer to Note 11 to the consolidated financial statements included within this Form 10-K for further details.

Taxes, Pension, Environmental, and Other Discontinued Liabilities

As of December 31, 2022, the liability for uncertain tax positions was $52.4 million. We also have a liability attributable to the transition tax on deemed repatriated foreign earnings incurred as a result of the Tax Cuts and Jobs Act (the "Act") of $92.1 million. Our consolidated balance sheets contain accrued pension and other postretirement benefits, our environmental liabilities, and our other discontinued liabilities for which we are unable to make a reasonably reliable estimate of the amount and periods in which these liabilities might be paid beyond 2023. See our discussion under 2023 Cash Flow Outlook in the Free Cash Flow section within this Form 10-K for information on these liabilities and the related expected payments in 2023.

Derivatives

At times we can be in a derivative liability position that can require future cash obligations. As of December 31, 2022, we had derivative contract obligations of $4.6 million, with the full amount payable in the next 12 months.

Leases

We have lease arrangements for equipment and facilities, including office spaces, IT equipment, transportation equipment, and machinery equipment. As of December 31, 2022, we had fixed lease payment obligations of $180.9 million, with $27.3 million payable within 12 months.

Purchase obligations

Purchase obligations consist of agreements to purchase goods and services that are enforceable and legally binding and specify all significant terms, including fixed or minimum quantities to be purchased, price provisions and timing of the transaction. We have entered into a number of purchase obligations for the sourcing of materials and energy where take-or-pay arrangements apply. As of December our purchase obligations were $459.4 million, with $200.2 million payable in the first 12 months. The majority of the minimum obligations under these contracts are take-or-pay commitments over the life of the contract and not a year by year take-or-pay, and as such, the obligations related to these types of contacts are presented in the earliest period in which the minimum obligation could be payable under these types of contracts.

Statement of Cash Flows

Cash provided (required) by operating activities was $660.0 million, $898.6 million and $736.8 million for 2022, 2021 and 2020, respectively.

The table below presents the components of net cash provided (required) by operating activities of continuing operations.

(in Millions)	Year ended December 31, 2022	2021	2020
Income (loss) from continuing operations before equity in (earnings) loss of affiliates, non-operating pension expense postretirement charges, interest expense, net and income taxes **(GAAP)**	$ 1,144.3	$ 1,034.5	$ 896.9
Restructuring and other charges (income), transaction-related charges and depreciation and amortization	262.5	279.3	348.2
Operating income before depreciation and amortization	**$ 1,406.8**	**$ 1,313.8**	**$ 1,245.1**
Change in trade receivables, net(1)	(443.9)	(241.1)	(71.8)
Change in guarantees of vendor financing	(64.2)	65.6	64.8
Change in advance payments from customers(2)	52.1	283.6	(145.5)
Change in accrued customer rebates(3)	69.6	108.7	17.2
Change in inventories(4)	(182.3)	(320.7)	(54.4)
Change in accounts payable(5)	165.3	144.4	61.8
Change in all other operating assets and liabilities(6)	(10.3)	(77.6)	(68.2)
Restructuring and other spending(7)	(35.2)	(34.7)	(17.9)
Environmental spending, continuing, net of recoveries(8)	(26.9)	(63.6)	(1.9)
Pension and other postretirement benefit contributions(9)	(4.5)	(5.3)	(4.6)
Net interest payments(10)	(144.0)	(125.8)	(141.8)
Tax payments, net of refunds(11)	(122.0)	(139.2)	(82.1)
Transaction and integration costs(12)	(0.5)	(9.5)	(63.9)
CASH PROVIDED (REQUIRED) BY OPERATING ACTIVITIES OF CONTINUING OPERATIONS (GAAP)	**$ 660.0**	**$ 898.6**	**$ 736.8**

(1) *The change in trade receivables in all periods include the impacts of seasonality and the receivable build intrinsic in our business. The change in cash flows related to trade receivables in 2022 was driven by timing of collections, higher sales year over year, and the inflationary impact of price increases to offset cost headwinds. Collection timing is more pronounced in certain countries such as Brazil where there may be terms significantly longer than the rest of our business. Additionally, timing of collection is impacted as amounts for all periods include carry-over balances remaining to be collected in Latin America, where collection periods are measured in months rather than weeks. During 2022, we collected approximately $1,670 million of receivables in Brazil.*

(2) *Advance payments are typically received in the fourth quarter of each year, primarily in our North America operations as revenue associated with advance payments is recognized, generally in the first half of each year following the seasonality of that business, as shipments are made and title, ownership and risk of loss pass to the customer. The change in 2022 and 2021 was related to higher overall payments received primarily due to strong North America seasons in both years. The change in 2021 was related to substantially higher payments received compared to 2020.*

(3) *These rebates are primarily associated within North America, and to a lesser extent Brazil, and in North America generally settle in the fourth quarter of each year given the end of the respective crop cycle. The changes in 2022 compared to 2021 are mostly associated with higher North America revenue, primarily driven by volume and price increases, as well as with the mix in sales eligible for rebates and incentives and timing of certain rebate payments.*

(4) *The change in cash flows during 2022 reflect the inventory build required to meet business demand. The change in cash flows during 2021 include an inventory build to help manage supply chain volatility as well as higher input costs. Changes in inventory in 2020 are a result of significant market impacts related to supply chain constraints, reduced demand, and products held by foreign customs.*

(5) *The change in cash flows related to accounts payable in 2022, 2021 and 2020 is primarily due to timing of payments made to suppliers and vendors. In 2022, the change in cash flows related to accounts payable was also driven by cost inflation.*

(6) *Changes in all periods presented primarily represent timing of payments associated with all other operating assets and liabilities. Additionally, the 2022, 2021 and 2020 period includes the effects of the unfavorable contracts amortization of approximately $82 million, $103 million and $120 million, respectively.*

(7) *See Note 9 to the consolidated financial statements included within this Form 10-K for further details.*

(8) *Included in our results for each of the years presented are environmental charges for environmental remediation of $34.7 million, $27.1 million and $24.9 million, respectively. The amounts in 2022 will be spent in future years. The amounts represent environmental remediation spending which were recorded against pre-existing reserves, net of recoveries. Environmental obligations for continuing operations primarily represent obligations at shut down or abandoned facilities within businesses that do not meet the criteria for presentation as discontinued operations. Amounts in 2021 include payments of $32.2 million related to the Pocatello Tribal Litigation. Additionally, during the first quarter of 2020, we entered into a confidential insurance settlement pertaining to coverage at a legacy environmental site, which settlement resulted in a cash payment to FMC in the amount of $20.0 million. Refer to Note 12 to the consolidated financial statements included within this Form 10-K for more details.*

(9) *There were no voluntary contributions to our U.S. qualified defined benefit plan in 2022, 2021 and 2020.*

(10) *Interest payments were higher during 2022 largely due to higher short term interest rates and higher debt balances.*

(11) *Amounts shown in the chart represent net tax payments of our continuing operations. Tax payments in 2021 include the remittance of deferred income tax payments in various jurisdictions from 2020 as a result of the COVID-19 pandemic.*

(12) *Represents payments for legal and professional fees associated with the DuPont Crop Protection Business Acquisition in addition to costs related to integrating the DuPont Crop Protection Business. We completed the integration of the DuPont Crop Protection Business in 2020, other than the completion of certain in-flight initiatives associated with the finalization of our worldwide ERP system in early 2021. Any related restructuring charges associated with the DuPont program are complete as of December 31, 2022 and any future charges are not expected to be material. See Note 5 to the consolidated financial statements included within this Form 10-K for more information.*

Cash provided (required) by operating activities of discontinued operations was $(77.6) million, $(78.5) million and $(89.0) million for 2022, 2021 and 2020, respectively.

Cash required by operating activities of discontinued operations in 2022 is directly related to environmental spending of $47.0 million as well as $30.6 million for other postretirement benefit liabilities, self-insurance, long-term obligations related to legal proceedings, collectively. 2021 and 2020 spending were of a similar nature.

Cash provided (required) by investing activities of continuing operations was $(266.4) million, $(131.7) million and $(200.4) million for 2022, 2021 and 2020, respectively.

Cash required for 2022 is primarily related to capital expenditures needed for increased capacity, as well the consideration paid for the BioPhero acquisition. Capital expenditures in 2022 increased due to spending directed towards capacity expansion. This usage of cash was offset by the proceeds received on the disposition of land on a previously shutdown manufacturing facility.

Cash required in 2021 is primarily due to capital expenditures and spending related to our contract manufacturing arrangements. We completed the final stage of our SAP system implementation during the early part of 2021, therefore there was a reduction in those payments from the prior year.

Cash required in 2020 primarily due to capital expenditures and spending related to our contract manufacturing arrangements, as well as continued spending associated with the final stages of our new SAP system implementation. 2020 also includes payments of $65.6 million to acquire the remaining rights for Fluindapyr from Isagro S.p.A ("Isagro") in an asset acquisition.

Cash provided (required) by investing activities of discontinued operations was zero , $19.7 million and $31.1 million for 2022, 2021 and 2020, respectively.

Cash provided by investing activities of discontinued operations in 2021 represents the proceeds from the sale of land of our discontinued sites. This resulted in a gain recognized within discontinued operations of approximately $15.4 million net of taxes.

Cash provided by investing activities of discontinued operations in 2020 represents the proceeds of approximately $31 million from the sale of our two parcels of land of our discontinued site in Newark, California. These sales resulted in a gain recognized within discontinued operations of approximately $24 million, net of taxes.

Cash provided (required) by financing activities was $(237.4) million, $(747.9) million and $(250.3) million in 2022, 2021 and 2020, respectively.

The change in cash required by financing activities in 2022 is primarily driven by lower share repurchases under our publicly announced program as well as lower repayments on long term debt.

The change in cash required by financing activities in 2021 is primarily driven due to the payment of long term debt and the increase in share repurchases under our publicly announced program.

The change in cash required by financing activities in 2020 is primarily driven by the prior year proceeds from the Senior Notes and higher dividend payments offset by a reduction in the payment of long term debt and a reduction of repurchases of common stock under our publicly announced program.

Free Cash Flow

We define free cash flow, a Non-GAAP financial measure, as all cash inflows and outflows excluding those related to financing activities (such as debt repayments, dividends, and share repurchases) and acquisition related investing activities. Free cash flow is calculated as all cash from operating activities reduced by spending for capital additions and other investing activities as well as legacy and transformation spending. Therefore, our calculation of free cash flow will almost always result in a lower amount than cash from operating activities from continuing operations, the most directly comparable U.S. GAAP measure. However, the free cash flow measure is consistent with management's assessment of operating cash flow performance and we believe it provides a useful basis for investors and securities analysts about the cash generated by routine business operations, including capital expenditures, in addition to assessing our ability to repay debt, fund acquisitions including cost and equity method investments, and return capital to shareholders through share repurchases and dividends.

Our use of free cash flow has limitations as an analytical tool and should not be considered in isolation or as a substitute for an analysis of our results under U.S. GAAP. First, free cash flow is not a substitute for cash provided (required) by operating activities of continuing operations, as it is not a measure of cash available for discretionary expenditures since we have non-discretionary obligations, primarily debt service, that are not deducted from the measure. Second, other companies may calculate free cash flow or similarly titled Non-GAAP financial measures differently or may use other measures to evaluate their performance, all of which could reduce the usefulness of free cash flow as a tool for comparison. Additionally, the utility of free cash flow is further limited as it does not reflect our future contractual commitments and does not represent the total increase or decrease in our cash balance for a given period. Because of these and other limitations, free cash flow should be considered along with cash provided (required) by operating activities of continuing operations and other comparable financial measures prepared and presented in accordance with U.S. GAAP.

The table below presents a reconciliation of free cash flow from the most directly comparable U.S. GAAP measure.

FREE CASH FLOW RECONCILIATION

(in Millions)	Year ended December 31, 2022	2021	2020
Cash provided (required) by operating activities of continuing operations (GAAP)	**$ 660.0**	**$ 898.6**	**$ 736.8**
Transaction and integration costs(1)	0.5	9.5	63.9
Adjusted cash from operations(2)	**$ 660.5**	**$ 908.1**	**$ 800.7**
Capital expenditures(3)	(142.3)	(100.1)	(67.2)
Other investing activities(3)(4)	23.6	(13.7)	(20.4)
Capital additions and other investing activities	**$ (118.7)**	**$ (113.8)**	**$ (87.6)**
Cash provided (required) by operating activities of discontinued operations(5)	(77.6)	(78.5)	(89.0)
Proceeds from land disposition(7)	50.5	—	—
Cash provided (required) by investing activities of discontinued operations(5)	—	19.7	31.1
Transaction and integration costs(1)	(0.5)	(9.5)	(63.9)
Investment in Enterprise Resource Planning system(3)	—	(12.7)	(47.2)
Legacy and transformation(6)	**$ (27.6)**	**$ (81.0)**	**$ (169.0)**
FREE CASH FLOW (NON-GAAP)	**$ 514.2**	**$ 713.3**	**$ 544.1**

(1) Represents payments for legal and professional fees associated with the DuPont Crop Protection Business Acquisition in addition to costs related to integrating the DuPont Crop Protection Business. See Note 5 to the consolidated financial statements included within this Form 10-K for more information. Cash spending is substantially complete.

(2) Adjusted cash from operations is defined as cash provided (required) by operating activities of continuing operations excluding the effects of transaction-related cash flows, which are included within Legacy and transformation.

(3) Components of cash provided (required) by investing activities of continuing operations. Refer to the below discussion for further details.

(4) Included in the amounts is cash spending associated with contract manufacturers of $6.8 million, $18.8 million and $17.4 million for the years ended December 31, 2022, 2021 and 2020, respectively.

(5) Refer to the above discussion for further details.

(6) Includes our legacy liabilities such as environmental remediation and other legal matters and our discontinued investing activities that are reported in discontinued operations. It also includes business integration costs associated with the DuPont Crop Protection Business Acquisition and the implementation of our new SAP system. The year ended December 31, 2022 includes proceeds from a land disposition described below.

(7) During December 2022, we finalized a land transfer agreement with the Shanghai Municipal People's Government. We received cash proceeds of $50.5 million for the land transfer. For additional detail on this transaction, see Note 9 to our consolidated financial statements included within this Form 10-K.

2023 Cash Flow Outlook

Our cash needs for 2023 include operating cash requirements (which are impacted by contributions to our pension plan, as well as environmental, asset retirement obligation, and restructuring spending), capital expenditures, and legacy and transformation spending, as well as mandatory payments of debt, dividend payments, and share repurchases. We plan to meet our liquidity needs through available cash, cash generated from operations, commercial paper issuances and borrowings under our committed revolving credit facility. At December 31, 2022 our remaining borrowing capacity under our credit facility was $1,469.5 million.

We expect 2023 free cash flow (Non-GAAP) to fall within a range of approximately $530 million to $720 million. At the mid-point of the range there is an increase year over year driven by higher adjusted cash from operations primarily due to growth in adjusted EBITDA and slower growth of working capital from slower sales growth and easing input cost inflation which will be partially offset by higher cash interest and taxes. We expect a modest year over year increase in capital additions as we expand capacity to meet growing demand, especially for our new products.

Although we provide a forecast for free cash flow, a Non-GAAP financial measure, we are not able to forecast the most directly comparable measure calculated and presented in accordance with U.S. GAAP, which is cash provided (required) by operating activities of continuing operations. Certain elements of the composition of the U.S. GAAP amount are not predictable, making it impractical for us to forecast. Such elements include, but are not limited to, restructuring, acquisition charges, and discontinued operations. As a result, no U.S. GAAP outlook is provided.

Cash from operating activities of continuing operations

We expect higher cash from operating activities, excluding the effects of transaction-related cash flows, to be in the range of approximately $800 million to $920 million. Transaction-related cash flows are included within Legacy and transformation, which is consistent with how we evaluate our business operations from a cash flow standpoint are substantially complete. See below for further discussion. Cash from operating activities includes cash requirements related to our pension plans, environmental sites, restructuring and asset retirement obligations, taxes and interest on borrowings.

Pension

We do not expect to make any voluntary cash contributions to our U.S. qualified defined benefit pension plan in 2023. The plan is slightly overfunded and our portfolio is comprised of 100 percent fixed income securities and cash. Our investment strategy is a liability hedging approach with an objective of maintaining the funded status of the plan such that the funded status volatility is minimized and the likelihood that we will be required to make significant contributions to the plan is limited.

Environmental

Projected 2023 spending, net of recoveries includes approximately $35 million to $45 million of net environmental remediation spending for our sites accounted for within continuing operations. Environmental obligations for continuing operations primarily represent obligations at shut down or abandoned facilities within businesses that do not meet the criteria for presentation as discontinued operations.

Projected 2023 spending, net of recoveries includes approximately $40 million to $50 million of net environmental remediation spending for our discontinued sites, which is part of legacy and transformation noted below. These projections include spending as a result of a settlement reached in the second quarter of 2019 at our Middleport, New York site. The settlement will result in spending $10 million maximum per year on average, until the remediation is complete.

Total projected 2023 environmental spending, inclusive of sites accounted for within both continuing operations and discontinued sites, is expected to be in the range of $75 million to $95 million.

Restructuring and asset retirement obligations

We expect to make payments of approximately $25 to $35 million in 2023, of which approximately $10 million is related to exit and disposal costs as a result of our previous decision in 2019 to exit sales of all carbofuran formulations (including Furadan® insecticide/nematicide, as well as Curaterr® insecticide/nematicide and any other brands used with carbofuran products).

Capital additions and other investing activities

Projected 2023 capital expenditures and expenditures related to contract manufacturers are expected to be in the range of approximately $140 million to $180 million. The spending is mainly driven by continuing to expand capacity to meet growing demand, especially for our new products. Expenditures related to contract manufacturers are included within "other investing activities".

Legacy and transformation

Projected 2023 legacy and transformation spending are expected to be in the range of approximately $60 million to $90 million. This is primarily driven by environmental remediation spending for our discontinued sites, discussed above, and other legacy liabilities. We completed the integration of the DuPont Crop Protection Business in 2020, other than the completion of certain in-flight initiatives associated with the finalization of our worldwide ERP system in early 2021. As such, transformation spending in 2023 is not expected to be material.

Share repurchases

During the year ended December 31, 2022, 875,480 shares were repurchased under the publicly announced repurchase program for approximately $100 million. At December 31, 2022, approximately $900.0 million remained unused under our Board-authorized repurchase program. In February 2022, the Board of Directors authorized the repurchase of up to $1 billion of the Company's common stock. The $1 billion share repurchase program replaced in its entirety the previous authorization. This repurchase program does not include a specific timetable or price targets and may be suspended or terminated at any time. Shares may be purchased through open market or privately negotiated transactions at the discretion of management based on its evaluation of market conditions and other factors. We also reacquire shares from time to time from employees in connections with vesting, exercise and forfeiture of awards under our equity compensation plans.

We intend to repurchase, at a minimum, enough FMC shares to offset any dilution from share-based compensation.

Dividends

On January 19, 2023, we paid dividends aggregating $72.7 million to our shareholders of record as of December 31, 2022. This amount is included in "Accrued and other liabilities" on the consolidated balance sheet as of December 31, 2022. For the years ended December 31, 2022, 2021 and 2020, we paid $267.5 million, $247.2 million and $228.5 million in dividends, respectively. We expect to continue to make quarterly dividend payments. Future cash dividends, as always, will depend on a variety of factors, including earnings, capital requirements, financial condition, general economic conditions and other factors considered relevant by us and is subject to final determination by our Board of Directors.

Contingencies

See Note 20 to our consolidated financial statements included within this Form 10-K.

Climate Change

We are concerned about the consequences of climate change and will take prudent and cost-effective actions that reduce GHG emissions to the atmosphere.

FMC is committed to continuing to do its part to address climate change and its impacts. FMC published its first sustainability report in 2011 and has been reporting its GHG emissions and mitigation strategy to CDP (formerly Carbon Disclosure Project) since 2016. FMC detailed the business risks and opportunities we have due to climate change and its impacts in our CDP climate change reports. FMC received a "A-" in the CDP Climate Change and Water Security questionnaires in 2022, demonstrating leadership in climate disclosure. As part of FMC's continued commitment to address climate change, in August of 2021, FMC announced its goal to achieve an expected net-zero GHG emissions by 2035 FMC. FMC committed to the Science Based Target initiative ("SBTi") Net-Zero Standard, aligned with keeping the global temperature at 1.5°C above pre-industrial times. Beyond net-zero, FMC also seeks to achieve 100% implementation of sustainable water practices at all FMC sites and 100% waste to beneficial reuse by 2035.

Even as we take action to control the release of GHGs, additional warming is anticipated. Long-term, higher average global temperatures could result in induced changes in natural resources, growing seasons, precipitation patterns, weather patterns, species distributions, water availability, sea levels, and biodiversity. These impacts could cause changes in supplies of raw materials used to maintain FMC's production capacity and could lead to possible increased sourcing costs. Depending on how pervasive the climate impacts are in the different geographic locations experiencing changes in natural resources, FMC's customers could be impacted. Demand for FMC's products could increase if our products meet our customers' needs to adapt to climate change impacts or decrease if our products do not meet their needs. In addition, extreme weather events attributable to climate change may result in, among other things, physical damage to our property and equipment, and interruptions to our supply chain.

Though the nature of these events makes them difficult to predict, to respond to the uncertainty and better understand our risks and opportunities as they relate to climate change, we have conducted climate related scenario analyses consistent with the recommendations provided by the Taskforce for Climate-Related Financial Disclosures ("TCFD"). As part of the TCFD scenario analysis, we have evaluated both physical and transitional risks and opportunities across multiple time horizons. In accordance with the TCFD guidance, we leveraged scenarios published by the International Energy Agency ("IEA") and the United Nations' Intergovernmental Panel on Climate Change (IPCC), including a scenario below 2°C. Results of this analysis are integrated in enterprise risk management and long-term business strategy, and are used to determine where strategic capital could be deployed to address risks and opportunities. Risks identified in Item 1A are aligned with the TCFD requirements.

In our product portfolio, we see transition market opportunities for our products to address climate change and its impacts. For example, FMC's agricultural solutions can help customers increase yield, energy and water efficiency, and decrease GHG emissions. Our solutions can also help growers adapt to more unpredictable growing conditions and the effects these types of threats have on crops. FMC has committed to achieve a goal of investing 100 percent of our research and development pipeline budget to developing sustainable products and solutions for future use.

We are improving existing products and developing new platforms and technologies that help mitigate impacts of climate change. These opportunities could lead to new products and services for our existing and potential customers. Beyond our products and operations, FMC recognizes that energy consumption throughout our supply chain can impact climate change and product costs. FMC has committed to an expected target of net-zero GHG emissions across our entire value, which would include reductions across our entire supply chain. Therefore, we will actively work with our entire value chain - suppliers, contractors, and customers - to seek to improve their energy efficiencies and to reduce their GHG emissions.

We continue to follow legislative and regulatory developments regarding climate change, including climate-related disclosures. The regulation of GHGs, depending on their nature and scope, could subject some of our manufacturing operations to additional costs or limits on operations. In December 2015, 195 countries at the United Nations Climate Change Conference in Paris reached an agreement to reduce GHGs. In November 2021, the above parties reconvened at the United Nations Climate Change Conference in Glasgow to reaffirm the Paris Agreement and urged countries to reach 1.5°C level reductions by the 2030s to lessen the impacts of climate change. Although it remains to be seen how and when each of these countries will implement this agreement, FMC has echoed this commitment with our expected target of net-zero by 2035 goal which allows us to do our part in reaching 1.5°C level reductions.

Some of our foreign operations are subject to national or local energy management or climate change regulation, such as our plant in Denmark that is subject to the EU Emissions Trading Scheme. At present, that plant's emissions are below its designated cap.

In December 2019, the European Commission approved the European Green Deal, with the goal of making the EU carbon neutral by 2050. The Green Deal includes investment plans and a roadmap to fight against climate change. FMC is closely following updates and the discussion surrounding the Green Deal. The costs of complying with possible future requirements are difficult to estimate at this time.

Future GHG regulatory requirements may result in increased costs of energy, additional capital costs for emissions control or new equipment, and/or costs associated with cap and trade or carbon taxes. We are currently monitoring regulatory developments. The costs of complying with possible future climate change requirements are difficult to estimate at this time.

FMC will actively manage climate risks and incorporate them in our decision making as indicated in our responses to the CDP Climate Change Module. FMC will also use recommendations outlined in the TCFD to evaluate potential risks and opportunities and incorporate these into our overall strategy and risk management.

See Item IA. Risk Factors for additional considerations related to risks of climate change and sustainability.

Recently Adopted and Issued Accounting Pronouncements and Regulatory Items

See Note 2 "Recently Issued and Adopted Accounting Pronouncements and Regulatory Items" to our consolidated financial statements included within this Form 10-K.

Fair Value Measurements

See Note 19 to our consolidated financial statements included in this Form 10-K for additional discussion surrounding our fair value measurements.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in conformity with U.S. generally accepted accounting principles ("U.S. GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. We have described our accounting policies in Note 1 "Principal Accounting Policies and Related Financial Information" to our consolidated financial statements included in this Form 10-K. We have reviewed these accounting policies, identifying those that we believe to be critical to the preparation and understanding of our consolidated financial statements. We have reviewed these critical accounting policies with the Audit Committee of the Board of Directors. Critical accounting policies are central to our presentation of results of operations and financial condition in accordance with U.S. GAAP and require management to make estimates and judgments on certain matters. We base our estimates and judgments on historical experience, current conditions and other reasonable factors. Our most critical accounting estimates and assumptions, which are those that involve a significant level of estimation uncertainty and have had, or are reasonably likely to have, a material impact on our financial condition or results of operations, include: *Impairments and valuation of long-lived and indefinite-lived assets, Pension and other postretirement benefits*, and the *Allowance for credit losses on our trade receivables*. Additional critical accounting policies are included within the list below:

Revenue recognition and trade receivables

We recognize revenue when (or as) we satisfy our performance obligation which is when the customer obtains control of the good or service. Rebates due to customers are accrued as a reduction of revenue in the same period that the related sales are recorded based on the contract terms. Refer to Note 3 to our consolidated financial statements included in this Form 10-K for more information.

We record amounts billed for shipping and handling fees as revenue. Costs incurred for shipping and handling are recorded as costs of sales and services. Amounts billed for sales and use taxes, value-added taxes, and certain excise and other specific transactional taxes imposed on revenue-producing transactions are presented on a net basis and excluded from sales in the consolidated income statements. We record a liability until remitted to the respective taxing authority.

We periodically enter into prepayment arrangements with customers and receive advance payments for product to be delivered in future periods. These advance payments are recorded as deferred revenue and classified as "Advance payments from customers" on the consolidated balance sheet. Revenue associated with advance payments is recognized as shipments are made and transfer of control to the customer takes place.

Trade receivables consist of amounts owed to us from customer sales and are recorded when revenue is recognized. The allowance for trade receivables represents our best estimate of the probable losses associated with potential customer defaults. In developing our allowance for trade receivables, we use a two stage process which includes calculating a general formula to develop an allowance to appropriately address the uncertainty surrounding collection risk of our entire portfolio and specific allowances for customers where the risk of collection has been reasonably identified either due to liquidity constraints or disputes over contractual terms and conditions.

Our method of calculating the general formula consists of estimating the recoverability of trade receivables based on historical experience, current collection trends, and external business factors such as economic factors, including regional bankruptcy rates, and political factors. Our analysis of trade receivable collection risk is performed quarterly, and the allowance is adjusted accordingly.

We also hold long-term receivables that represent long-term customer receivable balances related to past-due accounts which are not expected to be collected within the current year. Our policy for the review of the allowance for these receivables is consistent with the discussion in the preceding paragraph above on trade receivables. Therefore on an ongoing basis, we continue to evaluate the credit quality of our long-term receivables utilizing aging of receivables, collection experience and write-offs, as well as existing economic conditions, to determine if an additional allowance is necessary.

We believe our allowance for credit losses is a critical accounting estimate because the underlying assumptions used for the reserve can change from time to time and potentially have a material impact on our results of operations. Based on a combination of historical trends as well as current economic factors, we apply judgment to reserve for expected credit losses in the period in which the sale is recorded. A substantial change in the operating environments in any of our key locations (driven by weather conditions, industry specific events, and macroeconomic conditions) may result in actual adjustments that differ from our original assumptions.

Environmental obligations and related recoveries

We provide for environmental-related obligations when they are probable and amounts can be reasonably estimated. Where the available information is sufficient to estimate the amount of liability, that estimate has been used. Where the information is only sufficient to establish a range of probable liability and no point within the range is more likely than any other, the lower end of the range has been used.

Estimated obligations to remediate sites that involve oversight by the United States Environmental Protection Agency ("EPA"), or similar government agencies, are generally accrued no later than when a Record of Decision ("ROD"), or equivalent, is issued, or upon completion of a Remedial Investigation/Feasibility Study ("RI/FS"), or equivalent, that is submitted by us to the appropriate government agency or agencies. Estimates are reviewed quarterly by our environmental remediation management, as well as by financial and legal management and, if necessary, adjusted as additional information becomes available. The estimates can change substantially as additional information becomes available regarding the nature or extent of site contamination, required remediation methods, and other actions by or against governmental agencies or private parties.

Our environmental liabilities for continuing and discontinued operations are principally for costs associated with the remediation and/or study of sites at which we are alleged to have released hazardous substances into the environment. Such costs principally include, among other items, RI/FS, site remediation, costs of operation and maintenance of the remediation plan, management costs, fees to outside law firms and consultants for work related to the environmental effort, and future monitoring costs. Estimated site liabilities are determined based upon existing remediation laws and technologies, specific site consultants' engineering studies or by extrapolating experience with environmental issues at comparable sites.

Included in our environmental liabilities are costs for the operation, maintenance and monitoring of site remediation plans ("OM&M"). Such reserves are based on our best estimates for these OM&M plans. Over time we may incur OM&M costs in excess of these reserves. However, we are unable to reasonably estimate an amount in excess of our recorded reserves because we cannot reasonably estimate the period for which such OM&M plans will need to be in place or the future annual cost of such remediation, as conditions at these environmental sites change over time. Such additional OM&M costs could be significant in total but would be incurred over an extended period of years.

Included in the environmental reserve balance, other assets balance and disclosure of reasonably possible loss contingencies are amounts from third-party insurance policies, which we believe are probable of recovery.

Provisions for environmental costs are reflected in income, net of probable and estimable recoveries from named Potentially Responsible Parties ("PRPs") or other third parties. In the fourth quarter of 2019, we increased our reserves for the Pocatello Tribal Matter by $72.8 million, which represents both the historical and discounted present value of future annual use permit fees as well as the associated legal costs. See Note 12 to the consolidated financial statements included within this Form 10-K for further information. All other environmental provisions incorporate inflation and are not discounted to their present value.

In calculating and evaluating the adequacy of our environmental reserves, we have taken into account the joint and several liability imposed by Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and the analogous state laws on all PRPs and have considered the identity and financial condition of the other PRPs at each site to the extent possible. We have also considered the identity and financial condition of other third parties from whom recovery is anticipated, as well as the status of our claims against such parties. Although we are unable to forecast the ultimate contributions of PRPs and other third parties with absolute certainty, the degree of uncertainty with respect to each party is taken into account when determining the environmental reserve by adjusting the reserve to reflect the facts and circumstances on a site-by-site basis. Our liability includes our best estimate of the costs expected to be paid before the consideration of any potential recoveries from third parties. We believe that any recorded recoveries related to PRPs are realizable in all material respects. Recoveries are recorded as either an offset in "Environmental liabilities, continuing and discontinued" or as "Other assets" in our consolidated balance sheets in accordance with U.S. accounting literature.

See Note 12 to our consolidated financial statements included within this Form 10-K for changes in estimates associated with our environmental obligations.

Impairments and valuation of long-lived and indefinite-lived assets

Our long-lived assets primarily include property, plant and equipment, goodwill and intangible assets. The assets and liabilities of acquired businesses are measured at their estimated fair values at the dates of acquisition. The excess of the purchase price over the estimated fair value of the net assets acquired, including identified intangibles, is recorded as goodwill. The determination and allocation of fair value to the assets acquired and liabilities assumed is based on various assumptions and valuation methodologies requiring considerable management judgment, including estimates based on historical information, current market data and future expectations. Although the estimates were deemed reasonable by management based on information available at the dates of acquisition, those estimates are inherently uncertain.

We test for impairment whenever events or circumstances indicate that the net book value of our property, plant and equipment may not be recoverable from the estimated undiscounted expected future cash flows expected to result from their use and eventual disposition. In cases where the estimated undiscounted expected future cash flows are less than net book value, an impairment loss is recognized equal to the amount by which the net book value exceeds the estimated fair value of assets, which is based on discounted cash flows at the lowest level determinable. The estimated cash flows reflect our assumptions about selling prices, volumes, costs and market conditions over a reasonable period of time.

We perform an annual impairment test of goodwill and indefinite-lived intangible assets in the third quarter of each year, or more frequently whenever an event or change in circumstances occurs that would require reassessment of the recoverability of those assets. In performing our evaluation we assess qualitative factors such as overall financial performance of our reporting units, anticipated changes in industry and market structure, competitive environments, planned capacity and cost factors such as raw material prices.

We estimate the fair value of the reporting unit using a discounted cash flow model as part of the income approach. We assess the appropriateness of projected financial information by comparing projected revenue growth rates, profit margins and tax rates to historical performance, industry data and selected guideline companies, where applicable. Our key assumptions include future cash flow projections, tax rates, terminal growth rates and discount rates.

We employ the relief from royalty method of the income approach to value our brand portfolios (indefinite-lived intangible assets). The principle behind this method is that the value of the intangible asset is equal to the present value of the after-tax royalty savings attributable to owning the intangible asset. Primary inputs and key assumptions include revenue forecasts attributable to each portfolio, royalty rates (considering both external market data and internal arrangements), tax rates, terminal growth rates and discount rates.

Estimating the fair value requires significant judgment and actual results may differ due to changes in the overall market conditions. We believe we have applied reasonable assumptions which considers both internal and external factors.

We believe that an accounting estimate relating to asset impairment is a critical accounting estimate because of the inherent uncertainty within the underlying assumptions. An adverse change in any of these assumptions could result in an impairment charge which would potentially have a material impact on our results of operations.

Based on the annual assessment, we concluded the fair value of the reporting unit substantially exceeded the carrying value. Additionally, the fair value of each indefinite-lived intangible asset exceeded its carrying value.

See Note 9 to our consolidated financial statements included within this Form 10-K for charges associated with long-lived asset disposal costs and the activity associated with the restructuring reserves.

Pension and other postretirement benefits

We provide qualified and nonqualified defined benefit and defined contribution pension plans, as well as postretirement health care and life insurance benefit plans to our employees and retirees. The costs (benefits) and obligations related to these benefits reflect key assumptions related to general economic conditions, including interest (discount) rates, healthcare cost trend rates, expected rates of return on plan assets and the rates of compensation increase for employees. The costs (benefits) and obligations for these benefit programs are also affected by other assumptions, such as average retirement age, mortality, employee turnover, and plan participation. To the extent our plans' actual experience, as influenced by changing economic and financial market conditions or by changes to our own plans' demographics, differs from these assumptions, the costs and obligations for providing these benefits, as well as the plans' funding requirements, could increase or decrease. When actual results differ from our assumptions, the difference is typically recognized over future periods. In addition, the unrealized gains and losses related to our pension and postretirement benefit obligations may also affect periodic benefit costs (benefits) in future periods.

We use several assumptions and statistical methods to determine the asset values used to calculate both the expected rate of return on assets component of pension cost and to calculate our plans' funding requirements. As previously disclosed, we changed our method of accounting to the fair value approach for our liability-hedging asset class, which does not involve deferring the impact of excess plan asset gains or losses in the determination of these two components of net periodic benefit cost. This class of assets is comprised solely of fixed income securities and therefore, provides a natural hedge (liability-hedging assets) against the changes in the recorded amount of net periodic benefit cost. We use an actuarial value of assets to determine our plans' funding requirements. The actuarial value of assets must be within a certain range, high or low, of the actual market value of assets, and is adjusted accordingly.

We select the discount rate used to calculate pension and other postretirement obligations based on a review of available yields on high-quality corporate bonds as of the measurement date. In selecting a discount rate as of December 31, 2022, we placed particular emphasis on a discount rate yield-curve provided by our actuary. This yield-curve, when populated with projected cash flows that represent the expected timing and amount of our plans' benefit payments, produced an effective discount rate of 5.16 percent for our U.S. qualified plan, 4.99 percent for our U.S. nonqualified, and 5.03 percent for our U.S. other postretirement benefit plans.

The discount rates used to determine projected benefit obligation at our December 31, 2022 and 2021 measurement dates for the U.S. qualified plan were 5.16 percent and 2.84 percent, respectively. The effect of the change in the discount rate from 2.84 percent to 5.16 percent at December 31, 2022 resulted in a $259.4 million decrease to our U.S. qualified pension benefit obligations. The effect of the change in the discount rate used to determine net annual benefit cost (income) from 2.49 percent at December 31, 2021 to 2.84 percent at December 31, 2022 resulted in a $1.9 million increase to the 2022 U.S. qualified pension expense.

The change in discount rate from 2.84 percent at December 31, 2021 to 5.16 percent at December 31, 2022 was attributable to an increase in yields on high quality corporate bonds with cash flows matching the timing and amount of our expected future benefit payments between the 2021 and 2022 measurement dates. Using the December 31, 2022 and 2021 yield curves, our U.S. qualified plan cash flows produced a single weighted-average discount rate of approximately 5.16 percent and 2.84 percent, respectively.

In developing the assumption for the long-term rate of return on assets for our U.S. Plan, we take into consideration the technical analysis performed by our outside actuaries, including historical market returns, information on the assumption for long-term real returns by asset class, inflation assumptions, and expectations for standard deviation related to these best estimates. Our long-term rate of return for the fiscal year ended December 31, 2022, 2021 and 2020 was 2.50 percent, 2.25 percent and 3.00 percent, respectively.

For the sensitivity of our pension costs to incremental changes in assumptions see our discussion below.

Sensitivity analysis related to key pension and postretirement benefit assumptions.

A one-half percent increase in the assumed discount rate would have decreased pension and other postretirement benefit obligations by $43.5 million and $66.1 million at December 31, 2022 and 2021, respectively, and increased pension and other postretirement benefit costs by $0.1 million, $0.4 million and zero for 2022, 2021 and 2020, respectively. A one-half percent decrease in the assumed discount rate would have increased pension and other postretirement benefit obligations by $47 million and $72.1 million at December 31, 2022 and 2021, respectively, and decreased pension and other postretirement benefit costs by zero in 2022, $0.4 million in 2021, and increased costs by $0.1 million in 2020.

A one-half percent increase in the assumed expected long-term rate of return on plan assets would have decreased pension costs by $6.6 million, $6.3 million and $6.2 million for 2022, 2021 and 2020, respectively. A one-half percent decrease in the assumed long-term rate of return on plan assets would have increased pension costs by $6.6 million, $6.3 million and $6.2 million for 2022, 2021 and 2020, respectively.

Further details on our pension and other postretirement benefit obligations and net periodic benefit costs (benefits) are found in Note 15 to our consolidated financial statements in this Form 10-K.

Income taxes

We have recorded a valuation allowance to reduce deferred tax assets in certain jurisdictions to the amount that we believe is more likely than not to be realized. In assessing the need for this allowance, we have considered a number of factors including future taxable income, the jurisdictions in which such income is earned and our ongoing tax planning strategies. In the event that we determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to the deferred tax assets would be charged to income in the period such determination was made. Similarly, should we conclude that we would be able to realize certain deferred tax assets in the future in excess of the net recorded amount, an adjustment to the deferred tax assets would increase income in the period such determination was made.

Additionally, we file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. Certain income tax returns for FMC entities taxable in the U.S. and significant foreign jurisdictions are open for examination and adjustment. We assess our income tax positions and record a liability for all years open to examination based upon our evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, we have recorded the largest amount of tax benefit with a greater than 50 percent likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. We adjust these liabilities, if necessary, upon the completion of tax audits or changes in tax law.

See Note 13 to our consolidated financial statements included within this Form 10-K for additional discussion surrounding income taxes.

ITEM 7A Quantitative and Qualitative Disclosures About Market Risk

Our earnings, cash flows and financial position are exposed to market risks relating to fluctuations in commodity prices, interest rates and foreign currency exchange rates. Our policy is to minimize exposure to our cash flow over time caused by changes in commodity, interest and currency exchange rates. To accomplish this, we have implemented a controlled program of risk management consisting of appropriate derivative contracts entered into with major financial institutions.

The analysis below presents the sensitivity of the market value of our financial instruments to selected changes in market rates and prices. The range of changes chosen reflects our view of changes that are reasonably possible over a one-year period. Market value estimates are based on the present value of projected future cash flows considering the market rates and prices chosen.

At December 31, 2022, our net financial instrument position was a net liability of $4.6 million compared to a net asset of $19.4 million at December 31, 2021. The change in the net financial instrument position was primarily due to exchange and interest rate fluctuations in our foreign exchange interest rate portfolios.

Since our risk management programs are generally highly effective, the potential loss in value for each risk management portfolio described below would be largely offset by changes in the value of the underlying exposure.

Foreign Currency Exchange Rate Risk

The primary currencies for which we have exchange rate exposure are the U.S. dollar versus the Brazilian real, Chinese yuan, Indian rupee, euro, Mexican peso and Argentine peso. Foreign currency debt and foreign exchange forward contracts are used in countries where we do business, thereby reducing our net asset exposure. Foreign exchange forward contracts are also used to hedge firm and highly anticipated foreign currency cash flows.

To analyze the effects of changing foreign currency rates, we have performed a sensitivity analysis in which we assume an instantaneous 10 percent change in the foreign currency exchange rates from their levels at December 31, 2022 and 2021, with all other variables (including interest rates) held constant.

		Hedged Currency vs. Functional Currency	
(in Millions)	**Net Asset / (Liability) Position on Consolidated Balance Sheets**	**Net Asset / (Liability) Position with 10% Strengthening**	**Net Asset / (Liability) Position with 10% Weakening**
Net asset/(liability) position at December 31, 2022	$ (17.0)	$ 45.9	$ (79.7)
Net asset/(liability) position at December 31, 2021	15.6	84.1	(50.8)

Interest Rate Risk

One of the strategies that we can use to manage interest rate exposure is to enter into interest rate swap agreements. In these agreements, we agree to exchange, at specified intervals, the difference between fixed and variable interest amounts calculated on an agreed-upon notional principal amount. In the quarter ended December 31, 2022, we had outstanding interest rate swap contracts in place with an aggregate notional value of $200.0 million.

To analyze the effects of changing interest rates, we have performed a sensitivity analysis in which we assume an instantaneous one percent change in the interest rates from their levels at December 31, 2022 and 2021, with all other variables held constant.

(in Millions)	**Net Asset / (Liability) Position on Consolidated Balance Sheets**	**1% Increase**	**1% Decrease**
Net asset/(liability) position at December 31, 2022	$ 12.4	$ 33.4	$ (8.6)
Net asset/(liability) position at December 31, 2021	3.7	13.1	(5.6)

Our debt portfolio at December 31, 2022 is composed of 62 percent fixed-rate debt and 38 percent variable-rate debt. The variable-rate component of our debt portfolio principally consists of borrowings under our 2021 Term Loan Facility, Credit Facility, Commercial Paper program, variable-rate industrial and pollution control revenue bonds, and amounts outstanding under foreign subsidiary credit lines. Changes in interest rates affect different portions of our variable-rate debt portfolio in different ways.

Based on the variable-rate debt in our debt portfolio at December 31, 2022, a one percentage point increase in interest rates would have increased gross interest expense by $12.4 million and a one percentage point decrease in interest rates would have decreased gross interest expense by $12.4 million for the year ended December 31, 2022.

ITEM 8 Financial Statements and Supplementary Data

FMC Corporation

Consolidated Statements of Income (Loss)

(in Millions, Except Per Share Data)	Year Ended December 31, 2022	2021	2020
Revenue	**$ 5,802.3**	$ **5,045.2**	**$ 4,642.1**
Costs and Expenses			
Costs of sales and services	3,475.5	2,883.9	2,595.4
Gross Margin	**$ 2,326.8**	**$ 2,161.3**	**$ 2,046.7**
Selling, general and administrative expenses	775.2	714.1	729.7
Research and development expenses	314.2	304.7	287.9
Restructuring and other charges (income)	93.1	108.0	132.2
Total costs and expenses	**$ 4,658.0**	**$ 4,010.7**	**$ 3,745.2**
Income from continuing operations, non-operating pension and postretirement charges (income), interest expense, net and income taxes	$ 1,144.3	$ 1,034.5	$ 896.9
Non-operating pension and postretirement charges (income)	8.6	5.6	14.7
Interest income	—	—	(0.1)
Interest expense	151.8	131.1	151.3
Income (loss) from continuing operations before income taxes	$ 983.9	$ 897.8	$ 731.0
Provision (benefit) for income taxes	145.2	92.5	151.2
Income (loss) from continuing operations	$ 838.7	$ 805.3	$ 579.8
Discontinued operations, net of income taxes	(97.2)	(68.2)	(28.3)
Net income (loss)	$ 741.5	$ 737.1	$ 551.5
Less: Net income (loss) attributable to noncontrolling interests	5.0	(2.5)	(0.9)
NET INCOME (LOSS) ATTRIBUTABLE TO FMC STOCKHOLDERS	**$ 736.5**	**$ 739.6**	**$ 552.4**
Amounts attributable to FMC stockholders:			
Continuing operations, net of income taxes	$ 833.7	$ 807.8	$ 580.7
Discontinued operations, net of income taxes	(97.2)	(68.2)	(28.3)
NET INCOME (LOSS) ATTRIBUTABLE TO FMC STOCKHOLDERS	$ **736.5**	$ **739.6**	**$ 552.4**
Basic earnings (loss) per common share attributable to FMC stockholders:			
Continuing operations	$ 6.60	$ 6.29	$ 4.48
Discontinued operations	(0.77)	(0.53)	(0.22)
NET INCOME (LOSS) ATTRIBUTABLE TO FMC STOCKHOLDERS	**$ 5.83**	**$ 5.76**	**$ 4.26**
Diluted earnings (loss) per common share attributable to FMC stockholders:			
Continuing operations	$ 6.58	$ 6.26	$ 4.45
Discontinued operations	(0.77)	(0.53)	(0.22)
NET INCOME (LOSS) ATTRIBUTABLE TO FMC STOCKHOLDERS	**$ 5.81**	**$ 5.73**	**$ 4.23**

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

FMC Corporation

Consolidated Statements of Comprehensive Income (Loss)

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Net income (loss)	**$ 741.5**	**$ 737.1**	**$ 551.5**
Other comprehensive income (loss), net of tax:			
Foreign currency adjustments:			
Foreign currency translation gain (loss) arising during the period	$ (103.1)	$ (87.0)	$ 102.0
Reclassification of foreign currency translation (gains) losses	$ 4.2	$ —	$ —
Total foreign currency adjustments(1)	$ (98.9)	$ (87.0)	$ 102.0
Derivative instruments:			
Unrealized hedging gains (losses) and other, net of tax of $(17.2), $5.4 and $1.9	$ (65.4)	$ 44.1	$ (2.5)
Reclassification of deferred hedging (gains) losses and other, included in net income, net of tax of $19.1, $1.7 and $1.7(3)	35.9	5.5	(4.3)
Total derivative instruments, net of tax of $1.9, $7.1 and $3.6	$ (29.5)	$ 49.6	$ (6.8)
Pension and other postretirement benefits:			
Unrealized actuarial gains (losses) and prior service (costs) credits, net of tax of $(4.3), $(4.5) and $4.7(2)	$ (15.7)	$ (17.4)	$ 17.3
Reclassification of net actuarial and other (gain) loss, amortization of prior service costs and settlement charges, included in net income, net of tax of $2.4, $2.5 and $3.3(3)	9.1	9.5	12.5
Total pension and other postretirement benefits, net of tax of $(1.9), $(2.0) and $8.0	$ (6.6)	$ (7.9)	$ 29.8
Other comprehensive income (loss), net of tax	**$ (135.0)**	**$ (45.3)**	**$ 125.0**
Comprehensive income (loss)	$ 606.5	$ 691.8	$ 676.5
Less: Comprehensive income (loss) attributable to the noncontrolling interest	4.1	(3.0)	(0.6)
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO FMC STOCKHOLDERS	**$ 602.4**	**$ 694.8**	**$ 677.1**

(1) Income taxes are not provided for foreign currency translation because the related investments are essentially permanent in duration.

(2) At December 31 of each year, we remeasure our pension and postretirement plan obligations at which time we record any actuarial gains (losses) and prior service (costs) credits to other comprehensive income. See Note 15 to the consolidated financial statements included within this Form 10-K for further details.

(3) For more detail on the components of these reclassifications and the affected line item in the consolidated statements of income (loss) see Note 17 to the consolidated financial statements included within this Form 10-K for further details.

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

FMC Corporation

Consolidated Balance Sheets

(in Millions, Except Share and Par Value Data)	December 31, 2022		2021	
ASSETS				
Current assets				
Cash and cash equivalents	$	572.0	$	516.8
Trade receivables, net of allowance of $33.9 in 2022 and $37.4 in 2021		2,871.4		2,583.7
Inventories		1,651.6		1,521.9
Prepaid and other current assets		343.6		431.4
Total current assets	**$**	**5,438.6**	**$**	**5,053.8**
Investments		14.5		9.2
Property, plant and equipment, net		849.6		817.0
Goodwill		1,589.3		1,463.3
Other intangibles, net		2,508.1		2,521.9
Other assets including long-term receivables, net		560.5		613.8
Deferred income taxes		210.7		194.1
TOTAL ASSETS	**$**	**11,171.3**	**$**	**10,673.1**
LIABILITIES AND EQUITY				
Current liabilities				
Short-term debt and current portion of long-term debt	$	540.8	$	440.8
Accounts payable, trade and other		1,252.2		1,135.0
Advance payments from customers		680.5		630.7
Accrued and other liabilities		601.8		631.2
Accrued customer rebates		465.3		406.7
Guarantees of vendor financing		142.0		206.2
Accrued pension and other postretirement benefits, current		2.3		4.3
Income taxes		114.7		65.4
Total current liabilities	**$**	**3,799.6**	**$**	**3,520.3**
Long-term debt, less current portion		2,733.2		2,731.7
Accrued pension and other postretirement benefits, long-term		31.6		41.8
Environmental liabilities, continuing and discontinued		439.1		415.9
Deferred income taxes		321.5		342.4
Other long-term liabilities		445.4		477.3
Commitments and contingent liabilities (Note 20)				
Equity				
Preferred stock, no par value, authorized 5,000,000 shares; no shares issued in 2022 or 2021	$	—	$	—
Common stock, $0.10 par value, authorized 260,000,000 shares in 2022 and 2021; 185,983,792 shares issued in 2022 and 2021		18.6		18.6
Capital in excess of par value of common stock		909.2		880.4
Retained earnings		5,555.9		5,092.9
Accumulated other comprehensive income (loss)		(459.6)		(325.5)
Treasury stock, common, at cost - 2022: 60,872,988 shares, 2021: 60,284,313 shares		(2,646.2)		(2,542.1)
Total FMC stockholders' equity	$	3,377.9	$	3,124.3
Noncontrolling interests		23.0		19.4
Total equity	**$**	**3,400.9**	**$**	**3,143.7**
TOTAL LIABILITIES AND EQUITY	**$**	**11,171.3**	**$**	**10,673.1**

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

FMC Corporation

Consolidated Statements of Cash Flows

(in Millions)	Year Ended December 31, 2022	2021	2020
Cash provided (required) by operating activities of continuing operations:			
Net income (loss)	$ 741.5	$ 737.1	$ 551.5
Discontinued operations, net of income taxes	97.2	68.2	28.3
Income (loss) from continuing operations	$ 838.7	$ 805.3	$ 579.8
Adjustments from income (loss) from continuing operations to cash provided (required) by operating activities of continuing operations:			
Depreciation and amortization	$ 169.4	$ 170.9	$ 162.7
Restructuring and other charges (income)	93.1	108.0	132.2
Deferred income taxes	(52.7)	10.6	33.9
Pension and other postretirement benefits	12.5	10.5	19.3
Share-based compensation	24.2	17.8	18.9
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:			
Trade receivables, net	$ (443.9)	$ (241.1)	$ (71.8)
Guarantees of vendor financing	(64.2)	65.6	64.8
Advance payments from customers	52.1	283.6	(145.5)
Accrued customer rebates	69.6	108.7	17.2
Inventories	(182.3)	(320.7)	(54.4)
Accounts payable, trade and other	165.3	144.4	61.8
Income taxes	19.1	(90.3)	36.2
Pension and other postretirement benefit contributions	(4.5)	(5.3)	(4.6)
Environmental spending, continuing, net of recoveries	(26.9)	(63.6)	(1.9)
Restructuring and other spending(1)	(35.2)	(34.7)	(17.9)
Transaction and integration costs	(0.5)	(9.5)	(63.9)
Change in other operating assets and liabilities, net(2)	26.2	(61.6)	(30.0)
Cash provided (required) by operating activities of continuing operations	**$ 660.0**	**$ 898.6**	**$ 736.8**
Cash provided (required) by operating activities of discontinued operations:			
Environmental spending, discontinued, net of recoveries	$ (47.0)	$ (57.5)	$ (58.9)
Operating activities of discontinued operations, net of divestiture costs	—	—	(0.2)
Other discontinued spending	(30.6)	(21.0)	(29.9)
Cash provided (required) by operating activities of discontinued operations	**$ (77.6)**	**$ (78.5)**	**$ (89.0)**

(1) In addition to cash payments shown in our roll forward of restructuring reserves in Note 9 to our consolidated financial statements included within this Form 10-K, the restructuring and other spending amount above for the years ended December 31, 2022 and 2021 includes spending of $10.0 million and $6.0 million, respectively, related to the Furadan® asset retirement obligations and $3.2 million and $4.4 million, respectively, for certain historical India indirect tax matters. The year ended December 31, 2022 includes $3.8 million of additional spending not included in our roll forward of restructuring reserves. For additional detail on restructuring and other charges activities, see Note 9 to our consolidated financial statements included within this Form 10-K.

(2) Changes in all periods represent timing of payments associated with all other operating assets and liabilities.

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

FMC Corporation

Consolidated Statements of Cash Flows (Continued)

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Cash provided (required) by investing activities of continuing operations:			
Capital expenditures	$ (142.3)	$ (100.1)	$ (67.2)
Investment in Enterprise Resource Planning system	—	(12.7)	(47.2)
Acquisitions, including cost and equity method, net(3)	(198.2)	(5.2)	(65.6)
Proceeds from land disposition(4)	50.5	—	—
Other investing activities(5)	23.6	(13.7)	(20.4)
Cash provided (required) by investing activities of continuing operations	$ (266.4)	$ (131.7)	$ (200.4)
Cash provided (required) by investing activities of discontinued operations:			
Proceeds from disposal of property, plant and equipment	—	19.7	31.1
Cash provided (required) by investing activities of discontinued operations	$ —	$ 19.7	$ 31.1
Cash provided (required) by financing activities of continuing operations:			
Increase (decrease) in short-term debt	$ 115.2	$ 104.9	$ 97.0
Proceeds from borrowing of long-term debt	—	1,000.0	27.1
Financing fees and interest rate swap settlements	16.3	(2.4)	(3.5)
Repayments of long-term debt	(1.4)	(1,203.1)	(100.0)
Acquisitions of noncontrolling interests	—	—	(7.4)
Distributions to noncontrolling interests	—	—	(1.3)
Distributions to minority partners	(0.5)	—	—
Dividends paid(6)	(267.5)	(247.2)	(228.5)
Issuances of common stock, net	9.4	7.9	24.7
Repurchases of common stock under publicly announced program	(100.0)	(400.0)	(50.0)
Other repurchases of common stock	(8.9)	(8.0)	(8.4)
Cash provided (required) by financing activities of continuing operations	$ (237.4)	$ (747.9)	$ (250.3)
Effect of exchange rate changes on cash and cash equivalents	(23.4)	(12.3)	1.6
Increase (decrease) in cash and cash equivalents	$ 55.2	$ (52.1)	$ 229.8
Cash and cash equivalents, beginning of period	516.8	568.9	339.1
CASH AND CASH EQUIVALENTS, END OF PERIOD	**$ 572.0**	**$ 516.8**	**$ 568.9**

(3) In 2022, the purchase price of Biophero of approximately $193 million was primarily paid at closing on July 19, 2022. For additional detail on this transaction, see Note 9 to our consolidated financial statements included within this Form 10-K. The acquisitions, net amount in 2020 represents payments made on October 2, 2020 to acquire the remaining rights for Fluindapyr from Isagro S.p.A ("Isagro") in an asset acquisition.

(4) During December 2022, we finalized a land transfer agreement with the Shanghai Municipal People's Government. We received cash proceeds of $50.5 million for the land transfer. For additional detail on this transaction, see Note 9 to our consolidated financial statements included within this Form 10-K.

(5) Included in the above is cash spending associated with contract manufacturers was $6.8 million, $18.8 million and $17.4 million for the years ended December 31, 2022, 2021 and 2020, respectively.

(6) See Note 17 to the consolidated financial statements included within this Form 10-K regarding our quarterly cash dividend.

Supplemental disclosure of cash flow information: Cash paid for interest, net of capitalized interest was $144.0 million, $125.8 million and $141.8 million, and income taxes paid, net of refunds was $122.0 million, $139.2 million and $82.1 million in December 31, 2022, 2021 and 2020, respectively. Accrued additions to property, plant and equipment and other assets at December 31, 2022, 2021 and 2020 were $40.4 million, $45.5 million and $14.7 million, respectively. Non-cash investing activities include a $19.3 million investment representing our beneficial interest in a trade receivables securitization program.

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

FMC Corporation

Consolidated Statements of Changes in Equity

	FMC Stockholders' Equity						
(in Millions, Except Per Share Data)	Common Stock, $0.10 Par Value	Capital In Excess of Par	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Non-controlling Interest	Total Equity
Balance December 31, 2019 (as previously reported)	$ 18.6	$ 829.7	$4,188.8	$ (412.0)	$ (2,092.8)	$ 29.1	$ 2,561.4
Cumulative Effect of Accounting Changes (See Note 1)	—	—	97.6	6.6	—	—	104.2
Balance December 31, 2019	$ 18.6	$ 829.7	$4,286.4	$ (405.4)	$ (2,092.8)	$ 29.1	$ 2,665.6
Net income (loss)	—	—	552.4	—	—	(0.9)	551.5
Stock compensation plans	—	33.1	—	—	10.4	—	43.5
Shares for benefit plan trust	—	—	—	—	(0.4)	—	(0.4)
Net pension and other benefit actuarial gains (losses) and prior service cost, net of income tax	—	—	—	29.8	—	—	29.8
Net hedging gains (losses) and other, net of income tax	—	—	—	(6.8)	—	—	(6.8)
Foreign currency translation adjustments	—	—	—	101.7	—	0.3	102.0
Dividends ($1.80 per share)	—	—	(233.9)	—	—	—	(233.9)
Repurchases of common stock	—	—	—	—	(58.4)	—	(58.4)
Acquisition of noncontrolling interests[(1)]	—	(2.6)	—	—	—	(4.8)	(7.4)
Distributions to noncontrolling interests	—	—	—	—	—	(1.3)	(1.3)
Balance December 31, 2020	$ 18.6	$ 860.2	$4,604.9	$ (280.7)	$ (2,141.2)	$ 22.4	$ 3,084.2
Net income (loss)	—	—	739.6	—	—	(2.5)	737.1
Stock compensation plans	—	20.2	—	—	5.5	—	25.7
Shares for benefit plan trust	—	—	—	—	1.6	—	1.6
Net pension and other benefit actuarial gains (losses) and prior service cost, net of income tax	—	—	—	(7.9)	—	—	(7.9)
Net hedging gains (losses) and other, net of income tax	—	—	—	49.6	—	—	49.6
Foreign currency translation adjustments	—	—	—	(86.5)	—	(0.5)	(87.0)
Dividends ($1.96 per share)	—	—	(251.6)	—	—	—	(251.6)
Repurchases of common stock	—	—	—	—	(408.0)	—	(408.0)
Balance December 31, 2021	$ 18.6	$ 880.4	$5,092.9	$ (325.5)	$ (2,542.1)	$ 19.4	$ 3,143.7
Net income (loss)	—	—	736.5	—	—	5.0	741.5
Stock compensation plans	—	28.8	—	—	4.7	—	33.5
Shares for benefit plan trust	—	—	—	—	0.1	—	0.1
Net pension and other benefit actuarial gains (losses) and prior service cost, net of income tax	—	—	—	(6.6)	—	—	(6.6)
Net hedging gains (losses) and other, net of income tax	—	—	—	(29.5)	—	—	(29.5)
Foreign currency translation adjustments	—	—	—	(98.0)	—	(0.9)	(98.9)
Dividends ($2.17 per share)	—	—	(273.5)	—	—	—	(273.5)
Repurchases of common stock	—	—	—	—	(108.9)	—	(108.9)
Distributions to noncontrolling interests	—	—	—	—	—	(0.5)	(0.5)
BALANCE DECEMBER 31, 2022	$ 18.6	$ 909.2	$5,555.9	$ (459.6)	$ (2,646.2)	$ 23.0	$ 3,400.9

(1) See Note 17 to the consolidated financial statements included within this Form 10-K for more detail on transactions with noncontrolling interest.

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

FMC Corporation

Notes to Consolidated Financial Statements

NOTE 1 Principal Accounting Policies and Related Financial Information

Nature of operations

We are a global agricultural sciences company dedicated to helping growers produce food, feed, fiber and fuel for an expanding world population while adapting to a changing environment. We operate in a single distinct business segment and develop, market and sell all three major classes of crop protection chemicals: insecticides, herbicides and fungicides, as well as biologicals, crop nutrition, and seed treatment products, which we group as plant health, and digital and precision agriculture. These products are used in agriculture to enhance crop yield and quality by controlling a broad spectrum of insects, weeds and disease, as well as in non-agricultural markets for pest control.

Basis of consolidation and basis of presentation

The accompanying consolidated financial statements of FMC Corporation and its subsidiaries were prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Our consolidated financial statements include the accounts of FMC and all entities that we directly or indirectly control. All significant intercompany accounts and transactions are eliminated in consolidation.

Estimates and assumptions

In preparing the financial statements in conformity with U.S. GAAP we are required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results are likely to differ from those estimates, but we do not believe such differences will materially affect our financial position, results of operations or cash flows.

Cash equivalents

We consider investments in all liquid debt instruments with original maturities of 3 months or less to be cash equivalents.

Trade receivables, net of allowance

Trade receivables consist of amounts owed to us from customer sales and are recorded when revenue is recognized. The allowance for trade receivables represents our best estimate of the probable losses associated with potential customer defaults. In developing our allowance for trade receivables, we use a two-stage process which includes calculating a general formula to develop an allowance to appropriately address the uncertainty surrounding collection risk of our entire portfolio and specific allowances for customers where the risk of collection has been reasonably identified either due to liquidity constraints or disputes over contractual terms and conditions. Our methodology considers current economic conditions as well as forward-looking expectations about expected credit loss.

Our method of calculating the general formula consists of estimating the recoverability of trade receivables based on historical experience, current collection trends, and external business factors such as economic factors, including regional bankruptcy rates, and political factors. Our analysis of trade receivable collection risk is performed quarterly, and the allowance is adjusted accordingly.

We also hold long-term receivables that represent long-term customer receivable balances related to past-due accounts which are not expected to be collected within the current year. Our policy for the review of the allowance for these receivables is consistent with the discussion in the preceding paragraph above on trade receivables. Therefore on an ongoing basis, we continue to evaluate the credit quality of our long-term receivables utilizing aging of receivables, collection experience and write-offs, as well as existing economic conditions, to determine if an additional allowance is necessary.

The allowance for trade receivables was $33.9 million and $37.4 million as of December 31, 2022 and 2021, respectively. The allowance for long-term receivables was $44.5 million and $27.7 million at December 31, 2022 and 2021, respectively. The provision to the allowance for receivables charged against operations was $(0.5) million, $21.1 million and $4.7 million for the years ended December 31, 2022, 2021 and 2020, respectively. See Note 10 to the consolidated financial statements included within this Form 10-K for more information.

Investments

Investments in companies in which our ownership interest is 50 percent or less and in which we exercise significant influence over operating and financial policies are accounted for using the equity method. Under the equity method, original investments are recorded at cost and adjusted by our share of undistributed earnings and losses of these investments. Majority owned investments in which our control is restricted are also accounted for using the equity method. As of December 31, 2022 and 2021 we do not own any equity method investments. All other investments are carried at their fair values or at cost, as appropriate and are not material to our consolidated financial statements. In June 2020, we launched FMC Ventures, our venture capital arm targeting strategic investments in start-ups and early-stage companies that are developing and applying emerging technologies in the agricultural industry. The accounting guidance requires these nonmarketable equity securities to be recorded at cost and adjusted to fair value each reporting period. However, the guidance allows for a measurement alternative, which is to record the investment at cost, less impairment, if any, and subsequently adjust for observable price changes. Each reporting period, we review the portfolio for any observable price changes or potential indicators of impairment. At December 31, 2022, our investments made through FMC Ventures individually and in the aggregate are not significant to our financial results.

Inventories

Inventories are stated at the lower of cost or net realizable value. Inventory costs include those costs directly attributable to products before sale, including all manufacturing overhead but excluding distribution costs. All inventories are determined on a first-in, first-out ("FIFO") basis. Effective July 1, 2022, we changed our accounting principle for inventory valuation for inventories located in the U.S. from a last-in, first-out ("LIFO") basis to a first-in, first-out ("FIFO") basis. See more on detailed breakout of new method below within Note 1 Consolidated Financial Statements for additional information of the effect of the change. Also see Note 7 to the Consolidated Financial Statements included within this Form 10-K for more information.

Property, plant and equipment

We record property, plant and equipment, including capitalized interest, at cost. We recognize acquired property, plant and equipment, from acquisitions at its estimated fair value. Depreciation is provided principally on the straight-line basis over the estimated useful lives of the assets (land improvements — 20 years, buildings and building equipment — 15 to 40 years, and machinery and equipment — 3 to 18 years). Gains and losses are reflected in income upon sale or retirement of assets. Expenditures that extend the useful lives of property, plant and equipment or increase productivity are capitalized. Ordinary repairs and maintenance are expensed as incurred through operating expense.

Capitalized interest

We capitalized interest costs of $5.6 million, $3.4 million, and $3.5 million in 2022, 2021, and 2020, respectively. These costs were primarily associated with the construction of certain long-lived assets and have been capitalized as part of the cost of those assets. We amortize capitalized interest over the assets' estimated useful lives.

Impairments of long-lived assets

We review the recovery of the net book value of long-lived assets whenever events and circumstances indicate that the net book value of an asset may not be recoverable from the estimated undiscounted future cash flows expected to result from its use and eventual disposition. In cases where undiscounted expected future cash flows are less than the net book value, we recognize an impairment loss equal to an amount by which the net book value exceeds the fair value of the asset. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value less cost to sell.

Asset retirement obligations

We record asset retirement obligations ("AROs") at fair value at the time the liability is incurred if we can reasonably estimate the settlement date. The associated AROs are capitalized as part of the carrying amount of related long-lived assets. In future periods, the liability is accreted to its present value and the capitalized cost is depreciated over the useful life of the related asset. We also adjust the liability for changes resulting from the passage of time and/or revisions to the timing or the amount of the original estimate. Upon retirement of the long-lived asset, we either settle the obligation for its recorded amount or incur a gain or loss.

We have obligations at the majority of our manufacturing facilities in the event of permanent plant shutdown. For certain AROs not already accrued, we have calculated the fair value of these AROs and concluded that the present value of these obligations was inconsequential at December 31, 2022 and 2021.

The carrying amounts for the AROs for the years ended December 31, 2022 and 2021 are $16.0 million and $24.2 million, respectively. These amounts are included in "Accrued and other liabilities" and "Other long-term liabilities" on the consolidated balance sheet.

Restructuring and other charges

We continually perform strategic reviews and assess the return on our business. This sometimes results in a plan to restructure the operations of our business. We record an accrual for severance and other exit costs under the provisions of the relevant accounting guidance.

Additionally, as part of these restructuring plans, write-downs of long-lived assets may occur. Two types of assets are impacted: assets to be disposed of by sale and assets to be abandoned. Assets to be disposed of by sale are measured at the lower of carrying amount or estimated net proceeds from the sale. Assets to be abandoned with no remaining future service potential are written down to amounts expected to be recovered. The useful life of assets to be abandoned that have a remaining future service potential are adjusted and depreciation is recorded over the adjusted useful life.

Capitalized software

We capitalize the costs of internal use software in accordance with accounting literature which generally requires the capitalization of certain costs incurred to develop or obtain internal use software. We assess the recoverability of capitalized software costs on an ongoing basis and record write-downs to fair value as necessary. We amortize capitalized software costs over expected useful lives ranging from 3 to 10 years. See Note 22 to the consolidated financial statements included within this Form 10-K for the net unamortized computer software balances.

Goodwill and intangible assets

Goodwill and other indefinite life intangible assets are not subject to amortization. Instead, they are subject to at least an annual assessment for impairment by applying a fair value-based test.

We test goodwill and indefinite life intangibles for impairment annually using the criteria prescribed by U.S. GAAP accounting guidance for goodwill and other intangible assets. Based upon our annual impairment assessments conducted in 2022, 2021 and 2020, we did not record any goodwill or intangible asset impairments.

Finite-lived intangible assets consist of primarily customer relationships as well as patents, brands, registration rights, industry licenses, and other intangibles and are generally being amortized over periods of approximately 3 to 20 years. See Note 6 to the consolidated financial statements included within this Form 10-K for additional information on goodwill and intangible assets.

Revenue recognition

We recognize revenue when (or as) we satisfy our performance obligation which is when the customer obtains control of the good or service. Rebates due to customers are accrued as a reduction of revenue in the same period that the related sales are recorded based on the contract terms. Refer to Note 3 to the consolidated financial statements included within this Form 10-K for further details.

We record amounts billed for shipping and handling fees as revenue. Costs incurred for shipping and handling are recorded as costs of sales and services. Amounts billed for sales and use taxes, value-added taxes, and certain excise and other specific transactional taxes imposed on revenue-producing transactions are presented on a net basis and excluded from sales in the consolidated income statements. We record a liability until remitted to the respective taxing authority.

We periodically enter into prepayment arrangements with customers and receive advance payments for product to be delivered in future periods. These advance payments are recorded as deferred revenue and classified as "Advance payments from customers" on the consolidated balance sheet. Revenue associated with advance payments is recognized as shipments are made and transfer of control to the customer takes place.

Research and development

Research and development costs are expensed as incurred. In-process research and development acquired as part of asset acquisitions, which include license and development agreements, are expensed as incurred and included as a component of "Restructuring and other charges (income)" on the consolidated statements of income (loss).

Income and other taxes

We provide current income taxes on income reported for financial statement purposes adjusted for transactions that do not enter into the computation of income taxes payable. We recognize deferred tax liabilities and assets for the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities. We have not provided income taxes for other outside basis differences inherent in our investments in subsidiaries because the investments and related unremitted earnings are essentially permanent in duration or we have concluded that no additional tax liability will arise upon disposal or remittance.

Foreign currency

We translate the assets and liabilities of our foreign operations at exchange rates in effect at the balance sheet date. For foreign operations for which the functional currency is not the U.S. dollar we record translation gains and losses as a component of accumulated other comprehensive income (loss) in equity. The foreign operations' income statements are translated at the monthly exchange rates for the period.

We record remeasurement gains and losses on monetary assets and liabilities, such as accounts receivables and payables, which are not in the functional currency of the operation. These remeasurement gains and losses are recorded in income as they occur. We generally enter into foreign currency contracts to mitigate the financial risk associated with these transactions. See "Derivative financial instruments" below and Note 19 to the consolidated financial statements included within this Form 10-K.

Derivative financial instruments

We mitigate certain financial exposures, including currency risk, interest rate risk and to a lesser extent commodity price exposures, through a controlled program of risk management that includes the use of derivative financial instruments when applicable. We enter into foreign exchange contracts, including forward and purchased option contracts, to reduce the effects of fluctuating foreign currency exchange rates.

We recognize all derivatives on the balance sheet at fair value. On the date the derivative instrument is entered into, we generally designate the derivative as either a hedge of the variability of cash flows to be received or paid related to a forecasted transaction (cash flow hedge) or a hedge of the fair value of a recognized asset or liability or of an unrecognized firm commitment (fair value hedge). We record in accumulated other comprehensive income (loss) changes in the fair value of derivatives that are designated as, and meet all the required criteria for, a cash flow hedge. We then reclassify these amounts into earnings as the underlying hedged item affects earnings. We record immediately in earnings changes in the fair value of derivatives that are not designated as cash flow hedges.

We formally document all relationships between hedging instruments and hedged items, as well as the risk management objective and strategy for undertaking various hedge transactions. This process includes relating derivatives that are designated as fair value or cash flow hedges to specific assets and liabilities on the balance sheet or to specific firm commitments or forecasted transactions. We also formally assess, both at the inception of the hedge and throughout its term, whether each derivative is highly effective in offsetting changes in fair value or cash flows of the hedged item. If we determine that a derivative is not highly effective as a hedge, or if a derivative ceases to be a highly effective hedge, we discontinue hedge accounting with respect to that derivative prospectively.

Treasury stock

We record shares of common stock repurchased at cost as treasury stock, resulting in a reduction of stockholders' equity in the consolidated balance sheets. When the treasury shares are contributed under our employee benefit plans or issued for option exercises, we use a FIFO method for determining cost. The difference between the cost of the shares and the market price at the time of contribution to an employee benefit plan is added to or deducted from the related capital in excess of par value of common stock.

Segment information

We operate as a single business segment providing innovative solutions to growers around the world. The business is supported by global corporate staff functions. The determination of a single segment is consistent with the financial information regularly reviewed by the chief executive officer for purposes of evaluating performance, allocating resources, setting incentive compensation targets and both planning and forecasting future periods. Refer to Note 3 to the consolidated financial statements included within this Form 10-K for further information on product and regional revenues.

Geographic long-lived assets include goodwill and other intangibles, net, property, plant and equipment, net and other non-current assets. Refer to Note 21 to the consolidated financial statements included within this Form 10-K for further details.

Stock compensation plans

We recognize compensation expense in the financial statements for all share options and other equity-based arrangements. Share-based compensation cost is measured at the date of grant, based on the fair value of the award, and is recognized over the employee's requisite service period. See Note 16 to the consolidated financial statements included within this Form 10-K for further discussion on our share-based compensation.

Environmental obligations

We provide for environmental-related obligations when they are probable and amounts can be reasonably estimated. Where the available information is sufficient to estimate the amount of liability, that estimate has been used. Where the information is only sufficient to establish a range of probable liability and no point within the range is more likely than any other, the lower end of the range has been used.

Estimated obligations to remediate sites that involve oversight by the United States Environmental Protection Agency ("EPA"), or similar government agencies, are generally accrued no later than when a Record of Decision ("ROD"), or equivalent, is issued, or upon completion of a Remedial Investigation/Feasibility Study ("RI/FS"), or equivalent, that is submitted by us and the appropriate government agency or agencies. Estimates are reviewed quarterly and, if necessary, adjusted as additional information becomes available. The estimates can change substantially as additional information becomes available regarding the nature or extent of site contamination, required remediation methods, and other actions by or against governmental agencies or private parties.

Our environmental liabilities for continuing and discontinued operations are principally for costs associated with the remediation and/or study of sites at which we are alleged to have released hazardous substances into the environment. Such costs principally include, among other items, RI/FS, site remediation, costs of operation and maintenance of the remediation plan, management costs, fees to outside law firms and consultants for work related to the environmental effort, and future monitoring costs. Estimated site liabilities are determined based upon existing remediation laws and technologies, specific site consultants' engineering studies or by extrapolating experience with environmental issues at comparable sites.

Included in our environmental liabilities are costs for the operation, maintenance and monitoring ("OM&M") of site remediation plans. Such reserves are based on our best estimates for these OM&M plans. Over time we may incur OM&M costs in excess of these reserves. However, we are unable to reasonably estimate an amount in excess of our recorded reserves because we cannot reasonably estimate the period for which such OM&M plans will need to be in place or the future annual cost of such remediation, as conditions at these environmental sites change over time. Such additional OM&M costs could be significant in total but would be incurred over an extended period of years.

Included in the environmental reserve balance, other assets balance and disclosure of reasonably possible loss contingencies are amounts from third-party insurance policies which we believe are probable of recovery.

Provisions for environmental costs are reflected in income, net of probable and estimable recoveries from named Potentially Responsible Parties ("PRPs") or other third parties. All of our environmental provisions incorporate inflation and are not discounted to their present value, other than our reserve for our Pocatello Tribal Matter. We remeasure this discounted liability balance according to current interest rates. See Note 12 to the consolidated financial statements included within this Form 10-K for further information.

In calculating and evaluating the adequacy of our environmental reserves, we have taken into account the joint and several liability imposed by Comprehensive Environmental Remediation, Compensation and Liability Act ("CERCLA") and the analogous state laws on all PRPs and have considered the identity and financial condition of the other PRPs at each site to the extent possible. We have also considered the identity and financial condition of other third parties from whom recovery is anticipated, as well as the status of our claims against such parties. Although we are unable to forecast the ultimate contributions of PRPs and other third parties with absolute certainty, the degree of uncertainty with respect to each party is taken into account when determining the environmental reserve on a site-by-site basis. Our liability includes our best estimate of the costs expected to be paid before the consideration of any potential recoveries from third parties. We believe that any recorded recoveries related to PRPs are realizable in all material respects. Recoveries are recorded as either an offset in "Environmental liabilities, continuing and discontinued" or as "Other assets including long-term receivables, net" in our consolidated balance sheets in accordance with U.S. accounting literature.

Pension and other postretirement benefits

We provide qualified and nonqualified defined benefit and defined contribution pension plans, as well as postretirement health care and life insurance benefit plans to our employees and retirees. The costs (or benefits) and obligations related to these benefits reflect key assumptions related to general economic conditions, including interest (discount) rates, healthcare cost trend rates, expected rates of return on plan assets and the rates of compensation increase for employees. The costs (or benefits) and obligations for these benefit programs are also affected by other assumptions, such as average retirement age, mortality, employee turnover, and plan participation. To the extent our plans' actual experience, as influenced by changing economic and financial market conditions or by changes to our own plans' demographics, differs from these assumptions, the costs and obligations for providing these benefits, as well as the plans' funding requirements, could increase or decrease. When actual results differ from our assumptions, the difference is typically recognized over future periods. In addition, the unrealized gains and losses related to our pension and postretirement benefit obligations may also affect periodic benefit costs (or benefits) in future periods. See Note 15 to the consolidated financial statements included within this Form 10-K for additional information relating to pension and other postretirement benefits.

Change in accounting principles

In the third quarter of 2022, we made the following changes to our accounting principles:

- Change in accounting principle for inventory costing
- Change in accounting principle for net periodic benefit cost

The effects of the above changes in accounting principle have been retrospectively applied to all periods presented and as such certain prior period financial statement line items have been adjusted. The cumulative effect of these changes in accounting principle, on periods prior to those presented, resulted in an increase of $97.6 million to retained earnings and $6.6 million to accumulated other comprehensive income (losses) as of December 31, 2019, which is the earliest period presented in the consolidated statements of changes in equity.

Change in accounting principle for valuing inventory costing

On July 1, 2022, we changed our method for inventory costing from the last-in, first-out ("LIFO") cost method to the first-in, first-out ("FIFO") cost method for inventory in the United States, which were the only operations that were using the LIFO cost method. All inventories outside the United States were already accounted for on the FIFO method. We believe this change in accounting method is preferable as it:

- is consistent with how we manage our business
- results in a uniform method to value our inventory across all regions of our business
- is expected to better reflect the current value of inventory on the consolidated balance sheets and;
- is on a more comparable basis with the majority of our industry peer companies

Prior to the change in method, inventories valued on the LIFO cost method were approximately 38% of our total inventories.

Change in accounting principle for determining net periodic benefit cost

On July 1, 2022, we also changed our method of accounting for the determination of the market-related value of assets for a class of assets within the qualified U.S. defined benefit plan ("the Plan"), impacting our net periodic benefit cost. The market-related value is used to determine both the expected return on plan assets and the amortization of net unamortized actuarial gains or losses expense components of net periodic benefit cost which are reflected on the *Non-operating pension and postretirement income (charges)* line on the consolidated statements of income (loss). Previously, to calculate the expected return on plan assets and the amortization of net unamortized actuarial gains or losses expense components, we deferred asset gains and losses into the market-related value of assets ("MRVA") over a five year period.

We changed our method of accounting to the fair value approach for our liability-hedging asset class, which does not involve deferring the impact of excess plan asset gains or losses in the determination of these two components of net periodic benefit cost. No change is being made to the accounting principle for the other classes of pension assets; however our U.S. qualified pension plan reached fully funded status during 2018 and since that point the portfolio has been 100 percent fixed income securities and cash. Given the Plan's investment strategy, we believe this approach is preferable as it more closely aligns the expected return on plan assets and amortization of net actuarial and other gain and loss expense components with the value reflected in the Plan's funded status.

The following tables summarize the effect of these accounting changes on impacted line items in our consolidated financial statements as follows:

Consolidated Statements of Income (Loss)

(in Millions, Except Per Share Data)	As computed under LIFO and Pension deferred MRVA Method	As reported under FIFO and Pension Fair Value Method	Effect of change
Year ended December 31, 2022			
Cost of sales and services	$ 3,475.5	$ 3,475.5	$ —
Gross margin	$ 2,326.8	$ 2,326.8	$ —
Total costs and expenses	$ 4,658.0	$ 4,658.0	$ —
Income from continuing operations before non-operating pension and postretirement charges (income), interest expense, net and income taxes	$ 1,144.3	$ 1,144.3	$ —
Non-operating pension and postretirement charges (income)	$ 16.0	$ 8.6	$ (7.4)
Income (loss) from continuing operations before income taxes	$ 976.5	$ 983.9	$ 7.4
Provision (benefit) for income taxes	$ 143.6	$ 145.2	$ 1.6
Income (loss) from continuing operations	$ 832.9	$ 838.7	$ 5.8
Net income (loss)	$ 735.7	$ 741.5	$ 5.8
Net income (loss) attributable to FMC stockholders	$ 730.7	$ 736.5	$ 5.8
Basic earnings (loss) per common share attributable to FMC stockholders:			
Continuing operations	$ 6.55	$ 6.60	$ 0.05
Net income (loss) attributable to FMC stockholders	$ 5.78	$ 5.83	$ 0.05
Diluted earnings (loss) per common share attributable to FMC stockholders:			
Continuing operations	$ 6.53	$ 6.58	$ 0.05
Net income (loss) attributable to FMC stockholders	$ 5.76	$ 5.81	$ 0.05

(in Millions, Except Per Share Data)	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Year ended December 31, 2021					
Cost of sales and services	$ 2,873.5	$ 10.4	$ —	$ 10.4	$ 2,883.9
Gross margin	$ 2,171.7	$ (10.4)	$ —	$ (10.4)	$ 2,161.3
Total costs and expenses	$ 4,000.3	$ 10.4	$ —	$ 10.4	$ 4,010.7
Income from continuing operations before non-operating pension and postretirement charges (income), interest expense, net and income taxes	$ 1,044.9	$ (10.4)	$ —	$ (10.4)	$ 1,034.5
Non-operating pension and postretirement charges (income)	$ 20.0	$ —	$ (14.4)	$ (14.4)	$ 5.6
Income (loss) from continuing operations before income taxes	$ 893.8	$ (10.4)	$ 14.4	$ 4.0	$ 897.8
Provision (benefit) for income taxes	$ 91.6	$ (2.2)	$ 3.1	$ 0.9	$ 92.5
Income (loss) from continuing operations	$ 802.2	$ (8.2)	$ 11.3	$ 3.1	$ 805.3
Net income (loss)	$ 734.0	$ (8.2)	$ 11.3	$ 3.1	$ 737.1
Net income (loss) attributable to FMC stockholders	$ 736.5	$ (8.2)	$ 11.3	$ 3.1	$ 739.6
Basic earnings (loss) per common share attributable to FMC stockholders:					
Continuing operations	$ 6.25	$ (0.06)	$ 0.09	$ 0.03	$ 6.29
Net income (loss) attributable to FMC stockholders	$ 5.72	$ (0.06)	$ 0.09	$ 0.03	$ 5.76
Diluted earnings (loss) per common share attributable to FMC stockholders:					
Continuing operations	$ 6.23	$ (0.06)	$ 0.09	$ 0.03	$ 6.26
Net income (loss) attributable to FMC stockholders	$ 5.70	$ (0.06)	$ 0.09	$ 0.03	$ 5.73

Consolidated Statements of Income (Loss) (Continued)

(in Millions, Except Per Share Data)	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Year ended December 31, 2020					
Cost of sales and services	$ 2,590.1	$ 5.3	$ —	$ 5.3	$ 2,595.4
Gross margin	$ 2,052.0	$ (5.3)	$ —	$ (5.3)	$ 2,046.7
Total costs and expenses	$ 3,739.9	$ 5.3	$ —	$ 5.3	$ 3,745.2
Income from continuing operations before non-operating pension and postretirement charges (income), interest expense, net and income taxes	$ 902.2	$ (5.3)	$ —	$ (5.3)	$ 896.9
Non-operating pension and postretirement charges (income)	$ 21.2	$ —	$ (6.5)	$ (6.5)	$ 14.7
Income (loss) from continuing operations before income taxes	$ 729.8	$ (5.3)	$ 6.5	$ 1.2	$ 731.0
Provision (benefit) for income taxes	$ 150.9	$ (1.1)	$ 1.4	$ 0.3	$ 151.2
Income (loss) from continuing operations	$ 578.9	$ (4.2)	$ 5.1	$ 0.9	$ 579.8
Net income (loss)	$ 550.6	$ (4.2)	$ 5.1	$ 0.9	$ 551.5
Net income (loss) attributable to FMC stockholders	$ 551.5	$ (4.2)	$ 5.1	$ 0.9	$ 552.4
Basic earnings (loss) per common share attributable to FMC stockholders:					
Continuing operations	$ 4.46	$ (0.03)	$ 0.04	$ 0.01	$ 4.48
Net income (loss) attributable to FMC stockholders	$ 4.24	$ (0.03)	$ 0.04	$ 0.01	$ 4.26
Diluted earnings (loss) per common share attributable to FMC stockholders:					
Continuing operations	$ 4.44	$ (0.03)	$ 0.04	$ 0.01	$ 4.45
Net income (loss) attributable to FMC stockholders	$ 4.22	$ (0.03)	$ 0.04	$ 0.01	$ 4.23

Consolidated Statements of Comprehensive Income (Loss)

(in Millions, Except Per Share Data)		As computed under LIFO and Pension deferred MRVA Method		As reported under FIFO and Pension Fair Value Method		Effect of change
Year ended December 31, 2022						
Net income (loss)	$	735.7	$	741.5	$	5.8
Pension and other postretirement benefits:						
Unrealized actuarial gains (losses) and prior service (costs) credits, net of tax expense (benefit) of $(1.7) as computed and $(4.3) as reported for the twelve months ended December 31, 2022	$	(15.7)	$	(15.7)	$	—
Reclassification of net actuarial and other (gain) loss and amortization of prior service costs, included in net income, net of tax (expense) benefit of $3.5 as computed and $2.4 as reported for the twelve months ended December 31, 2022	$	14.9	$	9.1	$	(5.8)
Total pension and other postretirement benefits, net of tax expense (benefit) of $1.8 as computed and $(1.9) as reported for the twelve months ended December 31, 2022	$	(0.8)	$	(6.6)	$	(5.8)
Other comprehensive income (loss), net of tax	$	(140.8)	$	(135.0)	$	(5.8)
Comprehensive income (loss)	$	606.5	$	606.5	$	—
Comprehensive income (loss) attributable to FMC stockholders	$	602.4	$	602.4	$	—

(in Millions, Except Per Share Data)		As Previously Reported		Effect of FIFO Change		Effect of Pension Change		Combined Effect of Changes		As Adjusted
Year ended December 31, 2021										
Net income (loss)	$	734.0	$	(8.2)	$	11.3	$	3.1	$	737.1
Pension and other postretirement benefits:										
Unrealized actuarial gains (losses) and prior service (costs) credits, net of tax expense (benefit) of $(4.5) as adjusted and $(3.8) as previously reported for the twelve months ended December 31, 2021	$	(14.5)	$	—	$	(2.9)	$	(2.9)	$	(17.4)
Reclassification of net actuarial and other (gain) loss and amortization of prior service costs, included in net income, net of tax (expense) benefit of $2.5 as adjusted and $4.8 as previously reported for the twelve months ended December 31, 2021	$	17.9	$	—	$	(8.4)	$	(8.4)	$	9.5
Total pension and other postretirement benefits, net of tax expense (benefit) of $(2.0) as adjusted and $1.0 as previously reported for the twelve months ended December 31, 2021	$	3.4	$	—	$	(11.3)	$	(11.3)	$	(7.9)
Other comprehensive income (loss), net of tax	$	(34.0)	$	—	$	(11.3)	$	(11.3)	$	(45.3)
Comprehensive income (loss)	$	700.0	$	(8.2)	$	—	$	(8.2)	$	691.8
Comprehensive income (loss) attributable to FMC stockholders	$	703.0	$	(8.2)	$	—	$	(8.2)	$	694.8

Consolidated Statements of Comprehensive Income (Loss) (Continued)

(in Millions, Except Per Share Data)	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Year ended December 31, 2020					
Net income (loss)	$ 550.6	$ (4.2)	$ 5.1	$ 0.9	$ 551.5
Pension and other postretirement benefits:					
Unrealized actuarial gains (losses) and prior service (costs) credits, net of tax expense (benefit) of $4.7 as adjusted and $5.2 as previously reported for the twelve months ended December 31, 2020	$ 18.9	$ —	$ (1.6)	$ (1.6)	$ 17.3
Reclassification of net actuarial and other (gain) loss and amortization of prior service costs, included in net income, net of tax (expense) benefit of $3.3 as adjusted and $4.2 as previously reported for the twelve months ended December 31, 2020	$ 16.0	$ —	$ (3.5)	$ (3.5)	$ 12.5
Total pension and other postretirement benefits, net of tax expense (benefit) of $8.0 as adjusted and $9.4 as previously reported for the twelve months ended December 31, 2020	$ 34.9	$ —	$ (5.1)	$ (5.1)	$ 29.8
Other comprehensive income (loss), net of tax	$ 130.1	$ —	$ (5.1)	$ (5.1)	$ 125.0
Comprehensive income (loss)	$ 680.7	$ (4.2)	$ —	$ (4.2)	$ 676.5
Comprehensive income (loss) attributable to FMC stockholders	$ 681.3	$ (4.2)	$ —	$ (4.2)	$ 677.1

Consolidated Balance Sheets

(in Millions)	As computed under LIFO and Pension deferred MRVA Method	As reported under FIFO and Pension Fair Value Method	Effect of change
December 31, 2022			
Inventories	$ 1,535.4	$ 1,651.6	$ 116.2
Total current assets	$ 5,322.4	$ 5,438.6	$ 116.2
Deferred income taxes	$ 235.1	$ 210.7	$ (24.4)
TOTAL ASSETS	$ 11,079.5	$ 11,171.3	$ 91.8
Retained earnings	$ 5,448.5	$ 5,555.9	$ 107.4
Accumulated other comprehensive income (loss)	$ (444.0)	$ (459.6)	$ (15.6)
Total FMC stockholders' equity	$ 3,286.1	$ 3,377.9	$ 91.8
Total equity	$ 3,309.1	$ 3,400.9	$ 91.8
TOTAL LIABILITIES AND EQUITY	$ 11,079.5	$ 11,171.3	$ 91.8

(in Millions)	As Previously Reported	Effect of LIFO Change	Effect of Pension Change	Effect of Change	As Adjusted
December 31, 2021					
Inventories	$ 1,405.7	$ 116.2	$ —	$ 116.2	$ 1,521.9
Total current assets	$ 4,937.6	$ 116.2	$ —	$ 116.2	$ 5,053.8
Deferred income taxes	$ 218.5	$ (24.4)	$ —	$ (24.4)	$ 194.1
TOTAL ASSETS	$ 10,581.3	$ 91.8	$ —	$ 91.8	$ 10,673.1
Retained earnings	$ 4,991.3	$ 91.8	$ 9.8	$ 101.6	$ 5,092.9
Accumulated other comprehensive income (loss)	$ (315.7)	$ —	$ (9.8)	$ (9.8)	$ (325.5)
Total FMC stockholders' equity	$ 3,032.5	$ 91.8	$ —	$ 91.8	$ 3,124.3
Total equity	$ 3,051.9	$ 91.8	$ —	$ 91.8	$ 3,143.7
TOTAL LIABILITIES AND EQUITY	$ 10,581.3	$ 91.8	$ —	$ 91.8	$ 10,673.1

Consolidated Statements of Cash Flows

(in Millions)	As computed under LIFO and Pension deferred MRVA Method	As reported under FIFO and Pension Fair Value Method	Effect of change
Year ended December 31, 2022			
Cash provided (required) by operating activities of continuing operations:			
Net income (loss)	$ 735.7	$ 741.5	$ 5.8
Income (loss) from continuing operations	$ 832.9	$ 838.7	$ 5.8
Adjustments from income (loss) from continuing operations to cash provided (required) by operating activities of continuing operations:			
Deferred income taxes	$ (54.3)	$ (52.7)	$ 1.6
Pension and other postretirement benefits	$ 19.9	$ 12.5	$ (7.4)
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:			
Inventories	$ (182.3)	$ (182.3)	$ —
Net cash provided (required) by operating activities of continuing operations	$ 660.0	$ 660.0	$ —

(in Millions)	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Year ended December 31, 2021					
Cash provided (required) by operating activities of continuing operations:					
Net income (loss)	$ 734.0	$ (8.2)	$ 11.3	$ 3.1	$ 737.1
Income (loss) from continuing operations	$ 802.2	$ (8.2)	$ 11.3	$ 3.1	$ 805.3
Adjustments from income (loss) from continuing operations to cash provided (required) by operating activities of continuing operations:					
Deferred income taxes	$ 9.7	$ (2.2)	$ 3.1	$ 0.9	$ 10.6
Pension and other postretirement benefits	$ 24.9	$ —	$ (14.4)	$ (14.4)	$ 10.5
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:					
Inventories	$ (331.1)	$ 10.4	$ —	$ 10.4	$ (320.7)
Net cash provided (required) by operating activities of continuing operations	$ 898.6	$ —	$ —	$ —	$ 898.6

(in Millions)	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Year ended December 31, 2020					
Cash provided (required) by operating activities of continuing operations:					
Net income (loss)	$ 550.6	$ (4.2)	$ 5.1	$ 0.9	$ 551.5
Income (loss) from continuing operations	$ 578.9	$ (4.2)	$ 5.1	$ 0.9	$ 579.8
Adjustments from income (loss) from continuing operations to cash provided (required) by operating activities of continuing operations:					
Deferred income taxes	$ 33.6	$ (1.1)	$ 1.4	$ 0.3	$ 33.9
Pension and other postretirement benefits	$ 25.8	$ —	$ (6.5)	$ (6.5)	$ 19.3
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:					
Inventories	$ (59.7)	$ 5.3	$ —	$ 5.3	$ (54.4)
Net cash provided (required) by operating activities of continuing operations	$ 736.8	$ —	$ —	$ —	$ 736.8

Consolidated Statements of Changes in Equity

(in Millions, Except Per Share Data)	FMC Stockholders' Equity				
	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Balance at December 31, 2019					
Retained earnings	$ 4,188.8	$ 104.2	$ (6.6)	$ 97.6	$ 4,286.4
Accumulated Other Comprehensive Income (Loss)	$ (412.0)	$ —	$ 6.6	$ 6.6	$ (405.4)
Total equity	$ 2,561.4	$ 104.2	$ —	$ 104.2	$ 2,665.6

(in Millions, Except Per Share Data)	FMC Stockholders' Equity				
	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Balance at December 31, 2020					
Retained earnings	$ 4,506.4	$ 100.0	$ (1.5)	$ 98.5	$ 4,604.9
Accumulated Other Comprehensive Income (Loss)	$ (282.2)	$ —	$ 1.5	$ 1.5	$ (280.7)
Total equity	$ 2,984.2	$ 100.0	$ —	$ 100.0	$ 3,084.2

(in Millions, Except Per Share Data)	FMC Stockholders' Equity				
	As Previously Reported	Effect of FIFO Change	Effect of Pension Change	Combined Effect of Changes	As Adjusted
Balance at December 31, 2021					
Retained earnings	$ 4,991.3	$ 91.8	$ 9.8	$ 101.6	$ 5,092.9
Accumulated Other Comprehensive Income (Loss)	$ (315.7)	$ —	$ (9.8)	$ (9.8)	$ (325.5)
Total equity	$ 3,051.9	$ 91.8	$ —	$ 91.8	$ 3,143.7

(in Millions, Except Per Share Data)	FMC Stockholders' Equity		
	As computed under LIFO and Pension deferred MRVA Method	As Reported under FIFO and Pension Fair Value Method	Effect of change
Balance at December 31, 2022			
Retained earnings	$ 5,448.5	$ 5,555.9	$ 107.4
Accumulated Other Comprehensive Income (Loss)	$ (444.0)	$ (459.6)	$ (15.6)
Total equity	$ 3,309.1	$ 3,400.9	$ 91.8

COVID-19

During the height of the COVID pandemic, many countries, including the United States, subsequently imposed restrictions on both travel and business closures in an effort to mitigate the spread of COVID. As an agricultural sciences company, we are considered an "essential" industry in the countries in which we operate and have avoided significant plant closures and all our manufacturing facilities and distribution warehouses are operational. The extent to which COVID will continue to impact us will depend on future developments, many of which remain uncertain and cannot be predicted with confidence, including the duration of the pandemic, further actions to be taken to contain the pandemic or mitigate its impact, and the extent of the direct and indirect economic effects of the pandemic and containment measures, among others.

NOTE 2 Recently Issued and Adopted Accounting Pronouncements and Regulatory Items

New accounting guidance and regulatory items

In September 2022, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2022-04, *Liabilities—Supplier Finance Programs* (Subtopic 405-50): *Disclosure of Supplier Finance Program Obligations*. This ASU enhances the transparency of supplier finance programs and their effect on working capital, liquidity, and cash flows. The new standard is effective for fiscal years beginning after December 15, 2022 (i.e. a January 1, 2023 effective date), including interim periods within those years. The amendments in the ASU should be applied retrospectively to all periods in which a balance sheet is presented, except for the amendment on rollforward information, which should be applied prospectively. A select group of our suppliers participate in a voluntary Supply Chain Finance ("SCF") program with a global financial institution. The suppliers, at their sole discretion, may sell their receivables to the financial institution based on terms negotiated between them. Our obligations to our suppliers are not impacted by our suppliers' decisions to sell under these arrangements. Agreements under these supplier financing programs are recorded within *Accounts payable, trade and other* in our consolidated balance sheets and the associated payments are included in operating activities within our consolidated statements of cash flows. While the amendments in this ASU will impact disclosure requirements, they do not affect the recognition, measurement, or financial statement presentation of obligations covered by our SCF programs.

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, to provide optional guidance for a limited period of time to ease the potential burden in accounting for contracts and hedging relationships affected by reference rate reform. This applies to contracts that reference LIBOR or another rate that is expected to be discontinued as a result of rate reform and have modified terms that affect or have the potential to affect the amount and timing of contractual cash flows resulting from the discontinuance of reference rate. In December 2022, the FASB finalized ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848,* which defers the sunset date for Topic 848 from December 31, 2022, to December 31, 2024. This standard amends the definition of the SOFR Swap Rate under Topic 815 so that it is not limited to the OIS rate based on SOFR and includes other rates based on SOFR. These amendments were effective immediately on issuance and should be applied prospectively. We are evaluating the impacts this standard will have on accounting for contracts and hedging relationships but do not believe it will have a material impact on our consolidated financial statements.

Recently adopted accounting guidance

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*. The amendments in this ASU simplify the accounting for income taxes by removing certain exceptions and simplification in several other areas. The new standard is effective for fiscal years beginning after December 15, 2020 (i.e., a January 1, 2021 effective date). There were no material impacts to the consolidated financial statements upon adoption, but amendments will be applied prospectively if applicable to FMC.

NOTE 3 Revenue Recognition

Disaggregation of revenue

We disaggregate revenue from contracts with customers by geographical areas and major product categories. We have three major agricultural product categories: insecticides, herbicides, and fungicides. Additionally, this table includes plant health, which is a growing part of our business. The disaggregated revenue tables are shown below for the years ended December 31, 2022, 2021 and 2020.

The following table provides information about disaggregated revenue by major geographical region:

	Year Ended December 31,		
(in Millions)	**2022**	**2021**	**2020**
North America[(1)]	$ 1,435.8	$ 1,117.2	$ 1,032.5
Latin America[(1)]	2,088.2	1,633.4	1,456.5
Europe, Middle East & Africa	1,039.7	1,040.0	1,046.3
Asia	1,238.6	1,254.6	1,106.8
TOTAL REVENUE	**$ 5,802.3**	**$ 5,045.2**	**$ 4,642.1**

(1) Countries with sales in excess of 10 percent of consolidated revenue consisted of the U.S. and Brazil. Sales for the years ended December 31 2022 , 2021, and 2020 for the U.S. totaled $1,288.8 million, $1,018.1 million and $941.2 million, respectively, and for Brazil totaled $1,621.1 million, $1,224.4 million and $1,083.4 million, respectively.

The following table provides information about disaggregated revenue by major product category:

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Insecticides	$ 3,346.6	$ 3,020.0	$ 2,836.8
Herbicides	1,651.6	1,375.3	1,187.2
Fungicides	383.9	325.5	275.5
Plant Health	234.1	216.8	180.2
Other	186.1	107.6	162.4
TOTAL REVENUE	**$ 5,802.3**	**$ 5,045.2**	**$ 4,642.1**

We earn revenue from the sale of a wide range of products to a diversified base of customers around the world. We develop, market and sell all three major classes of crop protection chemicals (insecticides, herbicides and fungicides) as well as biologicals, crop nutrition, and seed treatment products, which we group as plant health. These products are used in agriculture to enhance crop yield and quality by controlling a broad spectrum of insects, weeds and disease, as well as in non-agricultural markets for pest control. The majority of our product lines consist of insecticides and herbicides, with a smaller portfolio of fungicides mainly used in high value crop segments. We are investing in plant health which includes our growing biological products. Our insecticides are used to control a wide spectrum of pests, while our herbicide portfolio primarily targets a large variety of difficult-to-control weeds. Products in the other category include various agricultural products such as smaller classes of pesticides, growth promoters, and other miscellaneous revenue sources.

Sale of Goods

Revenue from product sales is recognized when (or as) we satisfy a performance obligation by transferring the promised goods to a customer, that is, when control of the good transfers to the customer. The customer is then invoiced at the agreed-upon price with payment terms generally ranging from 30 to 90 days, with some regions providing terms longer than 90 days. We do not typically give payment terms that exceed 360 days; however, in certain geographical regions such as Latin America, these terms may be given in limited circumstances. Additionally, a timing difference of over one year can exist between when products are delivered to the customer and when payment is received from the customer in these regions; however, the effect of these sales is not material to the financial statements as a whole. Furthermore, we have assessed the circumstances and arrangements in these regions and determined that the contracts with these customers do not contain a significant financing component.

In determining when the control of goods is transferred, we typically assess, among other things, the transfer of risk and title and the shipping terms of the contract. The transfer of title and risk typically occurs either upon shipment to the customer or upon receipt by the customer. As such, we typically recognize revenue when goods are shipped based on the relevant Incoterm for the product order, or in some regions, when delivery to the customer's requested destination has occurred. When we perform shipping and handling activities after the transfer of control to the customer (e.g., when control transfers prior to delivery), they are considered as fulfillment activities, and accordingly, the costs are accrued for when the related revenue is recognized. For FOB shipping point terms, revenue is recognized at the time of shipment since the customer gains control at this point in time.

We record amounts billed for shipping and handling fees as revenue. Costs incurred for shipping and handling are recorded as costs of sales and services. Amounts billed for sales and use taxes, value-added taxes, and certain excise and other specific transactional taxes imposed on revenue-producing transactions are presented on a net basis and excluded from sales in the consolidated income statements. We record a liability until remitted to the respective taxing authority.

Sales Incentives and Other Variable Considerations

As a part of our customary business practice, we offer a number of sales incentives to our customers including volume discounts, retailer incentives, and prepayment options. The variable considerations given can differ by products, support levels and other eligibility criteria. For all such contracts that include any variable consideration, we estimate the amount of variable consideration that should be included in the transaction price utilizing either the expected value method or the most likely amount method depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in our judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. Although determining the transaction price for these considerations requires significant judgment, we have significant historical experience with incentives provided to customers and estimate the expected consideration considering historical patterns of incentive payouts. These estimates are reassessed each reporting period as required.

In addition to the variable considerations described above, in certain instances, we may require our customers to meet certain volume thresholds within their contract term. We estimate what amount of variable consideration should be included in the transaction price at contract inception and continually reassess this estimation each reporting period to determine situations when the minimum volume thresholds will not be met.

Right of Return

We extend an assurance warranty offering customers a right of refund or exchange in case delivered product does not conform to specifications. Additionally, in certain regions and arrangements, we may offer a right of return for a specified period. Both instances are accounted for as a right of return and transaction price is adjusted for an estimate of expected returns. Replacement products are accounted for under the warranty guidance if the customer exchanges one product for another of the same kind, quality, and price. We have significant experience with historical return patterns and use this experience to include returns in the estimate of transaction price.

Contract Asset and Contract Liability Balances

We satisfy our obligations by transferring goods and services in exchange for consideration from customers. The timing of performance sometimes differs from the timing the associated consideration is received from the customer, thus resulting in the recognition of a contract asset or contract liability. We recognize a contract liability if the customer's payment of consideration is received prior to completion of our related performance obligation.

The following table presents the opening and closing balances of our receivables, net of allowances and contract liabilities from contracts with customers:

(in Millions)	Balance as of December 31, 2021	Balance as of December 31, 2022	Increase (Decrease)
Receivables from contracts with customers, net of allowances	$ 2,641.1	$ 2,932.2	$ 291.1
Contract liabilities: Advance payments from customers	630.7	680.5	49.8

The amount of revenue recognized in the year ended December 31, 2022 that was included in the opening contract liability balance was $630.7 million.

The balance of receivables from contracts with customers listed in the table above include both current trade receivables and long-term receivables, net of allowance for doubtful accounts. The allowance for receivables represents our best estimate of the probable losses associated with potential customer defaults. We determine the allowance based on historical experience, current collection trends, and external business factors such as economic factors, including regional bankruptcy rates, and political factors. The change in allowance for doubtful accounts for both current trade receivables and long-term receivables is representative of the impairment of receivables as of December 31, 2022. Refer to Note 10 to the consolidated financial statements included within this Form 10-K for further information.

We periodically enter into prepayment arrangements with customers and receive advance payments for product to be delivered in future periods. Prepayment terms are extended to customers/distributors in order to capitalize on surplus cash with growers. Growers receive bulk payments for their produce, which they leverage to buy our products from distributors through prepayment options. This in turn creates opportunity for distributors to make large prepayments to us for securing the future supply of products to be sold to growers. Prepayments are typically received in the fourth quarter of the fiscal year, and are for the following marketing year indicating that the time difference between prepayment and performance of corresponding performance obligations does not exceed one year.

We recognize these prepayments as a liability under "Advance payments from customers" on the consolidated balance sheets when they are received. Revenue associated with advance payments is recognized as shipments are made and transfer of control to the customer takes place. Advance payments from customers was $630.7 million as of December 31, 2021 and $680.5 million as of December 31, 2022.

Performance Obligations

At contract inception, we assess the goods and services promised in our contracts with customers and identify a performance obligation for each promise to transfer a good or service (or bundle of goods or services) that is distinct. To identify the performance obligations, we consider all the goods or services promised in the contract, whether explicitly stated or implied based on customary business practices. Based on our evaluation, we have determined that our current contracts do not contain more than one performance obligation. Revenue is recognized when (or as) the performance obligation is satisfied, which is when the customer obtains control of the good or service.

Periodically, we may enter into contracts with customers which require them to submit a forecast of non-binding purchase obligations to us. These forecasts are typically provided by the customer to us in good faith, and there are no penalties or obligations if the forecasts are not met. Accordingly, we have determined that these are optional purchases and do not represent material rights and are not considered as unsatisfied (or partially satisfied) performance obligations for the purposes of this disclosure.

In separate and less common circumstances, we may have contracts with customers which have binding purchase requirements for just one quarter of their annual forecasts. Additionally, as noted in the Contract Liabilities section above, we periodically enter into agricultural prepayment arrangements with customers, and receive advance payments for product to be delivered in future periods within one year. We have elected not to disclose the aggregate amount of the transaction price allocated to remaining performance obligations for these two types of contracts as they have an expected duration of one year or less and the revenue is expected to be recognized within the next year.

Other Arrangements

Data Licensing

We sometimes grant to third parties a license and right to rely upon pesticide regulatory data filed with government agencies. Such licenses allow a licensee to cite and rely upon our data in connection with the licensee's application for pesticide registrations as required by law; these licenses can be granted through contract or through a mandatory statutory license, depending on circumstances. In the most common occurrence, when a license is embedded in a contract for supply of pesticide active ingredient from us to the licensee, the license grant is not considered as distinct from other promised goods or services. Accordingly, all promises are treated as a single performance obligation and revenue is recognized at a point when the control of the pesticide products is transferred to the licensee-customer. In the less frequent occurrence, when the license and right to use data is granted without a supply contract, we account for the revenue attributable to the data license as a performance obligation satisfied at a single point in time and recognize revenue on the effective date of such contract. Finally, in those circumstance of mandatory data licensing by statute, such as under U.S. pesticide law, we recognize the data compensation upon the effective date of the data compensation settlement agreement. Payment terms for these arrangements may vary by contract.

Service Arrangements

In limited cases, we engage in providing certain tolling services, such as filling and packing services using raw and packing materials supplied by the customer. However, as a result of the DuPont Crop Protection Business Acquisition, on November 1, 2017, we entered into an agreement with DuPont to provide tolling services to one another for up to five years from the acquisition date, which expired on October 31, 2022. Depending on the nature of the tolling services, we determine the appropriate method of satisfaction of the performance obligation, which may be the input or output method. Compared to other goods and services provided by us, service arrangements do not represent a significant portion of sales each year. Payment terms for service arrangements may vary by contract; however, payment is typically due within 30 days of the invoice date.

Practical Expedients and Exemptions

We have elected the following practical expedients following the adoption of ASC 606:

(a) ***Costs of obtaining a contract:*** FMC incurs certain costs such as sales commissions which are incremental to obtaining the contract. We have taken the practical expedient of expensing such costs to obtain a contract, as and when they are incurred, as their expected amortization period is one year or less.

(b) ***Significant financing component:*** We elected not to adjust the promised amount of consideration for the effects of a significant financing component if FMC expects, at contract inception, that the period between the transfer of a promised good or service to a customer and when the customer pays for that good or service will be one year or less.

(c) ***Remaining performance obligations:*** We elected not to disclose the aggregate amount of the transaction price allocated to remaining performance obligations for its contracts that are one year or less, as the revenue is expected to be recognized within one year. Additionally, we have elected not to disclose information about variable considerations for remaining, wholly unsatisfied performance obligations for which the criteria in paragraph 606-10-32-40 have been met.

(d) ***Shipping and handling costs****:* We elected to account for shipping and handling activities that occur after the customer has obtained control of a good as fulfillment activities (i.e., an expense) rather than as a promised service.

(e) ***Measurement of transaction price:*** We have elected to exclude from the measurement of transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected by us from a customer.

NOTE 4 Leases

We lease office space, vehicles and other equipment under non-cancellable leases with initial terms typically ranging from 1 to 20 years, with some leases having terms greater than 20 years. Our lease portfolio includes agreements with renewal options, purchase options and clauses for early termination based on the terms specific to the agreement.

At contract inception, we review the facts and circumstances of the arrangement to determine if the contract is a lease. We follow the guidance in ASC 842-10-15 and consider the following: whether the contract has an identified asset; if we have the right to obtain substantially all economic benefits from the asset; and if we have the right to direct the use of the underlying asset. When determining if a contract has an identified asset, we consider both explicit and implicit assets, and whether the supplier has the right to substitute the asset. When determining if we have the right to obtain substantially all economic benefits from the asset, we consider the primary outputs of the identified asset throughout the period of use and determine if we receive greater than 90 percent of those benefits. When determining if we have the right to direct the use of an underlying asset, we consider if we have the right to direct how and for what purpose the asset is used throughout the period of use and if we control the decision-making rights over the asset. All leased assets are classified as operating or finance under ASC 842. The lease term is determined as the non-cancellable period of the lease, together with all of the following: periods covered by an option to extend the lease which are reasonably certain to be exercised, periods covered by an option to terminate the lease if the lessee is reasonably certain not to exercise that option, and periods covered by an option to extend (or not to terminate) the lease in which exercise of the option is controlled by the lessor. At commencement, we assess whether any options included in the lease are reasonably certain to be exercised by considering all relevant economic factors including, contract-based, asset-based, market-based, and company-based factors.

To determine the present value of future minimum lease payments, we use the implicit rate when readily determinable or our incremental borrowing rate at the lease commencement date. When determining our incremental borrowing rate, we consider our centralized treasury function and our current credit profile. We then make adjustments to this rate for securitization, the length of the lease term, and leases denominated in foreign currencies. Minimum lease payments are expensed over the term of the lease on a straight-line basis. Some leases may require additional contingent or variable lease payments based on factors specific to the individual agreement. Variable lease payments which we are typically responsible for include payment of vehicle insurance, real estate taxes, and maintenance expenses.

Most leases within our portfolio are classified as operating leases under the new standard. Operating leases are included in “Other assets including long-term receivables, net”, “Accrued and other liabilities”, and “Other long-term liabilities” in our consolidated balance sheet. Operating lease right-of-use (“ROU”) assets are subsequently measured throughout the lease term at the carrying amount of the lease liability, plus initial direct costs, plus (minus) any prepaid (accrued) lease payments, less the unamortized balance of any lease incentives received. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Operating leases relate to office spaces, IT equipment, transportation equipment, machinery equipment, furniture and fixtures, and plant and facilities under non-cancellable lease agreements. Leases primarily have fixed rental periods, with many of the real estate leases requiring additional payments for property taxes and occupancy-related costs. Leases for real estate typically have initial terms ranging from 1 to 20 years, with some leases having terms greater than 20 years. Leases for non-real estate (transportation, IT) typically have initial terms ranging from 1 to 10 years. We have elected not to record short-term leases on the balance sheet whose term is 12 months or less and does not include a purchase option or extension that is reasonably certain to be exercised.

We rent or sublease a small number of assets including equipment and office space to third-party companies. These third-party arrangements include a small number of transition service arrangements from recent acquisitions. Rental income from all subleases is not material to our business.

The ROU asset and lease liability balances as of December 31, 2022 were as follows:

(in Millions)	Classification	December 31, 2022	December 31, 2021
Assets			
Operating lease ROU assets	Other assets including long-term receivables, net	$ 123.8	$ 135.2
Liabilities			
Operating lease current liabilities	Accrued and other liabilities	$ 22.0	$ 23.5
Operating lease noncurrent liabilities	Other long-term liabilities	128.6	140.0

The components of lease expense for the year ended December 31, 2022 were as follows:

(in Millions)	Lease Cost Classification	2022	2021	2020
Lease Cost				
Operating lease cost	Costs of sales and services / Selling, general and administrative expenses	$ 32.9	$ 33.9	$ 39.5
Variable lease cost	Costs of sales and services / Selling, general and administrative expenses	6.3	4.7	4.7
TOTAL LEASE COST		**$ 39.2**	**$ 38.6**	**$ 44.2**

	December 31, 2022
Operating Lease Term and Discount Rate	
Weighted-average remaining lease term (years)	8.4
Weighted-average discount rate	4.1%

(in Millions)	Year ended December 31, 2022	Year ended December 31, 2021
Other Information		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ (33.9)	$ (33.1)
Supplemental non-cash information on lease liabilities arising from obtaining right-of-use assets:		
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 20.1	$ 18.4

The following table represents our future minimum operating lease payments as of, and subsequent to, December 31, 2022 under ASC 842:

(in Millions)	Operating Leases Total
Maturity of Lease Liabilities	
2023	$ 27.3
2024	22.5
2025	20.4
2026	18.8
2027	17.9
Thereafter	74.0
Total undiscounted lease payments	$ 180.9
Less: Present value adjustment	(30.3)
PRESENT VALUE OF LEASE LIABILITIES	**$ 150.6**

NOTE 5 Acquisitions

On June 29, 2022 we announced a definitive agreement to acquire BioPhero ApS ("BioPhero"), a Denmark-based pheromone research and production company. The acquisition adds state-of-the-art biologically produced pheromone insect control technology to our product portfolio and R&D pipeline, underscoring our role as a leader in delivering innovative and sustainable crop protection solutions. The purchase price of approximately $193 million was primarily paid at closing on July 19, 2022. The acquisition, which was accounted for as a business combination, includes all of BioPhero's technology, IP, supply agreements, employees and net assets of the business.

Purchase Price Allocation

The allocation of the purchase price to the assets acquired and liabilities assumed, including the residual amount allocated to goodwill, is based upon preliminary information and is subject to change within the measurement period (up to one year from the acquisition date) as additional information concerning final asset and liability valuations is obtained.

The purchase price allocation is preliminary as of December 31, 2022. During the measurement period, if new information is obtained about facts and circumstances that existed as of the acquisition date, that would have resulted in revised estimated values of those assets or liabilities as of that date, we will revise the preliminary purchase price allocation. The effect of measurement period adjustments to the estimated fair values will be reflected as if the adjustments had been completed on the acquisition date. The impact of all changes that do not qualify as measurement period adjustments will be included in current period earnings.

The following table summarizes the consideration paid for the BioPhero acquisition and the amounts of the assets acquired and liabilities assumed as of the acquisition date, which have been allocated on a preliminary basis.

(in Millions)	Preliminary Purchase Price Allocation as of July 19, 2022
Fair Value of Assets Acquired	
Cash	$ 10.0
Intangible assets	
Developed Technology(1)	66.3
In-process research & development	10.5
Goodwill	130.7
Other Assets	3.4
TOTAL ASSETS	**$ 220.9**
Fair Value of Liabilities Assumed	
Deferred income tax liabilities	$ 16.6
Other Liabilities	1.1
TOTAL LIABILITIES	**17.7**
NET ASSETS	**$ 203.2**

(1) Expected life is 15 years and will be amortized based on the pattern of economic benefit

Total Purchase Consideration:	Preliminary Purchase Price Allocation as of July 19, 2022
Cash Purchase Price, Net of Acquired Cash	$ 193.2

DuPont Crop Protection Business

On November 1, 2017, pursuant to the terms and conditions set forth in the Transaction Agreement entered into with E. I. du Pont de Nemours and Company ("DuPont"), we completed the acquisition of certain assets relating to DuPont's Crop Protection business and research and development ("R&D") organization (the "DuPont Crop Protection Business") (collectively, the "DuPont Crop Protection Business Acquisition").

The DuPont Crop Protection Business has been integrated into our business and has been included within our results of operations since the date of acquisition.

We entered into supply agreements with DuPont, with terms of up to five years, to supply technical insecticide products required for their retained seed treatment business at cost requiring the recognition of unfavorable contracts at the date of acquisition. The amount recognized in revenue for the years ended December 31, 2022, 2021, and 2020 was approximately $82 million, $103 million, and $111 million, respectively.

The manufacturing contracts and supply agreements discussed above ended on October 31, 2022 at the end of the five year term and as such, the unfavorable liability has been fully recognized and reduced to zero.

Transaction-related charges

Pursuant to U.S. GAAP, costs incurred associated with acquisition activities are expensed as incurred. Historically, these costs have primarily consisted of legal, accounting, consulting, and other professional advisory fees associated with the preparation and execution of these activities. Given the significance and complexity around the integration of the DuPont Crop Protection Business, we have incurred costs associated with integrating the DuPont Crop Protection Business, which included planning for the termination of the transitional service agreement ("TSA") as well as implementation of a new worldwide Enterprise Resource Planning ("ERP") system in connection with the termination of the TSA, of which the majority of costs were capitalized in accordance with the relevant accounting literature. Transaction-related charges were not material in 2022 or 2021.

The following table summarizes the costs incurred associated with these activities:

	Year Ended December 31,		
(in Millions)	**2022**	**2021**	**2020**
DuPont Crop Protection Business Acquisition			
Legal and professional fees[(1)]	$ —	$ 0.4	$ 53.3
TOTAL TRANSACTION-RELATED CHARGES	**$ —**	**$ 0.4**	**$ 53.3**
Restructuring charges			
DuPont Crop restructuring[(2)]	$ (48.7)	$ 16.7	$ 40.2
TOTAL RESTRUCTURING CHARGES	**$ (48.7)**	**$ 16.7**	**$ 40.2**

(1) Represents transaction costs, costs for transitional employees, other acquired employees related costs, and transactional-related costs such as legal and professional third-party fees. These charges are recorded as a component of "Selling, general and administrative expense" on the consolidated statements of income (loss).

(2) See Note 9 to the consolidated financial statements included within this Form 10-K for more information. These charges are recorded as a component of "Restructuring and other charges (income)" on the consolidated statements of income (loss). Amounts for the year ended December 31, 2022 include a gain of $50.5 million recognized on the disposition of land related to a closed manufacturing facility.

We completed the integration of the DuPont Crop Protection Business in 2020, other than the completion of certain in-flight initiatives associated with the finalization of our worldwide ERP system in early 2021. Restructuring charges associated with the DuPont restructuring program are complete as of December 31, 2022 and any future charges are not expected to be material. Refer to Note 9 to the consolidated financial statements included within this Form 10-K for further information.

NOTE 6 Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for the years ended December 31, 2022 and 2021 are presented in the table below:

(in Millions)	**Total**
Balance, December 31, 2020	**$ 1,468.9**
Foreign currency and other adjustments	(5.6)
Balance, December 31, 2021	**$ 1,463.3**
Acquisitions (See Note 5)	130.7
Foreign currency and other adjustments	(4.7)
BALANCE, DECEMBER 31, 2022	**$ 1,589.3**

Our fiscal year 2022 annual goodwill and indefinite life impairment test was performed during the third quarter ended September 30, 2022. We determined no goodwill impairment existed and that the fair value was substantially in excess of the carrying value. Additionally, the estimated fair values also exceeded the carrying value for each of our indefinite-lived intangible assets. There were no events or circumstances indicating that goodwill or indefinite-lived intangibles might be impaired as of December 31, 2022.

Our intangible assets, other than goodwill, consist of the following:

(in Millions)	Weighted avg. useful life remaining at December 31, 2022	December 31, 2022 Gross	December 31, 2022 Accumulated Amortization	December 31, 2022 Net	December 31, 2021 Gross	December 31, 2021 Accumulated Amortization	December 31, 2021 Net
Intangible assets subject to amortization (finite life)							
Customer relationships	14 years	$ 1,127.9	$ (351.3)	$ 776.6	$ 1,147.1	$ (301.3)	$ 845.8
Patents	4 years	1.7	(1.4)	0.3	1.8	(1.3)	0.5
Brands[(1)]	7 years	16.1	(10.6)	5.5	17.1	(9.9)	7.2
Purchased and licensed technologies	13 years	128.4	(42.9)	85.5	60.2	(40.7)	19.5
Other intangibles	1 year	1.8	(1.7)	0.1	2.3	(1.7)	0.6
		$ 1,275.9	**$ (407.9)**	**$ 868.0**	**$ 1,228.5**	**$ (354.9)**	**$ 873.6**
Intangible assets not subject to amortization (indefinite life)							
Crop Protection Brands[(2)]		$ 1,259.0		$ 1,259.0	$ 1,259.1		$ 1,259.1
Brands[(1)]		370.1		370.1	389.2		389.2
In-process research and development		11.0		11.0	—		—
		$ 1,640.1		**$ 1,640.1**	**$ 1,648.3**		**$ 1,648.3**
TOTAL INTANGIBLE ASSETS		**$ 2,916.0**	**$ (407.9)**	**$ 2,508.1**	**$ 2,876.8**	**$ (354.9)**	**$ 2,521.9**

(1) Represents trademarks, trade names and know-how.

(2) Represents proprietary brand portfolios, consisting of trademarks, trade names and know-how, of our crop protection brands.

(in Millions)	Year Ended December 31, 2022	2021	2020
Amortization expense	$ 60.6	$ 62.7	$ 61.9

The estimated pre-tax amortization expense for each of the five years ending December 31, 2023 to 2027 is $60.9 million, $59.8 million, $64.1 million, $66.1 million, and $65.7 million, respectively.

NOTE 7 Inventories

Inventories consisted of the following:

(in Millions)	December 31, 2022	2021
Finished goods	$ 577.5	$ 559.2
Work in process	807.4	730.8
Raw materials, supplies and other	266.7	231.9
NET INVENTORIES	**$ 1,651.6**	**$ 1,521.9**

Effective July 1, 2022, we changed our accounting principle for inventory valuation for inventories located in the U.S. from a last-in, first-out ("LIFO") basis to a first-in, first-out ("FIFO") basis. See Note 1 to the consolidated financial statements included within this Form 10-K for further information regarding this matter.

NOTE 8 Property, Plant and Equipment

Property, plant and equipment consisted of the following:

(in Millions)	December 31, 2022	2021
Land and land improvements	$ 103.6	$ 103.8
Buildings and building equipment	522.9	528.4
Machinery and equipment	613.1	551.4
Construction in progress	175.9	145.9
Total cost	**$ 1,415.5**	**$ 1,329.5**
Accumulated depreciation	(565.9)	(512.5)
PROPERTY, PLANT AND EQUIPMENT, NET	**$ 849.6**	**$ 817.0**

Depreciation expense was $71.1 million, $70.8 million, and $71.5 million in 2022, 2021 and 2020, respectively.

NOTE 9 Restructuring and Other Charges (Income)

The following table shows total restructuring and other charges (income) included in the respective line items of the consolidated statements of income (loss):

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Restructuring charges (income)	$ (26.1)	$ 41.1	$ 42.6
Other charges (income), net	119.2	66.9	89.6
TOTAL RESTRUCTURING AND OTHER CHARGES (INCOME)	**$ 93.1**	**$ 108.0**	**$ 132.2**

RESTRUCTURING CHARGES (INCOME)

(in Millions)	Severance and Employee Benefits	Other Charges (Income)[1]	Asset Disposal Charges[2]	Total
DuPont Crop restructuring	$ —	$ (49.9)	$ 1.2	$ (48.7)
Regional realignment	3.8	4.1	—	7.9
Other items	2.1	2.6	10.0	14.7
YEAR ENDED DECEMBER 31, 2022	**$ 5.9**	**$ (43.2)**	**$ 11.2**	**$ (26.1)**
DuPont Crop restructuring	$ 1.2	$ 4.5	$ 11.0	$ 16.7
Regional realignment	5.5	5.3	0.2	11.0
Other items	6.0	0.5	6.9	13.4
YEAR ENDED DECEMBER 31, 2021	**$ 12.7**	**$ 10.3**	**$ 18.1**	**$ 41.1**
DuPont Crop restructuring	$ 9.2	$ 3.8	$ 27.2	$ 40.2
Other items	2.8	—	(0.4)	2.4
YEAR ENDED DECEMBER 31, 2020	**$ 12.0**	**$ 3.8**	**$ 26.8**	**$ 42.6**

(1) Primarily represents third-party costs associated with miscellaneous restructuring activities. Other income, if applicable, primarily represents favorable developments on previously recorded exit costs and recoveries associated with restructuring. The year ended December 31, 2022 includes the recognition of a gain for land disposition, described below.

(2) Primarily represents asset write-offs (recoveries), and accelerated depreciation and impairment charges on long-lived assets, which were or are to be abandoned. To the extent incurred, the acceleration effect of re-estimating settlement dates and revised cost estimates associated with asset retirement obligations due to facility shutdowns, are also included within the asset disposal charges.

DuPont Crop Restructuring

On November 1, 2017, we completed the acquisition of the DuPont Crop Protection Business. See Note 5 "Acquisitions" to the consolidated financial statements included within this Form 10-K for more details. As also discussed in Note 5, we completed the integration of the DuPont Crop Protection Business in 2020 except for the completion of certain in-flight initiatives including restructuring program efforts. For the year ended December 31, 2022, we recognized income of $48.7 million, which primarily reflects the gain recorded in the fourth quarter on the disposition of a manufacturing site, slightly offset by other restructuring charges. For the years ended December 31, 2021 and December 31, 2020, we incurred restructuring charges of $16.7 million and $40.2 million, respectively, which primarily represented severance and other employee related costs as well as accelerated depreciation on fixed assets for the planned exit of certain facilities.

During December 2022, we finalized a land transfer agreement with the Shanghai Municipal People's Government. Under the terms of the agreement, we relinquished control of a previously shutdown manufacturing facility that was acquired as part of the DuPont Crop Protection Business and that had been operating under a state- owned land use certificate. Previous shutdown charges associated with closing this plant were included in "Restructuring and other charges ("income")". As part of the land transfer, we received cash proceeds of $50.5 million for the disposition of land as well as a recognition of a gain in the same amount that was also included in the "Restructuring and other charges ("income")" line item.

Restructuring charges associated with the DuPont program are complete and any future charges are not expected to be material.

Regional realignment

In April 2021, we began to consolidate our EMEA regional headquarters to a new office location in Geneva, Switzerland. In January 2022, we began to consolidate our Asia Pacific operations into a single regional headquarters in Singapore. Restructuring charges related to regional realignment activities are primarily related to severance and employee relocation costs as well as other costs associated with the consolidation of these headquarters. Both transitions are substantially complete and any remaining future charges are not expected to be material.

Roll forward of restructuring reserves

The following table shows a roll forward of restructuring reserves that will result in cash spending. These amounts exclude asset retirement obligations:

(in Millions)	Balance at 12/31/20	Change in reserves(4)	Cash payments	Other(5)	Balance at 12/31/21(6)	Change in reserves(4)	Cash payments	Other(5)	Balance at 12/31/22(6)
DuPont Crop restructuring(1)	$ 13.6	$ 5.7	$ (10.5)	$ (0.2)	$ 8.6	$ 0.6	$ (4.7)	$ 0.5	$ 5.0
Regional realignment(2)	—	10.8	(6.8)	—	4.0	7.9	(9.3)	0.4	3.0
Other workforce related and facility shutdowns(3)	2.8	6.5	(7.0)	—	2.3	4.7	(4.2)	(0.2)	2.6
TOTAL	**$ 16.4**	**$ 23.0**	**$ (24.3)**	**$ (0.2)**	**$ 14.9**	**$ 13.2**	**$ (18.2)**	**$ 0.7**	**$ 10.6**

(1) *Primarily consists of real estate exit costs and severance associated with DuPont Crop restructuring activities.*

(2) *Primarily consists of severance and employee relocation costs as well as other costs associated with the relocation of our European headquarters for the years ended December 31, 2021 and 2022 and the consolidation of our Asia Pacific operations into a single regional headquarters in Singapore for the year ended December 31, 2022.*

(3) *Primarily severance costs related to workforce reductions and facility shutdowns.*

(4) *Primarily severance, exited lease, contract termination and other miscellaneous exit costs. The accelerated depreciation and impairment charges associated with these restructurings that have impacted our property, plant and equipment or intangible balances are not included in this table.*

(5) *Primarily foreign currency translation adjustments.*

(6) *Included in "Accrued and other liabilities" and "Other long-term liabilities" on the consolidated balance sheets.*

Other charges (income), net

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Environmental charges, net	$ 34.7	$ 27.1	$ 24.9
Isagro Fluindapyr Acquisition	—	—	65.6
Exit from Russian Operations	76.8	—	—
Other items, net	7.7	39.8	(0.9)
OTHER CHARGES (INCOME), NET	**$ 119.2**	**$ 66.9**	**$ 89.6**

Environmental charges, net

Environmental charges represent the net charges associated with environmental remediation at continuing operating sites. Environmental obligations for continuing operations primarily represent obligations at shut down or abandoned facilities within businesses that do not meet the criteria for presentation as discontinued operations.

Exit from Russian Operations

As the Russia-Ukraine war continues, our values as a company as well as the sanctions imposed on, and cross-sanctions imposed and announced by, the Russian Federation led us to cease operations and business in Russia. This decision was made in mid-April of 2022 when we concluded that it was not sustainable to continue operations. As a result of this decision, we recorded a charge of approximately $76.8 million during the twelve months ended December 31, 2022. The charge primarily consists of noncash asset write offs, mainly working capital as well as the value of a packaging and formulation facility. This charge included approximately $7 million of cash that was stranded and not accessible to us.

Isagro Fluindapyr Acquisition

In May 2020, we entered into a binding offer with Isagro S.p.A ("Isagro") to acquire the remaining rights for Fluindapyr active ingredient assets from Isagro. In July 2020, we entered into an asset sale and purchase agreement with Isagro. On October 2, 2020, we closed on the transaction with a purchase price of approximately $65 million. Fluindapyr was jointly developed by FMC and Isagro under a 2012 research and development collaboration agreement. The transaction provided us with full global rights to the Fluindapyr active ingredient, including key U.S., European, Asian, and Latin American fungicide markets. The transaction transfers to FMC all intellectual property, know-how, registrations, product formulations and other global assets of the proprietary broad-spectrum fungicide molecule.

The Fluindapyr acquisition did not meet the criteria within ASC 805 to qualify as a business and as a result it was treated as an asset acquisition. Based on the current development stage of the technology, the acquired assets have been classified as in-process research and development. As part of our evaluation, we consider the current development phase of the molecule being acquired. Molecules that have not received formal regulatory approval are still considered in process due to the inherent uncertainty with the approval process. As a result, these assets were immediately expensed. While this transaction resulted in an immediate expense of the purchase price under the accounting rules, this acquisition expands our fungicide portfolio by giving us full global rights to the Fluindapyr active ingredient and is an important strategic addition to our product line. We recorded charges totaling $65.6 million in 2020, including transaction costs.

Other items, net

Other items, net in 2021 includes $33.5 million of charges for the establishment of reserves for certain historical India indirect tax matters that were triggered during the period. See Note 20 to the consolidated financial statements included within this Form 10-K for further information.

NOTE 10 Receivables

The following table displays a roll forward of the allowance for doubtful trade receivables for fiscal years 2021 and 2022:

(in Millions)		
Balance, December 31, 2020	**$**	**27.9**
Additions — charged (credited) to expense		17.2
Transfer from (to) allowance for credit losses (see below)		(0.6)
Net recoveries, write-offs and other		(7.1)
Balance, December 31, 2021	**$**	**37.4**
Additions — charged (credited) to expense		0.7
Transfer from (to) allowance for credit losses (see below)		0.5
Net recoveries, write-offs and other		(4.7)
BALANCE, DECEMBER 31, 2022	**$**	**33.9**

We have non-current receivables that represent long-term customer receivable balances related to past due accounts which are not expected to be collected within the current year. The net long-term customer receivables were $60.8 million as of December 31, 2022. These long-term customer receivable balances and the corresponding allowance are included in "Other assets including long-term receivables, net" on the consolidated balance sheets.

A portion of these long-term receivables have payment contracts. We have no reason to believe payments will not be made based upon the credit quality of these customers. Additionally, we also hold significant collateral against these customers including rights to property or other assets as a form of credit guarantee. If the customer does not pay or gives indication that they will not pay, these guarantees allow us to start legal action to block the sale of the customer's harvest. On an ongoing basis, we continue to evaluate the credit quality of our non-current receivables using aging of receivables, collection experience and write-offs, as well as evaluating existing economic conditions, to determine if an additional allowance is necessary.

The following table displays a roll forward of the allowance for credit losses related to long-term customer receivables for fiscal years 2021 and 2022:

(in Millions)		
Balance, December 31, 2020	**$**	**24.7**
Additions — charged (credited) to expense		3.9
Transfer from (to) allowance for doubtful accounts (see above)		0.6
Foreign currency adjustments		(1.5)
Net recoveries, write-offs and other		—
Balance, December 31, 2021	**$**	**27.7**
Additions — charged (credited) to expense		(1.2)
Transfer from (to) allowance for doubtful accounts (see above)		(0.5)
Foreign currency adjustments		8.1
Net recoveries, write-offs and other		10.4
BALANCE, DECEMBER 31, 2022	**$**	**44.5**

Receivables Securitization Facility

FMC entered into a trade receivables securitization program, primarily impacting our Brazilian operations during the third quarter of 2022. On a revolving basis, FMC may sell certain trade receivables into the facility in exchange for cash. A portion of the total receivables sold are deferred as an asset on our consolidated balance sheets representing FMC's beneficial interest in the securitization fund.

During 2022, approximately $105 million of trade receivables were transferred to the fund. In all instances, the transferred financial assets are sold on a non-recourse basis and have met the true sale criteria under ASC Topic 860. FMC has surrendered control of the receivables and as a result they will no longer be recognized on the consolidated balance sheets. FMC may be engaged to serve as a special servicer for any delinquent receivables. In that capacity, we are entitled to market rate compensation for those services. The approximate $11 million charge associated with the transfer of these financial assets is included as a component within selling, general and administrative expense and recognized during the period ended December 31, 2022.

Cash receipts totaling approximately $75 million from the sale of trade receivables under the securitization arrangement, received at the time of sale, are classified as cash flows from operating activities. During the third quarter of 2022, approximately $19 million of the sale was retained by the securitization fund and is recognized as a noncash investing activity. This asset is recorded within "Other assets including long-term receivables, net" on the consolidated balance sheets.

Other Receivable Factoring

In addition to the above, we may sell trade receivables on a non-recourse basis to third-party financial institutions. These sales are normally driven by specific market conditions, including, but not limited to, foreign exchange environments, customer credit management, as well as other factors where the receivables may lay.

We account for these transactions as true sales and as a result they will no longer be recognized on the consolidated balance sheets because the agreements transfer effective control and risk related to the receivables to the buyers. The net cash proceeds received are presented within cash provided by operating activities within our consolidated statements of cash flows. The cost of factoring these accounts receivables is recorded as an expense within the consolidated statements of income (loss) and has been inconsequential during each reporting period. There was approximately $58 million in non-recourse factoring during the year ended December 31, 2022.

NOTE 11 Discontinued Operations

Our discontinued operations in our financial statements include adjustments to retained liabilities from previous discontinued operations. The primary liabilities retained include environmental liabilities, other postretirement benefit liabilities, self-insurance, long-term obligations related to legal proceedings and historical restructuring activities.

Our discontinued operations comprised the following:

	Year Ended December 31,		
(in Millions)	**2022**	**2021**	**2020**
Adjustment for workers' compensation, product liability, and other postretirement benefits and other, net of income tax benefit (expense) of $(2.5), $(10.2) and $(3.7), respectively	$ (3.9)	$ (8.3)	$ 1.0
Provision for environmental liabilities, net of recoveries, net of income tax benefit (expense) of $13.8, $8.2 and $6.0, respectively(1)	(53.8)	(29.7)	(24.1)
Provision for legal reserves and expenses, net of recoveries, net of income tax benefit (expense) of $10.5, $12.2 and $7.6, respectively	(39.5)	(45.6)	(28.9)
Gain on sales of land, net of income tax benefit (expense) of zero, $(4.1) and $(6.3), respectively(2)	—	15.4	23.7
DISCONTINUED OPERATIONS, NET OF INCOME TAXES	**$ (97.2)**	**$ (68.2)**	**$ (28.3)**

(1) See a roll forward of our environmental reserves as well as discussion on significant environmental issues that occurred during the year in Note 12 to the consolidated financial statements included within this Form 10-K.

(2) This represents the gain on sale of land at various discontinued sites.

Reserves for Discontinued Operations, other than Environmental at December 31, 2022 and 2021

	December 31,	
(in Millions)	**2022**	**2021**
Workers' compensation, product liability, and indemnification reserves	$ 8.0	$ 10.2
Postretirement medical and life insurance benefits reserve, net	4.7	4.7
Reserves for legal proceedings	114.5	93.4
RESERVE FOR DISCONTINUED OPERATIONS(1)	**$ 127.2**	**$ 108.3**

(1) Included in "Other long-term liabilities" on the consolidated balance sheets. See Note 12 to the consolidated financial statements included within this Form 10-K on discontinued environmental reserves.

The discontinued postretirement medical and life insurance benefits liability equals the accumulated postretirement benefit obligation. Associated with this liability is a net pre-tax actuarial gain and prior service credit of $2.9 million ($1.7 million after-tax) and $3.6 million ($2.2 million after-tax) at December 31, 2022 and 2021, respectively.

Net spending in 2022, 2021 and 2020 was $2.4 million, $1.6 million and $1.0 million, respectively, for workers' compensation, product liability and other claims; $0.3 million, $0.4 million and $0.5 million, respectively, for other postretirement benefits; and $27.9 million, $19.0 million and $28.4 million, respectively, related to reserves for legal proceedings associated with discontinued operations.

NOTE 12 Environmental Obligations

We are subject to various federal, state, local and foreign environmental laws and regulations that govern emissions of air pollutants, discharges of water pollutants, and the manufacture, storage, handling and disposal of hazardous substances, hazardous wastes and other toxic materials and remediation of contaminated sites. We are also subject to liabilities arising under CERCLA and similar state laws that impose responsibility on persons who arranged for the disposal of hazardous substances, and on current and previous owners and operators of a facility for the clean-up of hazardous substances released from the facility into the environment. We are also subject to liabilities under the Resource Conservation and Recovery Act ("RCRA") and analogous state laws that require owners and operators of facilities that have treated, stored or disposed of hazardous waste pursuant to a RCRA permit to follow certain waste management practices and to clean up releases of hazardous substances into the environment associated with past or present practices. In addition, when deemed appropriate, we enter certain sites with potential liability into voluntary remediation compliance programs, which are also subject to guidelines that require owners and operators, current and previous, to clean up releases of hazardous substances into the environment associated with past or present practices.

Environmental liabilities consist of obligations relating to waste handling and the remediation and/or study of sites at which we are alleged to have released or disposed of hazardous substances. These sites include current operations, previously operated sites, and sites associated with discontinued operations. We have provided reserves for potential environmental obligations that we consider probable and for which a reasonable estimate of the obligation can be made. Accordingly, total reserves of $543.1 million and $514.6 million, respectively, before recoveries, existed at December 31, 2022 and 2021.

The estimated reasonably possible environmental loss contingencies, net of expected recoveries, exceed amounts accrued by approximately $200 million at December 31, 2022. This reasonably possible estimate is based upon information available as of the date of the filing but the actual future losses may be higher given the uncertainties regarding the status of laws, regulations, enforcement policies, the impact of potentially responsible parties, technology and information related to individual sites.

Additionally, although potential environmental remediation expenditures in excess of the reserves and estimated loss contingencies could be significant, the impact on our future consolidated financial results is not subject to reasonable estimation due to numerous uncertainties concerning the nature and scope of possible contamination at many sites, identification of remediation alternatives under constantly changing requirements, selection of new and diverse clean-up technologies to meet compliance standards, the timing of potential expenditures and the allocation of costs among PRPs as well as other third parties. The liabilities arising from potential environmental obligations that have not been reserved for at this time may be material to any one quarter's or year's results of operations in the future. However, we believe any liability arising from such potential environmental obligations is not likely to have a material adverse effect on our liquidity or financial condition as it may be satisfied over many years.

The table below is a roll forward of our total environmental reserves, continuing and discontinued, from December 31, 2019 to December 31, 2022.

(in Millions)		**Operating and Discontinued Sites Total**
Total environmental reserves, net of recoveries at December 31, 2019	**$**	**585.8**
2020		
Provision		53.2
Spending, net of recoveries		(81.1)
Foreign currency translation adjustments		6.5
Net Change	$	(21.4)
Total environmental reserves, net of recoveries at December 31, 2020	**$**	**564.4**
2021		
Provision		65.8
Spending, net of recoveries		(121.8)
Foreign currency translation adjustments		(5.2)
Net Change	$	(61.2)
Total environmental reserves, net of recoveries at December 31, 2021	**$**	**503.2**
2022		
Provision		104.8
Spending, net of recoveries		(74.5)
Foreign currency translation adjustments and other adjustments		(4.3)
Net Change	$	26.0
TOTAL ENVIRONMENTAL RESERVES, NET OF RECOVERIES AT DECEMBER 31, 2022	**$**	**529.2**

To ensure we are held responsible only for our equitable share of site remediation costs, we have initiated, and will continue to initiate, legal proceedings for contributions from other PRPs. At December 31, 2022 and 2021, we have recorded recoveries representing probable realization of claims against U.S. government agencies, insurance carriers and other third parties. Recoveries are recorded as either an offset to the "Environmental liabilities, continuing and discontinued" or as "Other assets including long-term receivables, net" on the consolidated balance sheets.

The table below is a roll forward of our total recorded recoveries from December 31, 2020 to December 31, 2022:

(in Millions)	December 31, 2020	Increase (Decrease) in Recoveries	Cash Received	December 31, 2021	Increase (Decrease) in Recoveries	Cash Received	December 31, 2022
Environmental liabilities, continuing and discontinued	$ 10.3	$ 1.8	$ (0.7)	$ 11.4	$ 2.5	$ —	$ 13.9
Other assets(1)	4.4	0.8	(0.7)	4.5	2.5	(0.6)	6.4
TOTAL	**$ 14.7**	**$ 2.6**	**$ (1.4)**	**$ 15.9**	**$ 5.0**	**$ (0.6)**	**$ 20.3**

(1) The amounts are included within "Prepaid and other current assets" and "Other assets including long-term receivables, net" on the consolidated balance sheets. See Note 22 to the consolidated financial statements included within this Form 10-K for more details.

The table below provides detail of current and long-term environmental reserves, continuing and discontinued.

	December 31,	
(in Millions)	2022	2021
Environmental reserves, current, net of recoveries(1)	$ 90.1	$ 87.3
Environmental reserves, long-term continuing and discontinued, net of recoveries(2)	439.1	415.9
TOTAL ENVIRONMENTAL RESERVES, NET OF RECOVERIES	**$ 529.2**	**$ 503.2**

(1) These amounts are included within "Accrued and other liabilities" on the consolidated balance sheets.

(2) These amounts are included in "Environmental liabilities, continuing and discontinued" on the consolidated balance sheets.

Our net environmental provisions relate to costs for the continued remediation of both operating sites and for certain discontinued manufacturing operations from previous years. The net provisions are comprised as follows:

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Continuing operations(1)	$ 34.7	$ 27.1	$ 24.9
Discontinued operations(2)	67.6	37.9	30.1
NET ENVIRONMENTAL PROVISION	**$ 102.3**	**$ 65.0**	**$ 55.0**

(1) Recorded as a component of "Restructuring and other charges (income)" on our consolidated statements of income. See Note 9 to the consolidated financial statements included within this Form 10-K. Environmental obligations for continuing operations primarily represent obligations at shut down or abandoned facilities within businesses that do not meet the criteria for presentation as discontinued operations.

(2) Recorded as a component of "Discontinued operations, net of income taxes" on our consolidated statements of income (loss). See Note 11 to the consolidated financial statements included within this Form 10-K for further details.

On our consolidated balance sheets, the net environmental provisions affect assets and liabilities as follows:

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Environmental reserves(1)	$ 104.8	$ 65.8	$ 53.2
Other assets(2)	(2.5)	(0.8)	1.8
NET ENVIRONMENTAL PROVISION	**$ 102.3**	**$ 65.0**	**$ 55.0**

(1) See above roll forward of our total environmental reserves as presented on our consolidated balance sheets.

(2) Represents certain environmental recoveries. See Note 22 to the consolidated financial statements included within this Form 10-K for details of "Other assets including long-term receivables, net" as presented on our consolidated balance sheets.

Significant Environmental Sites

Pocatello

From 1949 until 2001, we operated the world's largest elemental phosphorus plant in Power County, Idaho, just outside the city of Pocatello. Since the plant's closure, FMC has worked with the EPA, the State of Idaho, and the Shoshone-Bannock Tribes ("Tribes") to develop a proposed cleanup plan for the property. In September 2012, the EPA issued an Interim Record of Decision ("IROD") that is environmentally protective and that ensures the health and safety of both workers and the general public. Since the plant's closure, we have successfully decommissioned our Pocatello plant, completed closure of the RCRA ponds and formally requested that the EPA acknowledge completion of work under a June 1999 RCRA Consent Decree. Future remediation costs include completion of the IROD that addresses groundwater contamination and existing waste disposal areas on the Pocatello plant portion of the Eastern Michaud Flats Superfund Site. In June 2013, the EPA issued a Unilateral Administrative Order to us under which we will implement the IROD remedy. Our current reserves factor in the estimated costs associated with implementing the IROD. In addition to implementing the IROD, we continue to conduct work pursuant to CERCLA unilateral administrative orders to address air emissions from beneath the cap of several of the closed RCRA ponds. Actions also involve impacts of the Tribal Litigation discussed below.

The amount of the reserve for this site, which includes $31.5 million for the Pocatello Tribal Litigation as described below, was $75.8 million and $79.3 million at December 31, 2022 and 2021, respectively.

Pocatello Tribal Litigation

For a number of years, we engaged in disputes with the Tribes concerning their attempts to regulate our activities on the reservation. In 1998, we entered into an agreement that required us to pay the Tribes $1.5 million per year for waste generated from operating our Pocatello plant and stored on site. We paid $1.5 million per year until December 2001 when the plant closed. In our view the agreement was terminated, as the plant was no longer generating waste. The Tribes claimed that the 1998 Agreement has no end date.

FMC challenged the Tribes at various levels of several court systems and ultimately the petition was denied in 2021 by the United States Supreme Court. There was no change to our existing reserves, which represented the net present value of future annual permit fees, as a result of our denied petition.

In calculating the net present value of these future annual permit fees, we used a discount rate of 4.14%, which represents the appropriate risk-free rate. We believe that the application of this rate produces a result which approximates the amount that would hypothetically satisfy our liability in an arms-length transaction. Estimates for expenditures for 2022 and beyond are $1.5 million in annual fees payable each year thereafter. The expected aggregate undiscounted amount related to this matter is $75.0 million of which $31.5 million, on a discounted basis, has been recognized in environmental liabilities on the balance sheet.

Middleport

Our Middleport, NY facility is currently a formulation and packaging plant that formerly manufactured arsenic-based and other products. As a result of past manufacturing operations and waste disposal practices at this facility, releases of hazardous substances have occurred at the site that have affected soil, sediment, surface water and groundwater at the facility's property and also in adjacent off-site areas. The impact of our discontinued operations was the subject of an Administrative Order on Consent ("1991 AOC") entered into with the EPA and New York State Department of Environmental Conservation ("NYSDEC", and collectively with EPA, the "Agencies") in 1991, which was replaced by a New Order on Consent and Administrative Settlement with the NYSDEC, effective June 6, 2019 ("2019 Order"). Like the 1991 AOC, the 2019 Order requires us to (1) define the nature and extent of contamination caused by our historical plant operations, (2) take interim corrective measures and (3) evaluate Corrective Measure Alternatives ("CMA") for discrete contaminated areas, known as operable units ("OUs") of which there are 11.

We have defined the nature and extent of the contamination in certain areas, have constructed an engineered cover, taken certain closure actions regarding RCRA regulated surface water impoundments and are collecting and treating both surface water runoff and ground water. To date, we have evaluated and proposed CMAs for six of the 11 identified operable units.

Middleport Reserves

Our total reserve for the Middleport site is $108.2 million and $114.5 million at December 31, 2022 and 2021, respectively. FMC is in various stages of evaluating the remaining operable units. The reserve includes the increase recorded in the fourth quarter of 2018 for the remediation costs for OUs 2,4 and 5 in line with the drafted settlement terms between FMC and NYSDEC as well as our best estimate for remediation costs associated with the operable unit that comprises the southern portion of the tributary ("OU 6") plus the impact of inflation.

In 2022 and 2021, the Middleport settlement resulted in cash outflows of $11.7 million and $14.2 million respectively. In 2021, the final payment to reimburse NYSEC for past costs was made. In 2023 and beyond, in accordance with the settlement agreement, cash outflows will not exceed an average of $10 million per year until the remediation is complete.

Portland Harbor

FMC is listed as a PRP is the Portland Harbor Superfund Site ("Portland Harbor"), that consists of the river sediment and upland area of a 10 mile section of the Lower Willamette River in Portland, Oregon that runs through an industrialized area. Portland Harbor is listed on the federal government's National Priorities List ("NPL"). FMC formerly owned and operated a manufacturing site adjacent to this section of the river and has since sold its interest in this discontinued business.

FMC and several other parties have been sued by the Confederated Bands and Tribes of the Yakama Nation for reimbursement of cleanup costs and the costs of performing a natural damage assessment. Based on the information known to date, we are unable to develop a reasonable estimate of our potential exposure of loss at this time. We intend to defend this matter. In addition, the Portland Harbor Natural Resource Trustee Council ("Trustee Council"), composed of federal, state and tribal trustees, was formed in 2002 to develop and coordinate an assessment of injury to natural resources associated with the Portland Harbor Superfund Site, the restoration of injured natural resources associated with Portland Harbor, and pursue the recovery of natural resources damages associated with Portland Harbor. The Trustee Council has advised the Company that it intends to pursue litigation for the recovery of natural resources damages and of the costs of assessment. To date no lawsuit has been filed by the Trustee Council against the Company.

On January 6, 2017, the EPA issued its ROD for Portland Harbor. On December 30, 2019, FMC and EPA entered into an Administrative Settlement Agreement and Order on Consent to perform the remedial design for the area at and around FMC's former operations. The cost of performing predesign investigation work and preparing the basis of design report is included in our reserves. Based on the current information available in the ROD as well as the large number of responsible parties for Portland Harbor, we are unable to develop a reasonable estimate of our potential exposure of loss for Portland Harbor at this time.

Currently, FMC and approximately 100 other parties are involved in a non-judicial allocation process to determine each party's respective share of the cleanup costs. Briefing on the allocation process began in November 2021 and the allocation process will be ongoing for the next two years or more under the current schedule. We intend to continue defending this matter vigorously. Because of this uncertainty related to the cost of the remedy and the potential share allocable to FMC, we cannot say whether the ultimate resolution of our potential obligations at Portland Harbor will have a material adverse effect on our consolidated financial position, liquidity or results of operations. However, adverse results in the outcome of the allocation could have a material adverse effect on our consolidated financial position, results of operations in any one reporting period, or liquidity.

Other Potentially Responsible Party ("PRP") Sites

In addition to Portland Harbor, we have been named a PRP at 28 sites on the NPL, at which our potential liability has not yet been settled. We have received notice from the EPA or other regulatory agencies that we may be a PRP, or PRP equivalent, at other sites, including 47 sites at which we have determined that it is probable that we have an environmental liability for which we have recorded an estimate of our potential liability in the consolidated financial statements.

In cooperation with appropriate government agencies, we are currently participating in, or have participated in, an RI/FS, or equivalent, at most of the identified sites, with the status of each investigation varying from site to site. At certain sites, a RI/FS has only recently begun, providing limited information, if any, relating to cost estimates, timing, or the involvement of other PRPs; whereas, at other sites, the studies are complete, remedial action plans have been chosen, or a ROD has been issued.

NOTE 13 Income Taxes

Domestic and foreign components of income (loss) from continuing operations before income taxes are shown below:

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Domestic	$ (89.6)	$ (57.5)	$ (35.3)
Foreign	1,073.5	955.3	766.3
TOTAL	**$ 983.9**	**$ 897.8**	**$ 731.0**

The provision (benefit) for income taxes attributable to income (loss) from continuing operations consisted of:

	Year Ended December 31,		
(in Millions)	2022	2021	2020
Current:			
Federal	$ 45.7	$ (15.1)	$ 24.9
Foreign	152.1	96.6	91.7
State	0.1	0.4	0.7
Total current	**$ 197.9**	**$ 81.9**	**$ 117.3**
Deferred:			
Federal	$ (28.6)	$ 18.4	$ 15.3
Foreign	(27.4)	(7.1)	7.7
State	3.3	(0.7)	10.9
Total deferred	**$ (52.7)**	**$ 10.6**	**$ 33.9**
TOTAL	**$ 145.2**	**$ 92.5**	**$ 151.2**

The effective income tax rate applicable to income from continuing operations before income taxes was different from the statutory U.S. federal income tax rate due to the factors listed in the following table:

	Year Ended December 31,		
(in Millions)	2022	2021	2020
U.S. Federal statutory rate	$ 206.6	$ 188.6	$ 153.6
Foreign earnings subject to different tax rates(1)	(152.7)	(182.4)	(127.6)
State and local income taxes, less federal income tax benefit	5.5	7.6	2.7
Research and development and miscellaneous tax credits	(5.7)	(8.6)	(6.2)
Tax on dividends, deemed dividends, and GILTI(2)	24.6	44.5	46.5
Changes to unrecognized tax benefits	10.5	(28.7)	5.8
Nondeductible expenses	19.6	11.5	5.5
Change in valuation allowance(3)	71.3	84.7	52.1
Exchange gains and losses(4)	(12.0)	(8.6)	(2.1)
Other(5)	(22.5)	(16.1)	20.9
TOTAL TAX PROVISION	**$ 145.2**	**$ 92.5**	**$ 151.2**

(1) A significant amount of our earnings is generated by our foreign subsidiaries (e.g., Singapore, Hong Kong, and Switzerland), which tax earnings at lower statutory rates than the United States federal statutory rate. Our future effective tax rates may be materially impacted by a future change in the composition of earnings from foreign and domestic tax jurisdictions.

(2) The years ended December 31, 2022, 2021, and 2020 includes tax expense of $17.8 million, $36.2 million, and $40.7 million, respectively, associated with the global intangible low-taxed income (GILTI) provisions.

(3) The year ended December 31, 2022 is primarily related to net operating losses and other deferred tax assets within our Brazil and Argentina operations. The year ended December 31, 2021 is primarily related to net operating losses and other deferred tax assets within our Brazil and Luxembourg operations. The year ended December 31, 2020 is primarily related to net operating losses within our Brazil operations.

(4) Includes the impact of transaction gains or losses on net monetary assets for which no corresponding tax expense or benefit is realized and the tax provision for statutory taxable gains or losses in foreign jurisdictions for which there is no corresponding amount in income before taxes.

(5) 2022 includes a $39.7 million decrease related to the remeasurement of certain deferred tax liabilities as a result of the extension of our incentive tax rate in Puerto Rico. 2021 includes a $37.1 million decrease related to deferred tax liabilities associated with intercompany investments in foreign subsidiaries.

Significant components of our deferred tax assets and liabilities were attributable to:

	December 31,	
(in Millions)	**2022**	**2021**
Reserves for discontinued operations, environmental and restructuring	$ 121.4	$ 107.5
Accrued pension and other postretirement benefits	9.6	5.8
Capital loss, foreign tax and other credit carryforwards	3.5	11.1
Net operating loss carryforwards	315.2	294.5
Deferred expenditures capitalized for tax	71.3	41.1
Other accruals and reserves	219.3	192.3
Deferred tax assets	**$ 740.3**	**$ 652.3**
Valuation allowance, net	(457.6)	(398.7)
Deferred tax assets, net of valuation allowance	**$ 282.7**	**$ 253.6**
Intangibles, Property, plant and equipment, and Investments, net	393.5	401.9
Deferred tax liabilities	**$ 393.5**	**$ 401.9**
NET DEFERRED TAX ASSETS (LIABILITIES)	**$ (110.8)**	**$ (148.3)**

We evaluate our deferred income taxes quarterly to determine if valuation allowances are required or should be adjusted. GAAP accounting guidance requires companies to assess whether valuation allowances should be established against deferred tax assets based on all available evidence, both positive and negative, using a “more likely than not” standard. In assessing the need for a valuation allowance, appropriate consideration is given to all positive and negative evidence related to the realization of deferred tax assets. This assessment considers, among other matters, the nature and severity of current and cumulative losses, forecasts of future profitability, the duration of statutory carryforward periods, and tax planning alternatives. We operate and derive income across multiple jurisdictions. As our business experiences changes in operating results across its geographic footprint, we may encounter losses in jurisdictions that have been historically profitable, and as a result might require additional valuation allowances to be recorded. We are committed to implementing tax planning actions, when deemed appropriate, in jurisdictions that experience losses in order to realize deferred tax assets prior to their expiration.

At December 31, 2022, we had net operating loss and tax credit carryforwards as follows: U.S. state net operating loss carryforwards of $22.3 million (tax-effected) expiring in future tax years through 2041, foreign net operating loss carryforwards of $292.9 million (tax-effected) expiring in various future years, and other tax credit carryforwards of $3.5 million expiring in various future years.

During the third quarter of 2021, we changed our indefinite reinvestment assertion in connection with plans to repatriate cash in 2021 and subsequent years, contingent upon earnings from certain foreign subsidiaries, and recorded tax of $1.6 million for the year ended December 31, 2021. Additional income taxes have not been provided for certain other remaining outside basis differences inherent in our investments in foreign subsidiaries because the investments and related unremitted earnings are essentially permanent in duration. Determining the amount of unrecognized deferred tax liability related to indefinitely reinvested earnings of our foreign subsidiaries is not practicable due to the complexity of the multi-jurisdictional tax environment in which we operate.

Uncertain Income Tax Positions

U.S. GAAP accounting guidance for uncertainty in income taxes prescribes a model for the recognition and measurement of a tax position taken or expected to be taken in a tax return, and provides guidance on derecognition, classification, interest and penalties, disclosure and transition.

We file income tax returns in the U.S. federal jurisdiction, and various states and foreign jurisdictions. The income tax returns for FMC entities taxable in the U.S. and significant foreign jurisdictions are open for examination and adjustment. As of December 31, 2022, the U.S. federal and state income tax returns are open for examination and adjustment for the years 2017 - 2022 and 2002 - 2022, respectively. Our significant foreign jurisdictions, which total 10, are open for examination and adjustment during varying periods from 2012 - 2022.

As of December 31, 2022, we had total unrecognized tax benefits of $46.1 million, of which $29.5 million would favorably impact the effective tax rate from continuing operations if recognized. As of December 31, 2021, we had total unrecognized tax benefits of $41.9 million, of which $23.6 million would favorably impact the effective tax rate if recognized. Interest and penalties related to unrecognized tax benefits are reported as a component of income tax expense. For the years ended December 31, 2022, 2021 and 2020, we had interest and penalties for a net expense (benefit) of $2.6 million, $(4.5) million, and $(1.5) million, respectively, in the consolidated statements of income (loss). As of December 31, 2022 and 2021, we have accrued interest and penalties in the consolidated balance sheets of $12.0 million and $9.4 million, respectively.

Due to the potential for resolution of federal, state, or foreign examinations, and the expiration of various jurisdictional statutes of limitation, it is reasonably possible that our liability for unrecognized tax benefits will decrease within the next 12 months by a range of $1.2 million to $20.7 million.

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

(in Millions)	2022	2021	2020
Balance at beginning of year	**$ 41.9**	**$ 76.2**	**$ 68.2**
Increases related to positions taken in the current year	4.8	2.4	1.1
Increases and decreases related to positions taken in prior years	2.9	(26.4)	25.7
Decreases related to lapse of statutes of limitations	(3.5)	(10.3)	(18.8)
Settlements during the current year	—	—	—
Decreases for tax positions on dispositions	—	—	—
BALANCE AT END OF YEAR[1]	**$ 46.1**	**$ 41.9**	**$ 76.2**

(1) At December 31, 2022, 2021, and 2020 we recognized an offsetting non-current asset of $12.8 million, $14.4 million, and $27.4 million respectively, relating to the indirect income tax benefits associated with specific uncertain tax positions presented above.

NOTE 14 Debt

Debt maturing within one year

Debt maturing within one year consists of the following:

	December 31,	
(in Millions)	2022	2021
Short-term foreign debt[1]	$ 81.8	$ 112.2
Commercial paper[2]	370.5	244.1
Total short-term debt	**$ 452.3**	**$ 356.3**
Current portion of long-term debt	88.5	84.5
TOTAL SHORT-TERM DEBT AND CURRENT PORTION OF LONG-TERM DEBT[3]	**$ 540.8**	**$ 440.8**

(1) At December 31, 2022, the average effective interest rate on the borrowings was 16.7 percent.

(2) At December 31, 2022, the average effective interest rate on the borrowings was 4.90 percent.

(3) Based on cash generated from operations, our existing liquidity facilities, which includes the revolving credit agreement with the option to increase capacity up to $2.75 billion, and our continued access to debt capital markets, we have adequate liquidity to meet any of the company's debt obligations in the near term.

Long-term debt

Long-term debt consists of the following:

	December 31, 2022		December 31,	
(in Millions)	Interest Rate Percentage	Maturity Date	2022	2021
Pollution control and industrial revenue bonds (less unamortized discounts of $0.1 and $0.1, respectively)	6.45%	2032	$ 49.9	$ 49.9
Senior notes (less unamortized discounts of $0.6 and $0.7, respectively)	3.2% - 4.5%	2024 - 2049	1,899.4	1,899.3
2021 Term Loan Facility	5.4%	2024	800.0	800.0
Revolving Credit Facility[1]	7.1%	2027	—	—
Foreign debt	0% - 17.9%	2023 - 2024	88.5	84.7
Debt issuance cost			(16.1)	(17.7)
Total long-term debt			**$ 2,821.7**	**$ 2,816.2**
Less: debt maturing within one year			88.5	84.5
TOTAL LONG-TERM DEBT, LESS CURRENT PORTION			**$ 2,733.2**	**$ 2,731.7**

(1) Letters of credit outstanding under the Revolving Credit Facility totaled $160.0 million and available funds under this facility were $1,469.5 million at December 31, 2022.

Revolving Credit Facility Amendment

On June 17, 2022, we amended our Revolving Credit Facility and on June 27, 2022 we amended our 2021 Term Loan Agreement. The Revolving Credit Facility Amendment primarily increased the borrowing capacity from $1.5 billion to $2 billion and extended the maturity date by an additional year to 2027. Both agreements were amended to transition from a reference rate using the LIBOR benchmark to a reference rate using a Term SOFR benchmark.

Deferred financing fees totaling $1.5 million associated with both amendments have been deferred and are being recognized to interest expense over the life of the agreements.

2021 Term Loan Facility

On November 22, 2021, we borrowed $1.0 billion under our previously announced senior unsecured term loan facility ("2021 Term Loan Facility"). The proceeds of the borrowing were used to pay off the 2017 Term Loan Facility and Senior Notes maturing in 2022. The scheduled maturity of the 2021 Term Loan Facility is on the third anniversary of this closing date. The 2021 Term Loan Facility contains financial and other covenants, which are consistent with those in the covenants of the Revolving Credit Facility, including a maximum leverage ratio of 3.5 and minimum interest coverage ratio of 3.5 as of the last day of each fiscal quarter.

Maturities of long-term debt

Maturities of long-term debt outstanding, excluding discounts, at December 31, 2022, are $88.5 million in 2023, $1,200.0 million in 2024, $0.0 million in 2025, $500.0 million in 2026, $0.0 million in 2027 and $1,050.0 million thereafter.

Covenants

Among other restrictions, the Revolving Credit Facility and 2021 Term Loan Facility contain financial covenants applicable to FMC and its consolidated subsidiaries related to leverage (measured as the ratio of debt to adjusted earnings) and interest coverage (measured as the ratio of adjusted earnings to interest expense). Our actual leverage for the four consecutive quarters ended December 31, 2022 was 2.34 which is below the maximum leverage of 3.50. Our actual interest coverage for the four consecutive quarters ended December 31, 2022 was 8.96 which is above the minimum interest coverage of 3.50. We were in compliance with all covenants at December 31, 2022.

NOTE 15 Pension and Other Postretirement Benefits

The funded status of our U.S. qualified and nonqualified defined benefit pension plans, our Germany, France, and Belgium defined benefit pension plans, plus our U.S. other postretirement healthcare and life insurance benefit plans for continuing operations, together with the associated balances and net periodic benefit cost recognized in our consolidated financial statements as of December 31, are shown in the tables below.

We are required to recognize in our consolidated balance sheets the overfunded and underfunded status of our defined benefit postretirement plans. The overfunded or underfunded status is defined as the difference between the fair value of plan assets and the projected benefit obligation. We are also required to recognize as a component of other comprehensive income the actuarial gains and losses and the prior service costs and credits that arise during the period.

Certain amounts have been adjusted to reflect the change in pension accounting method, as described in Note 1 to our consolidated financial statements.

The following table summarizes the weighted-average assumptions used to determine the benefit obligations at December 31 for the U.S. Plans:

	Pensions and Other Benefits	
	December 31,	
	2022	2021
Discount rate qualified	5.16%	2.84%
Discount rate nonqualified plan	4.99%	2.18%
Discount rate other benefits	5.03%	2.39%
Rate of compensation increase	3.10%	3.10%

The following table summarizes the components of our defined benefit postretirement plans and reflect a measurement date of December 31:

(in Millions)	Pensions 2022	Pensions 2021	Other Benefits[1] 2022	Other Benefits[1] 2021
	December 31,			
Change in projected benefit obligation				
Projected benefit obligation at January 1	$ 1,354.0	$ 1,450.3	$ 13.7	$ 15.3
Service cost	3.6	4.7	—	—
Interest cost	29.3	24.5	0.3	0.3
Actuarial loss (gain)[2]	(256.2)	(38.6)	(1.7)	(0.6)
Foreign currency exchange rate changes and other	(0.5)	(0.5)	—	—
Plan participants' contributions	—	—	0.3	0.4
Settlements	(2.2)	(2.5)	—	—
Benefits paid	(83.7)	(83.9)	(1.4)	(1.7)
Projected benefit obligation at December 31	**$ 1,044.3**	**$ 1,354.0**	**$ 11.2**	**$ 13.7**
Change in plan assets				
Fair value of plan assets at January 1	$ 1,372.0	$ 1,484.6	$ —	$ —
Actual return on plan assets	(245.3)	(26.2)	—	—
Foreign currency exchange rate changes	3.1	(0.3)	—	—
Company contributions	3.5	3.8	1.0	1.3
Plan participants' contributions	—	—	0.3	0.4
Settlements	(5.5)	(6.0)	—	—
Benefits paid	(83.7)	(83.9)	(1.4)	(1.7)
Fair value of plan assets at December 31	**$ 1,044.1**	**$ 1,372.0**	**$ (0.1)**	**$ —**
Funded Status				
U.S. plans with assets	$ 22.4	$ 50.4	$ —	$ —
U.S. plans without assets	(14.6)	(22.1)	(11.3)	(13.7)
Non-U.S. plans with assets	(1.2)	(2.8)	—	—
All other plans	(6.8)	(7.5)	—	—
NET FUNDED STATUS OF THE PLAN (LIABILITY)	$ **(0.2)**	$ **18.0**	$ **(11.3)**	$ **(13.7)**
Amount recognized in the consolidated balance sheets:				
Pension asset[3]	$ 22.4	$ 50.4	$ —	$ —
Accrued benefit liability[4]	(22.6)	(32.4)	(11.3)	(13.7)
TOTAL	**$ (0.2)**	**$ 18.0**	**$ (11.3)**	**$ (13.7)**

(1) Refer to Note 11 to the consolidated financial statements included within this Form 10-K for information on our discontinued postretirement benefit plans.

(2) The actuarial gains in 2022 and 2021 were primarily driven by the change in discount rate on the U.S. qualified plan. Additionally, the Society of Actuaries released an updated mortality table projection scale for measurement of retirement program obligations in 2021. Adoption of the most recent projection scale in 2021 increased the U.S. defined benefit obligations by approximately $3 million at December 31, 2021. The mortality assumption did not change in 2022.

(3) Recorded as "Other assets including long-term receivables, net" on the consolidated balance sheets.

(4) Recorded as "Accrued pension and other postretirement benefits, current" and "Accrued pension and other postretirement benefits, long-term" on the consolidated balance sheets.

The amounts in accumulated other comprehensive income (loss) that have not yet been recognized as components of net periodic benefit cost are as follows:

(in Millions)	Pensions 2022	Pensions 2021	Other Benefits[1] 2022	Other Benefits[1] 2021
	December 31,			
Prior service (cost) credit	$ (0.3)	$ (0.5)	$ —	$ —
Net actuarial (loss) gain	(337.6)	(328.4)	4.9	4.0
Accumulated other comprehensive income (loss) – pretax	**$ (337.9)**	**$ (328.9)**	**$ 4.9**	**$ 4.0**
ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) – NET OF TAX	**(252.7)**	**(245.5)**	**3.6**	**2.5**

(1) Refer to Note 11 to the consolidated financial statements included within this Form 10-K for information on our discontinued postretirement benefit plans.

The accumulated benefit obligation for all pension plans was $1,036.7 million and $1,340.8 million at December 31, 2022 and 2021, respectively.

(in Millions)	December 31 2022	2021
Information for pension plans with projected benefit obligation in excess of plan assets		
Projected benefit obligations	$ 26.2	$ 36.2
Accumulated benefit obligations	26.2	36.2
Fair value of plan assets	3.6	3.8

(in Millions)	December 31 2022	2021
Information for pension plans with accumulated benefit obligation in excess of plan assets		
Projected benefit obligations	$ 26.2	$ 36.2
Accumulated benefit obligations	26.2	36.2
Fair value of plan assets	3.6	3.8

Other changes in plan assets and benefit obligations for continuing operations recognized in other comprehensive loss (income) are as follows:

	Pensions		Other Benefits[(1)]	
	Year Ended December 31,			
(in Millions)	2022	2021	2022	2021
Current year net actuarial loss (gain)	$ 22.1	$ 22.1	$ (1.7)	$ (0.6)
Amortization of net actuarial (loss) gain	(12.4)	(12.7)	0.8	0.8
Amortization of prior service (cost) credit	(0.2)	(0.2)	—	—
Settlement loss	(0.5)	(1.0)	—	—
Total recognized in other comprehensive (income) loss, before taxes	**$ 9.0**	**$ 8.2**	**$ (0.9)**	**$ 0.2**
TOTAL RECOGNIZED IN OTHER COMPREHENSIVE (INCOME) LOSS, AFTER TAXES	**7.2**	**6.3**	**(1.1)**	**0.2**

(1) Refer to Note 11 to the consolidated financial statements included within this Form 10-K for information on our discontinued postretirement benefit plans.

The following table summarizes the weighted-average assumptions used for and the components of net annual benefit cost (income):

	Year Ended December 31,					
	Pensions			Other Benefits[(1)]		
(in Millions, except for percentages)	2022	2021	2020	2022	2021	2020
Discount rate	2.84%	2.49%	3.22%	2.39%	1.91%	2.89%
Expected return on plan assets	2.50%	2.25%	3.00%	—	—	—
Rate of compensation increase	3.10%	3.10%	3.10%	—	—	—
Components of net annual benefit cost:						
Service cost	$ 3.6	$ 4.7	$ 4.4	$ —	$ —	$ —
Interest cost	29.3	24.5	36.7	0.3	0.3	0.4
Expected return on plan assets	(33.1)	(31.9)	(39.2)	—	—	—
Amortization of prior service cost	0.2	0.2	0.2	—	—	—
Amortization of net actuarial and other (gain) loss	12.4	12.5	17.0	(0.8)	(0.8)	(0.9)
Recognized (gain) loss due to settlement	0.5	1.0	0.7	—	—	—
NET ANNUAL BENEFIT COST (INCOME)	**$ 12.9**	**$ 11.0**	**$ 19.8**	**$ (0.5)**	**$ (0.5)**	**$ (0.5)**

(1) Refer to Note 11 to the consolidated financial statements included within this Form 10-K for information on our discontinued postretirement benefit plans.

Our U.S. qualified defined benefit pension plan (“U.S. Plan”) holds the majority of our pension plan assets. The expected long-term rate of return on these plan assets was 2.50 percent for the year ended December 31, 2022, 2.25 percent for the year ended December 31, 2021, and 3.00 percent for the year ended December 31, 2020. The expected long-term rate of return on these plan assets increased by 0.25 percent in 2022 compared to 2021 primarily due to fluctuating yields on corporate bonds. In developing the assumption for the long-term rate of return on assets for our U.S. Plan, we take into consideration the technical analysis performed by our outside actuaries, including historical market returns, information on the assumption for long-term real returns by asset class, inflation assumptions and expectations for standard deviation related to these best estimates. Given an actively managed investment portfolio, the expected annual rates of return by asset class for our portfolio, assuming an estimated inflation rate of approximately 2.4 percent, is in line with our assumption for the rate of return on assets. The target asset allocation at December 31, 2022 by asset category continues to be 100 percent fixed income investments.

Our U.S. Plan has been fully funded for the last several years and as such, the primary investment strategy is a liability hedging approach with an objective of maintaining the funded status of the plan such that the volatility is minimized and the likelihood that we will be required to make significant contributions to the plan is also limited. The portfolio is comprised of 100 percent fixed income securities and cash. Investment performance and related risks are measured and monitored on an ongoing basis through monthly liability measurements, periodic asset liability studies, and quarterly investment portfolio reviews. As previously disclosed, we changed our method of accounting to the fair value approach for our liability-hedging asset class, which does not involve deferring the impact of excess plan asset gains or losses in the determination of these two components of net periodic benefit cost. This class of assets is comprised solely of fixed income securities and therefore, provides a natural hedge (liability-hedging assets) against the changes in the recorded amount of net periodic benefit cost. No change is being made to the accounting principle for the other classes of pension assets; however our U.S. qualified pension plan reached fully funded status during 2018 and since that point the portfolio has been invested 100 percent in fixed income securities and cash.

The following tables present our fair value hierarchy for our major categories of pension plan assets by asset class. See Note 19 to the consolidated financial statements included within this Form 10-K for the definition of fair value and the descriptions of Level 1, 2 and 3 in the fair value hierarchy.

(in Millions)	December 31, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and short-term investments	$ 22.8	$ 22.8	$ —	$ —
Fixed income investments:				
Investment contracts	116.4	—	116.4	—
U.S. Government Securities	207.4	207.4	—	—
Mutual funds	29.3	29.3	—	—
Corporate debt instruments	668.2	—	668.2	—
TOTAL ASSETS	**$ 1,044.1**	**$ 259.5**	**$ 784.6**	**$ —**

(in Millions)	December 31, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and short-term investments	$ 32.7	$ 32.2	$ 0.5	$ —
Fixed income investments:				
Investment contracts	144.7	—	144.7	—
U.S. Government Securities	309.5	309.5	—	—
Mutual funds	41.5	41.5	—	—
Corporate debt instruments	843.6	—	843.6	—
TOTAL ASSETS	**$ 1,372.0**	**$ 383.2**	**$ 988.8**	**$ —**

We made the following contributions to our pension and other postretirement benefit plans:

	Year Ended December 31,	
(in Millions)	2022	2021
U.S. qualified pension plan	$ —	$ —
U.S. nonqualified pension plan	3.4	3.8
Non-U.S. plans	0.1	0.2
Other postretirement benefits	1.0	1.3
TOTAL	**$ 4.5**	**$ 5.3**

The following table reflects the estimated future benefit payments for our pension and other postretirement benefit plans. These estimates take into consideration expected future service, as appropriate:

ESTIMATED NET FUTURE BENEFIT PAYMENTS

(in Millions)	2023	2024	2025	2026	2027	2028 - 2032
Pension Benefits	$ 86.2	$ 86.8	$ 85.2	$ 85.0	$ 82.5	$ 390.5
Other Benefits	1.6	1.5	1.4	1.3	1.2	4.3

FMC Corporation Savings and Investment Plan

The FMC Corporation Savings and Investment Plan is a qualified salary-reduction plan under Section 401(k) of the Internal Revenue Code in which substantially all of our U.S. employees may participate by contributing a portion of their compensation. For eligible employees participating in the Plan, except for those employees covered by certain collective bargaining agreements, the Company makes matching contributions of 80 percent of the portion of those contributions up to 5 percent of the employee's compensation. Eligible employees participating in the Plan that do not participate in the U.S. qualified pension plan are entitled to receive an employer contribution of 5 percent of the employee's eligible compensation. Charges against income for all contributions were $17.5 million in 2022, $15.6 million in 2021, and $16.6 million in 2020.

NOTE 16 Share-based Compensation

Stock Compensation Plans

We have a share-based compensation plan, which has been approved by the stockholders, for certain employees, officers and directors. This plan is described below.

FMC Corporation Incentive Compensation and Stock Plan

The FMC Corporation Incentive Compensation and Stock Plan (the "Plan") provides for the grant of a variety of cash and equity awards to officers, directors, employees and consultants, including stock options, restricted stock, performance units (including restricted stock units), stock appreciation rights, and multi-year management incentive awards payable partly in cash and partly in common stock. The Compensation and Organization Committee of the Board of Directors (the "Committee"), subject to the provisions of the Plan, approves financial targets, award grants, and the times and conditions for payment of awards to employees. The total number of shares of common stock authorized for issuance under the Plan is 30.2 million of which approximately 2.1 million shares of common stock are available for future grants of share based awards under the Plan as of December 31, 2022. The FMC Corporation Non-Employee Directors' Compensation Policy, administered by the Nominating and Corporate Governance Committee of the Board of Directors, sets forth the compensation to be paid to the directors, including stock options, stock appreciation rights, restricted stock, restricted stock units, performance-based restricted stock units, and cash awards to be made to directors under the Plan.

Stock options granted under the Plan may be incentive or nonqualified stock options. The exercise price for stock options may not be less than the fair market value of the stock at the date of grant. Awards granted under the Plan vest or become exercisable or payable at the time designated by the Committee, which has generally been three years from the date of grant. Incentive and nonqualified options granted under the Plan expire no later than 10 years from the grant date.

Under the Plan, awards of restricted stock and restricted stock units may be made to selected employees. The awards vest over periods designated by the Committee, which has generally been three years, with vesting conditional upon continued employment. Compensation cost is recognized over the vesting periods based on the market value of the stock on the date of the award. Restricted stock units granted to directors under the Plan vest immediately if granted as part of, or in lieu of, the annual retainer; other restricted stock units granted to directors vest at the Annual Meeting of Shareholders in the calendar year following the May 1 annual grant date (but are subject to forfeiture on a pro rata basis if the director does not serve the full year except under certain circumstances).

At December 31, 2022 and 2021, there were restricted stock units representing an aggregate of 284,201 shares and 267,524 shares of common stock, respectively, credited to the directors' accounts.

Stock Compensation

We recognized the following stock compensation expense:

	Year Ended December 31,		
(in Millions)	**2022**	**2021**	**2020**
Stock option expense, net of taxes of $1.3, $1.0 and $1.1[(1)]	$ 4.9	$ 3.7	$ 4.0
Restricted stock expense, net of taxes of $2.3, $1.9 and $2.0[(2)]	8.5	7.2	7.4
Performance based expense, net of taxes of $1.5, $0.8 and $0.9	5.7	3.2	3.5
TOTAL STOCK COMPENSATION EXPENSE, NET OF TAXES OF $5.1, $3.7 AND $4.0[(3)]	**$ 19.1**	**$ 14.1**	**$ 14.9**

(1) *We applied an estimated forfeiture rate of 4.0% per stock option grant in the calculation of the expense.*

(2) *We applied an estimated forfeiture rate of 2.0% of outstanding grants in the calculation of the expense.*

(3) *This expense is classified as "Selling, general and administrative expenses" in our consolidated statements of income (loss). Total stock compensation expense, net of tax, not included in the above table of zero, zero, and $2.2 million for the years ended December 31, 2022, 2021 and 2020, respectively, is included in "Discontinued operations, net of income taxes" in the consolidated statements of income (loss).*

We received $9.4 million, $7.9 million and $24.7 million in cash related to stock option exercises for the years ended December 31, 2022, 2021 and 2020, respectively. The shares used for the exercise of stock options occurring during the years ended December 31, 2022, 2021 and 2020 came from treasury shares.

Stock Options

The grant-date fair values of the stock options we granted in the years ended December 31, 2022, 2021 and 2020 were estimated using the Black-Scholes option valuation model, the key assumptions for which are listed in the table below. The dividend yield assumption reflects anticipated dividends on our common stock. The expected volatility assumption is based on the actual historical experience of our common stock. The expected life represents the period of time that options granted are expected to be outstanding. The risk-free interest rate is based on U.S. Treasury securities with terms equal to the expected timing of stock option exercises as of the grant date. Employee stock options generally vest after a three year period and expire ten years from the date of grant.

Black Scholes valuation assumptions for stock option grants

	2022	2021	2020
Expected dividend yield	1.85%	1.83%	1.91%
Expected volatility	33.18%	32.75%	26.60%
Expected life (in years)	6.5	6.5	6.5
Risk-free interest rate	1.91%	0.92%	1.19%

The weighted-average grant-date fair value of options granted during the years ended December 31, 2022, 2021 and 2020 was $33.53, $28.31 and $20.28 per share, respectively.

The following summary shows stock option activity for employees under the Plan for the three years ended December 31, 2022:

(Shares in Thousands)	Number of Options Granted But Not Exercised	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price Per Share	Aggregate Intrinsic Value (in Millions)
December 31, 2019 (628 shares exercisable and 835 shares expected to vest or be exercised)	**1,504**	**6.5 years**	**$ 58.06**	**$ 62.8**
Granted	302		92.24	
Exercised	(549)		48.02	31.3
Forfeited	(22)		81.84	
December 31, 2020 (388 shares exercisable and 818 shares expected to vest or be exercised)	**1,235**	**7.0 years**	**$ 70.44**	**$ 54.9**
Granted	235		105.00	
Exercised	(166)		49.56	9.8
Forfeited	(50)		89.18	
December 31, 2021 (605 shares exercisable and 622 shares expected to vest or be exercised)	**1,254**	**6.2 years**	**$ 78.95**	**$ 38.8**
Granted	248		114.90	
Exercised	(166)		62.74	9.6
Forfeited	(31)		102.32	
DECEMBER 31, 2022 (672 SHARES EXERCISABLE AND 607 SHARES EXPECTED TO VEST OR BE EXERCISED)	**1,305**	**6.1 years**	**$ 87.35**	**$ 48.9**

The number of stock options indicated in the above table as being exercisable as of December 31, 2022, had an intrinsic value of $36.1 million, a weighted-average remaining contractual term of 4.2 years, and a weighted-average exercise price of $71.15.

As of December 31, 2022, we had total remaining unrecognized compensation cost related to unvested stock options of $6.5 million which will be amortized over the weighted-average remaining requisite service period of approximately 1.72 years.

Restricted and Performance Based Equity Awards

The grant-date fair value of restricted stock awards and stock units under the Plan is based on the market price per share of our common stock on the date of grant. The related compensation cost is amortized to expense on a straight-line basis over the vesting period during which the employees perform related services, which is typically three years except for those eligible for retirement prior to the stated vesting period as well as non-employee directors.

Starting in 2015, we began granting performance based restricted stock awards. The performance based share awards represent a number of shares of common stock to be awarded upon settlement based on the achievement of a total shareholder return ("TSR") relative to peer companies over a three year period. These awards generally vest upon the completion of a three year period from the date of grant; however, starting with the 2016 grants, certain performance criteria is measured on an annual basis. Starting with the 2019 grants, vesting was based on a TSR relative to peer companies and a cumulative operating cash flow metric. The fair value of the equity classified performance-based share awards is determined based on the number of shares of common stock expected to be awarded and a Monte Carlo valuation model.

The following table shows our employee restricted award activity for the three years ended December 31, 2022:

	Restricted Equity		Performance Based Equity	
(Number of Awards in Thousands)	Number of awards	Weighted-Average Grant Date Fair Value Per Share	Number of awards	Weighted-Average Grant Date Fair Value Per Share
Nonvested at December 31, 2019	**302**	**$ 67.89**	**206**	**$ 72.06**
Granted	92	91.83	111	108.74
Vested	(84)	50.14	(115)	58.37
Forfeited	(12)	77.42	—	—
Nonvested at December 31, 2020	**298**	**$ 79.91**	**202**	**$ 88.48**
Granted	95	102.10	79	103.26
Vested	(108)	73.82	(86)	77.44
Forfeited	(15)	90.05	—	—
Nonvested at December 31, 2021	**270**	**$ 89.56**	**195**	**$ 96.18**
Granted	103	114.50	45	140.32
Vested	(102)	77.80	(102)	83.74
Forfeited	(14)	102.64	(2)	125.60
NONVESTED AT DECEMBER 31, 2022	**257**	**$ 104.54**	**136**	**$ 120.47**

As of December 31, 2022, we had total remaining unrecognized compensation cost related to unvested restricted awards of $11.0 million which will be amortized over the weighted-average remaining requisite service period of approximately 1.89 years.

NOTE 17 Equity

The following is a summary of our capital stock activity over the past three years:

	Common Stock Shares	Treasury Stock Shares
December 31, 2019	**185,983,792**	**56,859,498**
Stock options and awards	—	(677,827)
Repurchases of common stock, net	—	448,538
December 31, 2020	**185,983,792**	**56,630,209**
Stock options and awards	—	(300,594)
Repurchases of common stock, net	—	3,954,698
December 31, 2021	**185,983,792**	**60,284,313**
Stock options and awards	—	(286,805)
Repurchases of common stock, net	—	875,480
DECEMBER 31, 2022	**185,983,792**	**60,872,988**

Accumulated other comprehensive income (loss)

Summarized below is the roll forward of accumulated other comprehensive income (loss), net of tax.

(in Millions)	Foreign currency adjustments	Derivative Instruments[1]	Pension and other postretirement benefits[2]	Total
Accumulated other comprehensive income (loss), net of tax at December 31, 2019 (as previously reported)	**$ (77.7)**	**$ (65.0)**	**$ (269.3)**	**$ (412.0)**
Cumulative Effect of Accounting Changes (See Note 1)	—	—	6.6	6.6
Accumulated other comprehensive income (loss), net of tax at December 31, 2019	**$ (77.7)**	**$ (65.0)**	**$ (262.7)**	**$ (405.4)**
2020 Activity				
Other comprehensive income (loss) before reclassifications	$ 101.7	$ (2.5)	$ 17.3	$ 116.5
Amounts reclassified from accumulated other comprehensive income (loss)	—	(4.3)	12.5	8.2
Accumulated other comprehensive income (loss), net of tax at December 31, 2020	**$ 24.0**	**$ (71.8)**	**$ (232.9)**	**$ (280.7)**
2021 Activity				
Other comprehensive income (loss) before reclassifications	$ (86.5)	$ 44.1	$ (17.4)	$ (59.8)
Amounts reclassified from accumulated other comprehensive income (loss)	—	5.5	9.5	15.0
Accumulated other comprehensive income (loss), net of tax at December 31, 2021	**$ (62.5)**	**$ (22.2)**	**$ (240.8)**	**$ (325.5)**
2022 Activity				
Other comprehensive income (loss) before reclassifications	$ (102.2)	$ (65.4)	$ (15.7)	$ (183.3)
Amounts reclassified from accumulated other comprehensive income (loss)	4.2	35.9	9.1	49.2
ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX AT DECEMBER 31, 2022	**$ (160.5)**	**$ (51.7)**	**$ (247.4)**	**$ (459.6)**

(1) See Note 19 to the consolidated financial statements included within this Form 10-K for more information.
(2) See Note 15 to the consolidated financial statements included within this Form 10-K for more information.

Certain amounts have been adjusted to reflect the change in pension accounting method, as described in Note 1 to the consolidated financial statements included within this Form 10-K.

Reclassifications of accumulated other comprehensive income (loss)

The table below provides details about the reclassifications from accumulated other comprehensive income (loss) and the affected line items in the consolidated statements of income (loss) for each of the periods presented.

Details about Accumulated Other Comprehensive Income (Loss) Components	**Amounts Reclassified from Accumulated Other Comprehensive Income (Loss)[1]**			**Affected Line Item in the Consolidated Statements of Income (Loss)**
	Year Ended December 31,			
(in Millions)	**2022**	**2021**	**2020**	
Foreign currency translation adjustments:				
Exit from Russian Operations[2]	$ (4.2)	$ —	$ —	Restructuring and other charges (income)
Derivative instruments:				
Foreign currency contracts	$ (57.5)	$ (4.7)	$ 24.6	Costs of sales and services
Foreign currency contracts	6.5	1.7	(19.3)	Selling, general and administrative expenses
Interest rate contracts	(4.0)	(4.2)	(2.7)	Interest expense
Total before tax	**$ (55.0)**	**$ (7.2)**	**$ 2.6**	
	19.1	1.7	1.7	Provision for income taxes
Amount included in net income	**$ (35.9)**	**$ (5.5)**	**$ 4.3**	
Pension and other postretirement benefits[3]:				
Amortization of prior service costs	$ (0.1)	$ (0.2)	$ (0.3)	Selling, general and administrative expenses
Amortization of unrecognized net actuarial and other gains (losses)	(10.9)	(10.8)	(14.8)	Non-operating pension and postretirement charges (income)
Recognized loss due to settlement/ curtailment	(0.5)	(1.0)	(0.7)	Non-operating pension and postretirement charges (income); Discontinued operations, net of income taxes
Total before tax	**$ (11.5)**	**$ (12.0)**	**$ (15.8)**	
	2.4	2.5	3.3	Provision for income taxes; Discontinued operations, net of income taxes
Amount included in net income	**$ (9.1)**	**$ (9.5)**	**$ (12.5)**	
TOTAL RECLASSIFICATIONS FOR THE PERIOD	**$ (49.2)**	**$ (15.0)**	**$ (8.2)**	**Amount included in net income**

(1) Amounts in parentheses indicate charges to the consolidated statements of income (loss).

(2) The reclassification of historical cumulative translation adjustments was the result of the exit from our Russian operations. See Note 9 within these consolidated financial statements for more information.
(3) Pension and other postretirement benefits amounts include the impact from both continuing and discontinued operations. For detail on the continuing operations components of pension and other postretirement benefits, see Note 15 to the consolidated financial statements included within this Form 10-K. Certain amounts have been adjusted to reflect the change in pension accounting method, as described in Note 1 to the consolidated financial statements included within this Form 10-K.

Transactions with Noncontrolling Interest

In July 2020, we purchased the remaining 49 percent ownership interest in our Indonesia joint venture, PT Bina Guna Kimia ("BGK"), for $7.4 million which increased our ownership from 51 percent to 100 percent.

Dividends and Share Repurchases

On January 19, 2023, we paid dividends totaling $72.7 million to our shareholders of record as of December 31, 2022. This amount is included in "Accrued and other liabilities" on the consolidated balance sheets as of December 31, 2022. For the years ended December 31, 2022, 2021 and 2020, we paid $267.5 million, $247.2 million and $228.5 million in dividends, respectively.

In 2022, 875,480 shares were repurchased under the publicly announced repurchase program. At December 31, 2022, approximately $900 million remained unused under our Board-authorized repurchase program. In February 2022, the Board of Directors authorized the repurchase of up to $1 billion of the Company's common stock. The $1 billion share repurchase program replaced in its entirety the previous authorization. This repurchase program does not include a specific timetable or price targets and may be suspended or terminated at any time. Shares may be purchased through open market or privately negotiated transactions at the discretion of management based on its evaluation of market conditions and other factors. We also reacquire shares from time to time from employees in connection with the vesting, exercise and forfeiture of awards under our equity compensation plans.

NOTE 18 Earnings Per Share

Earnings per common share ("EPS") is computed by dividing net income by the weighted average number of common shares outstanding during the period on a basic and diluted basis.

Our potentially dilutive securities include potential common shares related to our stock options, restricted stock and restricted stock units. Diluted earnings per share ("Diluted EPS") considers the impact of potentially dilutive securities except in periods in which there is a loss because the inclusion of the potential common shares would have an antidilutive effect. Diluted EPS excludes the impact of potential common shares related to our stock options in periods in which the option exercise price is greater than the average market price of our common stock for the period. For the years ended December 31, 2022, 2021 and 2020 there were 0.4 million, 0.2 million and 0.2 million potential common shares excluded from Diluted EPS, respectively.

Our non-vested restricted stock awards contain rights to receive non-forfeitable dividends, and thus, are participating securities requiring the two-class method of computing EPS. The two-class method determines EPS by dividing the sum of distributed earnings to common stockholders and undistributed earnings allocated to common stockholders by the weighted average number of shares of common stock outstanding for the period. In calculating the two-class method, undistributed earnings are allocated to both common shares and participating securities based on the weighted average shares outstanding during the period.

Earnings applicable to common stock and common stock shares used in the calculation of basic and diluted earnings per share are as follows:

	Year Ended December 31,		
(in Millions, Except Share and Per Share Data)	2022	2021	2020
Earnings (loss) attributable to FMC stockholders:			
Continuing operations, net of income taxes	$ 833.7	$ 807.8	$ 580.7
Discontinued operations, net of income taxes	(97.2)	(68.2)	(28.3)
Net income (loss) attributable to FMC stockholders	**$ 736.5**	**$ 739.6**	**$ 552.4**
Less: Distributed and undistributed earnings allocable to restricted award holders	(1.7)	(1.8)	(1.4)
NET INCOME (LOSS) ALLOCABLE TO COMMON STOCKHOLDERS	**$ 734.8**	**$ 737.8**	**$ 551.0**
Basic earnings (loss) per common share attributable to FMC stockholders:			
Continuing operations	$ 6.60	$ 6.29	$ 4.48
Discontinued operations	(0.77)	(0.53)	(0.22)
NET INCOME (LOSS)	**$ 5.83**	**$ 5.76**	**$ 4.26**
Diluted earnings (loss) per common share attributable to FMC stockholders:			
Continuing operations	$ 6.58	$ 6.26	$ 4.45
Discontinued operations	(0.77)	(0.53)	(0.22)
NET INCOME (LOSS)	**$ 5.81**	**$ 5.73**	**$ 4.23**
Shares (in thousands):			
Weighted average number of shares of common stock outstanding - Basic	125,975	128,403	129,701
Weighted average additional shares assuming conversion of potential common shares	732	743	883
SHARES – DILUTED BASIS	**126,707**	**129,146**	**130,584**

NOTE 19 Financial Instruments, Risk Management and Fair Value Measurements

Our financial instruments include cash and cash equivalents, trade receivables, other current assets, certain receivables classified as other long-term assets, accounts payable, and amounts included in investments and accruals meeting the definition of financial instruments. The carrying value of these financial instruments approximates their fair value. Our other financial instruments include the following:

Financial Instrument	Valuation Method
Foreign exchange forward contracts	Estimated amounts that would be received or paid to terminate the contracts at the reporting date based on current market prices for applicable currencies.
Commodity forward and option contracts	Estimated amounts that would be received or paid to terminate the contracts at the reporting date based on quoted market prices for applicable commodities.
Debt	Our estimates and information obtained from independent third parties using market data, such as bid/ask spreads for the last business day of the reporting period.

The estimated fair value of the financial instruments in the above table have been determined using standard pricing models which take into account the present value of expected future cash flows discounted to the balance sheet date. These standard pricing models utilize inputs derived from, or corroborated by, observable market data such as interest rate yield curves and currency and commodity spot and forward rates. In addition, we test a subset of our valuations against valuations received from the transaction's counterparty to validate the accuracy of our standard pricing models. Accordingly, the estimates presented may not be indicative of the amounts that we would realize in a market exchange at settlement date and do not represent potential gains or losses on these agreements. The estimated fair values of foreign exchange forward contracts, commodity forward and option contracts, and interest rate contracts are included in the tables within this Note. The estimated fair value of debt is $3,118.6 million and $3,409.8 million and the carrying amount is $3,274.0 million and $3,172.5 million as of December 31, 2022 and 2021, respectively.

Use of Derivative Financial Instruments to Manage Risk

We mitigate certain financial exposures, including currency risk, commodity purchase exposures and interest rate risk through a program of risk management that includes the use of derivative financial instruments. We enter into foreign exchange contracts, including forward and purchased option contracts, to reduce the effects of fluctuating foreign currency exchange rates.

We formally document all relationships between hedging instruments and hedged items, as well as the risk management objective and strategy for undertaking various hedge transactions. This process includes relating derivatives that are designated as fair value or cash flow hedges to specific assets and liabilities on the balance sheet or to specific firm commitments or forecasted transactions. We also assess both at the inception of the hedge and on an ongoing basis, whether each derivative is highly effective in offsetting changes in fair values or cash flows of the hedged item. If we determine that a derivative is not highly effective as a hedge, or if a derivative ceases to be a highly effective hedge, we discontinue hedge accounting with respect to that derivative prospectively.

Foreign Currency Exchange Risk Management

We conduct business in many foreign countries, exposing earnings, cash flows, and our financial position to foreign currency risks. The majority of these risks arise as a result of foreign currency transactions. Our policy is to minimize exposure to adverse changes in currency exchange rates. This is accomplished through a controlled program of risk management that includes the use of foreign currency debt and forward foreign exchange contracts. We also use forward foreign exchange contracts to hedge firm and highly anticipated foreign currency cash flows, with an objective of balancing currency risk to provide adequate protection from significant fluctuations in the currency markets.

The primary currencies for which we have exchange rate exposure are the U.S. dollar versus the Brazilian real, Chinese yuan, Indian rupee, euro, Mexican peso and Argentine peso.

Commodity Price Risk

We are exposed to risks in energy costs due to fluctuations in energy prices, including natural gas, electricity, and other commodities. We attempt to mitigate our exposure to increasing energy costs by entering into physical and financial derivative contracts to hedge the cost of future deliveries of our commodities.

Interest Rate Risk

We use various strategies to manage our interest rate exposure, including entering into interest rate swap agreements to achieve a targeted mix of fixed and variable-rate debt. In the agreements we exchange, at specified intervals, the difference between fixed and variable-interest amounts calculated on an agreed-upon notional principal amount.

Concentration of Credit Risk

Our counterparties to derivative contracts are primarily major financial institutions. We limit the dollar amount of contracts entered into with any one financial institution and monitor counterparties' credit ratings. We also enter into master netting agreements with each financial institution, where possible, which helps mitigate the credit risk associated with our financial instruments. While we may be exposed to credit losses due to the nonperformance of counterparties, we consider this risk remote.

Financial Guarantees and Letter-of-Credit Commitments

We enter into various financial instruments with off-balance sheet risk as part of the normal course of business. These off-balance sheet instruments include financial guarantees and contractual commitments to extend financial guarantees under letters of credit and other assistance to customers. See Notes 1 and 20 to the consolidated financial statements included within this Form 10-K for more information. Decisions to extend financial guarantees to customers, and the amount of collateral required under these guarantees, is based on our evaluation of creditworthiness on a case-by-case basis.

Accounting for Derivative Instruments and Hedging Activities

Cash Flow Hedges

We recognize all derivatives on the balance sheet at fair value. On the date we enter into the derivative instrument, we generally designate the derivative as a hedge of the variability of cash flows to be received or paid related to a forecasted transaction (cash flow hedge). We record in AOCI changes in the fair value of derivatives that are designated as, and meet all the required criteria for, a cash flow hedge. We then reclassify these amounts into earnings as the underlying hedged item affects earnings. In contrast we immediately record in earnings changes in the fair value of derivatives that are not designated as cash flow hedges.

As of December 31, 2022, we had open foreign currency forward contracts in AOCI in a net after-tax loss position of $10.2 million designated as cash flow hedges of underlying forecasted sales and purchases. Current open contracts hedge forecasted transactions until December 31, 2023. At December 31, 2022, we had open forward contracts with various expiration dates to buy, sell or exchange foreign currencies with a U.S. dollar equivalent of approximately $2,207.9 million.

As of December 31, 2022, we had open interest rate contracts in AOCI in a net after-tax gain position of $9.8 million designated as cash flow hedges of the anticipated fixed rate coupon of debt forecasted to be issued within a designated window. At December 31, 2022 we had interest rate swap contracts outstanding with a total aggregate notional value of approximately $200.0 million.

In conjunction with prior bond issuances, we settled on various interest rate swap agreements which were entered into to hedge the variability in treasury rates. These settlements resulted in a loss which was recorded in other comprehensive income and is being amortized over the various terms of these notes. As of December 31, 2022, there was a remaining net after-tax loss of $39.9 million in AOCI related to this settlement.

As of December 31, 2022, we had no open commodity contracts in AOCI designated as cash flow hedges of underlying forecasted purchases. At December 31, 2022, we had no mmBTUs (millions of British Thermal Units) in aggregate notional volume of outstanding natural gas commodity forward contracts.

Approximately $10.2 million of net after-tax losses, representing open foreign currency exchange contracts will be realized in earnings during the twelve months ending December 31, 2023 if spot rates in the future are consistent with forward rates as of December 31, 2022. The actual effect on earnings will be dependent on the actual spot rates when the forecasted transactions occur. We recognize derivative gains and losses in the "Costs of sales and services" line in the consolidated statements of income (loss).

Derivatives Not Designated As Hedging Instruments

We hold certain forward contracts that have not been designated as cash flow hedging instruments for accounting purposes. Contracts used to hedge the exposure to foreign currency fluctuations associated with certain monetary assets and liabilities are not designated as cash flow hedging instruments, and changes in the fair value of these items are recorded in earnings.

We had open forward contracts not designated as cash flow hedging instruments for accounting purposes with various expiration dates to buy, sell or exchange foreign currencies with a U.S. dollar equivalent of approximately $2,999.3 million at December 31, 2022.

Fair Value of Derivative Instruments

The following tables provide the gross fair value and net balance sheet presentation of our derivative instruments as of December 31, 2022 and 2021:

	December 31, 2022				
	Gross Amount of Derivatives				
(in Millions)	Designated as Cash Flow Hedges	Not Designated as Hedging Instruments	Total Gross Amounts	Gross Amounts Offset in the Consolidated Balance Sheet[3]	Net Amounts
Derivatives					
Foreign exchange contracts	$ 10.5	$ 6.4	$ 16.9	$ (16.1)	$ 0.8
Interest rate contracts	12.4	—	12.4	—	12.4
Total derivative assets[1]	**$ 22.9**	**$ 6.4**	**$ 29.3**	**$ (16.1)**	**$ 13.2**
Foreign exchange contracts	$ (25.1)	$ (8.8)	$ (33.9)	$ 16.1	$ (17.8)
Total derivative liabilities[2]	**$ (25.1)**	**$ (8.8)**	**$ (33.9)**	**$ 16.1**	**$ (17.8)**
NET DERIVATIVE ASSETS (LIABILITIES)	**$ (2.2)**	**$ (2.4)**	**$ (4.6)**	**$ —**	**$ (4.6)**

	December 31, 2021				
	Gross Amount of Derivatives				
(in Millions)	Designated as Cash Flow Hedges	Not Designated as Hedging Instruments	Total Gross Amounts	Gross Amounts Offset in the Consolidated Balance Sheet[3]	Net Amounts
Derivatives					
Foreign exchange contracts	$ 35.9	$ 5.7	$ 41.6	$ (21.9)	$ 19.7
Interest rate contracts	3.7	—	3.7	—	3.7
Total derivative assets[1]	**$ 39.6**	**$ 5.7**	**$ 45.3**	**$ (21.9)**	**$ 23.4**
Foreign exchange contracts	$ (16.2)	$ (9.7)	$ (25.9)	$ 21.9	$ (4.0)
Total derivative liabilities[2]	**$ (16.2)**	**$ (9.7)**	**$ (25.9)**	**$ 21.9**	**$ (4.0)**
NET DERIVATIVE ASSETS (LIABILITIES)	**$ 23.4**	**$ (4.0)**	**$ 19.4**	**$ —**	**$ 19.4**

(1) Net balance is included in "Prepaid and other current assets" in the consolidated balance sheets.

(2) Net balance is included in "Accrued and other liabilities" in the consolidated balance sheets.

(3) Represents net derivatives positions subject to master netting arrangements.

The following tables summarize the gains or losses related to our cash flow hedges and derivatives not designated as hedging instruments:

Derivatives in Cash Flow Hedging Relationships

	Contracts		
(in Millions)	Foreign exchange	Interest rate	Total
Accumulated other comprehensive income (loss), net of tax at December 31, 2019	**$ (1.4)**	**$ (63.6)**	**$ (65.0)**
2020 Activity			
Unrealized hedging gains (losses) and other, net of tax	$ (3.8)	$ 1.3	$ (2.5)
Reclassification of deferred hedging (gains) losses, net of tax [1]	(6.4)	2.1	(4.3)
Total derivative instrument impact on comprehensive income, net of tax	$ (10.2)	$ 3.4	$ (6.8)
Accumulated other comprehensive income (loss), net of tax at December 31, 2020	**$ (11.6)**	**$ (60.2)**	**$ (71.8)**
2021 Activity			
Unrealized hedging gains (losses) and other, net of tax	$ 40.5	$ 3.6	$ 44.1
Reclassification of deferred hedging (gains) losses, net of tax [1]	2.2	3.3	5.5
Total derivative instrument impact on comprehensive income, net of tax	$ 42.7	$ 6.9	$ 49.6
Accumulated other comprehensive income (loss), net of tax at December 31, 2021	**$ 31.1**	**$ (53.3)**	**$ (22.2)**
2022 Activity			
Unrealized hedging gains (losses) and other, net of tax	$ (86.3)	$ 20.9	$ (65.4)
Reclassification of deferred hedging (gains) losses, net of tax[1]	32.8	3.1	35.9
Total derivative instrument impact on comprehensive income, net of tax	$ (53.5)	$ 24.0	$ (29.5)
ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX AT DECEMBER 31, 2022	**$ (22.4)**	**$ (29.3)**	**$ (51.7)**

(1) Amounts are included in "Costs of sales and services", "Selling, general and administrative expenses", and "Interest expense" on the consolidated statements of income (loss).

Derivatives Not Designated as Hedging Instruments

	Amount of Pre-tax Gain (Loss) Recognized in Income on Derivatives[1]		
	Year Ended December 31,		
(in Millions)	2022	2021	2020
Foreign exchange contracts	$ (37.2)	$ (47.7)	$ (62.9)
TOTAL	**$ (37.2)**	**$ (47.7)**	**$ (62.9)**

(1) Amounts in the columns represent the gain or loss on the derivative instrument offset by the gain or loss on the hedged item. These amounts are included in "Costs of sales and services" and to a lesser extent "Selling, general, and administrative expenses" on the consolidated statements of income (loss).

Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Market participants are defined as buyers or sellers in the principle or most advantageous market for the asset or liability that are independent of the reporting entity, knowledgeable and able and willing to transact for the asset or liability.

Fair Value Hierarchy

We have categorized our assets and liabilities that are recorded at fair value, based on the priority of the inputs to the valuation technique, into a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the assets and liabilities fall within different levels of the hierarchy, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument.

Recurring Fair Value Measurements

The following tables present our fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis in our consolidated balance sheets:

(in Millions)	December 31, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
ASSETS				
Derivatives – Foreign exchange(1)	$ 0.8	$ —	$ 0.8	$ —
Derivatives – Interest Rate(1)	12.4	—	12.4	—
Other(2)(3)	41.8	22.5	—	19.3
TOTAL ASSETS	**$ 55.0**	**$ 22.5**	**$ 13.2**	**$ 19.3**
LIABILITIES				
Derivatives – Foreign exchange(1)	$ 17.8	$ —	$ 17.8	$ —
Derivatives – Interest Rate(1)	—	—	—	—
Other(2)	23.5	23.5	—	—
TOTAL LIABILITIES	**$ 41.3**	**$ 23.5**	**$ 17.8**	**$ —**

(in Millions)	December 31, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
ASSETS				
Derivatives – Foreign exchange(1)	$ 19.7	$ —	$ 19.7	$ —
Derivatives – Interest Rate(1)	3.7	—	3.7	—
Other(2)	21.1	21.1	—	—
TOTAL ASSETS	**$ 44.5**	**$ 21.1**	**$ 23.4**	$ —
LIABILITIES				
Derivatives – Foreign exchange(1)	$ 4.0	$ —	$ 4.0	$ —
Derivatives – Interest Rate(1)	—	—	—	—
Other(2)	26.2	26.2	—	—
TOTAL LIABILITIES	**$ 30.2**	**$ 26.2**	**$ 4.0**	$ —

(1) See the Fair Value of Derivative Instruments table within this Note for classifications on our consolidated balance sheets.

(2) Includes a deferred compensation arrangement, through which we hold various investment securities, recognized on our balance sheet. Both the asset and liability are recorded at fair value. Asset amounts included in "Other assets including long-term receivables, net" in the consolidated balance sheets. Liability amounts are included in "Other long-term liabilities" in the consolidated balance sheets.

(3) FMC maintains a beneficial interest in a trade receivables securitization fund. The fair value of the beneficial interest is determined by calculating the expected amount of cash to be received on the fund's outstanding credit notes. As part of this evaluation, we rely on unobservable inputs, including estimating the anticipated credit losses. We consider historical information, current conditions and other reasonable factors as part of this assessment. Asset amounts are included in "Other assets including long-term receivables, net" in the consolidated balance sheets.

Nonrecurring Fair Value Measurements

There were no non-recurring fair value measurements in the consolidated balance sheets during the periods presented.

NOTE 20 Guarantees, Commitments and Contingencies

We continue to monitor the conditions that are subject to guarantees and indemnifications to identify whether a liability must be recognized in our financial statements.

The following table provides the estimated undiscounted amount of potential future payments for each major group of guarantees at December 31, 2022. These guarantees arise during the ordinary course of business from relationships with customers and nonconsolidated affiliates. Non-performance by the guaranteed party triggers the obligation requiring us to make payments to the beneficiary of the guarantee. Based on our experience these types of guarantees have not had a material effect on our consolidated financial position or on our liquidity. Our expectation is that future payment or performance related to the non-performance of others is considered unlikely.

(in Millions)		
Guarantees:		
Guarantees of vendor financing - short term[1]	$	142.0
Other debt guarantees[2]		14.7
TOTAL	**$**	**156.7**

(1) *Represents guarantees to financial institutions on behalf of certain customers for their seasonal borrowing. The short-term amount is recorded as "Guarantees of vendor financing" on the consolidated balance sheets.*
(2) *These guarantees represent the outstanding commitment provided to third-party banks for credit extended to various direct and indirect customers and nonconsolidated affiliates. The liability for the guarantees is recorded at an amount that approximates fair value (i.e. representing the stand-ready obligation) based on our historical collection experience and a current assessment of credit exposure. Historically, the fair value of these guarantees has been and continues to be in the current reporting period, immaterial and the majority of these guarantees have had an expiration date of less than one year.*

Excluded from the chart above are parent-company guarantees we provide to lending institutions that extend credit to our foreign subsidiaries. Since these guarantees are provided for consolidated subsidiaries, the consolidated financial position is not affected by the issuance of these guarantees. Also excluded from the chart, in connection with our property and asset sales and divestitures, we have agreed to indemnify the buyer for certain liabilities, including environmental contamination and taxes that occurred prior to the date of sale or provided guarantees to third parties relating to certain contracts assumed by the buyer. Our indemnification or guarantee obligations with respect to certain liabilities may be indefinite as to duration and may or may not be subject to a deductible, minimum claim amount or cap. As such, it is not possible for us to predict the likelihood that a claim will be made or to make a reasonable estimate of the maximum potential loss or range of loss. If triggered, we may be able to recover some of the indemnity payments from third parties. Therefore, we have not recorded any specific liabilities for these guarantees. For certain obligations related to our divestitures for which we can make a reasonable estimate of the maximum potential loss or range of loss and is probable, a liability in those instances has been recorded.

Commitments

Purchase Obligations

Our minimum commitments under our take-or-pay purchase obligations associated with the sourcing of materials and energy total approximately $459.4 million. Since the majority of our minimum obligations under these contracts are over the life of the contract on a year-by-year basis, we are unable to determine the periods in which these obligations could be payable under these contracts. However, we intend to fulfill the obligations associated with these contracts through our purchases associated with the normal course of business.

Contingencies

Asbestos claims

Like hundreds of other industrial companies, we have been named as one of many defendants in asbestos-related personal injury litigation. Most of these cases allege personal injury or death resulting from exposure to asbestos in premises of FMC or to asbestos-containing components installed in machinery or equipment manufactured or sold by discontinued operations.

We intend to continue managing these asbestos-related cases in accordance with our historical experience. We have established a reserve for this litigation within our discontinued operations and believe that any exposure of a loss in excess of the established reserve cannot be reasonably estimated. Our experience has been that the overall trends in asbestos litigation have changed over time. Over the last several years, we have seen changes in the jurisdictions where claims against FMC are being filed and changes in the mix of products named in the various claims. Because these claim trends have yet to form a predictable pattern, we are presently unable to reasonably estimate our asbestos liability with respect to claims that may be filed in the future.

Other contingent liabilities

In addition to the matters disclosed above, we have certain other contingent liabilities arising from litigation, claims, products we have sold, guarantees or warranties we have made, contracts we have entered into, indemnities we have provided, and other commitments or obligations incident to the ordinary course of business.

In Brazil, we are subject to claims from various governmental agencies regarding alleged additional indirect (non-income) taxes or duties as well as product liability matters and labor cases related to our operations. These disputes take many years to resolve as the matters move through administrative or judicial courts. We have provided reserves for such Brazilian matters that we consider probable and for which a reasonable estimate of the obligation can be made in the amount of $6.2 million and $3.3 million as of December 31, 2022 and 2021, respectively. The aggregate estimated reasonably possible loss contingencies related to such Brazilian matters exceed amounts accrued by approximately $91 million at December 31, 2022. This reasonably possible estimate is based upon information available as of the date of the filing and the actual future losses may be higher given the uncertainties regarding the ultimate decision by administrative or judicial authorities in Brazil.

In India, we are subject to audits or other proceedings by tax authorities regarding certain alleged additional indirect taxes related to our operations. Indian tax authorities have recently begun auditing or investigating many companies, including our FMC subsidiary in India, on the goods and service tax ("GST") indirect tax law which came into force in 2017. Such proceedings and potential future litigations, in which the tax authorities are challenging the technical tax position taken by the Company, take many years to resolve as the matters are heard and decided upon by tax authorities or courts. We have provided reserves for such historical Indian tax matters that we consider probable and a reasonable estimate of the obligation can be made in the amount of approximately $33.5 million, as of December 31, 2021. As of December 31, 2022, the majority of these matters have been settled and the remaining obligation is immaterial. The timing and amount of the remaining obligations will vary based on final negotiations and the reserve will be reduced as these payments are made.

Regarding other contingencies arising from operations, some of these contingencies are known - for example pending product liability litigation or claims - but are so preliminary that the merits cannot be determined, or if more advanced, are not deemed material based on current knowledge. Some contingencies are unknown - for example, claims with respect to which we have no notice or claims which may arise in the future, resulting from products we have sold, guarantees or warranties we have made, or indemnities we have provided. Therefore, we are unable to develop a reasonable estimate of our potential exposure of loss for these contingencies, either individually or in the aggregate, at this time. Based on information currently available and established reserves, we have no reason to believe that the ultimate resolution of our known contingencies, including the matters described in this Note, will have a material adverse effect on our consolidated financial position, liquidity or results of operations. However, there can be no assurance that the outcome of these contingencies will be favorable, and adverse results in certain of these contingencies could have a material adverse effect on our consolidated financial position, results of operations in any one reporting period, or liquidity.

See Note 12 to the consolidated financial statements included within this Form 10-K for the Pocatello Tribal litigation, Middleport litigation, and Portland Harbor site for legal proceedings associated with our environmental contingencies.

NOTE 21 Segment Information

As discussed in Note 1 to the consolidated financial statements included within this Form 10-K, we operate as a single business segment providing innovative solutions to growers around the world with a robust product portfolio fueled by a market-driven discovery and development pipeline in crop protection, plant health, and professional pest and turf management.

For revenue by major geographical region, refer to Note 3 to the consolidated financial statements included within this Form 10-K. The following table provides our long-lived assets by major geographical region:

	December 31,	
(in Millions)	2022	2021
Long-lived assets[1]		
North America[2]	$ 1,060.7	$ 1,091.3
Latin America	759.0	742.6
Europe, Middle East, and Africa[2]	1,684.1	1,499.0
Asia[2]	2,018.2	2,092.3
TOTAL	**$ 5,522.0**	**$ 5,425.2**

(1) *Geographic long-lived assets exclude long-term deferred income taxes.*

(2) *The countries with long-lived assets in excess of 10 percent of consolidated long-lived assets at December 31, 2022 and 2021 are Singapore, which totaled $1,745.0 million and $1,622.8 million, the U.S., which totaled $1,047.4 million and $1,083.8 million and Denmark, which totaled $1,075.7 million and $1,081.9 million, respectively.*

NOTE 22 Supplemental Information

The following tables present details of prepaid and other current assets, other assets including long-term receivables, net, accrued and other liabilities and other long-term liabilities as presented on the consolidated balance sheets:

	December 31,	
(in Millions)	2022	2021
Prepaid and other current assets		
Prepaid insurance	$ 12.6	$ 12.0
Tax related items including value added tax receivables	172.4	226.2
Refund asset[1]	36.8	36.4
Environmental obligation recoveries (Note 12)	3.2	2.2
Derivative assets (Note 19)	13.2	23.4
Acquisition related items	—	3.0
Other prepaid and current assets	105.4	128.2
TOTAL	**$ 343.6**	**$ 431.4**

(in Millions)	December 31, 2022	December 31, 2021
Other assets including long-term receivables, net		
Non-current receivables (Note 10)	$ 60.8	$ 57.4
Advance to contract manufacturers	119.4	129.0
Capitalized software, net	133.0	143.8
Environmental obligation recoveries (Note 12)	3.2	2.3
Beneficial interest in trade receivables securitization (Note 19)	19.3	—
Income taxes indirect benefits	21.2	33.4
Operating lease ROU asset (Note 4)	123.8	135.2
Deferred compensation arrangements (Note 19)	22.5	21.1
Pension and other postretirement benefits (Note 15)	22.4	50.4
Other long-term assets	34.9	41.2
TOTAL	**$ 560.5**	**$ 613.8**

(1) In accordance with revenue standard requirements, a sales return liability is recognized for the consideration paid by a customer to which FMC does not expect to be entitled, together with a corresponding refund asset to recover the product from the customer. See (2) below.

(in Millions)	December 31, 2022	December 31, 2021
Accrued and other liabilities		
Restructuring reserves (Note 9)	$ 7.6	$ 10.4
Dividend payable (Note 17)	72.7	66.8
Accrued payroll	99.8	89.8
Environmental reserves, current, net of recoveries (Note 12)	90.1	87.3
Derivative liabilities (Note 19)	17.8	4.0
Furadan® product exit asset retirement obligations	10.0	10.0
Unfavorable contracts(1)	—	82.0
Operating lease current liabilities (Note 4)	22.0	23.5
Other accrued and other liabilities(2)	281.8	257.4
TOTAL	**$ 601.8**	**$ 631.2**

(in Millions)	December 31, 2022	December 31, 2021
Other long-term liabilities		
Restructuring reserves (Note 9)	$ 3.0	$ 4.5
Asset retirement obligations, long-term (Note 1)	6.0	14.2
Transition tax related to Tax Cuts and Jobs Act(3)	62.6	92.1
Contingencies related to uncertain tax positions (Note 13)	52.4	45.5
Deferred compensation arrangements (Note 19)	23.5	26.2
Self-insurance reserves (primarily workers' compensation)	3.4	6.1
Lease obligations (Note 4)	128.6	140.0
Reserve for discontinued operations (Note 11)	127.2	108.3
Unfavorable contracts	10.1	10.3
Other long-term liabilities	28.6	30.1
TOTAL	**$ 445.4**	**$ 477.3**

(1) The amount presented within accrued and other liabilities represents the technical insecticide product supply agreements with DuPont for use in their retained seed treatment business. The original five-year contract expired during 2022 and has been replaced by a new commercial agreement as such, the unfavorable liability has been fully recognized and reduced to zero. Refer to Note 5 to the consolidated financial statements included within this Form 10-K for more details.
(2) Other accrued and other liabilities includes our estimated liability for sales returns.
(3) Represents noncurrent portion of overall transition tax to be paid over the next three years.

NOTE 23 Quarterly Financial Information (Unaudited)

(in Millions, Except Share and Per Share Data)	2022 1Q	2022 2Q	2022 3Q	2022 4Q	2021 1Q	2021 2Q	2021 3Q	2021 4Q
Revenue	$1,350.8	$ 1,452.3	$ 1,377.2	$ 1,622.0	$ 1,195.6	$ 1,242.0	$ 1,194.0	$ 1,413.6
Gross margin	572.7	591.0	477.5	685.6	511.1	530.6	511.5	608.1
Income (loss) from continuing operations before equity in (earnings) loss of affiliates, non-operating pension and postretirement charges (income), interest expense, net and income taxes	303.3	235.9	210.6	394.5	259.4	287.4	215.7	272.0
Income (loss) from continuing operations	226.8	142.0	134.5	335.4	193.2	219.6	171.9	220.6
Discontinued operations, net of income taxes	(15.2)	(10.8)	(16.2)	(55.0)	(8.1)	(14.6)	(9.7)	(35.8)
Net income (loss)	$ 211.6	$ 131.2	$ 118.3	$ 280.4	$ 185.1	$ 205.0	$ 162.2	$ 184.8
Less: Net income (loss) attributable to noncontrolling interests	4.2	(3.0)	(2.7)	6.5	0.6	0.3	2.5	(5.9)
NET INCOME (LOSS) ATTRIBUTABLE TO FMC STOCKHOLDERS	**$ 207.4**	**$ 134.2**	**$ 121.0**	**$ 273.9**	**$ 184.5**	**$ 204.7**	**$ 159.7**	**$ 190.7**
Amounts attributable to FMC stockholders:								
Continuing operations, net of income taxes	$ 222.6	$ 145.0	$ 137.2	$ 328.9	$ 192.6	$ 219.3	$ 169.4	$ 226.5
Discontinued operations, net of income taxes	(15.2)	(10.8)	(16.2)	(55.0)	(8.1)	(14.6)	(9.7)	(35.8)
NET INCOME (LOSS)	**$ 207.4**	**$ 134.2**	**$ 121.0**	**$ 273.9**	**$ 184.5**	**$ 204.7**	**$ 159.7**	**$ 190.7**
Basic earnings (loss) per common share attributable to FMC stockholders(1):								
Continuing operations	$ 1.77	$ 1.15	$ 1.09	$ 2.61	$ 1.48	$ 1.70	$ 1.32	$ 1.79
Discontinued operations	(0.12)	(0.09)	(0.13)	(0.44)	(0.06)	(0.11)	(0.08)	(0.28)
BASIC NET INCOME (LOSS) PER COMMON SHARE	**$ 1.65**	**$ 1.06**	**$ 0.96**	**$ 2.17**	**$ 1.42**	**$ 1.59**	**$ 1.24**	**$ 1.51**
Diluted earnings (loss) per common share attributable to FMC stockholders(1):								
Continuing operations	$ 1.76	$ 1.15	$ 1.08	$ 2.61	$ 1.48	$ 1.69	$ 1.32	$ 1.78
Discontinued operations	(0.12)	(0.09)	(0.13)	(0.44)	(0.06)	(0.11)	(0.08)	(0.28)
DILUTED NET INCOME (LOSS) PER COMMON SHARE	**$ 1.64**	**$ 1.06**	**$ 0.95**	**$ 2.17**	**$ 1.42**	**$ 1.58**	**$ 1.24**	**$ 1.50**
Weighted average shares outstanding:								
Basic	126.1	126.2	126.2	125.6	129.5	129.1	128.3	126.6
Diluted	126.8	126.9	126.9	126.4	130.3	129.9	129.0	127.4

(1) The sum of quarterly earnings per common share may differ from the full-year amount.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

FMC Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of FMC Corporation and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income (loss), comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes and schedule II – valuation and qualifying accounts and reserves (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

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

Changes in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has elected to change its method of accounting for inventory costing from last-in, first-out (LIFO) cost method to first-in, first-out (FIFO) cost method for inventory in the United States as of July 1, 2022. As discussed in Note 1 to the consolidated financial statements, the Company has elected to change its method of accounting for the determination of the market-related value of assets for a class of assets within the qualified U.S. defined benefit plan as of July 1, 2022.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

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

Evaluation of the allowance for trade receivables and long-term receivables associated with customers located in Brazil

As discussed in Notes 1 and 10 to the consolidated financial statements, the Company develops an analysis of trade receivables and long-term receivables to determine its best estimate of the probable losses associated with potential customer defaults. The most significant portion of the allowance for trade receivables and long-term receivables is related to customers located in Brazil.

We identified the evaluation of the allowance for trade receivables and long-term receivables associated with customers located in Brazil as a critical audit matter. Specifically, the length of standard credit terms offered and customer liquidity may be significantly influenced by economic conditions and unfavorable weather conditions impacting crop quality. This increased the need for subjective judgment and knowledge in assessing customer liquidity constraints to estimate probable losses.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's collectability determination process, including controls over the identification of at-risk trade receivables and long-term receivables balances and related estimate of probable losses associated with such balances. We inspected underlying documentation for collateral arrangements, legal status, and historical trends and analysis performed by the Company for historical collection results. The Company's assumptions underlying the collectability of trade receivables and long-term receivables were tested by evaluating:

- The Company's rationale for and appropriateness of changes in assumptions from those used in the prior year related to its expected collection period for specific customers;
- Local Brazil economic and weather conditions that might impact the assumptions;
- Adjustments to the prior period reserve and assessing if those adjustments provided information that was contradictory to the current year's assumptions; and
- Deterioration of trade receivables and long-term receivables balances subsequent to year-end, to identify the presence of trends not considered by the Company when it developed its assumptions.

Evaluation of unrecognized tax benefits

As discussed in Note 13, the Company has $46.1 million of unrecognized tax benefits as of December 31, 2022. The Company recognizes the largest amount of tax benefit that it believes is more than 50 percent likely to be sustained. A significant amount of the Company's earnings are generated by certain foreign subsidiaries whose earnings are taxed at lower rates than the United States federal statutory rate.

We identified the evaluation of the Company's unrecognized tax benefits related to the earnings of certain foreign subsidiaries as a critical audit matter. Complex auditor judgment was required in evaluating the Company's interpretation of tax law, the transfer pricing structure, and its analysis of the recognition of its tax benefits.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the unrecognized tax benefits process, including controls related to the transfer pricing structure which affects the determination of earnings of certain foreign subsidiaries. We also involved tax and transfer pricing professionals with specialized skills and knowledge, who assisted in:

- Examining the Company's tax positions, including the methodology for evaluating unrecognized tax benefits;
- Assessing transfer pricing studies with applicable laws and regulations;
- Evaluating the Company's interpretation of tax laws and income tax consequences of intercompany transactions;
- Considering applicable settlements with taxing authorities; and
- Evaluating the Company's determination of unrecognized tax benefits.

/s/ KPMG LLP

We have served as the Company's auditor since 1928.

Philadelphia, Pennsylvania

February 24, 2023

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Exchange Act Rule 13a-15(f). FMC'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 U.S. generally accepted accounting principles. Internal control over financial reporting includes those written policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of FMC;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles;
- provide reasonable assurance that receipts and expenditures of FMC are being made only in accordance with authorization of management and directors of FMC; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on the consolidated financial statements.

Internal control over financial reporting includes the controls themselves, monitoring and internal auditing practices and actions taken to correct deficiencies as identified.

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.

We assessed the effectiveness of our internal control over financial reporting as of December 31, 2022. We based this assessment on criteria for effective internal control over financial reporting described in "Internal Control—Integrated Framework (COSO 2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of our internal control over financial reporting. We reviewed the results of our assessment with the Audit Committee of our Board of Directors.

Based on this assessment, we determined that, as of December 31, 2022, FMC has effective internal control over financial reporting.

KPMG LLP, our independent registered public accounting firm, has issued an attestation report on the effectiveness of internal control over financial reporting as of December 31, 2022, which appears on the following page.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

FMC Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited FMC Corporation and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, the related consolidated statements of income (loss), comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes and schedule II – valuation and qualifying accounts and reserves (collectively, the consolidated financial statements), and our report dated February 24, 2023 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ KPMG LLP

Philadelphia, Pennsylvania

February 24, 2023

FMC Corporation

Schedule II - Valuation and Qualifying Accounts and Reserves

(in Millions)	Balance, Beginning of Year	Provision (Benefit) Charged to Costs and Expenses	Provision (Benefit) Charged to Other Comprehensive Income	Net recoveries, write-offs and other[1]	Balance, End of Year
December 31, 2022					
Reserve for doubtful accounts [2]	$ **65.1**	(0.5)	—	13.8	$ **78.4**
Deferred tax valuation allowance	**398.7**	61.5	(2.6)	—	**457.6**
December 31, 2021					
Reserve for doubtful accounts [2]	$ **52.6**	21.1	—	(8.6)	$ **65.1**
Deferred tax valuation allowance	**335.6**	61.4	1.7	—	**398.7**
December 31, 2020					
Reserve for doubtful accounts [2]	$ **87.4**	4.7	—	(39.5)	$ **52.6**
Deferred tax valuation allowance	**303.3**	34.0	(1.7)	—	**335.6**

(1) Write-offs are net of recoveries.

(2) Includes short-term and long-term portion.

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

None.

ITEM 9A Controls and Procedures

(a) Evaluation of disclosure controls and procedures. Based on management's evaluation (with the participation of the Company's Chief Executive Officer and Chief Financial Officer), the Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this report, the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) are effective to provide reasonable assurance that information required to be disclosed by the Company in reports filed or submitted under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management's annual report on internal control over financial reporting. Refer to Management's Annual Report on Internal Control Over Financial Reporting which is included in Item 8 of Part II of this Annual Report on Form 10-K and is incorporated by reference to this Item 9A.

Audit report of the independent registered public accounting firm. Refer to Report of Independent Registered Public Accounting Firm which is included in Item 8 of Part II of this Annual Report on Form 10-K and is incorporated by reference to this Item 9A.

(b) Change in Internal Controls. There have been no changes in internal controls over financial reporting that occurred during the quarter ended December 31, 2022 that materially affected or are reasonably likely to materially affect our internal controls over financing reporting.

ITEM 9B Other Information

None.

ITEM 9C Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not Applicable.

PART III

ITEM 10 Directors, Executive Officers and Corporate Governance

Information concerning directors, appearing under the caption "III. Board of Directors" in our Proxy Statement to be filed with the SEC in connection with the Annual Meeting of Stockholders scheduled to be held on April 27, 2023 (the "Proxy Statement"), information concerning executive officers, appearing under the caption "Item 4A. Information about our Executive Officers" in Part I of this Annual Report on Form 10-K, information concerning the Audit Committee, appearing under the caption "IV. Information About the Board of Directors and Corporate Governance - Committees and Independence of Directors - Audit Committee" in the Proxy Statement, and information concerning the Code of Ethics, appearing under the caption "IV. Information About the Board of Directors and Corporate Governance - Corporate Governance - Code of Ethics and Business Conduct Policy" in the Proxy Statement, is incorporated herein by reference in response to this Item 10.

ITEM 11 Executive Compensation

The information contained in the Proxy Statement in the section titled "VI. Executive Compensation" with respect to executive compensation, in the section titled "IV. Information About the Board of Directors and Corporate Governance—Director Compensation" and "—Corporate Governance—Compensation and Organization Committee Interlocks and Insider Participation" is incorporated herein by reference in response to this Item 11.

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

The information contained in the section titled "V. Security Ownership of FMC Corporation" in the Proxy Statement, with respect to security ownership of certain beneficial owners and management, is incorporated herein by reference in response to this Item 12.

Equity Compensation Plan Information

The table below sets forth information with respect to compensation plans under which equity securities of FMC are authorized for issuance as of December 31, 2022. All of the equity compensation plans pursuant to which we are currently granting equity awards have been approved by stockholders.

(Shares in thousands)	Number of Securities to be issued upon exercise of outstanding options and restricted stock awards (A)(2)	Weighted-average exercise price of outstanding options awards (B)(1)	Number of Securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (A)) (C)
Equity Compensation Plans approved by stockholders	1,982	$ 87.35	2,100
Equity Compensation Plans not approved by stockholders	—	$ —	—
Total	1,982	$ 87.35	2,100

(1) Taking into account all outstanding awards included in this table, the weighted-average exercise price of such stock options is $87.35 and the weighted-average term-to-expiration is 6.1 years.

(2) Includes 1,305 thousand stock options and 393 thousand restricted stock awards granted to employees and 284 thousand restricted stock units held by directors.

ITEM 13 Certain Relationships and Related Transactions, and Director Independence

The information contained in the Proxy Statement concerning our independent directors and related party transactions under the caption "IV. Information About the Board of Directors and Corporate Governance—Committees and Independence of Directors," and the information contained in the Proxy Statement concerning our related party transactions policy, appearing under the caption "IV. Information About the Board of Directors and Corporate Governance—Corporate Governance—Related Party Transactions Policy," is incorporated herein by reference in response to this Item 13.

ITEM 14 Principal Accountant Fees and Services

The information contained in the Proxy Statement in the section titled "II. The Proposals to be Voted On—Ratification of Appointment of Independent Registered Public Accounting Firm" is incorporated herein by reference in response to this Item 14.

Our independent registered public accounting firm is KPMG LLP, Philadelphia, PA. Auditor Firm ID: PCAOB ID 185

PART IV

ITEM 15 Exhibits and Financial Statement Schedules

(a) Documents filed with this Report

1. Consolidated financial statements of FMC Corporation and its subsidiaries are incorporated under Item 8 of this Form 10-K.
2. The following supplementary financial information is filed in this Form 10-K:

	Page
Financial Statements Schedule II – Valuation and qualifying accounts and reserves for the years ended December 31, 2022, 2021, and 2020	98

The schedules not included herein are omitted because they are not applicable or the required information is presented in the financial statements or related notes.

3. Exhibits – The following exhibits are filed as a part of, or incorporated by reference into, this Form 10-K:

(b) Exhibits

Exhibit No.	Exhibit Description
(2)	**Plan of acquisition, reorganization, arrangement, liquidation or succession**
*2.1a	Transaction Agreement, dated March 31, 2017, by and between E.I. du Pont de Nemours and Company and FMC Corporation (Exhibit 2.1 to the Current Report on Form 8-K filed on April 4, 2017)
*2.1b	Purchase Price Allocation Side Letter Agreement, dated as of May 12, 2017, by and between E. I. du Pont de Nemours and Company and FMC Corporation (Exhibit 10.26 to the Quarterly Report on Form 10-Q filed on November 7, 2017)
(3)	**Articles of Incorporation and By-Laws**
*3.1	Restated Certificate of Incorporation, as amended through April 30, 2019 (Exhibit 3.1 to the Quarterly Report on Form 10-Q filed on May 8, 2019)
*3.2	Restated By-Laws of FMC Corporation as of December 14, 2022 (Exhibit 3.1 to the Current Report on the Form 8-K filed on December 15, 2022)
(4)	**Instruments defining the rights of security holders, including indentures.** FMC Corporation undertakes to furnish to the SEC upon request, a copy of any instrument defining the rights of holders of long-term debt of FMC Corporation and its consolidated subsidiaries and for any of its unconsolidated subsidiaries for which financial statements are required to be filed.
*4.1	Indenture, dated as of November 15, 2009, by and between FMC Corporation and U.S. Bank National Association, as trustee (Exhibit 4.1 to the Current Report on Form 8-K filed on November 30, 2009)
*4.2	First Supplemental Indenture, dated as of November 30, 2009, by and between FMC Corporation and U.S. Bank National Association, as trustee (including the form of the Note) (Exhibit 4.2 to the Current Report on Form 8-K filed on November 30, 2009)
*4.3	Second Supplemental Indenture, dated as of November 22, 2011, by and between the Company and U.S. Bank National Association, as trustee (including the form of the Note) (Exhibit 4.2 to the Current Report on Form 8-K filed on November 22, 2011)
*4.4	Third Supplemental Indenture, dated as of November 15, 2013, by and between the Company and U.S. Bank National Association, as trustee (including the form of the Note) (Exhibit 4.1 to the Current Report on Form 8-K filed on November 15, 2013)
*4.5	Fourth Supplemental Indenture, dated as of September 20, 2019, by and between the Company and U.S. Bank National Association, as trustee (including the forms of the Notes attached as Exhibit A, Exhibit B and Exhibit C thereto) (Exhibit 4.2 to the Current Report on Form 8-K filed on September 23, 2019)
*4.6	Description of Capital Stock (Exhibit 4.6 to the Annual Report on Form 10-K filed on February 28, 2020)
(10)	**Material contracts**
*10.1a	Third Amended and Restated Credit Agreement, dated as of May 17, 2019, among FMC Corporation, certain subsidiaries of FMC Corporation party thereto, the lenders and issuing banks party thereto, and Citibank, N.A., as Administrative Agent for such lenders. (Exhibit 10.1 to the Current Report on Form 8-K filed on May 20, 2019)
*10.1b	Amendment No. 1, dated as of April 22, 2020, to the Third Amended and Restated Credit Agreement, dated as of May 17, 2019, among FMC Corporation, certain subsidiaries of FMC Corporation party thereto, the lenders and issuing banks party thereto, and Citibank, N.A., as Administrative Agent for such lenders. (Exhibit 10.1 to the Current Report on Form 8-K filed on April 22, 2020)
*10.1c	Fourth Amended and Restated Credit Agreement, dated as of May 26, 2021, among FMC Corporation, certain subsidiaries of FMC Corporation party thereto, the lenders and issuing banks party thereto, and Citibank, N.A., as Administrative Agent for such lenders. (Exhibit 10.1 to the Current Report on Form 8-K filed on May 28, 2021)

Exhibit No.	Exhibit Description
*10.1d	Fifth Amended and Restated Credit Agreement, dated as of June 17, 2022, among FMC Corporation, certain subsidiaries of FMC Corporation party thereto, the lenders and issuing banks party thereto, and Citibank, N.A., as Administrative Agent for such lenders (Exhibit 10.1 to the Current Report on Form 8-K filed on June 21, 2022)
*10.1e	Term Loan Agreement, dated as of November 22, 2021, among FMC Corporation, the lenders party thereto, and Citibank, N.A., as Administrative Agent for such lenders. (Exhibit 10.1 to the Current Report on Form 8-K filed on November 23, 2021)
*10.1f	Amendment No. 1, dated as of June 27, 2022, to the Term Loan Agreement, dated as of November 22, 2021, among FMC Corporation, the lenders party thereto, and Citibank, N.A., as administrative agent for such lenders (Exhibit 10.1 to the Current Report on Form 8-K filed on June 28, 2022)
†*10.2	FMC Corporation Compensation Plan for Non-Employee Directors As Amended and Restated Effective April 27, 2021 (Exhibit 10.2 to the Annual Report on Form 10-K filed on February 25, 2021)
†*10.2.a	Non-Employee Director Restricted Stock Unit Award Agreement - Annual Grant (Exhibit 10.3.A. to the Quarterly Report on Form 10-Q filed on May 6, 2020)
†*10.2.b	Non-Employee Director Restricted Stock Unit Award Agreement - Retainer Grant (Exhibit 10.3.B. to the Quarterly Report on Form 10-Q filed on May 6, 2020)
†*10.3	FMC Corporation Salaried Employees' Equivalent Retirement Plan, as amended and restated effective as of January 1, 2009 (Exhibit 10.5 to the Annual Report on Form 10-K filed on February 23, 2009)
†*10.4	FMC Corporation Salaried Employees' Equivalent Retirement Plan Grantor Trust, as amended and restated effective as July 31, 2001 (Exhibit 10.6.a to the Quarterly Report on Form 10-Q filed on November 7, 2001)
†*10.5	FMC Corporation Non-Qualified Savings and Investment Plan, as adopted by the Company on December 17, 2008 (Exhibit 10.7 to the Annual Report on Form 10-K filed on February 23, 2009)
†*10.5a	Adoption Agreement for FMC Corporation Non-Qualified Savings and Investment Plan, effective as of December 17, 2008 (Exhibit 4.2 to the Registration Statement on Form S-8 filed on December 19, 2019)
†*10.5b	Amendment to the Adoption Agreement for FMC Corporation Non-Qualified Savings and Investment Plan, effective as of January 1, 2018 (Exhibit 4.2.a to the Registration Statement on Form S-8 filed on December 19, 2019)
†*10.6	FMC Corporation Non-Qualified Savings and Investment Plan Trust, as amended and restated effective as of September 28, 2001 (Exhibit 10.7.a to the Quarterly Report on Form 10-Q filed on November 7, 2001)
†* 10.6a	First Amendment to FMC Corporation Non-Qualified Savings and Investment Plan Trust between Fidelity Management Trust Company and FMC Corporation, effective as of October 1, 2003 (Exhibit 10.15a to the Annual Report on Form 10-K filed on March 11, 2004)
†* 10.6b	Second Amendment to FMC Corporation Non-Qualified Savings and Investment Plan Trust, effective as of January 1, 2004 (Exhibit 10.12b to the Annual Report on Form 10-K filed on March 14, 2005)
†*10.6c	Third Amendment to FMC Corporation Non-Qualified Savings and Investment Plan Trust between Fidelity Management Trust Company and FMC Corporation, effective as of February 14, 2005 (Exhibit 10.8.c to the Annual Report on Form 10-K filed on February 23, 2009)
†*10.6d	Fourth Amendment to FMC Corporation Non-Qualified Savings and Investment Plan Trust between Fidelity Management Trust Company and FMC Corporation, effective as of July 1, 2005 (Exhibit 10.8.d to the Annual Report on Form 10-K filed on February 23, 2009)
†*10.6e	Fifth Amendment to FMC Corporation Non-Qualified Savings and Investment Plan Trust between Fidelity Management Trust Company and FMC Corporation, effective as of April 23, 2008 (Exhibit 10.8.e to the Annual Report on Form 10-K filed on February 23, 2009)
†*10.6f	Sixth Amendment to FMC Corporation Non-Qualified Savings and Investment Plan Trust between Fidelity Management Trust Company and FMC Corporation, effective as of March 26, 2009 (Exhibit 10.7f to the Annual Report on Form 10-K filed on February 28, 2017)
†*10.6g	Seventh Amendment to FMC Corporation Non-Qualified Savings and Investment Plan Trust between Fidelity Management Trust Company and FMC Corporation, effective as of April 1, 2017 (Exhibit 10.7g to the Annual Report on Form 10-K filed on February 28, 2017)
†*10.7	FMC Corporation Incentive Compensation and Stock Plan as amended and restated through April 25, 2017 (Exhibit 10.8 to the Annual Report on Form 10-K filed on February 28, 2018)
†*10.7a	Form of Employee Restricted Stock Unit Agreement Pursuant to the FMC Corporation Incentive Compensation and Stock Plan (Exhibit 10.8a to the Annual Report on Form 10-K filed on February 28, 2017)
†*10.7b	Form of Nonqualified Stock Option Agreement Pursuant to the FMC Corporation Incentive Compensation and Stock Plan (Exhibit 10.8b to the Annual Report on Form 10-K filed on February 28, 2017)
†*10.7c	Form of Key Manager Restricted Stock Agreement Pursuant to the FMC Corporation Incentive Compensation and Stock Plan (Exhibit 10.8c to the Annual Report on Form 10-K filed on February 28, 2017)
*10.7d	Form of Performance-Based Restricted Stock Unit Award Agreement Pursuant to FMC Corporation Incentive Compensation and Stock Plan (Exhibit 10.8d to the Quarterly Report on Form 10-Q filed on August 2, 2017)
†*10.7e	Form of Performance-Based Restricted Stock Unit Award Agreement Pursuant to FMC Corporation Incentive Compensation and Stock Plan (Relative Total Shareholder Return Metric) (Exhibit 10.8e to the Quarterly Report on Form 10-Q filed on May 8, 2019)
†*10.7f	Form of Performance-Based Restricted Stock Unit Award Agreement Pursuant to FMC Corporation Incentive Compensation and Stock Plan (Operating Cash Flow Metric) (Exhibit 10.7f to the Annual Report on Form 10-K filed on February 28, 2020)
†*10.8	FMC Corporation Executive Severance Plan, as amended and restated effective as of January 1, 2009 (Exhibit 10.10 to the Annual Report on Form 10-K filed on February 23, 2009)
†*10.9	FMC Corporation Executive Severance Grantor Trust Agreement, dated July 31, 2001 (Exhibit 10.10a to the Quarterly Report on Form 10-Q filed on November 7, 2001)
†*10.10	Amended and Restated Executive Severance Agreement, dated November 6, 2012, between FMC Corporation and Mark Douglas (Exhibit 10.10 to the Annual Report on Form 10-K filed on February 25, 2021)
*10.11	Separation and Distribution Agreement, dated as of October 15, 2018, by and between Livent Corporation and FMC Corporation (Exhibit 10.1 to the Current Report on Form 8-K of Livent Corporation, filed on October 15, 2018, SEC File No. 1-38694) (the "Livent October 2018 Form 8-K")
*10.12	Transition Services Agreement, dated as of October 15, 2018, by and between Livent Corporation and FMC Corporation (Exhibit 10.2 to the Livent October 2018 Form 8-K)

Exhibit No.	Exhibit Description
*10.13	Shareholders' Agreement, dated as of October 15, 2018, by and between Livent Corporation and FMC Corporation (Exhibit 10.3 to the Livent October 2018 Form 8-K)
*10.14	Tax Matters Agreement, dated as of October 15, 2018, by and between Livent Corporation and FMC Corporation (Exhibit 10.4 to the Livent October 2018 Form 8-K)
*10.15	Registration Rights Agreement, dated as of October 15, 2018, by and between Livent Corporation and FMC Corporation (Exhibit 10.5 to the Livent October 2018 Form 8-K)
†*10.16	Amended and Restated Employee Matters Agreement, dated as of February 4, 2019, by and between Livent Corporation and FMC Corporation (Exhibit 10.16 to the Annual Report on Form 10-K filed on February 25, 2021)
*10.17	Trademark License Agreement, dated as of October 15, 2018, by and between Livent Corporation and FMC Corporation (Exhibit 10.7 to the Livent October 2018 Form 8-K)
†*10.18	Executive Severance Agreement, dated May 15, 2018, between FMC Corporation and Andrew D. Sandifer (Exhibit 10.18 to the Annual Report on Form 10-K filed on February 25, 2021)
†*10.19	Executive Severance Agreement, dated April 1, 2019, between FMC Corporation and Michael Reilly (Exhibit 10.19 to the Annual Report on Form 10-K filed on February 25, 2021). Pursuant to Instruction 2 to Item 601 of Regulation S-K, Executive Severance Agreements that are substantially identical in all material respects, except as to the parties thereto and the dates thereof, between FMC Corporation and each of Kathleen Shelton, Ronaldo Pereira and Diane Allemang, were not filed.
†*10.20	Letter Agreement dated April 27, 2020 between FMC Corporation and Pierre Brondeau (Exhibit 10.1 to the Current Report on Form 8-K filed on April 30, 2020)
*18	KPMG LLP Preferability Letter Pension Accounting Change (Exhibit 18 to the Current Report on Form 10-Q filed on November 2, 2022)
*18.1	KPMG LLP Preferability Letter Inventory Accounting Change (Exhibit 18.1 to the Current Report on Form 10-Q filed on November 2, 2022)
21	FMC Corporation List of Significant Subsidiaries
23.1	Consent of KPMG LLP
31.1	Chief Executive Officer Certification
31.2	Chief Financial Officer Certification
32.1	Chief Executive Officer Certification of Annual Report
32.2	Chief Financial Officer Certification of Annual Report
101	Interactive Data File

** Incorporated by reference*
† Management contract or compensatory plan or arrangement

ITEM 16 Form 10-K Summary

Optional disclosure, not included in this Report.

Signatures

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

FMC CORPORATION

(Registrant)

By: /S/ ANDREW D. SANDIFER

Andrew D. Sandifer
Executive Vice President and
Chief Financial Officer

Date: February 24, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the date indicated.

Signature	Title	Date
/S/ ANDREW D. SANDIFER		
Andrew D. Sandifer	*Executive Vice President and Chief Financial Officer*	February 24, 2023
/S/ NICHOLAS L. PFEIFFER		
Nicholas L. Pfeiffer	*Vice President, Chief Accounting Officer, and Corporate Controller*	February 24, 2023
/S/ PIERRE R. BRONDEAU		
Pierre R. Brondeau	*Chairman*	February 24, 2023
/S/ MARK A. DOUGLAS		
Mark A. Douglas	*President, Chief Executive Officer, and Director*	February 24, 2023
/S/ EDUARDO E. CORDEIRO		
Eduardo E. Cordeiro	*Director*	February 24, 2023
/S/ CAROL ANTHONY (“JOHN”) DAVIDSON		
Carol Anthony (“John”) Davidson	*Director*	February 24, 2023
/S/ KATHY L. FORTMANN		
Kathy L. Fortmann	*Director*	February 24, 2023
/S/ C. SCOTT GREER		
C. Scott Greer	*Director*	February 24, 2023
/S/ K'LYNNE JOHNSON		
K'Lynne Johnson	*Director*	February 24, 2023
/S/ DIRK A. KEMPTHORNE		
Dirk A. Kempthorne	*Director*	February 24, 2023
/S/ PAUL J. NORRIS		
Paul J. Norris	*Director*	February 24, 2023
/S/ MARGARETH ØVRUM		
Margareth Øvrum	*Director*	February 24, 2023
/S/ ROBERT C. PALLASH		
Robert C. Pallash	*Director*	February 24, 2023
/S/ VINCENT R. VOLPE, JR.		
Vincent R. Volpe, Jr.	*Director*	February 24, 2023

BOARD OF DIRECTORS

Pierre R. Brondeau
Chairman of the Board and Retired Chief Executive Officer, FMC Corporation

Mark Douglas
President and Chief Executive Officer, FMC Corporation

Eduardo E. Cordeiro
Former Executive Vice President, Chief Financial Officer and President, Americas Region, Cabot Corporation

Carol Anthony "John" Davidson
Former Senior Vice President, Controller and Chief Accounting Officer, Tyco International

Kathy L. Fortmann
Chief Executive Officer, ACOMO N.V.

C. Scott Greer
Retired Principal, Greer and Associates

K'Lynne Johnson
Former Chief Executive Officer, President and Executive Chair, Elevance Renewable Sciences Inc.

Dirk A. Kempthorne
Retired President and Chief Executive Officer, American Council of Life Insurers

Paul J. Norris
Retired Chairman and Chief Executive Officer, W. R. Grace & Co.

Margareth Øvrum
Retired President, Equinor Brazil
Retired Executive Vice President, Development & Production Brazil, Equinor ASA

Robert C. Pallash
Retired President, Global Customer Group and Senior Vice President, Visteon Corporation

Vincent R. Volpe, Jr.
Chairman, CEO, President and Principal, LeHavre Athletic Club

EXECUTIVE LEADERSHIP

Mark A. Douglas
President and Chief Executive Officer

Diane Allemang
Executive Vice President and Chief Marketing Officer

Ronaldo Pereira
Executive Vice President and President, FMC Americas

Michael F. Reilly
Executive Vice President, General Counsel, Secretary and Chief Compliance Officer

Andrew D. Sandifer
Executive Vice President and Chief Financial Officer

Kathleen A. Shelton, Ph.D.*
Executive Vice President and Chief Technology Officer

**Retiring March 31, 2023*

OFFICERS

Brian P. Angeli
Vice President, Corporate Strategy and Precision & Digital Agriculture

Brian J. Blair
Vice President, Treasurer

William F. Chester
Vice President, Global Tax

Barry J. Crawford
Vice President, Operations

Bénédicte Flambard, Ph.D.
Vice President, Plant Health

Kenneth A. Gedaka
Vice President, Communications & Public Affairs

Thaisa Hugenneyer
Vice President, Procurement, Logistics & Global Facilities

David A. Kotch
Vice President, Chief Information Officer

Susanne M. Lingard
Vice President, Regulatory Affairs

Kyle Matthews
Vice President, Chief Human Resources Officer

Nicholas L. Pfeiffer
Vice President, Corporate Controller & Chief Accounting Officer

Sebastià Pons
Vice President and President, FMC Europe, Middle East, Africa

Pramod Thota
Vice President and President, FMC Asia Pacific

Karen M. Totland, Ph.D.
Vice President, Chief Sustainability Officer

Shawn R. Whitman
Vice President, Government Affairs

STOCKHOLDER DATA

FMC Corporation's Annual Meeting of Stockholders will be held via live webcast on Thursday, April 27, 2023, at 2:00 p.m. ET. Instructions for accessing the webcast will be available on the company's Investor Relations website, located at https://investors.fmc.com. Notice of the meeting, together with instructions on how to access our proxy materials, will be mailed approximately six weeks prior to the meeting to shareholders of record as of Wednesday, March 1, 2023.

Transfer Agent and Registrar of Stock:
Equiniti Trust Company
EQ Shareowner Services
1110 Centre Pointe Curve, Suite 101
Mendota Heights, MN 55120
Phone: 1.800.468.9716
(1.651.450.4064 local and outside the United States)
www.equiniti.com

FMC was incorporated in Delaware in 1928.

Stock Exchange Listing: New York Stock Exchange
Stock Exchange Symbol: FMC

FMC Corporation is an active participant in the American Chemistry Council (ACC) and we support the principles of the ACC's Responsible Care® Program by working with our employees, suppliers, customers, contractors and commercial partners to promote responsible management of our products and processes through their entire life cycle, and for their intended use, worldwide.

FMC undergoes third-party review and certification of our conformance with the Responsible Care Management System requirements at our headquarters offices and all of our sites located in the United States. For additional information on our Responsible Care Program, please go to www.FMC.com.

Non-GAAP reconciliation not provided in Form 10-K: Reconciliation of diluted earnings per share attributable to FMC stockholders (GAAP) to diluted adjusted after-tax earnings from continuing operations per share, attributable to FMC stockholders (non-GAAP).

	2022
Diluted earnings per common share (GAAP)	$ 5.81
Diluted earnings per common share from discontinued operations (GAAP)	0.77
Diluted corporate special charges (income) per share	0.83
Diluted adjusted after-tax earnings from continuing operations per share, attributable to FMC stockholders (non-GAAP)	$ 7.41

This table is unaudited and in per share amounts.

FMC Corporation
FMC Tower at Cira Centre South
2929 Walnut Street
Philadelphia, PA 19104
USA

FMC.com

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