



2022 ANNUAL REPORT





MOSAIC'S 2022

PERFORMANCE HIGHLIGHTS

CONSOLIDATED REVENUES

\$19.1B

+55% Y/Y

OPERATING EARNINGS

\$4.8B

+94% Y/Y

NET EARNINGS

+120% Y/Y

ADJUSTED EBITDA1

+73% Y/Y

	F	PHOSPHA	TE		POTASH		MOSAIC FERTILIZANTES					
	Net Revenues	Operating Earnings	Adjusted EBITDA ¹	Net Revenues	Operating Earnings	Adjusted EBITDA ¹	Net Revenues	Operating Earnings	Adjusted EBITDA ¹			
2022	\$6.2B	\$1.3B	\$2.2B	\$5.2B	\$2.8B	\$3.1B	\$8.3B	\$910M	\$1B			
2021	\$4.9B	\$1.2B	\$1.7B	\$2.6B	\$837M	\$1.3B	\$5.1B	\$745M	\$821M			

¹See "Non-GAAP Financial Measures" for additional information and reconciliation.



Learn more at Mosaicco.com/Our-Responsibility







• All On Track • \$40 Million for **Long-term Community** Investment

31,055 HOURS CONSCIOUS INCLUSION TRAINING, GLOBALLY







• Two Completed • Five On Track • One Work In-Progress

PEOPLE

OUR 4 NEWEST TARGETS

- Women in the workplace
- Growth in underrepresented groups in the workplace
- Growth in leadership diversity
- Community giving D&I focused
- ON-GOING >> Build a more inclusive culture



CEO MESSAGE

JOC O'ROURKE | President and CEO

Dear Mosaic Stakeholders,

As societies around the globe reunited following over two years of pandemic-forced restrictions, new trials emerged in 2022. Long-simmering tensions between Russia and Ukraine boiled into a grinding Russian invasion, with far-reaching humanitarian and economic ramifications. Economic prosperity and tight labor markets caused significant inflation and rising interest rates in all the developed countries of the world. And elections in Brazil, the United States and elsewhere led to considerable shifts in national and international policy direction.

The many geopolitical situations rightfully focused the world's attention on food: With Ukraine's usually vast wheat crop imperiled, and with major disruptions in fertilizer production and trade flows, pressure on global agriculture to supply sufficient sustenance for 8 billion people intensified rapidly.

At Mosaic, we take our mission—to help the world grow the food it needs—very seriously. Perhaps never before in our company's history has our mission been more critical or more challenging to achieve.

Fertilizer accounts for half of all crop yields—and fertilizer markets, already tight in early 2022, were subjected to new and intensified supply interruptions. Russian phosphate and potash shipments were disrupted due to the war; Belarussian potash exports were severely limited due to international sanctions on Belarus; and the Chinese government continued to limit phosphate exports.

Mosaic and our customers benefitted from our operating distance from geopolitical events. We continued to produce and ship potash and phosphate from our mines and plants in the United States, Canada, Brazil and Peru, and we continued to meet our customers' demands. At Mosaic, we did our part to feed the world.

The challenges elsewhere created strong business conditions for Mosaic, and for many of the world's farmers. Fertilizer supply limitations, coupled with very strong demand from growers, caused prices to rise sharply, particularly at the onset of the war. Prices moderated as the year progressed, but the strong markets led to record Mosaic earnings. We reported adjusted EBITDA of \$6.2 billion for the year, nearly double our previous high.

Our shareholders benefitted from our success. Mosaic returned nearly 100 percent of our free cash flow after debt commitments to shareholders in the form of share repurchases and dividends.

Continued on next page

CEO MESSAGE Continued

Mosaic made significant financial and operational progress in 2022:

- Our new Esterhazy potash mine approached its full operating capacity. Twelve rotary miners are at work in the mine, with a final miner to be completed in the second half of 2023. The megaproject was delivered early and on budget, and is now one of the world's largest and most efficient mines.
- Mosaic Fertilizantes, our South America business, generated \$1 billion of EBITDA for the first time. On a proforma basis, Mosaic Fertilizantes earned less than \$70 million in 2017, the year prior to our acquisition of it.
- Despite setbacks from Hurricane Ian and operational and logistics challenges, our U.S. phosphate business delivered adjusted EBITDA of \$2.2 billion, a record.
- · We met our commitment of reducing long-term debt by \$1 billion with the repayment of \$550 million debt in November.
- In January 2023, we sold Streamsong Resort for \$160 million. Our goals for Streamsong were accomplished: We demonstrated the valuable use that could be made of formerly mined land, created an important economic driver for a region in need, and continually improved one of the most highly acclaimed golf resorts in the world. In addition, we set aside approximately a quarter of the proceeds of the sale to fund our community investment activities for the long term.

No year passes without challenges. After a decade of steady improvements, our employee safety performance took a step backward in 2022. All of us at Mosaic have as our top priority for 2023 to reinvigorate our safety culture and return our performance to the excellent standard we have previously achieved.

Mosaic's commitment to responsible operation does not waver, regardless of business conditions. We continued to lead our industry in sustainability reporting and performance, and we once again bolstered our environmental, social and governance performance targets. 2022 marked a decade since we became a United Nations Global Compact signatory, and we are as committed as ever to embodying the 10 universal principles the Compact promotes.

In 2022, we added four new sustainability targets related to diversity and inclusion. By 2030, we are driving for 30 percent growth in the diversity of our leadership ranks, 30 percent growth in underrepresented groups in the workplace, 30 percent of our workforce made up of women and 30 percent of our community investment spending targeted at programs supporting diversity and inclusion. These targets will stretch us, and all of us at Mosaic is committed to doing their part to help us achieve the goals.

We are just as focused on our other commitments. Mosaic is well on its way to achieving our important greenhouse gas emission and water use reduction targets, and we are piloting a number of innovative and economically viable projects that will help us achieve our net-zero emission targets. In addition, we are making good progress toward reaching 25 million acres of North American farmland under 4R Nutrient Stewardship certification—an important contribution to healthy water quality in critical watersheds.

We at Mosaic have lofty expectations of ourselves. We strive to deliver positive outcomes for all our stakeholders by driving strong financial performance across the business cycle, ensuring the safety of our people, developing innovative products, working to minimize our environmental impact and providing workplaces where people want to grow and thrive.

Mosaic is operating from many positions of strength as move through 2023, and we fully intend to build on our momentum.

Sincerely,

JOC O'ROURKE

President and CEO

The Mosaic Company

Calendar Year 2022 Financial Review

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

Introduction

The Mosaic Company (before or after the Cargill Transaction, as defined below, "*Mosaic*," and with its consolidated subsidiaries, "*we*," "*us*," "*our*" or the "*Company*") is the parent company of the business that was formed through the business combination ("*Combination*") of IMC Global Inc. and the Cargill Crop Nutrition fertilizer businesses of Cargill, Incorporated and its subsidiaries (collectively, "*Cargill*") on October 22, 2004. In May 2011, Cargill divested its approximately 64% equity interest in us in a split-off to its stockholders and a debt exchange with certain Cargill debt holders.

We produce and market concentrated phosphate and potash crop nutrients. We conduct our business through wholly-and majority-owned subsidiaries as well as businesses in which we own less than a majority or a non-controlling interest, including consolidated variable interest entities and investments accounted for by the equity method.

We are organized into the following business segments:

- Our **Phosphates** business segment owns and operates mines and production facilities in Florida, which produce concentrated phosphate crop nutrients and phosphate-based animal feed ingredients, and processing plants in Louisiana, which produce concentrated phosphate crop nutrients for sale domestically and internationally. We have a 75% economic interest in the Miski Mayo Phosphate Mine ("*Miski Mayo Mine*") in Peru. These results are consolidated in the Phosphates segment. The Phosphates segment also includes our 25% interest in the Ma'aden Wa'ad Al Shamal Phosphate Company ("*MWSPC*"), a joint venture to develop, own and operate integrated phosphate production facilities in the Kingdom of Saudi Arabia. We market approximately 25% of the MWSPC phosphate production. We recognize our equity in the net earnings or losses relating to MWSPC on a one-quarter reporting lag in our Consolidated Statements of Earnings.
- Our **Potash** business segment owns and operates potash mines and production facilities in Canada and the U.S. which produce potash-based crop nutrients, animal feed ingredients and industrial products. Potash sales include domestic and international sales. We are a member of Canpotex, Limited ("*Canpotex*"), an export association of Canadian potash producers through which we sell our Canadian potash outside the U.S. and Canada.
- Our Mosaic Fertilizantes business segment includes five phosphate rock mines, four phosphate chemical plants and
 a potash mine in Brazil. The segment also includes our distribution business in South America, which consists of
 sales offices, crop nutrient blending and bagging facilities, port terminals and warehouses in Brazil and Paraguay.
 We also have a majority interest in Fospar S.A., which owns and operates a single superphosphate granulation plant
 and a deep-water port and throughput warehouse terminal facility in Brazil.

Intersegment eliminations, unrealized mark-to-market gains/losses on derivatives, debt expenses, Streamsong Resort[®] results of operations, and the results of the China and India distribution businesses are included within Corporate, Eliminations and Other. See Note 25 of the Consolidated Financial Statements in this Form 10-K for segment results.

Key Factors that can Affect Results of Operations and Financial Condition

Our primary products, phosphate and potash crop nutrients, are, to a large extent, global commodities that are also available from a number of domestic and international competitors, and are sold by negotiated contracts or by reference to published market prices. The markets for our products are highly competitive, and the most important competitive factor for our products is delivered price. Business and economic conditions and governmental policies affecting the agricultural industry and customer sentiment are the most significant factors affecting worldwide demand for crop nutrients. The profitability of our businesses is heavily influenced by worldwide supply and demand for our products, which affects our sales prices and volumes. Our costs per tonne to produce our products are also heavily influenced by fixed costs associated with owning and operating our major facilities, significant raw material costs in our Phosphates and Mosaic Fertilizantes businesses, and fluctuations in currency exchange rates.

Our products are generally sold based on the market prices prevailing at the time the sales contract is signed or through contracts which are priced at the time of shipment. Additionally, in certain circumstances the final price of our products is determined after shipment based on the current market at the time the price is agreed to with the customer. Forward sales programs at fixed prices increase the lag between prevailing market prices and our average realized selling prices. The mix

and parameters of these sales programs vary over time based on our marketing strategy, which considers factors that include, among others, optimizing our production and operating efficiency within warehouse limitations, as well as customer requirements. The use of forward sales programs and the level of customer prepayments may vary from period to period due to changing supply and demand environments, seasonality, and market sentiments.

World prices for the key raw material inputs for concentrated phosphate products, including ammonia, sulfur and phosphate rock, have an effect on industry-wide phosphate prices and production costs. The primary feedstock for producing ammonia is natural gas. The product price for ammonia is generally highly dependent on the supply and demand balance for ammonia. In North America, we purchase approximately one-third of our ammonia from various suppliers in the spot market, with the remaining two-thirds either purchased through a long-term ammonia supply agreement (the "*CF Ammonia Supply Agreement*") with an affiliate of CF Industries, Inc. ("*CF*") or produced internally at our Faustina, Louisiana location. The CF Ammonia Supply Agreement provides for U.S. natural gas-based pricing that is intended to lessen pricing volatility. If the price of natural gas rises or the market price for ammonia falls outside of the range anticipated at execution of this agreement, we may not realize a cost benefit from the natural gas-based pricing over the term of the agreement, or the cost of our ammonia under the agreement could be at a competitive disadvantage. During 2022, the contract has provided an advantage over pricing in the spot market. At times, we have paid more or less for ammonia under the agreement than in the spot market. On October 14, 2022, we received notice from CF to exercise the bilateral, contractual right to end the ammonia supply agreement in its current form, effective January 1, 2025. In Brazil, we purchase all of our ammonia from a single supplier.

Sulfur is a global commodity that is primarily produced as a by-product of oil refining. The market price is based primarily on the supply and demand balance for sulfur. We believe our current and future investments in sulfur transformation and transportation assets will enhance our competitive advantage.

We produce and procure most of our phosphate rock requirements through either wholly or partly owned mines. In addition to producing phosphate rock, Mosaic Fertilizantes purchases phosphate, potash and nitrogen products which are either used to produce blended crop nutrients ("*Blends*") or for resale.

Our per tonne selling prices for potash are affected by shifts in the product mix, geography and customer mix. Our Potash business is significantly affected by Canadian resource taxes and royalties that we pay to the Province of Saskatchewan in order for us to mine and sell our potash products. In addition, cost of goods sold is affected by a number of factors, including: fluctuations in the Canadian dollar; the level of periodic inflationary pressures on resources in western Canada, where we produce most of our potash; and natural gas costs for operating our potash solution mine at Belle Plaine, Saskatchewan. In the past, we have also incurred operating costs to manage salt saturated brine inflows at our Esterhazy, Saskatchewan K1 and K2 mine shafts which we closed in June 2021 due to an acceleration of brine inflows. We have now transitioned mining to the K3 mine shaft, which has replaced production from the K1 and K2 shafts.

Our results of operations are also affected by changes in currency exchange rates due to our international footprint. The most significant currency impacts are generally from the Canadian dollar and the Brazilian real.

A discussion of these and other factors that affected our results of operations and financial condition for the periods covered by this Management's Discussion and Analysis of Financial Condition and Results of Operations is set forth in further detail below. This Management's Discussion and Analysis of Financial Condition and Results of Operations should also be read in conjunction with the narrative description of our business in Item 1, and the risk factors described in Item 1A, of Part I of this Annual Report on Form 10-K ("Form 10-K"), and our Consolidated Financial Statements, accompanying notes and other information listed in the accompanying Financial Table of Contents.

This section of this Form 10-K discusses 2022 and 2021 items and year-to-year comparisons between 2022 and 2021. Discussions of 2020 items and year-to-year comparisons between 2021 and 2020 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Form 10-K for the year ended December 31, 2021 and are incorporated by reference herein.

Throughout the discussion below, we measure units of production, sales and raw materials in metric tonnes which are the equivalent of 2,205 pounds, unless we specifically state that we mean short or long ton(s), which are the equivalent of 2,000 pounds and 2,240 pounds, respectively. In addition, we measure natural gas, a raw material used in the production of our products, in MM BTU, which stands for one million British Thermal Units ("BTU"). One BTU is equivalent to 1.06 Joules. Management uses the following metrics to monitor segment performance: production volume, sales volume, average finished product selling price and average cost per unit consumed.

In the following table, there are certain percentages that are not considered to be meaningful and are represented by "NM".

Results of Operations

The following table shows the results of operations for the years ended December 31, 2022, 2021, and 2020:

	Years	Ended Decemb	er 31,	2022-20)21	2021-2020		
(in millions, except per share data)	2022	2021	2020	Change	Percent	Change	Percent	
Net sales	\$19,125.2	\$12,357.4	\$ 8,681.7	\$ 6,767.8	55 %	\$ 3,675.7	42 %	
Cost of goods sold	13,369.4	9,157.1	7,616.8	4,212.3	46 %	1,540.3	20 %	
Gross margin	5,755.8	3,200.3	1,064.9	2,555.5	80 %	2,135.4	NM	
Gross margin percentage	30.1 %	25.9 %	12.3 %	4.2 %		13.6 %		
Selling, general and administrative expenses	498.0	430.5	371.5	67.5	16 %	59.0	16 %	
Impairment, restructuring and other expenses	_	158.1	_	(158.1)	(100)%	158.1	NM	
Other operating expenses	472.5	143.2	280.5	329.3	NM	(137.3)	(49)%	
Operating earnings	4,785.3	2,468.5	412.9	2,316.8	94 %	2,055.6	NM	
Interest expense, net	(137.8)	(169.1)	(180.6)	31.3	(19)%	11.5	(6)%	
Foreign currency transaction gain (loss)	97.5	(78.5)	(64.3)	176.0	NM	(14.2)	22 %	
Other (expense) income	(102.5)	3.9	12.9	(106.4)	NM	(9.0)	(70)%	
Earnings from consolidated companies before income taxes	4,642.5	2,224.8	180.9	2,417.7	109 %	2,043.9	NM	
Provision for (benefit from) income taxes	1,224.3	597.7	(578.5)	626.6	105 %	1,176.2	NM	
Earnings from consolidated companies	3,418.2	1,627.1	759.4	1,791.1	110 %	867.7	114 %	
Equity in net earnings (loss) of nonconsolidated companies	196.0	7.8	(93.8)	188.2	NM	101.6	(108)%	
Net earnings including noncontrolling interests	3,614.2	1,634.9	665.6	1,979.3	121 %	969.3	146 %	
Less: Net earnings (loss) attributable to noncontrolling interests	31.4	4.3	(0.5)	27.1	NM	4.8	NM	
Net earnings attributable to Mosaic	\$ 3,582.8	\$ 1,630.6	\$ 666.1	\$ 1,952.2	120 %	\$ 964.5	145 %	
Diluted net earnings per share attributable to Mosaic	\$ 10.06	\$ 4.27	\$ 1.75	\$ 5.79	136 %	\$ 2.52	144 %	
Diluted weighted average number of shares outstanding	356.0	381.6	381.3					

Overview of the Years ended December 31, 2022 and 2021

Net earnings attributable to Mosaic for the year ended December 31, 2022 were \$3.6 billion, or \$10.06 per diluted share, compared to \$1.6 billion, or \$4.27 per diluted share for 2021.

In 2022, net earnings were negatively impacted in the aggregate by \$350 million, net of tax, or \$(1.03) per diluted share, related to notable items. The most significant of which were as follows (noted on a pre-tax basis, with the exception of discrete income tax):

- Other operating expense of \$173 million, or \$(0.36) per diluted share, related to an increase in our environmental reserves, expenses of \$41 million, or \$(0.10) per diluted share, related to maintaining closed and indefinitely idled facilities in Florida, and \$10 million, or \$(0.02) per diluted share, related to fixed asset write-offs
- Asset retirement obligation ("ARO") costs of \$157 million, or \$(0.34) per diluted share, related to upward revisions in the estimated costs of our AROs for closed facilities
- Other non-operating expense of \$46 million, or \$(0.09) per diluted share, related to a realized loss on securities held in trusts (the "*RCRA Trusts*"), expense of \$42 million, or \$(0.09) per diluted share, related to the settlement of a pension plan, and \$12 million, or \$(0.02) per diluted share, related to the write-down of an investment
- Cost of goods sold impact of \$39 million, or \$(0.09) per diluted share, related to Hurricane Ian idle costs
- Discrete income tax expense of \$26 million, or \$(0.08) per diluted share
- Unrealized loss on derivatives of \$21 million, or \$(0.04) per diluted share
- Foreign currency transaction gain of \$98 million, or \$0.18 per diluted share
- Other operating income of \$9 million, or \$0.02 per diluted share, for insurance proceeds related to Hurricane Ida, and \$7 million, or \$0.02 per diluted share, related to a gain on the sale of assets

Net earnings for 2021 included the following notable items (noted on a pre-tax basis, with the exception of discrete income tax) that negatively impacted net earnings by \$291 million, net of tax, or \$(0.76) per diluted share. The most significant of which were as follows:

- Expense related to the closure of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine of \$158 million, or \$(0.30) per diluted share
- Foreign currency transaction loss of \$79 million, or \$(0.16) per diluted share
- Discrete income tax provision of \$43 million, or \$(0.11) per diluted share
- Other operating expenses of \$50 million, or \$(0.10) per diluted share, related to maintaining closed and indefinitely idled facilities
- Depreciation expense of \$37 million, or \$(0.08) per diluted share, related to the acceleration of the closure of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan mine
- Expense related to the impact of Hurricane Ida on our Louisiana operations of \$27 million, or \$(0.05) per diluted share
- ARO costs of \$25 million, or \$(0.05) per diluted share, related to revisions in the estimated costs of our AROs.
- Unrealized loss on derivatives of \$14 million, or \$(0.02) per diluted share
- Other operating income of \$20 million, or \$0.04 per diluted share, related to the sale of our warehouse in Houston, Texas and \$13 million, or \$0.02 per share, related to a decrease in reserves for legal contingencies that were part of our acquisition (the "Acquisition") of Vale Fertilizantes S.A. (now known as Mosaic Fertilizantes P&K S.A. or the "Acquired Business")
- Functional currency impact in cost of goods sold of \$20 million, or \$0.04 per diluted share

Additional significant factors that affected our results of operations and financial condition in 2022 and 2021 are listed below. These factors are discussed in more detail in the following sections of this Management's Discussion and Analysis of Financial Condition and Results of Operations.

Year ended December 31, 2022

Operating results for the year ended December 31, 2022 in all of our segments increased, mainly from higher average sales prices compared to the prior year period. Average selling prices rose throughout 2021 and into the first half of 2022, driven by tightness in global supply and demand. The Russian invasion of Ukraine in February 2022 created instability in global

commodities markets. The invasion, together with the continuation of reduced potash exports by Belarus, significantly reduced the physical supply of fertilizer and agricultural commodities produced in those geographies. This contributed to rising fertilizer prices globally. In addition, Chinese export restrictions on phosphates also impacted the global supply of fertilizer and contributed to tightening in the worldwide fertilizer market.

In the Phosphate segment, operating results for 2022 were driven by higher average selling prices partially offset by higher raw material costs and lower sales volumes compared to the prior year. Selling prices increased due to the factors described above and were partially offset by higher raw material costs, primarily sulfur and ammonia, due to global supply and demand. Finished product sales volumes were unfavorable versus the prior year, due to adverse weather conditions in North America, which contributed to a condensed spring season, the deferral of customers purchases in North America, and delayed shipments caused by impacts from Hurricane Ian which occurred at the end of the third quarter in 2022.

In the Potash segment, 2022 operating results were favorably impacted by higher average selling prices compared to the prior year period, driven by the factors discussed above. This was partially offset by lower sales volumes, due to customers deferring purchases to future periods.

In the Mosaic Fertilizantes segment, 2022 results were favorably impacted by higher average selling prices compared to the prior year period, driven by the factors discussed above, partially offset by higher raw material and production costs and lower sales volumes compared to the prior year. Productions costs increased due to inflation and higher raw materials costs, which increased due to higher global prices for sulfur and ammonia. Sales volumes were lower in 2022 compared to the prior year, mainly due to unfavorable farmer economics.

Other highlights in 2022 include:

- In the first quarter of 2022, our Board of Directors approved the establishment of a new \$1.0 billion share repurchase authorization, which was completed in the second quarter of 2022. Our Board of Directors authorized an additional \$2.0 billion share repurchase program in the third quarter of 2022.
- During 2022, we repurchased 30,810,173 shares of Common Stock in the open market for approximately \$1.7 billion. This includes 7,056,229 shares we purchased under an accelerated share repurchase agreement in 2022.
- In the first quarter of 2022, our Board of Directors approved a regular dividend increase to \$0.60 per share annually from \$0.45, beginning with the second quarter of 2022. In the fourth quarter of 2022, our Board of Directors increased the dividend to \$0.80 per share annually, beginning with the dividend declared on December 16, 2022.
- In November 2022, we paid the outstanding balance of \$550 million on our 3.25% senior notes, due November 15, 2022, without premium or penalty.

On January 12, 2023, we completed the sale of the Streamsong Resort® (the "**Resort**") and approximately 7,000 acres of land on which it sits for a purchase price of \$160 million. The Resort is a destination resort and conference center, which we developed in an area of previously mined land as part of our long-term business strategy to maximize the value and utility of our extensive land holdings in Florida. In addition to a hotel and conference center, the Resort includes multiple golf courses, a clubhouse and ancillary facilities.

Subsequent to year end, our Board of Directors approved an accelerated share repurchase ("*ASR*") of \$300 million which is expected to be initiated in the first quarter of 2023. Also, in February 2023, the Board of Directors approved a special dividend of \$0.25 per share to be distributed in March, 2023 to our stockholders of record as of March 15, 2023.

Year ended December 31, 2021:

Phosphates operating results for the year ended December 31, 2021 were favorably impacted by higher phosphate average selling prices compared to the prior year period. After reaching a low in the first quarter of 2020, sales prices continued to rise in 2021, driven by tightness in global supply and demand, strong farmer economics and improved grain prices. Operating results in 2021 were unfavorably impacted by lower finished product sales volumes, and higher raw material costs, primarily sulfur and ammonia. The purchase prices of these raw materials are driven by global supply and demand. In addition, during the first half of 2021, availability of molten sulfur was impacted by refinery closures in 2020 and 2021, due to lower fuel demand and extreme cold weather in the first quarter of 2021 in the southern U.S., where several refineries are located. The low sulfur availability constrained our production in the first half of 2021. Operating results in 2021 were also unfavorably

impacted by higher idle plant and maintenance turnaround costs compared to 2020, mainly driven by the impacts of Hurricane Ida on our Louisiana operations.

Potash operating results for the year ended December 31, 2021, were favorably impacted by higher average selling prices compared to the prior year. Prices began to strengthen in North America and Brazil in the fourth quarter of 2020 due to increased demand, tight supply and improved farmer economics. Prices continued to increase throughout 2021. Operating results in 2021 were unfavorably impacted by lower sales volumes caused by decreased production volumes associated with the closure of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine. We reopened our previously idled Colonsay, Saskatchewan potash mine during the third quarter of 2021, and ramped up production at our K3 mine shaft which partially replaced this lost production.

Mosaic Fertilizantes operating results for the year ended December 31, 2021 were favorably impacted by increased sales prices compared to the prior year, due to tight global supply and demand. The favorable results were partially offset by lower sales volumes due to lower product availability and production challenges, low inventory levels and increased raw materials costs, as global prices of sulfur and ammonia were higher in 2021 compared to 2020.

Phosphates Net Sales and Gross Margin

The following table summarizes the Phosphates segment's net sales, gross margin, sales volume, selling prices and raw material prices:

	Years Ended December 31,					2022-2021				2021-2020			
(in millions, except price per tonne or unit)	2022		2	2021		2020		Change	Perc	ent	$\overline{}$	Change	Percent
Net sales:													
North America	\$4,211.2	2	\$3,2	251.4	\$1,9	953.1	\$	959.8		30 %	\$	1,298.3	66 %
International	1,973.0)	1,6	671.5	1,	163.3		301.5		18 %		508.2	44 %
Total	6,184.2	2	4,9	922.9	3,	116.4		1,261.3		26 %		1,806.5	58 %
Cost of goods sold	4,425.2	2	3,6	617.5	2,9	990.9		807.7		22 %		626.6	21 %
Gross margin	\$1,759.0)	\$1,3	305.4	\$	125.5	\$	453.6		35 %	\$	1,179.9	NM
Gross margin as a percentage of net sales	28.4	1 %		26.5 %		4.0 %							
Sales volumes ^(a) (in thousands of metric tonnes)													
DAP/MAP	3,399)	3	3,904	4	4,936		(505)	(13)%		(1,032)	(21)%
Performance and Other ^(b)	3,159)	3	3,789		3,598		(630)	(17)%		191	5 %
Total finished product tonnes	6,558	3	7	7,693		8,534		(1,135)	(15)%		(841)	(10)%
Rock ^(c)	1,719)	1	1,772		739		(53)		(3)%		1,033	140 %
Total Phosphates Segment Tonnes ^(a)	8,27	7	Ģ	9,465		9,273		(1,188)	(13)%		192	2 %
Realized prices (\$/tonne)													
Average finished product selling price (destination) ^(d)	\$ 913	3	\$	618	\$	360	\$	295		48 %	\$	258	72 %
DAP selling price (fob mine)	\$ 804	1	\$	564	\$	310	\$	240		43 %	\$	254	82 %
Average cost per unit consumed in cost of goods sold:													
Ammonia (metric tonne)	\$ 603	3	\$	396	\$	287	\$	207		52 %	\$	109	38 %
Sulfur (long ton)	\$ 368	3	\$	181	\$	83	\$	187	1	03 %	\$	98	118 %
Blended rock (metric tonne)	\$ 70)	\$	60	\$	61	\$	10		17 %	\$	(1)	(2)%
Production volume (in thousands of metric tonnes) - North America	6,64	7	7	7,331	;	8,160		(684)		(9)%		(829)	(10)%

- (a) Includes intersegment sales volumes.
- (b) Includes sales volumes of MicroEssentials[®] and animal feed ingredients.
- (c) Sales volumes of rock are presented on a wet tonne basis based on average moisture levels of 3.5% to 4.5% as it exits the drying process and is prepared for shipping.
- (d) Excludes sales revenue and tonnes associated with rock sales.

Year Ended December 31, 2022 compared to Year Ended December 31, 2021

The Phosphates segment's net sales were \$6.2 billion for the year ended December 31, 2022, compared to \$4.9 billion for the same period a year ago. The increase in net sales was primarily due to higher average finished goods selling prices, which resulted in an increase in net sales of approximately \$1.7 billion. Net sales was also positively impacted by approximately \$200 million, primarily due to sales of rock in our Miski Mayo operation and sales of excess ammonia and sulfur in the current year. These increases were partially offset by lower finished product sales volumes, which decreased net sales by approximately \$650 million.

Our average finished product selling price increased 48%, to \$913 per tonne for the year ended December 31, 2022, compared to \$618 per tonne for the same period a year ago, due to the factors discussed in the Overview.

The Phosphates segment's sales volumes of finished products decreased to 6.6 million tonnes for the year ended December 31, 2022, compared to 7.7 million tonnes in 2021, due to the factors discussed in the Overview.

Gross margin for the Phosphates segment increased to \$1.8 billion in the current year compared with \$1.3 billion for the prior year. The increase was primarily driven by higher selling prices, which impacted gross margin by approximately \$1.7 billion. This was partially offset by higher raw material prices (primarily sulfur and ammonia) of approximately \$840 million

compared to the prior-year period. Gross margin was also unfavorably impacted in the current year by higher conversion costs of approximately \$130 million and higher idle plant and maintenance turnaround costs of approximately \$80 million. Lower sales volumes unfavorably impacted gross margin by approximately \$230 million.

Our average consumed price for ammonia in our North American operations increased to \$603 per tonne in 2022 from \$396 a year ago. The average consumed price for sulfur for our North American operations increased to \$368 per long ton for the year ended December 31, 2022 from \$181 in the prior-year period. The purchase price of these raw materials is driven by global supply and demand. The consumed ammonia and sulfur prices also include transportation, transformation, and storage costs.

The average consumed cost of purchased and produced rock increased to \$70 per tonne in the current year, from \$60 a year ago. For the year ended December 31, 2022, our North American phosphate rock production decreased to 9.6 million tonnes from 11.1 million tonnes in the prior year, due to geology of rock and operational challenges, and due to downtime caused by Hurricane Ian.

The Phosphates segment's production of crop nutrient dry concentrates and animal feed ingredients decreased to 6.6 million tonnes for the year ended December 31, 2022, compared to 7.3 million in 2021. The lower production in the current year period reflects impacts from downtime at our Florida locations due to unplanned operational outages and Hurricane Ian. For the year ended December 31, 2022, our operating rate for processed phosphate production decreased to 67%, compared to 74% in the same period of the prior year.

Potash Net Sales and Gross Margin

The following table summarizes the Potash segment's net sales, gross margin, sales volume and selling price:

	Years	Ended Decem	ber 31,	2022-	-2021	2021	2021-2020		
(in millions, except price per tonne or unit)	2022	2021	2020	Change	Percent	Change	Percent		
Net sales:									
North America	\$2,122.3	\$1,456.8	\$1,147.2	\$ 665.5	46 %	\$ 309.6	27 %		
International	3,086.2	1,170.0	872.1	1,916.2	164 %	297.9	34 %		
Total	5,208.5	2,626.8	2,019.3	2,581.7	98 %	607.5	30 %		
Cost of goods sold	2,365.5	1,569.3	1,551.0	796.2	51 %	18.3	1 %		
Gross margin	\$2,843.0	\$1,057.5	\$ 468.3	\$1,785.5	169 %	\$ 589.2	126 %		
Gross margin as a percentage of net sales	54.6 %	40.3 %	23.2 %						
Sales volume ^(a) (in thousands of metric tonnes)									
MOP	7,236	7,277	8,456	(41)	(1)%	(1,179)	(14)%		
Performance and Other ^(b)	865	909	941	(44)	(5)%	(32)	(3)%		
Total Potash Segment Tonnes	8,101	8,186	9,397	(85)	(1)%	(1,211)	(13)%		
Realized prices (\$/tonne)									
Average finished product selling price (destination)	\$ 643	\$ 321	\$ 215	\$ 322	100 %	\$ 106	49 %		
MOP selling price (fob mine)	\$ 632	\$ 285	\$ 181	\$ 347	122 %	\$ 104	57 %		
Production volume (in thousands of metric tonnes)	9,053	8,204	8,433	849	10 %	(229)	(3)%		

- (a) Includes intersegment sales volumes.
- (b) Includes sales volumes of K-Mag[®], Aspire[®] and animal feed ingredients.

Year Ended December 31, 2022 compared to Year Ended December 31, 2021

The Potash segment's net sales increased to \$5.2 billion for the year ended December 31, 2022, compared to \$2.6 billion in the prior year. The increase in net sales was driven by a favorable impact from higher selling prices of approximately \$2.6 billion, partially offset by unfavorable sales volumes of approximately \$60 million.

Our average finished product selling price was \$643 per tonne for the year ended December 31, 2022, an increase of \$322 per tonne compared with the prior year period, due to the factors discussed in the Overview.

The Potash segment's sales volumes decreased slightly to 8.1 million tonnes for the year ended December 31, 2022, compared to 8.2 million tonnes in the same period a year ago, due to the factor discussed in the Overview.

Gross margin for the Potash segment increased to \$2.8 billion in the current year, from \$1.1 billion in the prior year period. Gross margin was positively impacted by \$2.6 billion related to the increase in selling prices, partially offset by approximately \$20 million due to lower sales volumes. The increase in gross margin was also partially offset by increased Canadian resource taxes of approximately \$700 million, and increased plant spending of approximately \$130 million compared to the prior year, due to the Colonsay mine operating for the majority of 2022 and the ramp up of K3. Canadian resource taxes and other costs affecting gross margin are discussed in more detail below.

We had expense of \$927.9 million from Canadian resource taxes for the year ended December 31, 2022, compared to \$259.5 million in the prior year. Royalty expense increased to \$112.6 million for the year ended December 31, 2022, from \$42.0 million in the prior year. The fluctuations in Canadian resource taxes and royalties are due to higher average selling prices and margins in the current year, compared to the prior year.

On June 4, 2021, due to increased brine inflows, we made the decision to immediately close the K1 and K2 shafts at our Esterhazy mine, which eliminated future brine inflow management expenses. Therefore, we did not incur brine inflow management expenses in the current year, compared to \$46 million in brine inflow management expenses, including depreciation on brine assets in the prior year.

For the year ended December 31, 2022, potash production increased to 9.1 million tonnes, compared to 8.2 million tonnes in the prior year period, resulting in an operating rate of 81% for 2022, compared to 75% for 2021. Production increased in the current year due to the Colonsay mine operating for the majority of 2022 and the ramp up of our K3 shaft at Esterhazy, which replaced capacity from the K1 and K2 shafts.

Mosaic Fertilizantes Net Sales and Gross Margin

The following table summarizes the Mosaic Fertilizantes segment's net sales, gross margin, sales volume and selling price.

	Years Ended December 31,					2022-2021				2021-2020			
(in millions, except price per tonne or unit)	2	022		2021		2020		Change	Per	cent		Change	Percent
Net Sales	\$8,2	87.2	\$5	,088.5	\$3	,481.6	\$	3,198.7		63 %	\$	1,606.9	46 %
Cost of goods sold	7,2	41.6	4	,245.8	3	,062.0		2,995.8		71 %		1,183.8	39 %
Gross margin	\$1,0	45.6	\$	842.7	\$	419.6	\$	202.9		24 %	\$	423.1	101 %
Gross margin as a percent of net sales		12.6 %		16.6 %		12.1 %							
Sales volume (in thousands of metric tonn	es)												
Phosphate produced in Brazil	2	,368		2,543		3,813		(175)		(7)%		(1,270)	(33)%
Potash produced in Brazil		165		240		305		(75)		(31)%		(65)	(21)%
Purchased nutrients	6	,905		7,319		6,446		(414)		(6)%		873	14 %
Total Mosaic Fertilizantes Segment Tonnes	9	,438	1	0,102	1	10,564		(664)		(7)%		(462)	(4)%
Realized prices (\$/tonne)													
Average finished product selling price (destination)	\$	878	\$	504	\$	330	\$	374		74 %	\$	174	53 %
Brazil MAP price (delivered price to third party)	\$	868	\$	597	\$	333	\$	271		45 %	\$	264	79 %
Purchases ('000 tonnes)													
DAP/MAP from Mosaic		272		311		597		(39)		(13)%		(286)	(48)%
MicroEssentials® from Mosaic	1	,271		1,226		1,108		45		4 %		118	11 %
Potash from Mosaic/Canpotex	2	,276		2,510		2,081		(234)		(9)%		429	21 %
Average cost per unit consumed in cost of goods sold:	•												
Ammonia (metric tonne)	\$ 1	,301	\$	580	\$	336	\$	721		124 %	\$	244	73 %
Sulfur (long ton)	\$	391	\$	194	\$	108	\$	197		102 %	\$	86	80 %
Blended rock (metric tonne)	\$	105	\$	80	\$	69	\$	25		31 %	\$	11	16 %
Production volume (in thousands of metric tonnes)	3	,598		3,725		3,918		(127)		(3)%		(193)	(5)%

Year Ended December 31, 2022 compared to Year Ended December 31, 2021

The Mosaic Fertilizantes segment's net sales were \$8.3 billion for the year ended December 31, 2022, compared to \$5.1 billion for 2021. The increase in net sales was due to higher selling prices, which favorably impacted net sales by approximately \$3.2 billion. This was partially offset by a decrease in sales volumes, which impacted net sales by approximately \$290 million. Net sales also benefited from the selling prices of other products, primarily acids and gypsum, which favorably impacted net sales by approximately \$200 million, and favorable foreign currency impacts which impacted net sales by approximately \$60 million.

The overall average finished product selling price increased \$374 per tonne, to \$878 per tonne for 2022, due to the increase in global prices referenced in the Overview.

The Mosaic Fertilizantes segment's sales volume decreased to 9.4 million tonnes for the year ended December 31, 2022, compared to 10.1 million tonnes for the prior year period, due to the factor discussed in the Overview.

Gross margin for the Mosaic Fertilizantes segment increased to \$1.0 billion for the year ended December 31, 2022, from \$842.7 million in the prior year. The increase was driven by higher selling prices, which favorably impacted gross margin by

approximately \$3.2 billion, and foreign currency impacts of approximately \$30 million. Higher costs had an unfavorable impact of \$2.9 billion, driven by an increase in product costs, primarily higher nitrogen and potash products for our distribution business and higher sulfur and ammonia raw material costs in our production business. Gross margin was also unfavorably impacted by a decrease in sales volumes of approximately \$70 million, a decrease in specialty product margins, largely driven by gypsum and sulfuric acid, of approximately \$30 million, and increased turnaround costs of approximately \$50 million.

The average consumed price for ammonia for our Brazilian operations was \$1,301 per tonne for the year ended December 31, 2022, compared to \$580 per ton in the prior year. The average consumed sulfur price for our Brazilian operations was \$391 per long ton for the year ended December 31, 2022, compared to \$194 in the prior year. The purchase price of these raw materials is driven by global supply and demand, and also includes transportation, transformation, and storage costs.

The Mosaic Fertilizantes segment's production of crop nutrient dry concentrates and animal feed ingredients decreased 3% to 3.6 million tonnes for the year ended December 31, 2022, compared to 3.7 million tonnes in the prior year. For the year ended December 31, 2022, our phosphate operating rate was 85%, compared to 86% in the prior year.

Our Brazilian phosphate rock production was 4.0 million tonnes for each of the years ended December 31, 2022 and 2021.

Corporate, Eliminations and Other

In addition to our three operating segments, we assign certain costs to Corporate, Eliminations and Other, which is presented separately in Note 25 of our Notes to Consolidated Financial Statements. The Corporate, Eliminations and Other category includes intersegment eliminations, including profit on intersegment sales, unrealized mark-to-market gains and losses on derivatives, debt expenses, Streamsong Resort® results of operations, and the results of the China and India distribution businesses.

Gross margin for Corporate, Eliminations and Other was a gain of \$108.2 million for the year ended December 31, 2022, compared to a loss of \$5.3 million in the same period a year ago. The change was driven by a favorable impact of \$18.9 million related to the lower gross margin, partially offset by higher sales volumes on the elimination of intercompany in the current year, compared to an unfavorable impact of \$131.0 million in the prior year period. Partially offsetting the change was a net unrealized loss of \$21.3 million in the current year period, primarily on foreign currency derivatives, compared to a net unrealized loss of \$13.6 million in the prior year period. Distribution operations in India and China had revenues and gross margin of \$1.1 billion and \$130.9 million, respectively, for the year ended December 31, 2022, compared to revenues and gross margin of \$730.1 million and \$141.6 million, respectively, for the year ended December 31, 2021. The increase was primarily due to increased selling prices in the current year compared to the prior year period. This was partially offset by higher product cost in the current year due to tighter global supply and demand. Sales volumes of finished products were 1.6 million tonnes for each of the years ended December 31, 2022 and 2021.

Other Income Statement Items

	Years	Ended Decem	ber 31,	2022	-2021	2021-2020		
(in millions)	2022	2021	2020	Change	Percent	Change	Percent	
Selling, general and administrative expenses	\$ 498.0	\$ 430.5	\$ 371.5	\$ 67.5	16 %	\$ 59.0	16 %	
Impairment, restructuring and other expenses	_	158.1	_	(158.1)	(100)%	158.1	NM	
Other operating expenses	472.5	143.2	280.5	329.3	NM	(137.3)	(49)%	
Interest (expense)	(168.8)	(194.3)	(214.1)	25.5	(13)%	19.8	(9)%	
Interest income	31.0	25.2	33.5	5.8	23 %	(8.3)	(25)%	
Interest expense, net	(137.8)	(169.1)	(180.6)	31.3	(19)%	11.5	(6)%	
Foreign currency transaction gain (loss)	97.5	(78.5)	(64.3)	176.0	NM	(14.2)	22 %	
Other (expense) income	(102.5)	3.9	12.9	(106.4)	NM	(9.0)	(70)%	
Provision for (benefit from) income taxes	1,224.3	597.7	(578.5)	626.6	105 %	1,176.2	NM	
Equity in net earnings (loss) of nonconsolidated companies	196.0	7.8	(93.8)	188.2	NM	101.6	(108)%	

Selling, General and Administrative Expenses

Selling, general and administrative expenses were \$498.0 million for the year ended December 31, 2022, compared to \$430.5 million for the same period a year ago. The increase was primarily due to approximately \$44 million of higher consulting and professional services costs related to executing on our strategic initiatives, and higher costs of approximately \$16 million in our Mosaic Fertilizantes segment, due to impacts from inflation and higher compensation and other employee-related costs.

Impairment, Restructuring and Other Expenses

Impairment, restructuring and other expenses include costs associated with asset impairments, employee severance and pension expense, and other exit costs to close or indefinitely idle facilities. Due to increased brine inflows, on June 4, 2021, we made the decision to accelerate the timing of the shutdown of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine. We recognized pre-tax costs of \$158.1 million related to the permanent closure of these facilities in 2021. These costs consisted of \$110.0 million related to the write-off of fixed assets, \$37.1 million related to AROs, and \$11.0 million related to inventory and other reserves. We had no such expenses in 2022.

Other Operating Expenses

Other operating expenses were \$472.5 million for the year ended December 31, 2022, compared to \$143.2 million for the prior year period. Other operating expenses typically relate to five major categories: (1) AROs, (2) environmental and legal reserves, (3) idle facility costs, (4) insurance reimbursements and (5) gain/loss on sale or disposal of fixed assets. The current year includes approximately \$173 million related to increases in environmental reserves, approximately \$157 million related to upward revisions in estimated closure costs for our AROs at our closed facilities, and approximately \$41 million related to costs of maintaining closed and indefinitely idled facilities. These costs were primarily related to our Phosphate segment.

Interest Expense, Net

Net interest expense decreased to \$137.8 million for the year ended December 31, 2022, compared to \$169.1 million in 2021, due to lower debt levels in the current year.

Foreign Currency Transaction Gain (Loss)

In 2022, we recorded a foreign currency transaction gain of \$97.5 million, compared to a loss of \$78.5 million in 2021. The gain was the result of the effect of the weakening of the U.S. dollar relative to the Brazilian real of U.S. dollar-denominated payables held by our Brazilian subsidiaries and on significant intercompany loans, partially offset by the strengthening of the U.S. dollar relative to the Canadian dollar on significant intercompany loans.

Other (Expense) Income

For the year ended December 31, 2022, we had other expense of \$102.5 million compared to income of \$3.9 million in the prior year. The current year expense primarily related to approximately \$46 million of realized losses on the marketable securities held in the RCRA Trusts, approximately \$42 million related to the settlement loss on the termination of a pension plan as further described in Note 18 of our Notes to Consolidated Financial Statement, and \$12 million related to the writedown of an investment.

Equity in Net Earnings (Loss) of Nonconsolidated Companies

For the year ended December 31, 2022, we had a gain from equity of nonconsolidated companies of \$196.0 million, net of tax, compared to a gain of \$7.8 million, net of tax, for the prior year. The current year gain was primarily related to the operations of MWSPC, which was favorably impacted by higher phosphate selling prices, and the continued ramp-up of its operations.

Provision for (Benefit from) Income Taxes

	Tax Rate	Income Taxes
Year Ended December 31, 2022	26.4 %	\$ 1,224.3
Year Ended December 31, 2021	26.9 %	597.7
Year Ended December 31, 2020	(319.8)%	(578.5)

For all years, our income tax is impacted by the mix of earnings across jurisdictions in which we operate, by a benefit associated with depletion and by the impact of certain entities being taxed in both their foreign jurisdiction and the U.S., including foreign tax credits for various taxes incurred.

For the year ended December 31, 2022, tax expense specific to the period included a net expense of \$26.2 million. The net expense relates to the following: \$29.0 million related to true-up of estimates primarily related to our U.S. tax return, \$4.8 million related to changes to valuation allowances in Brazil, \$4.0 million related to interest of effectively settled unrecognized tax benefits and \$1.2 million of other miscellaneous costs. The tax expenses are partially offset by a net tax benefit related to \$12.8 million of RSUs vested in CY22 above grant price.

Critical Accounting Estimates

We prepare our Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America which requires us to make various judgments, estimates and assumptions that could have a significant impact on our reported results and disclosures. We base these estimates on historical experience and other assumptions we believe to be reasonable at the time we prepare our financial statements. Changes in these estimates could have a material effect on our Consolidated Financial Statements.

Our significant accounting policies can be found in Note 2 of our Notes to Consolidated Financial Statements. We believe the following accounting policies include a higher degree of judgment and complexity in their application and are most critical to aid in fully understanding and evaluating our reported financial condition and results of operations.

Recoverability of Goodwill

Goodwill is the excess of the purchase price consideration over the estimated fair value of net assets of acquired businesses. The carrying value of goodwill in our reporting units is tested annually as of October 31 for possible impairment. We typically use an income approach valuation model, representing present value of future cash flows, to determine the fair value of a reporting unit. Growth rates for sales and profits are determined using inputs from our annual strategic and long range planning process. The rates used to discount projected future cash flows reflect a weighted average cost of capital based on the Company's industry, capital structure and risk premiums, including those reflected in the current market capitalization. When preparing these estimates, management considers each reporting unit's historical results, current operating trends, and specific plans in place. These estimates are impacted by various factors, including inflation, the general health of the economy and market competition. In addition, events and circumstances that might be indicators of possible impairment are assessed during other interim periods. As of October 31, 2022, the date of our annual impairment testing, the Company concluded that the fair values of the reporting units which include goodwill, Potash, Mosaic Fertilizantes and Corporate, Eliminations and Other, were in substantial excess of their respective carrying values and the goodwill for those units was not impaired.

See Note 10 of our Notes to Consolidated Financial Statements for additional information regarding the goodwill impairment analysis, including the methodologies and assumptions used in estimating the fair values of our reporting units. As of December 31, 2022, we had \$1.1 billion of goodwill.

Environmental Liabilities and Asset Retirement Obligations

We record accrued liabilities for various environmental and reclamation matters including the demolition of former operating facilities, and AROs.

Contingent environmental liabilities are described in Note 23 of our Notes to Consolidated Financial Statements. Accruals for environmental matters are based primarily on third-party estimates for the cost of remediation at previously operated sites and estimates of legal costs for ongoing environmental litigation. We regularly assess the likelihood of material adverse

judgments or outcomes, the effects of potential indemnification, as well as potential ranges or probability of losses. We determine the amount of accruals required, if any, for contingencies after carefully analyzing each individual matter. Estimating the ultimate settlement of environmental matters requires us to develop complex and interrelated assumptions based on experience with similar matters, our history, precedents, evidence, and facts specific to each matter. Actual costs incurred in future periods may vary from the estimates, given the inherent uncertainties in evaluating environmental exposures. As of December 31, 2022, and 2021, we had accrued \$185.5 million and \$57.3 million, respectively, for environmental matters.

As indicated in Note 14 of our Notes to Consolidated Financial Statements, we recognize AROs in the period in which we have an existing legal obligation, and the amount of the liability can be reasonably estimated. We utilize internal engineering experts as well as third-party consultants to assist in determining the costs of retiring certain of our long-term operating assets. Assumptions and estimates reflect our historical experience and our best judgments regarding future expenditures. The assumed costs are inflated based on an estimated inflation factor and discounted based on a credit-adjusted risk-free rate. For active facilities, fluctuations in the estimated costs (including those resulting from a change in environmental regulations), inflation rates and discount rates can have a significant impact on the corresponding assets and liabilities recorded in the Consolidated Balance Sheets. However, changes in the assumptions for our active facilities would not have a significant impact on the Consolidated Statements of Earnings in the year they are identified. For closed facilities, fluctuations in the estimated costs, inflation, and discount rates have an impact on the Consolidated Statements of Earnings in the year they are identified as there is no asset related to these items. Phosphate land reclamation activities in North America generally occur concurrently with mining operations; as such, we accrue and expense reclamation costs as we mine. As of December 31, 2022, and 2021, \$1.9 billion and \$1.7 billion, respectively, was accrued for AROs (current and noncurrent amounts) in North and South America. In August 2016, Mosaic deposited \$630 million into two trust funds as financial assurance to support certain estimated future AROs. See Note 14 of our Notes to Consolidated Financial Statements for additional information regarding the Environmental Protection Agency ("EPA") RCRA Initiative.

Income Taxes

We make estimates for income taxes in three major areas: uncertain tax positions, valuation allowances, and U.S. deferred income taxes on our non-U.S. subsidiaries' undistributed earnings.

A valuation allowance is provided for deferred tax assets for which it is more likely than not that the related tax benefits will not be realized. Significant judgment is required in evaluating the need for and magnitude of appropriate valuation allowances. The realization of the Company's deferred tax assets, specifically, the evaluation of net operating loss carryforwards and foreign tax credit carryforwards, is dependent on generating certain types of future taxable income, using both historical and projected future operating results, the source of future income, the reversal of existing taxable temporary differences, taxable income in prior carry-back years (if permitted) and the availability of tax planning strategies. As of December 31, 2022, and 2021, we had a valuation allowance of \$909.9 million and \$774.7 million, respectively. Changes in tax laws, assumptions with respect to future taxable income, tax planning strategies, resolution of matters under tax audit and foreign currency exchange rates could result in adjustment to these allowances.

Due to Mosaic's global operations, we assess uncertainties and judgments in the application of complex tax regulations in a multitude of jurisdictions. Future changes in judgment related to the expected ultimate resolution of uncertain tax positions will affect earnings in the quarter of such change. While it is often difficult to predict the final outcome or the timing of resolution of any particular uncertain tax position, our liabilities for income taxes reflect what we believe to be the more likely than not outcome. We adjust these liabilities, as well as the related interest, in light of changing facts and circumstances, including negotiations with taxing authorities in various jurisdictions, outcomes of tax litigation, and resolution of disputes arising from tax audits in the normal course of business. Settlement of any particular position may require the use of cash. The Company is currently in negotiations with non-U.S. tax authorities where settlements could result in different tax outcomes than what is currently accounted for. Based upon an analysis of tax positions taken on prior year returns and expected positions to be taken on the current year return, management has identified gross uncertain income tax positions of \$25.2 million as of December 31, 2022.

Any dividends from controlled foreign corporations are tax-free from a U.S. income tax perspective. Additionally, there will not be any foreign tax credits associated with foreign dividends. Therefore, there are no material federal U.S. implications of future repatriations on non-U.S. subsidiaries' undistributed earnings. However, since there are no U.S. foreign tax credits associated with foreign dividends, any foreign withholding tax associated with a future repatriation will need to be accrued if

the earnings are not permanently reinvested. As of December 31, 2022, we have included \$50.0 million of withholding tax in the full year effective tax rate related to the \$1.0 billion dividend to the U.S. from Canada.

We have included a further discussion of income taxes in Note 13 of our Notes to Consolidated Financial Statements.

Liquidity and Capital Resources

We define liquidity as the ability to generate or access adequate amounts of cash to meet current cash needs. We remain committed to a disciplined capital allocation strategy and assess our liquidity in terms of our ability to fund working capital requirements, fund sustaining and opportunity capital projects, pursue strategic opportunities and make capital management decisions, which include making payments on and issuing indebtedness and making distributions to our stockholders, either in the form of share repurchases or dividends. Our liquidity is subject to general economic, financial, competitive and other factors that are beyond our control.

We have a target liquidity buffer of up to \$3.0 billion, including cash and available credit facilities. We expect our liquidity to fluctuate from time to time, especially in the first quarter of each year, to manage through the seasonality of our business. We also target debt leverage ratios that are consistent with investment grade credit metrics. Our capital allocation priorities include maintaining our target investment grade metrics and financial strength, sustaining our assets, including ensuring the safety and reliability of our assets, investing to grow our business, either through organic growth or taking advantage of strategic opportunities, and returning excess cash to stockholders, including paying our dividend. During 2022, we returned capital to our stockholders through share repurchases of \$1.7 billion and paid dividends of \$0.2 billion. Our Board of Directors also approved an increase to our annual dividend to \$0.80 per share, beginning with the dividend declared on December 16, 2022. Subsequent to year-end, our Board of Directors approved the following:

- A special dividend of \$0.25 per share to be distributed in March to our stockholders of record as of March 15, 2023.
- An ASR of \$300 million, which is expected to be initiated in the first quarter of 2023.

As of December 31, 2022, we had cash and cash equivalents of \$0.7 billion, marketable securities held in trusts to fund future obligations of \$0.7 billion, long-term debt including current maturities of \$3.4 billion, short-term debt of \$0.2 billion and stockholders' equity of \$12.2 billion. In addition, we had \$0.8 billion of commercial arrangements for certain customer purchases in Brazil through structured payable arrangements, as discussed in Note 11 of our Notes to Consolidated Financial Statements.

All of our cash and cash equivalents are diversified in highly rated investment vehicles. Our cash and cash equivalents are held either in the U.S. or held by non-U.S. subsidiaries and are not subject to significant foreign currency exposures, as the majority are held in investments denominated in U.S. dollars as of December 31, 2022. These funds may create foreign currency transaction gains or losses, however, depending on the functional currency of the entity holding the cash. In addition, there are no significant restrictions that would preclude us from bringing funds held by non-U.S. subsidiaries back to the U.S., aside from withholding taxes.

Sources and Uses of Cash

As of December 31, 2022, we had cash and cash equivalents and restricted cash of \$0.7 billion. Funds generated by operating activities, available cash and cash equivalents and our revolving credit facility continue to be our most significant sources of liquidity. We believe funds generated from the expected results of operations and available cash, cash equivalents and borrowings either under our revolving credit facility or through long-term borrowings will be sufficient to finance our operations, including our expansion plans, existing strategic initiatives and expected dividend payments for the next 12 months. We expect our capital expenditures to be between \$1.3 billion and \$1.4 billion in 2023. There can be no assurance, however, that we will continue to generate cash flows at or above current levels. At December 31, 2022, we had \$2.49 billion available under our \$2.5 billion revolving credit facility. See Note 11 of our Notes to Consolidated Financial Statements for additional information relating to our financing arrangements, which is hereby incorporated by reference.

We have certain contractual obligations that require us to make cash payments on a scheduled basis. These include, among other things, long-term debt payments, interest payments, operating leases, unconditional purchase obligations and funding requirements of pension and postretirement obligations. Our long-term debt has maturities ranging from one year to 22 years. Unconditional purchase obligations are our largest contractual cash obligations. These include obligations for contracts to purchase raw materials such as sulfur, ammonia, phosphate rock and natural gas, obligations to purchase raw materials for our international distribution activities, and maintenance and services. Other large cash obligations are our AROs and other

environmental obligations primarily related to our Phosphates and Mosaic Fertilizantes segments. We expect to fund our AROs and other environmental obligations, purchase obligations, long-term debt and capital expenditures with a combination of operating cash flows, cash and cash equivalents and borrowings.

The following is a summary of our material contractual cash obligations as of December 31, 2022:

			Payments by Calendar Year									
(in millions)	Total		Less than 1 year		1 - 3 years		3 - 5 years		M	ore than 5 years		
Long-term debt ^(a)	\$	3,397.2	\$	985.3	\$	132.7	\$	729.5	\$	1,549.7		
Estimated interest payments on long-term debt ^(b)		1,532.7		158.1		241.1		230.9		902.6		
Operating leases		185.9		50.7		58.4		30.5		46.3		
Purchase commitments ^(c)		6,103.5		4,393.0		1,361.9		256.3		92.3		
Pension and postretirement liabilities ^(d)		145.2		8.1		29.4		32.1		75.6		
Total contractual cash obligations	\$	11,364.5	\$	5,595.2	\$	1,823.5	\$	1,279.3	\$	2,666.5		

⁽a) Long-term debt primarily consists of unsecured notes, finance leases, unsecured debentures and secured notes.

See Off-Balance Sheet Arrangements and Obligations below for more information on other environmental obligations.

Summary of Cash Flows

The following table represents a comparison of the net cash provided by operating activities, net cash used in investing activities and net cash used in financing activities for calendar years 2022, 2021 and 2020:

(in millions)	Years	Ended Decemb	er 31,	2022-	2021	2021-2020		
Cash Flow	2022	2021	2020	Change	Percent	Change	Percent	
Net cash provided by operating activities	\$ 3,935.8	\$ 2,187.0	\$ 1,582.6	\$ 1,748.8	80 %	\$ 604.4	38 %	
Net cash used in investing activities	(1,259.6)	(1,322.3)	(1,189.5)	62.7	5 %	(132.8)	(11)%	
Net cash used in financing activities	(2,678.7)	(682.1)	(283.8)	(1,996.6)	(293)%	(398.3)	(140)%	

Operating Activities

In 2022, net cash flow from operating activities provided us with a significant source of liquidity. For the year ended December 31, 2022, net cash provided by operating activities was \$3.9 billion, compared to \$2.2 billion in the prior year. Our results of operations, after non-cash adjustments to net earnings, contributed \$4.9 billion to cash flows from operating activities during 2022, compared to \$2.8 billion during 2021. During 2022, we had an unfavorable change in assets and liabilities of \$1.0 billion, compared to an unfavorable change of \$0.6 billion during 2021.

The change in assets and liabilities for the year ended December 31, 2022, was primarily driven by unfavorable impacts from changes in accounts receivable of \$215.2 million, other current and noncurrent assets of \$247.4 million and inventories of \$749.6 million, partially offset by favorable changes in accounts payable and accrued liabilities of \$219.8 million. The unfavorable change in accounts receivable was primarily related to higher sales prices at the end of the current year compared to the prior year, which resulted in higher balances. The change in inventories was driven primarily by an increase in raw material prices and finished goods cost across all our operating segments and an increase in inventory volumes, primarily in

⁽b) Based on interest rates and debt balances as of December 31, 2022.

⁽c) Based on prevailing market prices as of December 31, 2022. For additional information related to our purchase commitments, see Note 22 of our Notes to Consolidated Financial Statements.

⁽d) The 2023 pension plan payments are based on minimum funding requirements. For years thereafter, pension plan payments are based on expected benefits paid. The postretirement plan payments are based on projected benefit payments. The above amounts include our North America and Brazil plans.

our Phosphate and Potash segments. The change in other current and noncurrent assets was primarily related to an increase in taxes receivable due to timing of refunds. These changes were partially offset by an increase in accounts payable and accrued liabilities, which was driven primarily by an increase in customer prepayments in Brazil, an increase in environmental reserves and an increase in our dividend payable.

Investing Activities

Net cash used in investing activities for the year ended December 31, 2022, was comparable to the same period a year ago at \$1.3 billion, primarily driven by capital expenditures of \$1.2 billion in 2022.

Financing Activities

Net cash used in financing activities was \$2.7 billion for the year ended December 31, 2022, compared to \$682.1 million in the prior year. In 2022, we made repurchases of our common stock of \$1.7 billion and paid dividends of \$235.7 million. We also made net payments on our long-term debt of \$610.3 million, \$302.7 million under our inventory financing arrangement and \$81.1 million to the bank for amounts collected on their behalf under our Receivable Purchasing Agreement. Net payments on structured accounts payable were \$16.1 million. In 2022, we also received net proceeds from short-term borrowings of \$219.3 million.

Debt Instruments, Guarantees and Related Covenants

See Note 11 and Note 16 of our Notes to Consolidated Financial Statements for additional information relating to our financing arrangements and fair value measurements, which is hereby incorporated by reference.

Financial Assurance Requirements

In addition to various operational and environmental regulations primarily related to our Phosphates segment, we incur liabilities for reclamation activities under which we are subject to financial assurance requirements. In various jurisdictions in which we operate, particularly Florida and Louisiana, we are required to pass a financial strength test or provide credit support, typically in the form of cash deposits, surety bonds or letters of credit. See Other Commercial Commitments under Off-Balance Sheet Arrangements and Obligations and Note 22 of our Notes to Consolidated Financial Statements for additional information about these requirements, which is hereby incorporated by reference.

Off-Balance Sheet Arrangements and Obligations

Off-Balance Sheet Arrangements

In accordance with the definition under rules of the Securities and Exchange Commission ("**SEC**"), the following qualify as off-balance sheet arrangements:

- certain obligations under guarantee contracts that have "any of the characteristics identified in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") paragraph ASC 460-10-15-4 (Guarantees Topic)";
- a retained or contingent interest in assets transferred to an unconsolidated entity or similar arrangement that serves as credit, liquidity or market risk support to that entity for such assets;
- any obligation, including a contingent obligation, under a contract that would be accounted for as derivative instruments except that it is both indexed to the registrant's own stock and classified as equity; and
- any obligation, arising out of a variable interest in an unconsolidated entity that is held by, and material to, the registrant, where such entity provides financing, liquidity, market risk or credit risk support to the registrant, or engages in leasing, hedging or research and development services with the registrant.

Information regarding guarantees that meet the above requirements is included in Note 17 of our Notes to Consolidated Financial Statements and is hereby incorporated by reference. We do not have any contingent interest in assets transferred, derivative instruments, or variable interest entities that qualify as off-balance sheet arrangements under SEC rules.

Other Commercial Commitments

The following is a summary of our other commercial commitments as of December 31, 2022:

		Commitment Expiration by Calendar Year								
(in millions)	Total	I	Less than 1 year		1 - 3 years		3 - 5 years	I	More than 5 years	
Letters of credit	\$ 65.3	\$	65.3	\$	_	\$	_	\$	_	
Surety bonds	724.2		723.9		_		0.3		_	
Total	\$ 789.5	\$	789.2	\$		\$	0.3	\$	_	

The surety bonds and letters of credit generally expire within one year or less but a substantial portion of these instruments provide financial assurance for continuing obligations and, therefore, in most cases, must be renewed on an annual basis. We issue letters of credit through our revolving credit facility and bilateral agreements. As of December 31, 2022, we had \$10.9 million of outstanding letters of credit through our credit facility and \$54.4 million outstanding through bilateral agreements. We primarily incur liabilities for reclamation activities in our Florida operations and for phosphogypsum management system ("Gypstack") closure in our Florida and Louisiana operations where, for permitting purposes, we must either pass a test of financial strength or provide credit support, typically in the form of cash deposits, surety bonds or letters of credit. As of December 31, 2022, we had \$382.3 million in surety bonds and a \$50 million letter of credit included in the total amount above. These bonds and letters of credit are outstanding for reclamation obligations, primarily related to mining in Florida. We also have a surety bond of \$300.8 million with the EPA which was delivered as a substitute for the financial assurance provided through the Plant City Trust. The surety bonds generally require us to obtain a discharge of the bonds or to post additional collateral (typically in the form of cash or letters of credit) at the request of the issuer of the bonds.

We are subject to financial assurance requirements related to the closure and post-closure care of our Gypstacks in Florida and Louisiana. These requirements include Florida and Louisiana state financial assurance regulations, and financial assurance requirements under the terms of consent decrees that we have entered into with respect to our facilities in Florida and Louisiana. These include a consent decree (the "Plant City Consent Decree") with EPA and the Florida Department of Environmental Protection ("FDEP") relating to the Plant City, Florida Phosphate Concentrates facility (the "Plant City Facility") we acquired as part of (the "CF Phosphate Assets Acquisition") and two separate consent decrees (collectively, the "2015 Consent Decrees") with federal and state regulators that include financial assurance requirements for the closure and post-closure care of substantially all of our Gypstacks in Florida and Louisiana, other than those acquired as part of the CF Phosphate Assets Acquisition, which are discussed separately below.

See Note 14 of our Notes to Consolidated Financial Statements for additional information relating to our financial assurance obligations, including the Plant City Consent Decree and the 2015 Consent Decrees, which information is incorporated by reference.

Currently, state financial assurance requirements in Florida and Louisiana for the closure and post-closure care of Gypstacks are, in general terms, based upon the same assumptions and associated estimated values as the AROs recognized for financial reporting purposes. For financial reporting purposes, we recognize the AROs based on the estimated future closure and post-closure costs of Gypstacks, the undiscounted value of which is approximately \$2.7 billion. The value of the AROs for closure and post-closure care of Mosaic's Gypstacks, discounted to the present value, based on a credit-adjusted, risk-free rate, is reflected on our Consolidated Balance Sheets in the amount of approximately \$1.0 billion as of December 31, 2022. Compliance with the financial assurance requirements in Florida and Louisiana is generally based on the undiscounted Gypstack closure estimates.

We satisfy substantially all of our Florida, Louisiana and federal financial assurance requirements through compliance with the financial assurance requirements under the 2015 Consent Decrees, by providing third-party credit support in the form of surety bonds (including under the Plant City Consent Decree), and a financial test mechanism supported by a corporate guarantee ("Bonnie Financial Test") related to a closed Florida phosphate concentrates facility in Bartow, Florida (the "Bonnie Facility") as discussed below. We comply with our remaining state financial assurance requirements because our financial strength permits us to meet applicable financial strength tests. There have been times in the past that we have not met the applicable financial strength tests and there can be no assurance that we will be able to meet the applicable financial strength tests in the future. In the event we do not meet either financial strength test, we could be required to seek an alternate financial strength test acceptable to state regulatory authorities or provide credit support, which may include surety bonds, letters of credit and cash escrows or trust funds. Cash escrows or trust funds would be classified as restricted cash on our

Consolidated Balance Sheets. Assuming we maintain our current levels of liquidity and capital resources, we do not expect that these Florida and Louisiana requirements will have a material effect on our results of operations, liquidity or capital resources

As part of the CF Phosphate Assets Acquisition, we assumed certain AROs related to the estimated costs ("Gypstack Closure Costs") at both the Plant City Facility and the Bonnie Facility. Associated with these assets are two related financial assurance arrangements for which we became responsible and that provided sources of funds for the estimated Gypstack Closure Costs for these facilities, pursuant to federal or state law, which the government can draw against in the event we cannot perform such closure activities. One was initially a trust (the "Plant City Trust") established to meet the requirements under a consent decree with EPA and the FDEP with respect to U.S. Resource Conservation and Recovery Act ("RCRA") compliance at Plant City that also satisfied Florida financial assurance requirements at that site. Beginning in September 2016, as a substitute for the financial assurance provided through the Plant City Trust, we have provided financial assurance for Plant City in the form of a surety bond delivered to EPA (the "Plant City Bond"). The amount of the Plant City Bond is \$300.8 million at December 31, 2022, which reflects our closure cost estimates at that date. The other was also a trust fund (the "Bonnie Facility Trust") established to meet the requirements under Florida financial assurance regulations that apply to the Bonnie Facility. On July 27, 2018, we received \$21.0 million from the Bonnie Facility Trust by substituting the trust fund for the Bonnie Financial Test supported by a corporate guarantee as allowed by state regulations. Both financial assurance funding obligations require estimates of future expenditures that could be impacted by refinements in scope, technological developments, new information, cost inflation, changes in regulations, discount rates and the timing of activities. Under our current approach to satisfying applicable requirements, additional financial assurance would be required in the future if increases in cost estimates exceed the face amount of the Plant City Bond or the amount supported by the Bonnie Financial Test.

Other Long-Term Obligations

The following is a summary of our other long-term obligations, including Gypstacks and land reclamation, as of December 31, 2022:

			rayments by Calendar Year									
(in millions)	Total]	Less than 1 year		1 - 3 years		3 - 5 years	N	lore than 5 years			
ARO ^(a)	\$ 4,124.7	\$	216.4	\$	327.8	\$	218.9	\$	3,361.6			

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(a) Represents the undiscounted estimated cash outflows required to settle the AROs. For the Potash segment, this excludes the subsequent years of tailings area management for activities such as dissolution and reclamation of land, which are estimated to require an additional 158 to 367 years until completion. The corresponding present value of all future expenditures is \$1.9 billion as of December 31, 2022 and is reflected in our accrued liabilities and other noncurrent liabilities in our Consolidated Balance Sheets.

Most of our export sales of potash crop nutrients are marketed through a North American export association, Canpotex, which funds its operations in part through third-party financing facilities. As a member, Mosaic or our subsidiaries are subject to certain conditions and exceptions and contractually obligated to reimburse Canpotex for their pro rata share of any operating expenses or other liabilities incurred. The reimbursements are made through reductions to members' cash receipts from Canpotex.

Commitments are set forth in Note 22 of our Notes to Consolidated Financial Statements and are hereby incorporated by reference.

Income Tax Obligations

Gross uncertain tax positions as of December 31, 2022 of \$25.2 million are not included in the other long-term obligations table presented above because the timing of the settlement of unrecognized tax benefits cannot be reasonably determined. For further discussion, refer to Note 13 of our Notes to Consolidated Financial Statements.

Market Risk

We are exposed to the impact of fluctuations in the relative value of currencies, fluctuations in interest rates, fluctuations in the purchase prices of natural gas, nitrogen, ammonia and sulfur consumed in operations, and changes in freight costs, as well as changes in the market value of our financial instruments. We periodically enter into derivatives in order to mitigate our

interest rate risks, foreign currency risks and the effects of changing commodity prices and freight prices, but not for speculative purposes. Unrealized mark-to-market gains and losses on derivatives are recorded in Corporate, Eliminations and Other. Once realized, they are recorded in the related business segment.

Foreign Currency Exchange Rates

Due to the global nature of our operations, we are exposed to currency exchange rate changes, which may cause fluctuations in earnings and cash flows. Our primary foreign currency exposures are the Canadian dollar and Brazilian real. To reduce economic risk and volatility on expected cash flows that are denominated in the Canadian dollar and Brazilian real, we use financial instruments that may include forward contracts, zero-cost collars and/or futures.

The functional currency of several of our Canadian entities is the Canadian dollar. For those entities, sales are primarily denominated in U.S. dollars, but the costs are paid principally in Canadian dollars. We generally enter into derivative instruments for a portion of the currency risk exposure on anticipated cash inflows and outflows, including outflows for capital expenditures denominated in Canadian dollars. Mosaic hedges cash flows on a declining basis, up to 18 months for the Canadian dollar. A stronger Canadian dollar generally reduces these entities' operating earnings. A weaker Canadian dollar has the opposite effect. Depending on the underlying exposure, such derivatives can create additional earnings volatility because we do not apply hedge accounting. Gains or losses on these derivative contracts, both for open contracts at quarter-end (unrealized) and settled contracts (realized), are recorded in either cost of goods sold or foreign currency transaction gain (loss).

The functional currency for our Brazilian subsidiaries is the Brazilian real. We finance our Brazilian inventory purchases with U.S. dollar-denominated liabilities. We hedge a portion of cash flows on a declining basis, up to 12 months for the Brazilian real. A stronger Brazilian real relative to the U.S. dollar has the impact of reducing these liabilities on a functional currency basis. When this occurs, an associated foreign currency transaction gain is recorded as non-operating income. A weaker Brazilian real generally has the opposite effect. We also enter into derivative instruments for a portion of our currency risk exposure on anticipated Brazilian real cash flows and record an associated gain or loss in either cost of goods sold or foreign currency transaction gain (loss) line in the Consolidated Statements of Earnings. A stronger Brazilian real generally reduces our Brazilian subsidiaries operating earnings. A weaker Brazilian real has the opposite effect.

As discussed above, we have Canadian dollar, Brazilian real, and other foreign currency exchange contracts. As of December 31, 2022, and 2021, the fair value of our major foreign currency exchange contracts was a liability of \$27.3 million and \$18.6 million, respectively. We recorded an unrealized loss of \$20.1 million in cost of goods sold and recorded an unrealized gain of \$10.4 million in foreign currency transaction gain (loss) in the Consolidated Statements of Earnings for 2022.

The table below provides information about Mosaic's significant foreign exchange derivatives.

	As of December 31, 2022						As of December 31, 2021							
	Expected Maturity Date Years ending December 31,					Fair		Expected Maturity Date Years ending December 31,				. Fair		
(in millions)	2023		2024		2025		alue	2022		2023		2024		/alue
Foreign Currency Exchange Forwards														
Canadian Dollar						\$	(32.5)						\$	3.8
Notional (million US\$) - short Canadian dollars	\$ 177.7	\$	_	\$	_			\$ 421.2	\$	78.3	\$	28.2		
Weighted Average Rate - Canadian dollar to U.S. dollar	1.3086		_		_			1.2731		1.2665		1.2874		
Notional (million US\$) - long Canadian dollars	\$1,405.1	\$	121.1	\$	_			\$1,030.7	\$	192.0	\$	35.2		
Weighted Average Rate - Canadian dollar to U.S. dollar	1.3157		1.3382		_			1.2708		1.2893		1.2346		
Foreign Currency Exchange Collars														
Canadian Dollar						\$	_						\$	0.4
Notional (million US\$) - long Canadian dollars	\$ —	\$	_	\$	_	7		\$ 15.5	\$	_	\$	_		
Weighted Average Participation Rate - Canadian dollar to U.S. dollar	_		_		_			1.3433		_		_		
Weighted Average Protection Rate - Canadian dollar to U.S. dollar	_		_		_			1.2875		_		_		
Foreign Currency Exchange Non- Deliverable Forwards														
Brazilian Real						\$	_						\$	(20.8)
Notional (million US\$) - short Brazilian real	\$ —	\$	_	\$	_			\$ 531.5	\$	_	\$	_		
Weighted Average Rate - Brazilian real to U.S. dollar	_		_		_			5.7121		_		_		
Notional (million US\$) - long Brazilian real	\$ —	\$	_	\$	_			\$ 679.2	\$	_	\$	_		
Weighted Average Rate - Brazilian real to U.S. dollar	_		_		_			5.6748		_		_		
Indian Rupee						\$	2.9						\$	(1.5)
Notional (million US\$) - short Indian rupee	\$ 308.7	\$	_	\$	_			\$ 125.0	\$	_	\$	_		
Weighted Average Rate - Indian rupee to U.S. dollar	82.3814		_		_			75.7627		_		_		
Notional (million US\$) - short Indian rupee	\$ 40.2													
Weighted Average Rate - Indian rupee to U.S. dollar	81.9971													
China Renminbi						\$	2.3						\$	(0.5)
Notional (million US\$) - short China renminbi	\$ 208.4	\$	_	\$	_			\$ 68.0	\$	_	\$	_		
Weighted Average Rate - China renminbi to U.S. dollar	6.8094		_		_			6.4750		_		_		
Total Fair Value						\$	(27.3)						\$	(18.6)

Commodities

We use forward purchase contracts, swaps and occasionally three-way collars to reduce the risk related to significant price changes in our inputs and product prices. In addition, the natural gas-based pricing under the CF Ammonia Supply Agreement is intended to lessen ammonia pricing volatility.

All gains and losses on commodities contracts are recorded in cost of goods sold in the Consolidated Statements of Earnings.

As of December 31, 2022, and 2021, the fair value of our major commodities contracts was \$18.7 million and \$18.8 million, respectively. We recorded an unrealized loss of \$1.2 million in cost of goods sold on the Consolidated Statements of Earnings for 2022.

Our primary commodities exposure relates to price changes in natural gas.

The table below provides information about Mosaic's natural gas derivatives which are used to manage the risk related to significant price changes in natural gas.

		As of I	December 3	1, 2022		As of December 31, 2021						
	F		aturity Da ending ber 31,	te	Fair	• 1	ted Maturi Years endin December 3	ığ		- Fair		
(in millions)	2023	2024	2025	2026	Value	2022	2023	2024	2025	Value		
Natural Gas Swaps					\$ 18.7					\$ 18.8		
Notional (million MM BTU) - long	9.4	4.8	_			9.4	9.4	4.8				
Weighted Average Rate (US\$/MM BTU)	\$ 2.48	\$ 2.70	\$ —	\$ —		\$ 2.21	\$ 2.34	\$ 2.72	\$ —			
Total Fair Value					\$ 18.7					\$ 18.8		

Interest Rates

From time to time, we enter into interest rate swap agreements to hedge our exposure to changes in future interest rates related to anticipated debt issuances. At December 31, 2022 and 2021, we had no interest rate swap agreements in effect.

Summary

Overall, there have been no material changes in our primary market risk exposures since the prior year. In 2023, we do not expect any material changes in our primary risk exposures. Additional information about market risk associated with our investments held in the RCRA Trusts is provided in Note 12 of our Notes to Consolidated Financial Statements. For additional information related to derivatives, see Notes 15 and 16 of our Notes to Consolidated Financial Statements.

Environmental, Health, Safety and Security Matters

We are subject to complex and evolving international, federal, state, provincial and local environmental, health, safety and security ("*EHS*") policies that govern the production, distribution and use of crop nutrients and animal feed ingredients. These EHS standards regulate or propose to regulate: (i) conduct of mining, production and supply chain operations, including employee safety and facility security procedures; (ii) management or remediation of potential impacts to air, soil and water quality from our operations; (iii) disposal of waste materials; (iv) beneficial use of co-products and residuals; (v) reclamation of lands after mining; (vi) management and handling of raw materials; (vii) product content; and (viii) use of products by both us and our customers.

We have a comprehensive EHS management program that seeks to achieve sustainable, predictable and verifiable EHS performance. Key elements of our EHS program include: (i) identifying and managing EHS risk; (ii) complying with legal requirements; (iii) improving our EHS procedures and protocols; (iv) educating employees regarding EHS obligations; (v) retaining and developing professional qualified EHS staff; (vi) evaluating facility conditions; (vii) evaluating and enhancing safe workplace behaviors; (viii) performing audits; (ix) formulating EHS action plans; and (x) assuring accountability of all managers and other employees for EHS performance. Our business units are responsible for implementing day-to-day elements of our EHS program, assisted by an integrated staff of EHS professionals. We conduct

audits to verify that each facility has identified risks, achieved regulatory compliance, improved EHS performance, and incorporated EHS management systems into day-to-day business functions.

New or proposed regulatory programs or policies can present significant challenges in ascertaining future compliance obligations, implementing compliance plans, and estimating future costs until implementing regulations have been finalized and definitive regulatory interpretations have been adopted. New or proposed regulatory standards may require modifications to our facilities or to operating procedures and these modifications may involve significant capital costs or increases in operating costs. In March, 2022, the SEC issued proposed rules on climate change disclosure requirements that, if adopted as proposed will require disclosure of extensive detailed climate-related information. The Company is monitoring the SEC's proposed rules on climate change and is taking necessary steps to plan for the anticipated disclosure requirements.

We have expended, and anticipate that we will continue to expend, substantial financial and managerial resources to comply with EHS standards and to continue to improve our environmental stewardship. In 2023, excluding capital expenditures arising out of the consent decrees referred to under "EPA RCRA Initiative" in Note 14 of our Notes to Consolidated Financial Statements, we expect environmental capital expenditures to total approximately \$300 million, primarily related to:
(i) modification or construction of waste management infrastructure and water treatment systems; (ii) construction and modification projects associated with Gypstacks and clay settling ponds at our Phosphates facilities and tailings management areas for our Potash mining and processing facilities; (iii) upgrading or new construction of air pollution control equipment at some of the concentrates plants; and (iv) capital projects associated with remediation of contamination at current or former operations. Additional expenditures for land reclamation, Gypstack closure and water treatment activities are expected to total approximately \$180 million in 2023. In 2024, we estimate environmental capital expenditures will be approximately \$280 million and expenditures for land reclamation activities, Gypstack closure and water treatment activities are expected to be approximately \$180 million. We spent approximately \$450 million and \$410 million for the years ended December 31, 2022 and 2021, respectively, for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. No assurance can be given that greater-than-anticipated EHS capital expenditures or land reclamation, Gypstack closure or water treatment expenditures will not be required in 2023 or in the future.

Operating Requirements and Impacts

Permitting. We hold numerous environmental, mining and other permits and approvals authorizing operations at our facilities. Our ability to continue operations at a facility could be materially affected by a government agency decision to deny or delay issuing a new or renewed permit or approval, to revoke or substantially modify an existing permit or approval or to substantially change conditions applicable to a permit modification, or by legal actions that successfully challenge our permits.

Expanding our operations or extending operations into new areas is also predicated upon securing the necessary environmental or other permits or approvals. We have been engaged in, and over the next several years will be continuing, efforts to obtain permits in support of our anticipated Florida operations at certain of our properties. For years, we have successfully permitted properties and anticipate that we will be able to permit these properties as well.

A denial of our permits, the issuance of permits with cost-prohibitive conditions, substantial delays in issuing key permits, legal actions that prevent us from relying on permits or revocation of permits can prevent or delay our mining at the affected properties and thereby materially affect our business, results of operations, liquidity or financial condition.

In addition, in the U.S., local community involvement has become an increasingly important factor in the permitting process for companies like ours, and various counties and other parties, particularly in Florida, have in the past filed and continue to file lawsuits or administrative appeals challenging the issuance of some of the permits we require. These actions can significantly delay permit issuance. Additional information regarding certain potential or pending permit challenges is provided in Note 23 to our Consolidated Financial Statements and is incorporated herein by reference.

Federal Initiatives to Define "Waters of the United States." The 1972 amendments to the Clean Water Act ("CWA") established federal jurisdiction over "navigable waters," defined in the Act as "waters of the United States" and often abbreviated as "WOTUS." As it relates to Mosaic's operations and facilities, the scope of the term WOTUS dictates legal requirements for our National Pollutant Discharge Elimination System wastewater discharge permits and for impacts to surface waters and wetlands associated with our phosphate mining operations. A broad definition of WOTUS, and thus the scope of federal jurisdiction, increases the time required to identify wetlands and waterways subject to federal regulatory and

permitting requirements, and the amount and type of mitigation required to compensate for impacts to jurisdictional WOTUS caused by our mining operations.

The current regulatory definition of WOTUS was promulgated on April 21, 2020, by the U.S. Environmental Protection Agency ("EPA") and the U.S. Army Corps of Engineers and was designated the "Navigable Waters Protection Rule" ("NWPR"). The NWPR was intended to provide clarity, predictability and consistency so that the regulated community could better understand where the CWA applies and where it does not. On June 9, 2021, EPA announced its plans to repeal and replace the NWPR, and in December 2021 issued a proposed regulation to revise the WOTUS definition and replace the NWPR.

On December 30, 2022, EPA and the Corps promulgated a revised, expanded definition of the term WOTUS which will become effective on March 20, 2023. The 2022 WOTUS rule asserts a broader geographic scope of federal jurisdiction than either the 2020 NWPR or any previous WOTUS regulatory definition. Two separate legal challenges to the 2022 WOTUS rule have been filed in the U.S. District Court for the Southern District of Texas; one lawsuit brought by the State of Texas and the second by agricultural interests. The plaintiffs in both cases recently filed motions requesting the Court enjoin implementation of the 2022 WOTUS rule.

Numerous stakeholders urged EPA and the Corps to postpone issuing the final 2022 WOTUS rule until after the U.S. Supreme Court decided *Sackett v. EPA*, which is expected to clarify Clean Water Act jurisdiction. The Court held oral argument in the *Sackett* case on October 3, 2022. A final decision that interprets the constitutional scope of the term WOTUS is anticipated to be issued by the Court during the first quarter of 2023.

Water Quality Regulations for Nutrient Discharges. New nutrient regulatory initiatives could have a material effect on either us or our customers. For example, the Gulf Coast Ecosystem Restoration Task Force, established by executive order of the U.S. President and comprised of five gulf states and eleven federal agencies, has delivered a final strategy for long-term ecosystem restoration for the Gulf Coast. The strategy calls for, among other matters, reduction of the flow of excess nutrients into the Gulf of Mexico through state nutrient reduction frameworks, new nutrient reduction approaches and reduction of agricultural and urban sources of excess nutrients. Implementation of the strategy will require legislative or regulatory action at the state level. We cannot predict what the requirements of any such legislative or regulatory action could be or whether or how it would affect us or our customers.

Reclamation Obligations. During phosphate mining, we remove overburden in order to retrieve phosphate rock reserves. Once we have finished mining in an area, we use the overburden and sand tailings produced by the beneficiation process to reclaim the area in accordance with approved reclamation plans and applicable laws. We have incurred and will continue to incur significant costs to fulfill our reclamation obligations.

Management of Residual Materials and Closure of Management Areas. Mining and processing of potash and phosphate generate residual materials that must be managed both during the operation of the facility and upon and after facility closure. Potash tailings, consisting primarily of salt and clay, are stored in surface disposal sites. Phosphate clay residuals from mining are deposited in clay settling ponds. Processing of phosphate rock with sulfuric acid generates phosphogypsum that currently is stored in Gypstacks.

During the life of the tailings management areas, clay settling ponds and Gypstacks, we have incurred and will continue to incur significant costs to manage our potash and phosphate residual materials in accordance with environmental laws and regulations and with permit requirements. Additional legal and permit requirements will take effect when these facilities are closed. Our AROs are further discussed in Note 14 of our Notes to Consolidated Financial Statements.

New Wales Water Loss Incident. In August 2016, a sinkhole developed under one of the two cells of the Phase II Gypstack at our New Wales facility in Polk County, Florida, resulting in process water from the stack draining into the sinkhole. The incident was reported to the FDEP and the EPA and in connection with the incident, our subsidiary, Mosaic Fertilizer, LLC ("Mosaic Fertilizer"), entered into a consent order (the "Order") with the FDEP in October 2016 under which Mosaic Fertilizer agreed to, among other things, implement an approved remediation plan to close the sinkhole; perform additional water monitoring and if necessary, assessment and rehabilitation activities in the event of identified offsite impacts; provide financial assurance; and evaluate the risk of potential future sinkhole formation at our active Florida Gypstack operations.

Financial Assurance. Separate from our accounting treatment for reclamation and closure liabilities, some jurisdictions in which we operate require us either to pass a test of financial strength or provide credit support, typically cash deposits, surety

bonds, financial guarantees or letters of credit, to address phosphate mining reclamation liabilities and closure liabilities for clay settling areas and Gypstacks. See "Other Commercial Commitments" under "Off-Balance Sheet Arrangements and Obligations" above for additional information about these requirements. We also have obligations under certain consent decrees and a separate financial assurance arrangement relating to our facilities in Florida and Louisiana. Two consent decrees that became effective in 2016 resolved claims under RCRA and state hazardous waste laws relating to our management of certain waste materials onsite at certain fertilizer manufacturing facilities in Florida and Louisiana. Under these consent decrees, in 2016 we deposited \$630 million in cash into two trust funds to provide additional financial assurance for the estimated costs of closure and post-closure care of our phosphogypsum management systems. In addition, in 2017, we issued a letter of credit in the amount of \$50 million to further support our financial assurance obligation under the Florida 2015 Consent Decree. While our actual Gypstack Closure Costs are generally expected to be paid by us in the normal course of our Phosphates business over a period that may not end until three decades or more after a Gypstack has been closed, the funds on deposit in the RCRA Trusts can be drawn by the applicable governmental authority in the event we cannot perform our closure and long-term care obligations. If and when our estimated Gypstack Closure Costs with respect to the facilities associated with a RCRA Trust are sufficiently lower than the amount on deposit in that RCRA Trust, we have the right to request that the excess funds be released to us. The same is true for the RCRA Trust balance remaining after the completion of our obligations, which will be performed over a period that may not end until three decades or more after a Gypstack has been closed. See the discussion under "EPA RCRA Initiative" in Note 14 of our Notes to Consolidated Financial Statements for additional information about these matters.

We established and in 2021 fully funded a trust valued at \$25 million (Canadian dollars) in satisfaction of financial assurance requirements for closure of our Saskatchewan Potash facilities. Trust performance is subject to review by the Province of Saskatchewan every five years during its existence.

In 2020, we executed and thereafter have maintained surety bonds in the amount of approximately \$82 million to establish financial assurance for closure of our Carlsbad, New Mexico potash facility with the U.S. Department of the Interior, Bureau of Land Management and the New Mexico Environment Department.

Examination of Working Places in Metal and Nonmetal Mines. In order to comply with U.S. Mine Safety and Health Administration requirements to examine working places in metal and nonmetal mines, we have adjusted our daily mine workplace examination procedures and added additional requirements for the documentation of adverse conditions when they are identified during the daily examinations.

Climate Change

We are committed to finding ways to meet the challenges of crop nutrient and animal feed ingredient production and distribution in the context of the need to reduce greenhouse gas emissions. While focused on helping the world grow the food it needs, we have proven our commitment to using our resources more efficiently and have implemented innovative energy recovery technologies that result in our generation of much of the energy we need, particularly in our U.S. Phosphates operations, from high efficiency heat recovery systems that result in lower greenhouse gas emissions. In 2021, we announced our goal to achieve net-zero greenhouse gas emissions in Florida by 2030 and companywide by 2040.

Climate Change Regulation. Various governmental initiatives to limit greenhouse gas emissions are under way or under consideration around the world. These initiatives could restrict our operating activities, require us to make changes in our operating activities that would increase our operating costs, reduce our efficiency or limit our output, require us to make capital improvements to our facilities, increase our energy, raw material and transportation costs or limit their availability, or otherwise adversely affect our results of operations, liquidity or capital resources, and these effects could be material to us.

The direct greenhouse gas emissions from our operations result primarily from:

- Combustion of natural gas to produce steam and dry potash products at our Belle Plaine, Saskatchewan potash solution mine. To a lesser extent, at our potash shaft mines, natural gas is used as a fuel to heat fresh air supplied to the shaft mines and for drying potash products.
- The use of natural gas as a feedstock in the production of ammonia at our Faustina, Louisiana facility.
- Process reactions from naturally occurring carbonates in phosphate rock.
- Operation of transport trucks, mining and construction equipment, and other machinery powered by internal combustion engines utilizing fossil fuels.

In addition, the production of energy and raw materials that we purchase from unrelated parties for use in our business and energy used in the transportation of our products and raw materials are sources of greenhouse gas emissions.

Governmental greenhouse gas emission initiatives include, among others, the December 2015 agreement (the "*Paris Agreement*") which was the outcome of the 21st session of the Conference of the Parties under the United Nations Framework Convention on Climate Change. The Paris Agreement, which was signed by nearly 200 nations including the U.S. and Canada, entered into force in late 2016 and sets out a goal of limiting the average rise in temperatures for this century to below 2 degrees Celsius. Each signatory is expected to develop its own plan (referred to as a Nationally Determined Contribution, or "*NDC*") for reaching that goal.

On January 20, 2021 the U.S. rejoined the Paris Agreement, which became effective February 19, 2021. In 2015, prior to this announcement, the U.S. had submitted an NDC aiming to achieve, by 2025, an economy-wide target of reducing greenhouse gas emissions by 26-28% below its 2005 level. The NDC also aims to use best efforts to reduce emissions by 28%. The U.S. target covers all greenhouse gases that were a part of the 2014 Inventory of Greenhouse Gas Emissions and Sinks. While the future of the U.S.'s involvement in the Paris Agreement and the status of this NDC are unclear, various legislative or regulatory initiatives relating to greenhouse gases have been adopted or considered by the U.S. Congress, the EPA or various states and those initiatives already adopted may be used to implement a U.S. NDC. Additionally, more stringent laws and regulations may be enacted to accomplish the goals set out in the NDC.

Brazil ratified the Paris Agreement on September 21, 2016, committing to an NDC that includes an economy-wide target of 1.3 GtCO2e by 2025 and 1.2 GtCO2e by 2030. In 2020, Brazil submitted a new NDC, which reaffirms the country's commitment to reducing total net greenhouse gas emissions by 37% in 2025 and by 43% in 2030. The NDC further commits to achieving climate neutrality in 2060. Since 2009, Brazil has a National Policy on Climate Change. This Policy is implemented by two instruments: the National Plan on Climate Change and the National Climate Change Fund. Additionally, Brazil has sector-specific policies, such as the National Plan for Low Carbon Emission in Agriculture. As part of its commitments in the Paris Agreement, Brazil enforced a Biofuels National Policy ("*RenovaBio*") program in 2020, which sets a carbon credit mechanism based on emission reductions from the use of biofuels. RenovaBio aims to increase biofuels rate in the country's energy matrix and reached 97% of its target on the first year. Under RenovaBio, fossil fuel distributors are required to compensate for the carbon emissions through the acquisition of CBIOS (decarbonization certificates), issued by biofuel producers (e.g., ethanol plants). Since 2020, the Brazilian Congress became active in proposing other climate-related legislation and could approve new instruments to combat climate change in this current legislature. We will continue to monitor developments relating to the anticipated legislation, as well as the potential future effect on our operating activities, energy, raw material and transportation costs, results of operations, liquidity or capital resources.

Canada's intended NDC aims to achieve, by 2030, an economy-wide target of reducing greenhouse gas emissions by 40-45% below 2005 levels. In late 2016, the Canadian federal government announced plans for a comprehensive tax on carbon emissions, under which provinces opting out of the tax would have the option of adopting a cap-and-trade system. In the plans, the federal government also committed to implementing a federal carbon pricing backstop system that will apply in any province or territory that does not have a carbon pricing system in place by 2018. As of January 1, 2023, a carbon tax of \$65 per tonne now applies in Canada for any emitter not covered under the federal backstop program or approved provincial program. A revised plan was submitted by Saskatchewan to the federal government in 2022, which was subsequently approved in its entirety in November 2022. Our Saskatchewan Potash facilities are subject to the Saskatchewan climate change plan regarding emissions at our facilities; however, indirect costs from the carbon tax associated with electricity, natural gas consumption, and transportation are currently passed through to Mosaic. As implementation of the Paris Agreement proceeds, more stringent laws and regulations may be enacted to accomplish the goals set out in Canada's NDC. We will also continue to monitor developments relating to the anticipated legislation, as well as the potential future effect on our operating activities, energy, raw material and transportation costs, results of operations, liquidity or capital resources.

It is possible that future legislation or regulation addressing climate change, including in response to the Paris Agreement or any new international agreements, could adversely affect our operating activities, energy, raw material and transportation costs, results of operations, liquidity or capital resources, and these effects could be material or adversely impact our competitive advantage. In addition, to the extent climate change restrictions imposed in countries where our competitors operate, such as China, India, former Soviet Union countries or Morocco, are less stringent than in the U.S., Brazil or Canada, our competitors could gain cost or other competitive advantages over us.

Operating Impacts Due to Climate Change. The prospective impact of climate change on our operations and those of our customers and farmers remains uncertain. Scientists have hypothesized that the impacts of climate change could include

changes in rainfall patterns, water shortages, changing sea levels, changing storm patterns and intensities, and changing temperature levels and that these changes could be severe. These impacts could vary by geographic location. Severe climate change could impact our costs and operating activities, the location and cost of global grain and oilseed production, and the supply and demand for grains and oilseeds. At the present time, we cannot predict the prospective impact of climate change on our results of operations, liquidity or capital resources, or whether any such effects could be material to us.

Remedial Activities

Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") (aka Superfund) and state analogues impose liability, without regard to fault or to the legality of a party's conduct, on certain categories of persons, including those who have disposed of "hazardous substances" at a location. Under Superfund, or its various state analogues, one party may be responsible for the entire site, regardless of fault or the locality of its disposal activity. We have contingent environmental remedial liabilities that arise principally from three sources which are further discussed below: (i) facilities currently or formerly owned by our subsidiaries or their predecessors; (ii) facilities adjacent to currently or formerly owned facilities; and (iii) third-party Superfund or state equivalent sites where we are alleged to have disposed of hazardous materials. Taking into consideration established accruals for environmental remedial matters of approximately \$185.5 million as of December 31, 2022, expenditures for these known conditions currently are not expected, individually or in the aggregate, to have a material effect on our business or financial condition. However, material expenditures could be required in the future to remediate the contamination at known sites or at other current or former sites.

Remediation at Our Facilities. Many of our formerly owned or current facilities have been in operation for a number of years. The historical use and handling of regulated chemical substances, crop and animal nutrients and additives as well as byproduct or process tailings at these facilities by us and predecessor operators have resulted in soil, surface water and groundwater impacts.

At many of these facilities, spills or other releases of regulated substances have occurred previously and potentially could occur in the future, possibly requiring us to undertake or fund cleanup efforts under Superfund or otherwise. In some instances, we have agreed, pursuant to consent orders or agreements with the appropriate governmental agencies, to undertake certain investigations, which currently are in progress, to determine whether remedial action may be required to address site impacts. At other locations, we have entered into consent orders or agreements with appropriate governmental agencies to perform required remedial activities that will address identified site conditions. Taking into account established accruals, future expenditures for these known conditions currently are not expected, individually or in the aggregate, to have a material adverse effect on our business or financial condition. However, material expenditures by us could be required in the future to remediate the environmental impacts at these or at other current or former sites.

Remediation at Third-Party Facilities. Various third parties have alleged that our historical operations have impacted neighboring offsite areas or nearby third-party facilities. In some instances, we have agreed, pursuant to orders from or agreements with appropriate governmental agencies or agreements with private parties, to undertake or fund investigations, some of which currently are in progress, to determine whether remedial action, under Superfund or otherwise, may be required to address offsite impacts. Our remedial liability at these sites, either alone or in the aggregate, taking into account established accruals, currently is not expected to have a material adverse effect on our business or financial condition. As more information is obtained regarding these sites, this expectation could change.

Liability for OffSite Disposal Locations. Currently, we are involved or concluding involvement for offsite disposal at several Superfund or equivalent state sites. Moreover, we previously have entered into settlements to resolve liability with regard to Superfund or equivalent state sites. In some cases, such settlements have included "reopeners," which could result in additional liability at such sites in the event of newly discovered contamination or other circumstances. Our remedial liability at such disposal sites, either alone or in the aggregate, currently is not expected to have a material adverse effect on our business or financial condition. As more information is obtained regarding these sites and the potentially responsible parties involved, this expectation could change.

Product Requirements and Impacts

International, federal, state and provincial standards require us to register many of our products before these products can be sold. The standards also impose labeling requirements on these products and require us to manufacture the products to formulations set forth on the labels. We believe that, when handled and used as intended, based on the available data, crop nutrient materials do not pose harm to human health or the environment and that any additional standards or regulatory

requirements relating to product requirements and impacts will not have a material adverse effect on our business or financial condition.

Environmental Justice

The U.S. federal and some state governments increasingly are adopting standards or policies requiring environmental justice reviews in some permitting actions. In general, they require governmental agencies to evaluate projects for disproportionate impacts to disadvantaged or already burdened communities. If such conditions are found, they might result in a permit denial, or restrictive or cost prohibitive conditions imposed on our operations and may impair our business and operations and could have a material adverse effect on our business, financial condition or results of operations.

Additional Information

For additional information about phosphate mine permitting in Florida, our environmental liabilities, the environmental proceedings in which we are involved, our AROs related to environmental matters, and our related accounting policies, see Environmental Liabilities and AROs under Critical Accounting Estimates above and Notes 2, 14, and 23 of our Notes to Consolidated Financial Statements.

Sustainability

We are committed to making informed choices that improve our corporate governance, financial strength, operational efficiency, environmental stewardship, community engagement and resource management. Through these efforts, we intend to sustain our business and experience lasting success.

We have included, or incorporate by reference, throughout this Form 10-K discussions of various matters relating to our sustainability, in its broadest sense, that we believe may be material to our investors. These matters include, but are not limited to, discussions about: corporate governance, including the leadership and respective roles of our Board of Directors and its committees, and management; recent and prospective developments in our business; product development; risk, enterprise risk management and risk oversight; the regulatory and permitting environment for our business and ongoing regulatory and permitting initiatives; executive compensation practices; employee and contractor safety; human capital matters and other EHS matters, including climate change, water management, energy and other operational efficiency initiatives, reclamation and AROs. Other matters relating to sustainability are included in our sustainability reports that are available on our website at www.mosaicco.com/ourresponsibility. Our sustainability reports are not incorporated by reference in this Form 10-K.

Contingencies

Information regarding contingencies in Note 23 of our Notes to Consolidated Financial Statements is incorporated herein by reference.

Related Parties

Information regarding related party transactions is set forth in Note 24 of our Notes to Consolidated Financial Statements and is incorporated herein by reference.

Recently Issued Accounting Guidance

Recently issued accounting guidance is set forth in Note 3 of our Notes to Consolidated Financial Statements and is incorporated herein by reference.

Cautionary Statement Regarding Forward Looking Information

All statements, other than statements of historical fact, appearing in this report constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward looking statements include, among other things, statements about our expectations, beliefs, intentions or strategies for the future, including statements about proposed or pending future transactions or strategic plans, statements concerning our future operations, financial condition and prospects, statements regarding our expectations for capital expenditures, statements concerning our level of indebtedness and other information, and any statements of assumptions regarding any of the foregoing. In particular, forward-

looking statements may include words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "potential," "predict," "project" or "should". These statements involve certain risks and uncertainties that may cause actual results to differ materially from expectations as of the date of this filing.

Factors that could cause reported results to differ materially from those expressed or implied by the forward-looking statements include, but are not limited to, the following:

- business and economic conditions and governmental policies affecting the agricultural industry where we or our customers operate, including price and demand volatility resulting from periodic imbalances of supply and demand;
- because of political and economic instability, civil unrest or changes in government policies in Brazil, Saudi Arabia, Peru or other countries in which we do business, our operations could be disrupted as higher costs of doing business could result, including those associated with implementation of new freight tables and new mining legislation;
- the continued impact of the novel coronavirus Covid-19 pandemic on the global economy and our business, suppliers, customers, employees and the communities in which we operate, as further described in Part I, Item 1A of this Form 10-K:
- a potential drop in oil demand, which could lead to a significant decline in production, and its impact on the availability and price of sulfur, a key raw material input for our Phosphates and Mosaic Fertilizantes segment operations;
- changes in farmers' application rates for crop nutrients;
- changes in the operation of world phosphate or potash markets, including consolidation in the crop nutrient industry, particularly if we do not participate in the consolidation;
- the expansion or contraction of production capacity or selling efforts by competitors or new entrants in the industries in which we operate, including the effects of actions by members of Canpotex to prove the production capacity of potash expansion projects, through proving runs or otherwise;
- the effect of future product innovations or development of new technologies on demand for our products;
- seasonality in our business that results in the need to carry significant amounts of inventory and seasonal peaks in working capital requirements, which may result in excess inventory or product shortages;
- changes in the costs, or constraints on supplies, of raw materials or energy used in manufacturing our products, or in the costs or availability of transportation for our products;
- economic and market conditions including supply chain challenges and increased costs and delays caused by transportation and labor shortages;
- declines in our selling prices or significant increases in costs that can require us to write down our inventories to the lower of cost or market, or require us to impair goodwill or other long-lived assets, or establish a valuation allowance against deferred tax assets;
- the lag in realizing the benefit of falling market prices for the raw materials we use to produce our products that can occur while we consume raw materials that we purchased or committed to purchase in the past at higher prices;
- disruptions of our operations at any of our key production, distribution, transportation or terminaling facilities, including those of Canpotex or any joint venture in which we participate;
- shortages or other unavailability of trucks, railcars, tugs, barges and ships for carrying our products and raw materials;
- the effects of and change in trade, monetary, environmental, tax and fiscal policies, laws and regulations;
- foreign exchange rates and fluctuations in those rates;
- tax regulations, currency exchange controls and other restrictions that may affect our ability to optimize the use of our liquidity;
- risks associated with our international operations, including any potential and actual adverse effects related to the Miski Mayo Mine;

- adverse weather and climate conditions affecting our operations, including the impact of potential hurricanes, excessive heat, cold, snow, rainfall or drought;
- difficulties or delays in receiving, challenges to, increased costs of obtaining or satisfying conditions of, or revocation or withdrawal of required governmental and regulatory approvals, including permitting activities;
- changes in the environmental and other governmental regulation that applies to our operations, including federal
 legislation or regulatory action expanding the types and extent of water resources regulated under federal law and
 the possibility of further federal or state legislation or regulatory action affecting or related to greenhouse gas
 emissions, including carbon taxes or other measures that may be implemented in Canada or other jurisdictions in
 which we operate, or of restrictions or liabilities related to elevated levels of naturally-occurring radiation that arise
 from disturbing the ground in the course of mining activities or possible efforts to reduce the flow of nutrients into
 the Gulf of Mexico, the Mississippi River basin or elsewhere;
- the potential costs and effects of implementation of federal or state water quality standards for the discharge of nitrogen and/or phosphorus into Florida waterways;
- the financial resources of our competitors, including state-owned and government-subsidized entities in other countries;
- the possibility of defaults by our customers on trade credit that we extend to them or on indebtedness that they incur to purchase our products and that we guarantee;
- any significant reduction in customers' liquidity or access to credit that they need to purchase our products;
- the effectiveness of the processes we put in place to manage our significant strategic priorities, including our investment in MWSPC, and to successfully integrate and grow acquired businesses;
- actual costs of various items differing from management's current estimates, including, among others, asset retirement, environmental remediation, reclamation or other environmental obligations and Canadian resource taxes and royalties, or the costs of MWSPC or its existing or future funding;
- the costs and effects of legal and administrative proceedings and regulatory matters affecting us, including environmental, tax or administrative proceedings, complaints that our operations are adversely impacting nearby farms, businesses, other property uses or properties, settlements thereof and actions taken by courts with respect to approvals of settlements, costs related to defending and resolving global audit, appeal or court activity and other further developments in legal proceedings and regulatory matters;
- the success of our efforts to attract and retain highly qualified and motivated employees;
- strikes, labor stoppages or slowdowns by our work force or increased costs resulting from unsuccessful labor contract negotiations, and the potential costs and effects of compliance with new regulations affecting our workforce, which increasingly focus on wages and hours, healthcare, retirement and other employee benefits;
- brine inflows at our potash mines;
- accidents or other incidents involving our properties or operations, including potential fires, explosions, seismic
 events, sinkholes, unsuccessful tailings management, ineffective mine safety procedures, or releases of hazardous or
 volatile chemicals:
- terrorism, armed conflict or other malicious intentional acts, including cybersecurity risks such as attempts to gain unauthorized access to, or disable, our information technology systems, or our costs of addressing malicious intentional acts;
- actions by the holders of controlling equity interests in businesses in which we hold a noncontrolling interest;
- changes in our relationships with other members of Canpotex or any joint venture in which we participate or their or our exit from participation in Canpotex or any such export association or joint venture, and other changes in our commercial arrangements with unrelated third parties;
- difficulties in realizing benefits under our long-term natural gas based pricing ammonia supply agreement with CF, including the risks that the cost savings initially anticipated from the agreement may not be fully realized over the term of the agreement or that the price of natural gas or the market price for ammonia during the agreement's term

are at levels at which the agreement's natural gas based pricing is disadvantageous to us, compared with purchases in the spot market; and

• other risk factors reported from time to time in our SEC reports.

Material uncertainties and other factors known to us are discussed in Item 1A, "Risk Factors," of our Form 10-K for the year ended December 31, 2022 and incorporated by reference herein as if fully stated herein.

We base our forward-looking statements on information currently available to us, and we undertake no obligation to update or revise any of these statements, whether as a result of changes in underlying factors, new information, future events or other developments.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors The Mosaic Company:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of The Mosaic Company and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of earnings, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (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 23, 2023 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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 asset retirement obligations for water treatment costs

As discussed in Note 14 to the consolidated financial statements, the Company has recorded asset retirement obligations (AROs) of \$1,905.6 million as of December 31, 2022. The ARO includes the planned treatment of contaminated water ("water treatment costs") and other asset retirement activities at the Company's Florida and Louisiana facilities.

We identified the evaluation of asset retirement obligations for water treatment costs as a critical audit matter. Specialized skills and knowledge were required to evaluate the Company's selection of planned water treatment activities to satisfy their legal obligation. In addition, there was a high degree of subjective auditor judgment due to the sensitivity of the AROs to minor changes to significant assumptions, such as the volume of contaminated water and the forecasted level of contamination used to estimate the water treatment costs per thousand gallons ("unit costs").

The following are the primary procedures performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's ARO process. This included controls related

to the knowledge, skill, and ability of third-party specialists and their relationship to the Company, determination of necessary activities required to treat contaminated water, and the development of the significant assumptions utilized in the process. We compared water treatment unit cost estimates to actual spending and water quality measurements. We evaluated the Company's ability to accurately estimate water treatment costs by comparing the Company's prior year estimates to the actual water treatment costs incurred. We performed sensitivity analyses over the volume of contaminated water and the unit costs assumptions to assess their impact on the water treatment costs estimate. Due to the specialized skills and knowledge used by the Company to select water treatment activities, we involved an environmental engineering professional with specialized skills and knowledge. This professional assisted in assessing the professional qualifications of the Company's environmental engineers and engineering firm, including the knowledge, skill, and ability of the engineers, and the relationship of the engineers and engineering firm to the Company. In addition, the environmental engineering professional evaluated the Company's planned asset retirement activities by analyzing the Company's specialist's reports. This professional evaluated significant engineering assumptions listed above and compared the planned activities per the specialist's reports to other information obtained during the audit, such as:

- permits obtained which specify the Company's legal obligations
- reports to state regulators on the level of contamination in water balances.

We evaluated the Company's changes in assumptions for the volume of contaminated water and the forecasted level of contamination by comparing them to actual results from the prior year, as well as assessing operational changes that could impact estimated water volumes, contamination levels, or necessary treatment activities.

Evaluation of the realizability of certain deferred tax assets

As discussed in Note 13 of the consolidated financial statements, the Company recognizes deferred income tax assets and liabilities attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases in each jurisdiction. A valuation allowance is recorded in each jurisdiction in which a deferred income tax asset is recorded when it is more likely than not that the deferred income tax asset will not be realized. As of December 31, 2022, the Company had gross deferred tax assets of \$1,793.0 million and a related valuation allowance of \$909.9 million.

We identified the evaluation of the realizability of certain deferred tax assets as a critical audit matter. Specifically, the evaluation of foreign tax credit carryforwards, required subjective auditor judgment to assess certain forecasted revenue and cost assumptions used to estimate forecasted future taxable income over the periods in which those temporary differences become deductible. Changes to these assumptions could have an effect on the Company's evaluation of the realizability of the deferred tax assets. In addition, there is complexity in the application of the relevant tax regulations to the Company's forecasted future taxable income.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's deferred tax asset valuation process. This included controls related to the Company's development of assumptions listed above and application of the relevant tax regulations in estimating forecasted future taxable income. We analyzed certain forecasted revenue and cost assumptions by comparing to external forecasts from industry publications and performed sensitivity analyses to assess the impact of changes in those assumptions on the Company's determination of the ability to utilize certain deferred tax assets. To assess the Company's ability to forecast, we compared the Company's historical revenue and cost forecasts to actual results. We involved federal and international tax professionals with specialized skills and knowledge, who assisted in assessing the Company's application of the relevant tax regulations and evaluating the realizability of certain deferred tax assets.

/s/ KPMG LLP

We have served as the Company's auditor since 2004.

Tampa, Florida February 23, 2023

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors The Mosaic Company:

Opinion on Internal Control Over Financial Reporting

We have audited The Mosaic Company 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 earnings, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements), and our report dated February 23, 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 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

Tampa, Florida February 23, 2023

Consolidated Statements of Earnings In millions, except per share amounts

	Years Ended December 31,							
		2022		2021		2020		
Net sales	\$	19,125.2	\$	12,357.4	\$	8,681.7		
Cost of goods sold		13,369.4		9,157.1		7,616.8		
Gross margin		5,755.8		3,200.3		1,064.9		
Selling, general and administrative expenses		498.0		430.5		371.5		
Impairment, restructuring and other expenses		_		158.1		_		
Other operating expenses		472.5		143.2		280.5		
Operating earnings		4,785.3		2,468.5		412.9		
Interest expense, net		(137.8)		(169.1)		(180.6)		
Foreign currency transaction gain (loss)		97.5		(78.5)		(64.3)		
Other (expense) income		(102.5)		3.9		12.9		
Earnings from consolidated companies before income taxes		4,642.5		2,224.8		180.9		
Provision for (benefit from) income taxes		1,224.3		597.7		(578.5)		
Earnings from consolidated companies		3,418.2		1,627.1		759.4		
Equity in net earnings (loss) of nonconsolidated companies		196.0		7.8		(93.8)		
Net earnings including noncontrolling interests		3,614.2		1,634.9		665.6		
Less: Net earnings (loss) attributable to noncontrolling interests		31.4		4.3		(0.5)		
Net earnings attributable to Mosaic	\$	3,582.8	\$	1,630.6	\$	666.1		
Basic net earnings per share attributable to Mosaic	\$	10.17	\$	4.31	\$	1.76		
Basic weighted average number of shares outstanding		352.4		378.1		379.0		
Diluted net earnings per share attributable to Mosaic	\$	10.06	\$	4.27	\$	1.75		
Diluted weighted average number of shares outstanding		356.0		381.6		381.3		

Consolidated Statements of Comprehensive Income In millions

	Years Ended December 31,						
		2022		2021		2020	
Net earnings including noncontrolling interest	\$	3,614.2	\$	1,634.9	\$	665.6	
Other comprehensive income (loss), net of tax							
Foreign currency translation (loss)		(255.0)		(108.2)		(249.5)	
Net actuarial gain and prior service cost		19.7		36.9		19.9	
Realized gain on interest rate swap		1.5		1.5		1.6	
Net (loss) gain on marketable securities held in trust fund		(24.8)		(17.6)		12.8	
Other comprehensive (loss)		(258.6)		(87.4)		(215.2)	
Comprehensive income		3,355.6		1,547.5		450.4	
Less: Comprehensive income (loss) attributable to noncontrolling interest		33.2		2.5		(7.7)	
Comprehensive income attributable to Mosaic	\$	3,322.4	\$	1,545.0	\$	458.1	

Consolidated Balance Sheets In millions, except per share amounts

	December 31,			31,
		2022		2021
Assets				
Current assets:				
Cash and cash equivalents	\$	735.4	\$	769.5
Receivables, net		1,699.9		1,531.9
Inventories		3,543.1		2,741.4
Other current assets		578.2		282.5
Total current assets		6,556.6		5,325.3
Property, plant and equipment, net		12,678.7		12,475.3
Investments in nonconsolidated companies		885.9		691.8
Goodwill		1,116.3		1,172.2
Deferred income taxes		752.3		997.1
Other assets		1,396.2		1,374.7
Total assets	\$	23,386.0	\$	22,036.4
Liabilities and Equity				
Current liabilities:				
Short-term debt	\$	224.9	\$	302.8
Current maturities of long-term debt		985.3		596.6
Structured accounts payable arrangements		751.2		743.7
Accounts payable		1,292.5		1,260.7
Accrued liabilities		2,279.9		1,883.6
Total current liabilities		5,533.8		4,787.4
Long-term debt, less current maturities		2,411.9		3,382.2
Deferred income taxes		1,010.1		1,016.2
Other noncurrent liabilities		2,236.0		2,102.1
Equity:				
Preferred stock, \$0.01 par value, 15,000,000 shares authorized, none issued and outstanding as of December 31, 2022 and 2021				
Common stock, \$0.01 par value, 1,000,000,000 shares authorized, 391,964,464 shares issued and 339,071,423 shares outstanding as of December 31, 2022, 390,815,099 shares issued and 368,732,231 shares outstanding as of December 31, 2021		3.4		3.7
Capital in excess of par value		J.¬		478.0
Retained earnings		14,203.4		12,014.2
Accumulated other comprehensive loss		(2,152.2)		(1,891.8)
Total Mosaic stockholders' equity		12,054.6	_	10,604.1
Non-controlling interests		139.6		144.4
Total equity		12,194.2	_	10,748.5
Total liabilities and equity	\$	23,386.0	\$	22,036.4
Total Internities and equity	Ψ	23,300.0	Ψ	22,030.7

Consolidated Statements of Cash Flows In millions, except per share amounts

Adjustments to reconcile net earnings including noncontrolling interests to net earn provided by operating activities: Depreciation, depletion and amorization 933.9 812.9 84.0		Ye	31,	
Net cammings melanding noncontrolling interests \$ 3,614 2 8 1,634 9 8 66		2022	2021	2020
Adjustments to reconcile net earnings including noncontrolling interests to net earn provided by operating activities: Depreciation, depletion and amorization 933.9 812.9 84.0				
Page Page		\$ 3,614.2	\$ 1,634.9	\$ 665.6
Deferred and other innome taxes 344 98.8 68 Equity in net (earnings) loss of nonconsolidated companies, net of dividends (191.5) (2.1) 9.6 Accretion expense for leases tetriement obligations 31.6 71.9 6.6 Accretion expense for leases extrement obligations 27.9 29.5 1.5 Accretion expense for leases 15.9 31.4 2.0 Share-based compensation expenses 27.9 29.5 1.5 Unrealized (gain) loss on derivatives 4.3 7.2 (2.0 Foreign currency adjustments (67.9) (2.6) 1.5 Mine closure costs -	operating activities:			
Equity in net (earnings) loss of nonconsolidated companies, net of dividends		933.9	812.9	847.6
Accretion expense for leases		344.4	98.8	(684.0
Accretion expense for leases 15.9 13.4 22	Equity in net (earnings) loss of nonconsolidated companies, net of dividends	(191.5)	(2.1)	97.1
Share-based compensation expense 27,9 29,5 1 Umrealized (gain) loss on derivatives 4,3 7,2 (2 Foreign currency adjustments (67,9) (2,6) 1 Mine closure costs — 158,1 Loss on sale of securities 46,6 — Write down of inventory to net realizable value 38,0 — Pension settlement loss 41,9 — Other 39,0 (5,3) 3 Changes in assets and liabilities *** *** *** Receivables, net (215,2) (683,6) (15 Inventories, net (217,4) (18,0) 6 Other current assets and noncurrent assets (247,4) (18,0) 6 Other current assets and accrued liabilities 219,8 995,1 33 Other oncurrent liabilities 219,8 995,1 33 Other oncurrent liabilities 219,8 995,1 33 Net cash provided by operating activities (217,3 (1,286,6) (1,17 Purchas	•	81.6	71.9	68.0
Unrealized (gain) loss on derivatives	Accretion expense for leases	15.9	13.4	24.2
Foreign currency adjustments (67.9) (2.6) 1 Mine closure costs — 158.1 Loss on sale of securities 46.6 — Write down of inventory to net realizable value 38.0 — Pension settlement loss 41.9 — Other 39.0 (5.3) 3 Changes in assets and liabilities: (215.2) (883.6) (15 Recevables, net (215.2) (883.6) (15 Inventiones, at (749.6) (10,679) 19 Other current assets and noncurrent assets (247.4) (18.0) 6 Accounts payable and accrued liabilities 219.8 995.1 33 Other noncurrent liabilities 3,935.8 2,187.0 1,58 Castillary Strong Activities 3,935.8 2,187.0 1,58 Castillary Strong Activities (1,247.3) (1,288.6) (1,17 Purchases of available-for-sale securities - restricted 762.5 (433.6) (61 Proceeds from sale of available-for-sale securities - restricted 762.5 <td< td=""><td>Share-based compensation expense</td><td>27.9</td><td>29.5</td><td>17.8</td></td<>	Share-based compensation expense	27.9	29.5	17.8
Mine closure costs — 158.1 Loss on sale of securities 46.6 — Write down of inventory to net realizable value 38.0 — Pension settlement loss 41.9 — Other 39.0 (5.3) 3 Changes in assets and liabilities: — (215.2) (683.6) (15.6) Changes in assets and noncurrent assets (215.2) (683.6) (15.7) (18.0) 6 Accounts payable and accrued liabilities (217.4) (118.0) 6 Accounts payable and accrued liabilities (219.8) 995.1 33 Other ourcurrent liabilities (0.1) 144.7 8 Accounts payable and accrued liabilities (0.1) 144.7 8 Represented in investing activities (1.2 (1.2 (1.2 (1.2 (1.	Unrealized (gain) loss on derivatives	4.3	7.2	(26.6
Loss on sale of securities	Foreign currency adjustments	(67.9)	(2.6)	14.1
Write down of inventory to net realizable value 38.0 — Pension settlement loss 41.9 — Other 39.0 (5.3) 3 Changes in assets and liabilities:	Mine closure costs	_	158.1	_
Pension settlement loss 41.9 — Other 39.0 (5.3) 3 Changes in assets and liabilities: Receivables, net (215.2) (68.36) (1.5 Inventories, net (749.6) (1,067.9) 19 Other current assets and noncurrent assets (247.4) (18.0) 6 Accounts payable and accrued liabilities (19.1) 144.7 8 Accounts payable and accrued liabilities (0.1) 144.7 8 Account provided by operating activities (0.1) 144.7 8 Net cash provided by operating activities (1.247.3) (1.28.6) (1.17.1 Purbases of available-for-sale securities - restricted (762.5) (433.6) (61 Proceeds from sale of available-for-sale securities - restricted (762.5) (433.6) (61 Seb vs from	Loss on sale of securities	46.6	_	_
Other 39.0 (5.3) 3 Changes in assets and liabilities: Receivables, net (215.2) (683.6) (15 Inventories, net (749.6) (1,067.9) 19 Other current assets and noncurrent assets (247.4) (18.0) 6 Accounts payable and accrued liabilities 219.8 995.1 33 Other nourerent liabilities 0.01 144.7 8 Net cash provided by operating activities 3,935.8 2,187.0 1,58 Cash Flows from Investing Activities 3,935.8 2,187.0 1,58 Cash gradied expenditures (1,247.3) (1,288.6) (1,17 Purchases of available-for-sale securities - restricted (762.5) (433.6) (61 Proceeds from Investing activities (1,296.2) (1,32.2) (1,0 Other 7.2 (10.2) (4.0 (1,0 Other 7.2 (10.2) (4.0 (1,5 Payments of short-term debt (1,761.2) (72.6) (1,54 Proceeds from inventory financing arrangeme	Write down of inventory to net realizable value	38.0	_	_
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Inventories, net	Changes in assets and liabilities:			
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Other noncurrent liabilities (0.1) 144.7 8 Net cash provided by operating activities 3,935.8 2,187.0 1,58 Cash Flows from Investing Activities 3,935.8 2,187.0 1,58 Capital expenditures (1,247.3) (1,288.6) (1,17 Purchases of available-for-sale securities - restricted (762.5) (433.6) (61 Proceeds from sale of available-for-sale securities - restricted 743.0 410.1 60 Other 7.2 (10.2) (1 60 Other 7.2 (10.2) (1,88 1.8 1.8 Cash Flows from Financing Activities (1,259.6) (1,322.3) (1,18 Payments of short-term debt (1,761.2) (72.6) (1,58 Payments of short-term debt 1,980.5 76.6 1,52 Payments from inventory financing arrangement 1,481.8 302.7 - Proceeds from inventory financing arrangements 1,460.5 1,122.7 1,03 Proceeds from structured accounts payable arrangements 2,352.1 445.0 1,22	Other current assets and noncurrent assets	(247.4)	(18.0)	66.1
Net cash provided by operating activities 3,935.8 2,187.0 1,58	Accounts payable and accrued liabilities	219.8	995.1	333.3
Net cash provided by operating activities 3,935.8 2,187.0 1,58 Cash Flows from Investing Activities (1,247.3) (1,288.6) (1,17 Purchases of available-for-sale securities - restricted (762.5) (433.6) (61 Proceeds from sale of available-for-sale securities - restricted 743.0 410.1 60 Other 7.2 (10.2) (10.2) (1.20 Net cash used in investing activities (1,259.6) (1,322.3) (1,18 Cash Flows from Financing Activities (1,259.6) (1,322.3) (1,18 Payments of short-term debt (1,761.2) (726.6) (1,54 Proceeds from inventory financing arrangement (1,651.5) — Payments of short-term debt (1,651.5) — Payments of structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Payments of structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements (1,40.5)<	Other noncurrent liabilities	(0.1)	144.7	89.7
Capital expenditures (1,247.3) (1,288.6) (1,17) Purchases of available-for-sale securities - restricted (762.5) (433.6) (61 Proceeds from sale of available-for-sale securities - restricted 743.0 410.1 60 Other 7.2 (10.2) (Net cash used in investing activities (1,259.6) (1,32.3) (1,88 Cash Flows from Financing Activities (1,761.2) (726.6) (1,54 Payments of short-term debt (1,761.2) (726.6) 1,52 Payments from inventory financing arrangement (1,651.5) — Proceeds from inventory financing arrangement (1,476.6) (1,028.4) (1,15 Payments of structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Policetions of transferred receivables (2,332.1) 445.0 (1,227.7) 1,03 Collections of transferred receivables (2,433.2) (363.9) (4 (4 (4 (4 (5 (4	Net cash provided by operating activities	3,935.8	2,187.0	1,582.6
Purchases of available-for-sale securities - restricted (762.5) (433.6) (61 Proceeds from sale of available-for-sale securities - restricted 743.0 410.1 60 Other 7.2 (10.2) 0 Net cash used in investing activities (1,259.6) (1,322.3) (1,18 Cash Flows from Financing Activities (1,761.2) (726.6) (1,54 Payments of short-term debt (1,761.2) (726.6) 1,52 Payments from inventory financing arrangement (1,651.5) — Proceeds from inventory financing arrangement (1,651.5) — Proceeds from inventory financing arrangements (1,476.6) (1,028.4) (1,15 Poceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Poceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Payments of structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Poceeds from structured accounts payable arrangements	Cash Flows from Investing Activities			
Proceeds from sale of available-for-sale securities - restricted 743.0 410.1 66 Other 7.2 (10.2) (1 Net cash used in investing activities (1,259.6) (1,323.3) (1,188 Cash Flows from Financing Activities "Total Plants of short-term debt" (1,761.2) (726.6) (1,54.2) Payments of short-term debt (1,980.5) 726.6 1,52 Payments from inventory financing arrangement (1,651.5) — Proceeds from inventory financing arrangement (1,476.6) (1,028.4) (1,15 Payments of structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Power of structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Payments of transferred receivables (2,332.1) (45.0) (45.0)	Capital expenditures	(1,247.3)	(1,288.6)	(1,170.6
Other 7.2 (10.2) (1.25.0) (1.322.3) (1.88.0) Cash Flows from Financing Activities (1.25.6) (1.322.3) (1.88.0) Payments of short-term debt (1.761.2) (72.6.6) (1.54.4.6.6.6.1.5.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	Purchases of available-for-sale securities - restricted	(762.5)	(433.6)	(618.7
Net cash used in investing activities (1,259,6) (1,322,3) (1,188) Cash Flows from Financing Activities Flows from Financing Activities Payments of short-term debt (1,761,2) (726,6) (1,54 Proceeds from issuance of short-term debt 1,980.5 726,6 1,52 Payments from inventory financing arrangement (1,651.5) — Proceeds from inventory financing arrangement 1,348.8 302.7 Payments of structured accounts payable arrangements (1,476.6) (1,028.4) (1,15 Proceeds from structured accounts payable arrangements 1,460.5 1,122.7 1,03 Collections of transferred receivables 2,352.1 445.0 <th< td=""><td>Proceeds from sale of available-for-sale securities - restricted</td><td>743.0</td><td>410.1</td><td>607.2</td></th<>	Proceeds from sale of available-for-sale securities - restricted	743.0	410.1	607.2
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				62.1
				\$ 532.3 \$ 594.4

Consolidated Statements of Cash Flows (Continued) In millions, except per share amounts

		Year	s En	ded Decemb	er 31	,
	2022			2021		2020
Reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets to the consolidated statements of cash flows:						
Cash and cash equivalents	\$	735.4	\$	769.5	\$	574.0
Restricted cash in other current assets		8.2		8.3		8.1
Restricted cash in other assets		10.5		8.5		12.3
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	\$	754.1	\$	786.3	\$	594.4

Consolidated Statements of Equity In millions, except per share data

]	Dollars		
	Shares		Mosaic Stockholders				
	Common Stock	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Loss	Non- Controlling Interests	Total Equity
Balance as of December 31, 2019	378.8	\$ 3.8	\$ 858.4	\$ 9,921.5	\$ (1,598.2)	\$ 182.1	\$ 9,367.6
Total comprehensive income (loss)	_	_	_	666.1	(208.0)	(7.7)	450.4
Vesting of restricted stock units	0.3	_	(2.7)	_	_	_	(2.7)
Stock based compensation	_	_	17.1	_	_	_	17.1
Dividends (\$0.20 per share)	_	_	_	(76.6)	_	_	(76.6)
Dividends for noncontrolling interests	_	_	_	_	_	(0.6)	(0.6)
Balance as of December 31, 2020	379.1	3.8	872.8	10,511.0	(1,806.2)	173.8	9,755.2
Total comprehensive income (loss)	_	_	_	1,630.6	(85.6)	2.5	1,547.5
Vesting of restricted stock units	0.8	_	- (11.3)	_	_	_	(11.3)
Stock based compensation	_	_	26.4	_	_	_	26.4
Stock option exercises	_	_	3.2	_	_	_	3.2
Repurchases of stock	(11.2)	(0.1)	(410.8)	_	_	_	(410.9)
Dividends (\$0.30 per share)	_	_	_	(127.4)	_	_	(127.4)
Dividends for noncontrolling interests	_	_	_	_	_	(31.3)	(31.3)
Purchase of noncontrolling interests	_	_	(2.3)	_	_	(0.6)	(2.9)
Balance as of December 31, 2021	368.7	3.7	478.0	12,014.2	(1,891.8)	144.4	10,748.5
Total comprehensive income (loss)	_	_	_	3,582.8	(260.4)	33.2	3,355.6
Vesting of restricted stock units	1.2	_	(19.2)	_	_	_	(19.2)
Stock based compensation	_	_	31.5	_	_	_	31.5
Stock option exercises	_	_	16.0	_	_	_	16.0
Repurchases of stock	(30.8)	(0.3)	(506.3)	(1,166.6)	_	_	(1,673.2)
Dividends (\$0.60 per share)	_	_	_	(227.0)	_	_	(227.0)
Dividends for noncontrolling interests	_	_	_	_	_	(38.0)	(38.0)
Balance as of December 31, 2022	339.1	\$ 3.4	\$ —	\$ 14,203.4	\$ (2,152.2)	\$ 139.6	\$ 12,194.2

Notes to Consolidated Financial Statements Tables in millions, except per share amounts

1. ORGANIZATION AND NATURE OF BUSINESS

The Mosaic Company ("Mosaic," and, with its consolidated subsidiaries, "we," "us," "our," or the "Company") produces and markets concentrated phosphate and potash crop nutrients. We conduct our business through wholly- and majority-owned subsidiaries and businesses in which we own less than a majority or a noncontrolling interest, including consolidated variable interest entities and investments accounted for by the equity method.

We are organized into the following business segments:

- Our Phosphates business segment owns and operates mines and production facilities in Florida which produce concentrated phosphate crop nutrients and phosphate-based animal feed ingredients, and processing plants in Louisiana which produce concentrated phosphate crop nutrients. We have a 75% economic interest in the Miski Mayo Phosphate Mine in Peru. These results are consolidated in the Phosphates segment. The Phosphates segment also includes our 25% interest in the Ma'aden Wa'ad Al Shamal Phosphate Company (the "MWSPC"), a joint venture to develop, own and operate integrated phosphate production facilities in the Kingdom of Saudi Arabia. We market approximately 25% of the MWSPC phosphate production. We recognize our equity in the net earnings or losses relating to MWSPC on a one-quarter lag in our Consolidated Statements of Earnings.
- Our **Potash** business segment owns and operates potash mines and production facilities in Canada and the U.S. which produce potash-based crop nutrients, animal feed ingredients and industrial products. Potash sales include domestic and international sales. We are a member of Canpotex, Limited ("*Canpotex*"), an export association of Canadian potash producers through which we sell our Canadian potash outside the U.S. and Canada.
- Our **Mosaic Fertilizantes** business segment includes five Brazilian phosphate rock mines, four phosphate chemical plants and a potash mine in Brazil. The segment also includes our distribution business in South America, which consists of sales offices, crop nutrient blending and bagging facilities, port terminals and warehouses in Brazil and Paraguay. We also have a majority interest in Fospar S.A., which owns and operates a single superphosphate granulation plant and a deep-water port and throughput warehouse terminal facility in Brazil.

Intersegment eliminations, unrealized mark-to-market gains/losses on derivatives, debt expenses, Streamsong Resort[®] results of operations, and the results of the China and India distribution businesses are included within Corporate, Eliminations and Other.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Statement Presentation and Basis of Consolidation

The accompanying Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("*U.S. GAAP*"). Throughout the Notes to Consolidated Financial Statements, amounts in tables are in millions of dollars except for per share data and as otherwise designated.

The accompanying Consolidated Financial Statements include the accounts of Mosaic and its majority-owned subsidiaries. Certain investments in companies in which we do not have control but have the ability to exercise significant influence are accounted for by the equity method.

Accounting Estimates

Preparation of the Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses during the reporting periods. The most significant estimates made by management relate to the recoverability of non-current assets including goodwill, the useful lives and net realizable values of long-lived assets, environmental and reclamation liabilities, including asset retirement obligations ("ARO"), and income tax-related accounts, including the valuation allowance against deferred income tax assets. Actual results could differ from these estimates

Revenue Recognition

We generate revenues primarily by producing and marketing phosphate and potash crop nutrients. Revenue is recognized when control of the product is transferred to the customer, which is generally upon transfer of title to the customer based on the contractual terms of each arrangement. Title is typically transferred to the customer upon shipment of the product. In certain circumstances, which are referred to as final price deferred arrangements, we ship product prior to the establishment of a valid sales contract. In such cases, we retain control of the product and do not recognize revenue until a sales contract has been agreed to with the customer.

Revenue is measured as the amount of consideration we expect to receive in exchange for the transfer of our goods. Our products are generally sold based on market prices prevailing at the time the sales contract is signed or through contracts which are priced at the time of shipment, except for the final priced deferred arrangements discussed above. Sales incentives are recorded as a reduction of revenue at the time of initial sale. We estimate the variable consideration related to our sales incentive programs based on the sales terms with customers and historical experience. Shipping and handling costs are included as a component of cost of goods sold.

We generally expense sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within sales and marketing expenses.

We have elected to recognize the cost for freight and shipping as an expense in cost of sales, when control over the product has passed to the customer.

For information regarding sales by product type and by geographic area, see Note 25 of our Notes to Consolidated Financial Statements.

Non-Income Taxes

We pay Canadian resource taxes consisting of the Potash Production Tax and resource surcharge. The Potash Production Tax is a Saskatchewan provincial tax on potash production and consists of a base payment and a profits tax. In addition to the Canadian resource taxes, royalties are payable to the mineral owners with respect to potash reserves or production of potash. These resource taxes and royalties are recorded in our cost of goods sold. Our Canadian resource tax and royalty expenses were \$1.0 billion, \$301.5 million and \$176.1 million during 2022, 2021 and 2020, respectively.

We have approximately \$105.0 million of assets recorded as of December 31, 2022 related to PIS and Cofins, which is a Brazilian federal value-added tax, mostly earned in 2008 through 2022 that we believe will be realized through offsetting income tax payments or other federal taxes or receiving cash refunds. In 2021, we had approximately \$112.5 million of assets recorded for these matters. Should the Brazilian government determine that these are not valid credits upon audit, this could impact our results in such period. We have recorded the PIS and Cofins credits at amounts which we believe are probable of collection. Information regarding PIS and Cofins taxes already audited is included in Note 23 of our Notes to Consolidated Financial Statements.

Foreign Currency Translation

The Company's reporting currency is the U.S. dollar; however, for operations located in Canada and Brazil, the functional currency is the local currency. Assets and liabilities of these foreign operations are translated to U.S. dollars at exchange rates in effect at the balance sheet date, while income statement accounts and cash flows are translated to U.S. dollars at the average exchange rates for the period. For these operations, translation gains and losses are recorded as a component of accumulated other comprehensive income in equity until the foreign entity is sold or liquidated. Transaction gains and losses result from transactions that are denominated in a currency other than the functional currency of the operation, primarily accounts receivable and intercompany loans in our Canadian entities denominated in U.S. dollars, intercompany loans receivable in our U.S. entities denominated in Brazilian real, and accounts payable in Brazil denominated in U.S. dollars. These foreign currency transaction gains and losses are presented separately in the Consolidated Statement of Earnings.

Cash and Cash Equivalents

Cash and cash equivalents include short-term, highly liquid investments with original maturities of 90 days or less and other highly liquid investments that are payable on demand such as money market accounts, certain certificates of deposit and repurchase agreements. The carrying amount of such cash equivalents approximates their fair value due to the short-term and highly liquid nature of these instruments.

Concentration of Credit Risk

In the U.S., we sell our products to manufacturers, distributors and retailers, primarily in the Midwest and Southeast. Internationally, our potash products are sold primarily through Canpotex, an export association. A concentration of credit risk arises from our sales and accounts receivable associated with the international sales of potash product through Canpotex. We consider our concentration risk related to the Canpotex receivable to be mitigated by their credit policy, which requires the underlying receivables to be substantially insured or secured by letters of credit. As of December 31, 2022, and 2021, there were \$244.4 million and \$382.5 million, respectively, of trade accounts receivable due from Canpotex. During 2022, 2021 and 2020, sales to Canpotex were \$3.0 billion, \$1.1 billion and \$795.2 million, respectively.

Inventories

Inventories of raw materials, work-in-process products, finished goods and operating materials and supplies are stated at the lower of cost or net realizable value. Costs for substantially all inventories are determined using the weighted average cost basis. To determine the cost of inventory, we allocate fixed expense to the costs of production based on the normal capacity, which refers to a range of production levels and is considered the production expected to be achieved over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. Fixed overhead costs allocated to each unit of production should not increase due to abnormally low production. Those excess costs are recognized as a current period expense. When a production facility is completely shut down temporarily, it is considered "idle", and all related expenses are charged to cost of goods sold.

Net realizable value of our inventory is defined as forecasted selling prices less reasonably predictable selling costs. Significant management judgment is involved in estimating forecasted selling prices including various demand and supply variables. Examples of demand variables include grain and oilseed prices, stock-to-use ratios and changes in inventories in the crop nutrients distribution channels. Examples of supply variables include forecasted prices of raw materials, such as phosphate rock, sulfur, ammonia and natural gas, estimated operating rates and industry crop nutrient inventory levels. Results could differ materially if actual selling prices differ materially from forecasted selling prices. Charges for lower of cost or market are recognized in our Consolidated Statements of Earnings in the period when there is evidence of a decline of market value below cost.

Property, Plant and Equipment and Recoverability of Long-Lived Assets

Property, plant and equipment are stated at cost. Costs of significant assets include capitalized interest incurred during the construction and development period. Repairs and maintenance, including planned major maintenance and plant turnaround costs, are expensed when incurred.

Depletion expenses for mining operations, including mineral reserves, are generally determined using the units-of-production method based on estimates of recoverable reserves. Depreciation is computed principally using the straight-line method and units-of-production method over the following useful lives: machinery and equipment three to 25 years, and buildings and leasehold improvements three to 40 years.

We estimate initial useful lives based on experience and current technology. These estimates may be extended through sustaining capital programs. Factors affecting the fair value of our assets or periods of expected use may also affect the estimated useful lives of our assets and these factors can change. Therefore, we periodically review the estimated remaining lives of our facilities and other significant assets and adjust our depreciation rates prospectively where appropriate.

Long-lived assets, including fixed assets and right-of-use assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment assessment involves management judgment and estimates of factors such as industry and market conditions, the economic life of the asset, sales volume and prices, inflation, raw materials costs, cost of capital, tax rates and capital spending. The carrying amount of a long-lived asset group is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset group. If it is determined that an impairment loss has occurred, the loss is measured as the amount by which the carrying amount of the long-lived asset group exceeds its fair value.

Leases

Right of use ("**ROU**") assets represent our right to use an underlying asset for the lease term. Lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the

commencement date of the lease, based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The Company's incremental borrowing rate for a lease is the rate of interest it would have to pay on a collateralized basis to borrow an amount equal to the lease payments under similar terms. For both operating and finance leases, the initial ROU asset equals the lease liability, plus initial direct costs, less lease incentives received. Our lease agreements may include options to extend or terminate the lease, which are included in the lease term at the commencement date when it is reasonably certain that we will exercise that option. In general, we do not consider optional periods included in our lease agreements as reasonably certain of exercise at inception.

At inception, we determine whether an arrangement is a lease and the appropriate lease classification. Operating leases with terms greater than twelve months are included as operating lease ROU assets within other assets and the associated lease liabilities within accrued liabilities and other noncurrent liabilities on our consolidated balance sheets. Finance leases with terms greater than twelve months are included as finance ROU assets within property and equipment and the associated finance lease liabilities within current maturities of long-term debt and long-term debt on our consolidated balance sheets.

Leases with terms of less than twelve months, referred to as short-term leases, do not create a ROU asset or lease liability on the balance sheet.

We have lease agreements with lease and non-lease components, which are generally accounted for separately. For full-service railcar leases, we account for the lease and non-lease components as a single lease component. Additionally, for certain equipment leases, we apply assumptions using a portfolio approach, given the generally consistent terms of the agreements. Lease payments based on usage (for example, per-mile or per-hour charges), referred to as variable lease costs, are recorded separately from the determination of the ROU asset and lease liability.

Contingencies

Accruals for environmental remediation efforts are recorded when costs are probable and can be reasonably estimated. In determining these accruals, we use the most current information available, including similar past experiences, available technology, consultant evaluations, regulations in effect, the timing of remediation and cost-sharing arrangements. Adjustments to accruals, recorded as needed in our Consolidated Statement of Earnings each quarter, are made to reflect changes in and current status of these factors.

We are involved from time to time in claims and legal actions incidental to our operations, both as plaintiff and defendant. We have established what we currently believe to be adequate accruals for pending legal matters. These accruals are established as part of an ongoing worldwide assessment of claims and legal actions that takes into consideration such items as advice of legal counsel, individual developments in court proceedings, changes in the law, changes in business focus, changes in the litigation environment, changes in opponent strategy and tactics, new developments as a result of ongoing discovery and our experience in defending and settling similar claims. The litigation accruals at any time reflect updated assessments of the then-existing claims and legal actions. The final outcome or potential settlement of litigation matters could differ materially from the accruals which we have established. Legal costs are expensed as incurred.

Pension and Other Postretirement Benefits

Mosaic offers a number of benefit plans that provide pension and other benefits to qualified employees. These plans include defined benefit pension plans, supplemental pension plans, defined contribution plans and other postretirement benefit plans.

We accrue the funded status of our plans, which is representative of our obligations under employee benefit plans and the related costs, net of plan assets measured at fair value. The cost of pensions and other retirement benefits earned by employees is generally determined with the assistance of an actuary using the projected benefit method prorated on service and management's best estimate of expected plan investment performance, salary escalation, retirement ages of employees and expected healthcare costs.

Additional Accounting Policies

To facilitate a better understanding of our consolidated financial statements we have disclosed the following significant accounting policies (with the exception of those identified above) throughout the following notes, with the related financial

disclosures by major caption:

Note	Торіс	Page
9	Investments in Non-Consolidated Companies	<u>F-52</u>
10	Goodwill	<u>F-53</u>
11	Structured Accounts Payable Arrangements	<u>F-54</u>
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3. RECENTLY ISSUED ACCOUNTING GUIDANCE

In September 2022, the Financial Accounting Standards Board ("FASB") issued guidance which requires that a buyer in a supplier financing program make annual disclosures about the program's key terms, the balance sheet presentation of related amounts, the confirmed amount outstanding at the end of the period and associated rollforward information. This ASU is effective for fiscal years beginning after December 15, 2022 (fiscal 2023), except for the amendment on rollforward information, which is effective for fiscal years beginning after December 15, 2023 (fiscal 2024). We are currently evaluating the effect of adopting this new accounting pronouncement but expect the impact to be minimal.

4. LEASES

Leasing Activity

We have operating and finance leases for heavy mobile equipment, railcars, fleet vehicles, field and plant equipment, river and cross-gulf vessels, corporate offices, land, and computer equipment. Our leases have remaining lease terms of one year to 40 years, some of which include options to extend the lease for up to 20 years and some of which include options to terminate the lease within one year.

Supplemental balance sheet information related to leases as of December 31, 2022 and December 31, 2021 is as follows:

	December 31,		31,		
Type of Lease Asset or Liability		2022		2021	Balance Sheet Classification
		(in mi	llion	s)	
Operating Leases					
Right-of-use assets	\$	182.5	\$	120.2	Other assets
Lease liabilities:					
Short-term		50.7		59.7	Accrued liabilities
Long-term		135.2		64.3	Other noncurrent liabilities
Total	\$	185.9	\$	124.0	
Finance Leases					
Right-of-use assets:					
Gross assets	\$	484.2	\$	459.1	
Less: accumulated depreciation		166.1		122.8	
Net assets	\$	318.1	\$	336.3	Property, plant and equipment, net
Lease liabilities:					
Short-term	\$	71.4	\$	41.2	Current maturities of long-term debt
Long-term		122.9		171.8	Long-term debt, less current maturities
Total	\$	194.3	\$	213.0	

Lease expense is generally included within cost of goods sold and selling, general and administrative expenses, except for interest on lease liabilities, which is recorded within net interest. The components of lease expense were as follows:

	December 31,						
(in millions)		2022		2021		2020	
Operating lease cost	\$	86.6	\$	78.8	\$	81.7	
Finance lease cost:							
Amortization of right-of-use assets		45.9		40.6		37.7	
Interest on lease liabilities		5.3		6.3		13.3	
Short-term lease cost		0.8		3.1		3.1	
Variable lease cost		19.3		19.2		21.8	
Total lease cost	\$	157.9	\$	148.0	\$	157.6	

Rental expense for 2022, 2021 and 2020 was \$237.2 million, \$211.8 million and \$226.9 million, respectively.

Supplemental cash flow information related to leases was as follows:

	December 31,					
(In millions)	2022 2021		2021	2020		
Cash paid for amounts included in the measurement of lease liabilities:						
Operating cash flows from operating leases	\$	88.1	\$	78.8	\$	96.6
Operating cash flows from finance leases		5.3		6.3		8.4
Financing cash flows from finance leases		46.5		142.5		46.9
Right-of-use assets obtained in exchange for lease obligations:						
Operating leases	\$	56.7	\$	18.4	\$	22.4
Finance leases		27.2		8.9		36.4

Other information related to leases was as follows:

	December 31, 2022
Weighted Average Remaining Lease Term	
Operating leases	7.1 years
Finance leases	2.6 years
Weighted Average Discount Rate	
Operating leases	7.0 %
Finance leases	3.0 %

Future lease payments under non-cancellable leases recorded as of December 31, 2022, were as follows:

Opera	Operating Leases		ce Leases
\$	61.7	\$	76.0
	43.5		93.0
	29.8		10.8
	21.1		9.4
	18.0		7.2
	62.0		10.3
\$	236.1	\$	206.7
	(50.2)		(12.4)
\$	185.9	\$	194.3
	\$	\$ 61.7 43.5 29.8 21.1 18.0 62.0 \$ 236.1 (50.2)	\$ 61.7 \$ 43.5 29.8 21.1 18.0 62.0 \$ 236.1 \$ (50.2)

5. OTHER FINANCIAL STATEMENT DATA

The following provides additional information concerning selected balance sheet accounts:

	Dece	mber 3	ber 31,		
(in millions)	2022		2021		
eceivables					
Trade - External	\$ 1,242.8		954.6		
Trade - Affiliate	249.6		390.1		
Non-trade	208.4		187.7		
	1,700.8		1,532.4		
Less allowance for doubtful accounts	0.9		0.5		
	\$ 1,699.9	\$	1,531.9		
ventories					
Raw materials	\$ 177.2	\$	296.6		
Work in process	844.8		741.1		
Finished goods	2,158.3		1,534.3		
Final price deferred (a)	184.2		31.4		
Operating materials and supplies	178.6		138.0		
	\$ 3,543.1	\$	2,741.4		
ther current assets		, ,			
Income and other taxes receivable	\$ 189.4	\$	126.1		
Prepaid expenses	237.4		107.3		
Assets held for sale	101.9				
Other	49.5		49.1		
	\$ 578.2	\$	282.5		
ther assets					
Restricted cash	\$ 10.5	\$	8.5		
MRO inventory	141.9		144.7		
Marketable securities held in trust - restricted	666.0		731.5		
Operating lease right-of-use assets	182.5		120.2		
Indemnification asset	23.7		21.0		
Long-term receivable	26.9		41.5		
Cloud computing cost	32.9		_		
Other	311.8		307.3		
	\$ 1,396.2	\$	1,374.7		

	Decem	ber 31	Ι,
(in millions)	2022		2021
Accrued liabilities			
Accrued dividends	\$ 72.9	\$	43.6
Payroll and employee benefits	237.0		235.9
Asset retirement obligations	212.3		222.4
Customer prepayments (b)	743.9		437.7
Accrued income and other taxes	208.3		184.3
Operating lease obligation	50.7		59.7
Servicing liability	_		81.1
Other	754.8		618.9
	\$ 2,279.9	\$	1,883.6
Other noncurrent liabilities			
Asset retirement obligations	\$ 1,693.3	\$	1,526.9
Operating lease obligation	135.2		64.3
Accrued pension and postretirement benefits	103.3		114.4
Unrecognized tax benefits	32.5		156.6
Other	271.7		239.9
	\$ 2,236.0	\$	2,102.1

⁽a) Final price deferred is product that has shipped to customers, but we retain control and do not recognize revenue until a sales contract has been agreed to with the customer.

Interest expense, net was comprised of the following in 2022, 2021 and 2020:

	Years Ended December 31,					
(in millions)		2022		2021		2020
Interest income	\$	31.0	\$	25.2	\$	33.5
Less interest expense		168.8		194.3		214.1
Interest expense, net	\$	(137.8)	\$	(169.1)	\$	(180.6)

⁽b) The timing of recognition of revenue related to our performance obligations may be different than the timing of collection of cash related to those performance obligations. Specifically, we collect prepayments from certain customers in Brazil. In addition, cash collection from Canpotex may occur prior to delivery of product to the end customer. We generally satisfy our contractual liabilities within one quarter of incurring the liability.

6. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following:

	 Decem	ber 3	1,
(in millions)	2022		2021
Land	\$ 345.6	\$	341.6
Mineral properties and rights	6,018.2		5,791.3
Buildings and leasehold improvements	3,522.6		3,452.5
Machinery and equipment	10,606.8		9,893.6
Construction in-progress	 1,130.4		1,234.4
	21,623.6		20,713.4
Less: accumulated depreciation and depletion	8,944.9		8,238.1
	\$ 12,678.7	\$	12,475.3

Depreciation and depletion expense was \$932.1 million, \$811.8 million and \$846.4 million for 2022, 2021 and 2020, respectively. Interest capitalized on major construction projects was \$26.8 million, \$30.1 million and \$33.3 million for 2022, 2021 and 2020, respectively.

7. EARNINGS PER SHARE

The numerator for basic and diluted earnings per share ("**EPS**") is net earnings attributable to Mosaic. The denominator for basic EPS is the weighted average number of shares outstanding during the period. The denominator for diluted EPS also includes the weighted average number of additional common shares that would have been outstanding if the dilutive potential common shares had been issued, unless the shares are anti-dilutive.

The following is a reconciliation of the numerator and denominator for the basic and diluted EPS computations:

	Years Ended December 31,										
(in millions)		2022		2021	2020						
Net earnings attributable to Mosaic	\$	3,582.8	\$	1,630.6	\$	666.1					
Basic weighted average number of shares outstanding attributable to common stockholders		352.4		378.1		379.0					
Dilutive impact of share-based awards		3.6		3.5		2.3					
Diluted weighted average number of shares outstanding		356.0		381.6		381.3					
Basic net earnings per share	\$	10.17	\$	4.31	\$	1.76					
Diluted net earnings per share	\$	10.06	\$	4.27	\$	1.75					

A total of 0.1 million shares for 2022, 0.5 million shares for 2021 and 2.3 million shares for 2020 of common stock subject to issuance related to share-based awards have been excluded from the calculation of diluted EPS because the effect would have been anti-dilutive.

8. CASH FLOW INFORMATION

Supplemental disclosures of cash paid for interest and income taxes and non-cash investing and financing information is as follows:

	Years Ended December 31,								
(in millions)		2022		2021		2020			
Cash paid during the period for:									
Interest	\$	196.4	\$	220.0	\$	232.8			
Less amount capitalized		26.8		30.1		33.3			
Cash interest, net	\$	169.6	\$	189.9	\$	199.5			
Income taxes	\$	1,114.5	\$	208.6	\$	6.2			

Acquiring or constructing property, plant and equipment by incurring a liability does not result in a cash outflow for us until the liability is paid. In the period the liability is incurred, the change in operating accounts payable on the Consolidated Statements of Cash Flows is adjusted by such amount. In the period the liability is paid, the amount is reflected as a cash outflow from investing activities. The applicable net change in operating accounts payable that was classified to investing activities on the Consolidated Statements of Cash Flows was \$(65.2) million, \$18.6 million and \$(29.8) million for 2022, 2021 and 2020, respectively.

We accrued \$72.9 million related to the dividends declared in 2022 that will be paid in 2023. At December 31, 2021 and 2020, we had accrued dividends of \$43.6 million and \$20.4 million which were paid in 2022 and 2021, respectively.

Included in proceeds from issuance of short-term debt and payments of short-term debt were \$1.8 billion and (\$1.6) billion related to our commercial paper arrangement.

We had non-cash investing and financing transactions related to right-of-use assets obtained in exchange for lease obligations assets under finance leases in 2022 of \$27.2 million. Non-cash investing and financing transactions related to assets acquired under capital leases were \$8.9 million and \$36.4 million for 2021 and 2020, respectively.

Depreciation, depletion and amortization includes \$932.1 million, \$811.8 million and \$846.4 million related to depreciation and depletion of property, plant and equipment, and \$1.8 million, \$1.1 million and \$1.2 million related to amortization of intangible assets for 2022, 2021 and 2020, respectively.

9. INVESTMENTS IN NON-CONSOLIDATED COMPANIES

We have investments in various international and domestic entities and ventures. The equity method of accounting is applied to such investments when the ownership structure prevents us from exercising a controlling influence over operating and financial policies of the businesses but still allow us to have significant influence. Under this method, our equity in the net earnings or losses of the investments is reflected as equity in net earnings of non-consolidated companies on our Consolidated Statements of Earnings. The effects of material intercompany transactions with these equity method investments are eliminated, including the gross profit on sales to and purchases from our equity-method investments which is deferred until the time of sale to the final third-party customer. The cash flow presentation of dividends received from equity method investees is determined by evaluation of the facts, circumstances and nature of the distribution.

A summary of our equity-method investments, which were in operation as of December 31, 2022, is as follows:

Entity	Economic Interest
Gulf Sulphur Services LTD., LLLP ^(a)	50.0 %
River Bend Ag, LLC	50.0 %
IFC S.A.	45.0 %
MWSPC	25.0 %
Canpotex	36.2 %

⁽a) In the first quarter of 2023, Mosaic assumed ownership of Savage's 50% equity and now wholly-owns Gulf Sulphur Services LTD., LLLP.

The summarized financial information shown below includes all non-consolidated companies carried on the equity method.

	 Years	s Ended December	31,	
(in millions)	 2022	2021		2020
Net sales	\$ 11,852.8	\$ 4,758.2	\$	3,463.2
Net earnings (loss)	956.9	70.1		(405.3)
Mosaic's share of equity in net earnings (loss)	196.0	7.8		(93.8)
Total assets	11,707.8	10,685.6		8,944.4
Total liabilities	8,973.7	8,864.7		7,184.9
Mosaic's share of equity in net assets	693.2	466.9		452.5

The difference between our share of equity in net assets as shown in the above table and the investment in non-consolidated companies as shown on the Consolidated Balance Sheets is mainly due to the July 1, 2016, equity contribution of \$120 million we made to MWSPC, representing the remaining liability for our portion of mineral rights value transferred to MWSPC from Saudi Arabian Mining Company ("*Ma'aden*"). As of December 31, 2022, MWSPC represented 70% of the total assets and 62% of the total liabilities in the table above. MWSPC commenced ammonia operations in late 2016 and, on December 1, 2018, commenced commercial operations of its DAP plant, thereby bringing the entire project to the commercial production phase. In 2022, 2021 and 2020 our share of equity in net earnings (loss) was \$194.5 million, \$5.0 million, and \$(97.3) million, respectively.

MWSPC owns and operates a mine and two chemical complexes that produce phosphate fertilizers and other downstream phosphates products in the Kingdom of Saudi Arabia. The cost to develop and construct the integrated phosphate production facilities (the "*Project*") was approximately \$8.0 billion, which has been funded primarily through investments by us, Ma'aden and SABIC (together, the "*Project Investors*"), and through borrowing arrangements and other external project financing facilities ("*Funding Facilities*"). We market approximately 25% of the phosphate production of the joint venture.

On June 20, 2020, MWSPC refinanced its commercial loans while retaining its loans with the Saudi Industrial Development Fund. The refinancing extended debt repayment to 2037 and deferred principal payments until June 30, 2022. The refinancing removes recourse to Mosaic by all lenders to MWSPC. Mosaic's contractual commitment to make future cash contributions to MWSPC was also eliminated.

As of December 31, 2022, our cash investment was \$770 million. We have not made any contributions since 2017 and do not expect future contributions will be needed.

Canpotex is a Saskatchewan export association used by two Canadian potash producers to market, sell and distribute Canadian potash products outside of Canada and the U.S. to unrelated third party customers at market prices. It operates as a break-even entity. We have concluded that the sales to Canpotex are not at arms'-length, due to the unique pricing and payment structure and financial obligations of the stockholders. Therefore, the full profit on sales to Canpotex is eliminated until Canpotex no longer has control of the related inventory and has sold it to an unrelated third party customer. We eliminate the intra-entity profit with Canpotex at the end of each reporting period and present that profit elimination by reversing revenue and cost of goods sold for the inventory still remaining at Canpotex. Any equity earnings or loss, which have historically been insignificant, are recorded in the equity in net earnings or loss line within the Consolidated Statement of Earnings.

10. GOODWILL

Goodwill is carried at cost, not amortized, and represents the excess of the purchase price and related costs over the fair value assigned to the net identifiable assets of a business acquired. We test goodwill for impairment on a quantitative basis at the reporting unit level on an annual basis or upon the occurrence of events that may indicate possible impairment. Impairment is measured as the excess carrying value over the fair value of goodwill.

The changes in the carrying amount of goodwill, by reporting unit, as of December 31, 2022 and 2021, are as follows:

(in millions)	 Potash	Iosaic ilizantes	Elin	rporate, ninations d Other	Total
Balance as of December 31, 2020	\$ 1,063.2	\$ 97.7	\$	12.1	\$ 1,173.0
Foreign currency translation	1.0	 (1.8)			(0.8)
Balance as of December 31, 2021	\$ 1,064.2	\$ 95.9	\$	12.1	\$ 1,172.2
Foreign currency translation	(57.6)	1.7			(55.9)
Balance as of December 31, 2022	\$ 1,006.6	\$ 97.6	\$	12.1	\$ 1,116.3

As of October 31, 2022, we performed our annual quantitative assessment. In performing our assessment, we estimated the fair value of each of our reporting units using the income approach, also known as the discounted cash flow ("DCF") method. The income approach utilized the present value of cash flows to estimate fair value. The future cash flows for our reporting units were projected based on our estimates, at that time, for revenue, operating income and other factors (such as working capital and capital expenditures for each reporting unit). To determine if the fair value of each of our reporting units with goodwill exceeded its carrying value, we assumed sales volume growth rates based on our long-term expectations, our internal selling prices and projected raw material prices for years one through five, which were anchored in projections from CRU International Limited ("CRU"), an independent third party data source. Selling prices and raw material prices for years six and beyond were based on anticipated market growth and long-term CRU outlooks. The discount rates used in our DCF method were based on a weighted-average cost of capital ("WACC"), determined from relevant market comparisons. A terminal value growth rate of 2% was applied to all years thereafter for the projected period and reflected our estimate of stable growth. We then calculated a present value of the respective cash flows for each reporting unit to arrive at an estimate of fair value under the income approach. Finally, we compared our estimates of fair values for our reporting units, to our October 31, 2022 total public market capitalization, based on our common stock price at that date.

In making this assessment, we considered, among other things, expectations of projected net sales and cash flows, assumptions impacting the WACC, changes in our stock price and changes in the carrying values of our reporting units with goodwill. We also considered overall business conditions.

The Potash, Mosaic Fertilizantes and Corporate, Eliminations and Other reporting units were evaluated and not considered at risk of goodwill impairment at October 31, 2022.

As of December 31, 2022, \$9.3 million of goodwill was tax deductible.

11. FINANCING ARRANGEMENTS

Mosaic Credit Facility

On August 19, 2021, we entered into a committed unsecured five-year credit facility of up to \$2.5 billion (the "*Mosaic Credit Facility*"), comprised of a \$2.5 billion revolving facility, with a maturity date of August 19, 2026, which is intended to serve as our primary senior unsecured bank credit facility. The Mosaic Credit Facility increased and extended our prior unsecured revolving credit facility of up to \$2.2 billion (the "*Prior Credit Facility*"), which matured on November 18, 2022.

The Mosaic Credit Facility has cross-default provisions that, in general, provide that a failure to pay principal or interest under, or any other amount payable under, any indebtedness with outstanding principal amount of \$100 million or more, or breach or default under such indebtedness that permits the holders thereof to accelerate the maturity thereof, will result in a cross-default.

The Mosaic Credit Facility requires Mosaic to maintain certain financial ratios, including a ratio of Consolidated Indebtedness, which has been redefined to exclude unrestricted cash and cash equivalents, to Consolidated Capitalization Ratio (as defined) of no greater than 0.65 to 1.0 as well as a minimum Interest Coverage Ratio (as defined) of not less than 3.0 to 1.0. We were in compliance with these ratios as of December 31, 2022.

The Mosaic Credit Facility also contains other events of default and covenants that limit various matters. These provisions include limitations on indebtedness, liens, investments and acquisitions (other than capital expenditures), certain mergers, certain sales of assets and other matters customary for credit facilities of this nature.

As of December 31, 2022 and December 31, 2021, we had outstanding letters of credit that utilized a portion of the amount available for revolving loans under the Mosaic Credit Facility of \$10.9 million. The net available borrowings for revolving loans under the Mosaic Credit Facility were approximately \$2.49 billion as of December 31, 2022 and December 31, 2021, respectively. Unused commitment fees accrued at an average annual rate of 0.15% under the Mosaic Credit Facility during 2022 and 2021, decreasing from the average annual rate of 0.40% under the Prior Credit Facility. Unused commitment fees generated expenses of \$3.8 million and \$7.0 million during 2022 and 2021, respectively. As of December 2020, unused commitment fees accrued at an average rate of 0.40%, generating expenses of \$6.0 million.

Short-Term Debt

Short-term debt consists of the revolving credit facility under the Mosaic Credit Facility, under which there were no borrowings as of December 31, 2022, working capital financing arrangements and various other short-term borrowings related to our international operations in India, China and Brazil. These other short-term borrowings outstanding were \$224.9 million and \$302.8 million as of December 31, 2022 and December 31, 2021, respectively.

We have an inventory financing arrangement whereby we can sell up to \$625 million of certain inventory for cash and subsequently repurchase the inventory at an agreed upon price and time in the future, not to exceed 180 days. Under the terms of the agreement, we may borrow up to 90% of the value of the inventory. It is later repurchased by Mosaic at the original sale price plus interest and any transaction costs. As of December 31, 2022 and 2021, we had financed inventory of \$0.0 million and \$302.7 million, respectively, under this arrangement, which is included in short-term debt on the Consolidated Balance Sheet.

We have Receivable Purchasing Agreements ("**RPAs**"), with banks whereby, from time-to-time, we sell certain receivables. The net face value of the purchased receivables may not exceed \$600 million at any point in time. The purchase price of the receivable sold under the RPA is the face value of the receivable less an agreed upon discount. The receivables sold under the RPAs are accounted for as true sales. Upon sale, these receivables are removed from the Consolidated Balance Sheets. Cash received is presented as cash provided by operating activities in the Consolidated Statements of Cash Flows.

The Company sold approximately \$2.5 billion and \$589.7 million as of December 31, 2022 and 2021, respectively, of accounts receivable under these arrangements. Discounts on sold receivables were not material for any period presented. Following the sale to the bank, we continue to service the collection of the receivable on behalf of the bank without further consideration. As of December 31, 2022 there was no amount outstanding to be remitted to the bank. As of December 31, 2021, \$81.1 million had been collected but not yet remitted to the bank. This amount is classified in accrued liabilities on the Consolidated Balance Sheets. Cash collected and remitted are included in financing activities in the Consolidated Statements of Cash Flows.

In September 2022, we established a commercial paper program which allows us to issue unsecured commercial paper notes with maturities that vary, but do not exceed 397 days from the date of issue, up to a maximum aggregate face or principal amount outstanding at any time of \$2.5 billion. We plan to use the revolving credit facility as a liquidity backstop for borrowings under the commercial paper program. As of December 31, 2022, we had \$224.8 million outstanding under this program with a weighted average interest rate of 4.66% and a remaining average term of 10 days.

We had additional outstanding bilateral letters of credit of \$54.4 million as of December 31, 2022, which includes \$50.0 million as required by the 2015 Consent Decrees as described further in Note 14 of our Consolidated Financial Statements.

Long-Term Debt, including Current Maturities

On November 13, 2017, we issued new senior notes consisting of \$550 million aggregate principal amount of 3.250% senior notes due 2022 and \$700 million aggregate principal amount of 4.050% senior notes due 2027 (collectively, the "*Senior Notes of 2017*"). In 2022, we paid the outstanding balance of \$550 million on our 3.250% senior notes, due November 15, 2022, without premium or penalty.

We have additional senior notes outstanding, consisting of \$900 million aggregate principal amount of 4.25% senior notes due 2023, \$500 million aggregate principal amount of 5.45% senior notes due 2033 and \$600 million aggregate principal amount of 5.625% senior notes due 2043 (collectively, the "*Senior Notes of 2013*"); and \$300 million aggregate principal amount of 4.875% senior notes due 2041 (collectively, the "*Senior Notes of 2011*").

The Senior Notes of 2011, the Senior Notes of 2013 and the Senior Notes of 2017 are Mosaic's senior unsecured obligations and rank equally in right of payment with Mosaic's existing and future senior unsecured indebtedness. The indenture governing these notes contains restrictive covenants limiting debt secured by liens, sale and leaseback transactions and mergers, consolidations and sales of substantially all assets, as well as other events of default.

A debenture issued by Mosaic Global Holdings, Inc., one of our consolidated subsidiaries, due in 2028 (the "2028 Debenture"), is outstanding as of December 31, 2022, with a balance of \$147.1 million. The indenture governing the 2028 Debenture also contain restrictive covenants limiting debt secured by liens, sale and leaseback transactions and mergers, consolidations and sales of substantially all assets, as well as events of default. The obligations under the 2028 Debenture are guaranteed by the Company and several of its subsidiaries.

Long-term debt primarily consists of unsecured notes, finance leases, unsecured debentures and secured notes. Long-term debt as of December 31, 2022 and 2021, respectively, consisted of the following:

(in millions)	December 31, 2022 Stated Interest Rate	December 31, 2022 Effective Interest Rate	Maturity Date	December 31, 2022 Stated Value	Combination Fair Market Value Adjustment	Discount on Notes Issuance	December 31, 2022 Carrying Value	December 31, 2021 Stated Value	Combination Fair Market Value Adjustment	Discount on Notes Issuance	December 31, 2021 Carrying Value
Unsecured notes	4.05% - 5.63%	5.10%	2023- 2043	\$ 3,000.0	\$ —	\$ (6.1)	\$ 2,993.9	\$ 3,550.0	\$ —	\$ (6.6)	\$ 3,543.4
Unsecured debentures	7.30%	7.19%	2028	147.1	0.6	_	147.7	147.1	0.7	_	147.8
Finance leases	0.67% - 19.72%	2.96%	2023- 2032	194.3	_	_	194.3	213.0	_	_	213.0
Other ^(a)	6.53% - 8.00%	5.19%	2023- 2026	54.2	7.1		61.3	64.9	9.7		74.6
Total long-term	n debt			3,395.6	7.7	(6.1)	3,397.2	3,975.0	10.4	(6.6)	3,978.8
Less current po	ortion			983.9	2.0	(0.6)	985.3	594.8	2.3	(0.5)	596.6
Total long-term	n debt, less curre	nt maturities		\$ 2,411.7	\$ 5.7	\$ (5.5)	\$ 2,411.9	\$ 3,380.2	\$ 8.1	\$ (6.1)	\$ 3,382.2

⁽a) Includes deferred financing fees related to our long term debt.

Scheduled maturities of long-term debt are as follows for the periods ending December 31:

	(in millions)	
2023	\$	985.3
2024		110.8
2025		21.9
2026		21.7
2027		707.8
Thereafter		1,549.7
Total	\$	3,397.2

Structured Accounts Payable Arrangements

In Brazil, we finance some of our potash-based fertilizer, sulfur, ammonia and other raw material product purchases through third-party contractual arrangements. These arrangements provide that the third-party intermediary advance the amount of the scheduled payment to the vendor, less an appropriate discount, at a scheduled payment date and Mosaic makes payment to the third-party intermediary at dates ranging from 130 to 344 days from date of shipment. At December 31, 2022 and 2021, these structured accounts payable arrangements were \$751.2 million and \$743.7 million, respectively.

12. MARKETABLE SECURITIES HELD IN TRUSTS

In August 2016, Mosaic deposited \$630 million into two trust funds (together, the "*RCRA Trusts*") created to provide additional financial assurance in the form of cash for the estimated costs ("*Gypstack Closure Costs*") of closure and long-term care of our Florida and Louisiana phosphogypsum management systems ("*Gypstacks*"), as described further in Note 14 of our Notes to Consolidated Financial Statements. Our actual Gypstack Closure Costs are generally expected to be paid by us in the normal course of our Phosphates business; however, funds held in each of the RCRA Trusts can be drawn by the

applicable governmental authority in the event we cannot perform our closure and long-term care obligations. When our estimated Gypstack Closure Costs with respect to the facilities associated with a RCRA Trust are sufficiently lower than the amount on deposit in that RCRA Trust, we have the right to request that the excess funds be released to us. The same is true for the RCRA Trust balance remaining after the completion of our obligations, which will be performed over a period that may not end until three decades or more after a Gypstack has been closed. The investments held by the RCRA Trusts are managed by independent investment managers with discretion to buy, sell, and invest pursuant to the objectives and standards set forth in the related trust agreements. Amounts reserved to be held or held in the RCRA Trusts (including losses or reinvested earnings) are included in other assets on our Consolidated Balance Sheets.

The RCRA Trusts hold investments, which are restricted from our general use, in marketable debt securities classified as available-for-sale and are carried at fair value. As a result, unrealized gains and losses are included in other comprehensive income until realized, unless it is determined that the entire unamortized cost basis of the investment is not expected to be recovered. A credit loss would then be recognized in operations for the amount of the expected credit loss. As of December 31, 2022, we expect to recover our amortized cost on all available-for-sale securities and have not established an allowance for credit loss.

We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. We determine the fair market values of our available-for-sale securities and certain other assets based on the fair value hierarchy described below:

Level 1: Values based on unadjusted quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities.

Level 2: Values based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, or model-based valuation techniques for which all significant assumptions are observable in the market.

Level 3: Values generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect our own estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

The estimated fair value of the investments in the RCRA Trusts as of December 31, 2022 and December 31, 2021 are as follows:

	December 31, 2022										
(in millions)		rtized ost		Gross Unrealized Gains		Gross Unrealized Losses		Fair Value			
Level 1											
Cash and cash equivalents	\$	7.7	\$	_	\$	_	\$	7.7			
Level 2											
Corporate debt securities		203.8		0.1		(17.1)		186.8			
Municipal bonds		197.0		0.4		(8.0)		189.4			
U.S. government bonds		269.6		_		(3.6)		266.0			
Other holdings		0.2		_				0.2			
Total	\$	678.3	\$	0.5	\$	(28.7)	\$	650.1			

	December 31, 2021									
(in millions)		Amortized Cost		Gross Unrealized Gains		Gross Unrealized Losses		Fair Value		
Level 1										
Cash and cash equivalents	\$	8.1	\$	_	\$		\$	8.1		
Level 2										
Corporate debt securities		198.8		5.6		(0.9)		203.5		
Municipal bonds		198.1		6.5		(0.5)		204.1		
U.S. government bonds		305.3		_		(6.1)		299.2		
Total	\$	710.3	\$	12.1	\$	(7.5)	\$	714.9		

The following tables show gross unrealized losses and fair values of the RCRA Trusts' available-for-sale securities that have been in a continuous unrealized loss position for which an allowance for credit losses has not been recorded as of December 31, 2022 and December 31, 2021.

	December 31, 2022					December 31, 2021				
Securities that have been in a continuous loss position for less than 12 months (in millions):	Fair Unrealized			Fair Value	Gross Unrealized Losses					
Corporate debt securities	\$	105.6	\$	(6.5)	\$	67.1	\$	(0.8)		
Municipal bonds		104.7		(2.9)		39.9		(0.4)		
U.S. government bonds		264.9		(3.5)		152.2		(2.5)		
Total	\$	475.2	\$	(12.9)	\$	259.2	\$	(3.7)		

		Decembe	r 31,	2022	 December 31, 2021				
Securities that have been in a continuous loss position for more than 12 months (in millions):					Fair Value	Gross Unrealized Losses			
Corporate debt securities	\$	72.8	\$	(10.6)	\$ 3.6	\$	(0.1)		
Municipal bonds		61.9		(5.1)	4.5		(0.1)		
U.S. government bonds		0.8		(0.1)	143.4		(3.6)		
Total	\$	135.5	\$	(15.8)	\$ 151.5	\$	(3.8)		

The following table summarizes the balance by contractual maturity of the available-for-sale debt securities invested by the RCRA Trusts as of December 31, 2022. Actual maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations before the underlying contracts mature.

(in millions)	December 31, 2022			
Due in one year or less	\$ 18.3			
Due after one year through five years	296.1			
Due after five years through ten years	302.8			
Due after ten years	25.2			
Total debt securities	\$ 642.4			

For the year ended December 31, 2022, realized gains and (losses) were \$0.3 million and \$(46.9) million, respectively. For the year ended December 31, 2021, realized gains and (losses) were \$5.8 million and \$(3.4) million, respectively and for the year ended December 31, 2020, realized gains and (losses) were \$17.7 million and \$(1.5) million, respectively.

13. INCOME TAXES

In preparing our Consolidated Financial Statements, we utilize the asset and liability approach in accounting for income taxes. We recognize income taxes in each of the jurisdictions in which we have a presence. For each jurisdiction, we estimate the actual amount of income taxes currently payable or receivable, as well as deferred income tax assets and liabilities attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

The provision for income taxes for 2022, 2021 and 2020, consisted of the following:

	Years Ended December 31,						
(in millions)	2022		2021			2020	
Current:							
Federal	\$	62.7	\$	(12.7)	\$	(22.0)	
State		51.9		5.6		1.3	
Non-U.S.		770.4		386.9		114.4	
Total current		885.0		379.8		93.7	
Noncurrent:							
Federal	\$	0.2	\$	_	\$	_	
State		_		_		_	
Non-U.S.		(0.7)		110.0		3.2	
Total noncurrent		(0.5)		110.0		3.2	
Deferred:							
Federal	\$	215.4	\$	141.9	\$	(66.7)	
State		31.0		21.4		(12.9)	
Non-U.S.		93.4		(55.4)		(595.8)	
Total deferred		339.8		107.9		(675.4)	
Provision for (benefit from) income taxes	\$	1,224.3	\$	597.7	\$	(578.5)	

The components of earnings from consolidated companies before income taxes, and the effects of significant adjustments to tax computed at the federal statutory rate, were as follows:

	Years Ended December 31,						
(in millions)		2022		2021	2020		
U.S. earnings (loss)	\$	1,587.8	\$	900.1	\$	(449.0)	
Non-U.S. earnings		3,054.7		1,324.7		629.9	
Earnings (loss) from consolidated companies before income taxes	\$	4,642.5	\$	2,224.8	\$	180.9	
Computed tax at the U.S. federal statutory rate		21.0 %		21.0 %		21.0 %	
State and local income taxes, net of federal income tax benefit		1.1 %		1.2 %		(7.0)%	
Percentage depletion in excess of basis		(1.8)%		(1.1)%		(10.3)%	
Impact of non-U.S. earnings		5.8 %		6.3 %		42.1 %	
Change in valuation allowance		— %		(0.3)%		(330.0)%	
Non-U.S. incentives		(2.6)%		(5.7)%		(35.6)%	
Withholding tax		1.6 %		3.3 %		1.9 %	
Other items (none in excess of 5% of computed tax)		1.3 %		2.2 %		(1.9)%	
Effective tax rate		26.4 %		26.9 %		(319.8)%	

2022 Effective Tax Rate

In the year ended December 31, 2022, there were two items impacting the effective tax rate: 1) items attributable to ordinary business operations during the year, and 2) other items specific to the period.

The tax impact of our ordinary business operations is affected by the mix of earnings across jurisdictions in which we operate, by a benefit associated with depletion, by a benefit associated with non-U.S. incentives, changes in valuation allowances and by the impact of certain entities being taxed in both their foreign jurisdiction and the U.S., including foreign tax credits for various taxes incurred.

Tax expense specific to the period included a net expense of \$26.2 million. The net expense relates to the following: \$29.0 million related to true-up of estimates primarily related to our U.S. tax return, \$4.8 million related to changes to valuation allowances in Brazil, \$4.0 million related to interest of effectively settled unrecognized tax benefits and \$1.2 million of other miscellaneous costs. The tax expenses are partially offset by a net tax benefit related to \$12.8 million of RSUs vested in CY22 above grant price.

2021 Effective Tax Rate

In the year ended December 31, 2021, there were two items impacting the effective tax rate: 1) items attributable to ordinary business operations during the year, and 2) other items specific to the period, including the Esterhazy mine closure costs.

The tax impact of our ordinary business operations is affected by the mix of earnings across jurisdictions in which we operate, by a benefit associated with depletion, by a benefit associated with non-U.S. incentives, changes in valuation allowances and by the impact of certain entities being taxed in both their foreign jurisdiction and the U.S., including foreign tax credits for various taxes incurred.

Tax expense specific to the period included a net benefit of \$0.6 million. The net expense relates to the following: \$23.9 million related to true-up of estimates primarily related to our U.S. tax return and \$20.4 million related to an increase in non-U.S. reserves. The tax expenses are partially offset by net tax benefits related to \$43.7 million of Esterhazy mine closure costs and \$1.2 million related to a benefit for withholding taxes related to undistributed earnings and other miscellaneous tax expenses.

2020 Effective Tax Rate

In the year ended December 31, 2020, there were two items impacting the effective tax rate: 1) items attributable to ordinary business operations during the year, and 2) other items specific to the period, including impacts recorded due to the

Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"). The CARES Act provides various tax relief measures to taxpayers impacted by the coronavirus.

The tax impact of our ordinary business operations is affected by the mix of earnings across jurisdictions in which we operate by a benefit associated with depletion, by a benefit associated with non-U.S. incentives, changes in valuation allowances and by the impact of certain entities being taxed in both their foreign jurisdiction and the U.S., including foreign tax credits for various taxes incurred.

Tax expense specific to the period included a net benefit of \$609.0 million. The net benefit relates to the following: \$582.6 million for changes to valuation allowances in the U.S. and foreign jurisdictions, \$23.6 million related to certain provisions of the CARES Act, \$5.5 million related to release of the sequestration on AMT and miscellaneous tax expense of \$2.7 million. The change to the valuation allowance in Brazil is related to the Acquired Business. As of December 31, 2020, the Acquired Business has achieved cumulative income and therefore we were able to rely on future forecasts of taxable income which support realization of its deferred tax assets.

Deferred Tax Liabilities and Assets

Significant components of our deferred tax liabilities and assets as of December 31 were as follows:

	December			31,	
(in millions)		2022		2021	
Deferred tax liabilities:					
Depreciation and amortization	\$	430.5	\$	456.2	
Depletion		613.5		430.1	
Partnership tax basis differences		59.3		66.3	
Other liabilities		37.6		39.1	
Total deferred tax liabilities	\$	1,140.9	\$	991.7	
Deferred tax assets:					
Capital loss carryforwards		3.6		_	
Foreign tax credit carryforwards		736.7		775.1	
Net operating loss carryforwards		255.8		232.3	
Pension plans and other benefits		14.3		19.8	
Asset retirement obligations		369.4		337.3	
Disallowed interest expense under §163(j)		_		31.6	
Other assets		413.2		351.2	
Subtotal		1,793.0		1,747.3	
Valuation allowance		909.9		774.7	
Net deferred tax assets		883.1		972.6	
Net deferred tax liabilities	\$	257.8	\$	19.1	

We have certain non-U.S. entities that are taxed in both their local jurisdiction and the U.S. As a result, we have deferred tax balances for both jurisdictions. As of December 31, 2022 and 2021, these non-U.S. deferred taxes are offset by approximately \$202.2 million and \$185.1 million, respectively, of anticipated foreign tax credits included within our depreciation and depletion components of deferred tax liabilities above. We have recorded a valuation allowance against the anticipated foreign tax credits of \$202.2 million and \$229.6 million for December 31, 2022 and 2021, respectively.

Tax Carryforwards

As of December 31, 2022, we had estimated carryforwards for tax purposes as follows: net operating losses of \$1.0 billion, capital losses of \$17.1 million, foreign tax credits of \$736.7 million and \$5.3 million of non-U.S. business credits. These carryforward benefits may be subject to limitations imposed by the Internal Revenue Code, and in certain cases, provisions of foreign law. Approximately \$518.6 million of our net operating loss carryforwards relate to Brazil and can be carried forward indefinitely but are limited to 30 percent of taxable income each year. The majority of the remaining net operating loss carryforwards relate to U.S. federal and certain U.S. states and can be carried forward indefinitely. Of the \$736.7 million of

foreign tax credits, approximately \$218.1 million have an expiration date of 2026, approximately \$19.6 million have an expiration date of 2029, and approximately \$14.7 million have an expiration date of 2030. The realization of our foreign tax credit carryforwards is dependent on market conditions, tax law changes, and other business outcomes including our ability to generate certain types of taxable income in the future. Due to current business operations and future forecasts, the Company has determined that no valuation allowance is required on its general basket foreign tax credits. As a result of changes in U.S. tax law due to the Tax Cuts and Jobs Act, the Company recorded valuation allowances against its branch basket foreign tax credits of \$473.2 million as of December 31, 2022.

As of December 31, 2022, we have not recognized a deferred tax liability for un-remitted earnings of approximately \$4.3 billion from certain foreign operations because we believe our subsidiaries have invested the undistributed earnings indefinitely, or the earnings will be remitted in a tax-neutral transaction. It is not practicable for us to determine the amount of unrecognized deferred tax liability on these reinvested earnings. As part of the accounting for the Tax Cuts and Jobs Act, we recorded local country withholding taxes related to certain entities from which we began repatriating undistributed earnings and will continue to record local country withholding taxes, including foreign exchange impacts, on all future earnings.

Valuation Allowance

In assessing the need for a valuation allowance, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. We evaluate our ability to realize the tax benefits associated with deferred tax assets by analyzing the relative impact of all the available positive and negative evidence regarding our forecasted taxable income using both historical and projected future operating results, the reversal of existing taxable temporary differences, taxable income in prior carry-back years (if permitted) and the availability of tax planning strategies. The ultimate realization of deferred tax assets is dependent upon the generation of certain types of future taxable income during the periods in which those temporary differences become deductible. In making this assessment, we consider the scheduled reversal of deferred tax liabilities, our ability to carry back the deferred tax asset, projected future taxable income, and tax planning strategies. A valuation allowance will be recorded in each jurisdiction in which a deferred income tax asset is recorded when it is more likely than not that the deferred income tax asset will not be realized. Changes in deferred tax asset valuation allowances typically impact income tax expense.

For the year ended December 31, 2022, the valuation allowance increased by \$135.2 million, of which a \$83.6 million increase related to changes in the valuation allowance to U.S. branch foreign tax credits, a \$13.2 million increase related to changes in valuation allowances and currency translation in Brazil, and \$46.8 million changes in valuation allowances in other foreign jurisdictions. These increases to the valuation allowance were partially offset by a decrease of \$1.5 million to net operating losses for certain U.S. states, and \$7.0 million changes in valuation allowances in other foreign jurisdictions.

For the year ended December 31, 2021, the valuation allowance increased by \$91.7 million, of which a \$111.2 million increase related to changes in the valuation allowance to U.S. branch foreign tax credits. These increases to the valuation allowance were partially offset by a decrease of \$13.9 million related to changes in valuation allowances and currency translation in Brazil, \$2.4 million decrease to net operating losses for certain U.S. states, and \$3.4 million changes in valuation allowances in other foreign jurisdictions.

For the year ended December 31, 2020, the valuation allowance decreased by \$774.1 million, of which a \$763.5 million decrease related to changes in valuation allowances and currency translation in Brazil, \$3.5 million related to net operating losses for certain U.S. states and \$32.2 million related to our conclusion that we are more likely than not to use attributes at other foreign jurisdictions. These decreases to the valuation allowance were partially offset by the following increases: \$24.1 million increase related to U.S. branch foreign tax credits and \$0.9 million related to net operating losses in Peru.

Changes to our income tax valuation allowance were as follows:

	Years Ended December 31,						
(in millions)	2022 2021			2021	2020		
Income tax valuation allowance, related to deferred income taxes							
Balance at beginning of period	\$	774.7	\$	683.0	\$	1,457.1	
Charges or (reductions) to costs and expenses		135.2		91.7		(774.1)	
Balance at end of period	\$	909.9	\$	774.7	\$	683.0	

Uncertain Tax Positions

Accounting for uncertain income tax positions is determined by prescribing a minimum probability threshold that a tax position must meet before a financial statement benefit is recognized. This minimum threshold is that a tax position is more likely than not to be sustained upon examination by the applicable taxing authority, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The tax benefit to be recognized is measured as the largest amount of benefit that is greater than a fifty percent likelihood of being realized upon ultimate settlement.

As of December 31, 2022, we had \$25.2 million of gross uncertain tax positions. If recognized, the benefit to our effective tax rate in future periods would be approximately \$25.2 million of that amount. During 2022, we recorded net decreases in our uncertain tax positions of \$99.4 million related to certain U.S. and non-U.S. tax matters, of which \$3.0 million impacted the effective tax rate. This increase was offset by items not included in gross uncertain tax positions.

Based upon the information available as of December 31, 2022, it is reasonably possible that the amount of unrecognized tax benefits will change in the next twelve months; however, the change cannot reasonably be estimated.

A summary of gross unrecognized tax benefit activity is as follows:

		l ,			
(in millions)		2022	2021		2020
Gross unrecognized tax benefits, beginning of period	\$	124.6	\$ 36.9	\$	39.5
Gross increases:					
Prior period tax positions		0.7	84.7		_
Current period tax positions		3.0	3.0		2.8
Gross decreases:					
Prior period tax positions		(99.7)	_		(5.9)
Currency translation		(3.4)	_		0.5
Gross unrecognized tax benefits, end of period	\$	25.2	\$ 124.6	\$	36.9

We recognize interest and penalties related to unrecognized tax benefits as a component of our income tax expense. Interest and penalties accrued in our Consolidated Balance Sheets as of December 31, 2022 and 2021 were \$5.0 million and \$31.1 million, respectively, and are included in other noncurrent liabilities in the Consolidated Balance Sheets.

Open Tax Periods

We operate in multiple tax jurisdictions, both within the U.S. and outside the U.S., and face audits from various tax authorities regarding transfer pricing, deductibility of certain expenses, and intercompany transactions, as well as other matters. With few exceptions, we are no longer subject to examination for tax years prior to 2013.

Mosaic is continually under audit by various tax authorities in the normal course of business. Such tax authorities may raise issues contrary to positions taken by the Company. If such positions are ultimately not sustained by the Company, this could result in material assessments to the Company. The costs related to defending, if needed, such positions on appeal or in court may be material. The Company believes that any issues considered are properly accounted for.

We are currently under audit by the Internal Revenue Service for the tax years ended December 31, 2018 and December 31, 2020. Based on the information available, we do not anticipate significant changes to our unrecognized tax benefits as a result of these examinations other than the amounts discussed above.

We are currently under audit by the Canada Revenue Agency for the tax years ended December 31, 2015 through December 31, 2018. Based on the information available, we do not anticipate significant changes to our unrecognized tax benefits as a result of these examinations other than the amounts discussed above.

Enacted Legislation

On August 9, 2022, the CHIPS Act of 2022 (the "CHIPS Act") was signed into law by President Biden creating a new advanced manufacturing investment credit under new Internal Revenue Code section 48D. On August 16, 2022, the Inflation Reduction Act (the "IRA") was signed into law by President Biden including the following key provisions: (i) a 15 percent book minimum tax (corporate AMT) on "adjusted financial statement income" ("AFSI") of applicable corporations; (ii) various clean energy tax incentives in the form of tax credits, some of which include transferability provisions; and (iii) a one-percent excise tax on certain corporate stock buybacks. The Company does not deem the CHIPS Act or the IRA to have a material impact on its financial statements for the year ended December 31, 2022.

14. ASSET RETIREMENT OBLIGATIONS

We recognize our estimated ARO's in the period in which we have an existing legal obligation associated with the retirement of a tangible long-lived asset and the amount of the liability can be reasonably estimated. The ARO is recognized at fair value when the liability is incurred with a corresponding increase in the carrying amount of the related long lived asset. We depreciate the tangible asset over its estimated useful life. The liability is adjusted in subsequent periods through accretion expense which represents the increase in the present value of the liability due to the passage of time. Such depreciation and accretion expenses are included in cost of goods sold for operating facilities and other operating expense for indefinitely closed facilities.

Our legal obligations related to asset retirement require us to: (i) reclaim lands disturbed by mining as a condition to receive permits to mine phosphate ore reserves; (ii) treat low pH process water in Gypstacks to neutralize acidity; (iii) close and monitor Gypstacks at our Florida and Louisiana facilities at the end of their useful lives; (iv) remediate certain other conditional obligations; (v) remove all surface structures and equipment, plug and abandon mine shafts, contour and revegetate, as necessary, and monitor for five years after closing our Carlsbad, New Mexico facility; (vi) decommission facilities, manage tailings and execute site reclamation at our Saskatchewan potash mines at the end of their useful lives; (vii) de-commission mines in Brazil and Peru acquired as part of the acquisition (the "Acquisition") of Vale Fertilizantes S.A. (now known as Mosaic Fetilizantes P&K S.A. and (viii) de-commission plant sites and close Gypstacks in Brazil, also as part of the Acquisition. The estimated liability for these legal obligations is based on the estimated cost to satisfy the above obligations which is discounted using a credit-adjusted risk-free rate.

A reconciliation of our AROs is as follows:

	 Years Ended December 3				
(in millions)	2022	2021			
AROs, beginning of period	\$ 1,749.3	\$	1,393.9		
Liabilities incurred	14.9		20.2		
Liabilities settled	(205.6)		(163.1)		
Accretion expense	81.6		71.9		
Revisions in estimated cash flows	264.5		443.3		
Foreign currency translation	 0.9		(16.9)		
AROs, end of period	1,905.6		1,749.3		
Less current portion	 212.3		222.4		
Non-current portion of AROs	\$ 1,693.3	\$	1,526.9		

North America Gypstack Closure Costs

A majority of our ARO relates to Gypstack Closure Costs in Florida and Louisiana. For financial reporting purposes, we recognize our estimated Gypstack Closure Costs at their present value. This present value determined for financial reporting purposes is reflected on our Consolidated Balance Sheets in accrued liabilities and other noncurrent liabilities. As of December 31, 2022 and 2021, the present value of our Gypstack Closure Costs ARO reflected in our Consolidated Balance Sheet was approximately \$1.0 billion and \$883.2 million, respectively.

As discussed below, we have arrangements to provide financial assurance for the estimated Gypstack Closure Costs associated with our facilities in Florida and Louisiana.

EPA RCRA Initiative. On September 30, 2015, we and our subsidiary, Mosaic Fertilizer, LLC ("Mosaic Fertilizer"), reached agreements with the U.S. Environmental Protection Agency ("EPA"), the U.S. Department of Justice ("DOJ"), the Florida Department of Environmental Protection ("FDEP") and the Louisiana Department of Environmental Quality on the terms of two consent decrees (collectively, the "2015 Consent Decrees") to resolve claims relating to our management of certain waste materials onsite at our Riverview, New Wales, Green Bay, South Pierce and Bartow fertilizer manufacturing facilities in Florida and our Faustina and Uncle Sam facilities in Louisiana. This followed a 2003 announcement by the EPA Office of Enforcement and Compliance Assurance that it would be targeting facilities in mineral processing industries, including phosphoric acid producers, for a thorough review under the U.S. Resource Conservation and Recovery Act ("RCRA") and related state laws. As discussed below, a separate consent decree was previously entered into with the EPA and the FDEP with respect to RCRA compliance at the Plant City Facility that we acquired as part of our acquisition CF Phosphate Assets Acquisition of the Florida phosphate assets and assumption of certain related liabilities of CF Industries, Inc. ("CF").

The remaining monetary obligations under the 2015 Consent Decrees include:

- Modification of certain operating practices and undertaking certain capital improvement projects over a period of several years that are expected to result in remaining capital expenditures likely to exceed \$20 million in the aggregate.
- Provision of additional financial assurance for the estimated Gypstack Closure Costs for Gypstacks at the covered
 facilities. The RCRA Trusts are discussed in Note 12 to our Consolidated Financial Statements. In addition, we
 have agreed to guarantee the difference between the amounts held in each RCRA Trust (including any earnings)
 and the estimated closure and long-term care costs.

As of December 31, 2022, the undiscounted amount of our Gypstack Closure Costs ARO associated with the facilities covered by the 2015 Consent Decrees, determined using the assumptions used for financial reporting purposes, was approximately \$2.1 billion, and the present value of our Gypstack Closure Costs ARO reflected in our Consolidated Balance Sheet for those facilities was approximately \$692.3 million.

Plant City and Bonnie Facilities. As part of the CF Phosphate Assets Acquisition, we assumed certain AROs related to Gypstack Closure Costs at both the Plant City Facility and a closed Florida phosphate concentrates facility in Bartow, Florida (the "Bonnie Facility") that we acquired. Associated with these assets are two related financial assurance arrangements for which we became responsible and that provided sources of funds for the estimated Gypstack Closure Costs for these

facilities. Pursuant to federal or state laws, the applicable government entities are permitted to draw against such amounts in the event we cannot perform such closure activities. One of the financial assurance arrangements was initially a trust (the "Plant City Trust") established to meet the requirements under a consent decree with the EPA and the FDEP with respect to RCRA compliance at the Plant City Facility. The Plant City Trust also satisfied Florida financial assurance requirements at that site. Beginning in September 2016, as a substitute for the financial assurance provided through the Plant City Trust, we have provided financial assurance for the Plant City Facility in the form of a surety bond (the "Plant City Bond"). The amount of the Plant City Bond is \$300.8 million, which reflects our closure cost estimates as of December 31, 2022. The other financial assurance arrangement was also a trust fund (the "Bonnie Facility Trust") established to meet the requirements under Florida financial assurance regulations that apply to the Bonnie Facility. In July 2018, we received \$21.0 million from the Bonnie Facility Trust by substituting for the trust fund a financial test mechanism ("Bonnie Financial Test") supported by a corporate guarantee as allowed by state regulations. Both financial assurance funding obligations require estimates of future expenditures that could be impacted by refinements in scope, technological developments, new information, cost inflation, changes in regulations, discount rates and the timing of activities. Under our current approach to satisfying applicable requirements, additional financial assurance would be required in the future if increases in cost estimates exceed the face amount of the Plant City Bond or the amount supported by the Bonnie Financial Test.

As of December 31, 2022 and 2021, the aggregate amounts of AROs associated with the combined Plant City Facility and Bonnie Facility Gypstack Closure Costs included in our consolidated balance sheet were \$327.5 million and \$262.9 million, respectively. The aggregate amount represented by the Plant City Bond exceeds the present value of the aggregate amount of ARO associated with that facility. This is because the amount of financial assurance we are required to provide represents the aggregate undiscounted estimated amount to be paid by us in the normal course of our Phosphates business over a period that may not end until three decades or more after the Gypstack has been closed, whereas the ARO included in our Consolidated Balance Sheet reflects the discounted present value of those estimated amounts.

15. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We periodically enter into derivatives to mitigate our exposure to foreign currency risks, interest rate movements and the effects of changing commodity prices. We record all derivatives on the Consolidated Balance Sheets at fair value. The fair value of these instruments is determined by using quoted market prices, third-party comparables, or internal estimates. We net our derivative asset and liability positions when we have a master netting arrangement in place. Changes in the fair value of the foreign currency, commodity and freight derivatives are immediately recognized in earnings. As of December 31, 2022 and 2021, the gross asset position of our derivative instruments was \$38.8 million and \$45.3 million, respectively, and the gross liability position of our liability instruments was \$50.1 million and \$45.5 million, respectively.

We do not apply hedge accounting treatments to our foreign currency exchange contracts, commodities contracts, or freight contracts. Unrealized gains and (losses) on foreign currency exchange contracts used to hedge cash flows related to the production of our products are included in cost of goods sold in the Consolidated Statements of Earnings. Unrealized gains and (losses) on commodities contracts and certain forward freight agreements are also recorded in cost of goods sold in the Consolidated Statements of Earnings. Unrealized gains or (losses) on foreign currency exchange contracts used to hedge cash flows that are not related to the production of our products are included in the foreign currency transaction gain/(loss) caption in the Consolidated Statements of Earnings.

From time to time, we enter into fixed-to-floating interest rate contracts. We apply fair value hedge accounting treatment to these contracts. Under these arrangements, we agree to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount. The mark-to-market of these fair value hedges is recorded as gains or (losses) in interest expense. We had no fixed-to-floating interest rate swap agreements in effect as of December 31, 2022 and 2021.

The following is the total absolute notional volume associated with our outstanding derivative instruments:

Instrument	Derivative Category	Unit of Measure	December 31, 2022	December 31, 2021
Foreign currency derivatives	Foreign Currency	U.S. Dollars	2,361.1	3,185.8
Natural gas derivatives	Commodity	MM BTU	14.2	23.6

Credit-Risk-Related Contingent Features

(in millions of Units)

Certain of our derivative instruments contain provisions that are governed by International Swap and Derivatives Association agreements with the counterparties. These agreements contain provisions that allow us to settle for the net amount between payments and receipts, and also state that if our debt were to be rated below investment grade, certain counterparties to the derivative instruments could request full collateralization on derivative instruments in net liability positions. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that were in a liability position as of December 31, 2022 and 2021 was \$34.8 million and \$8.6 million, respectively. We have no cash collateral posted in association with these contracts. If the credit-risk-related contingent features underlying these agreements were triggered on December 31, 2022, we would have been required to post an additional \$26.7 million of collateral assets, which are either cash or U.S. Treasury instruments, to the counterparties.

Counterparty Credit Risk

We enter into foreign exchange, certain commodity and interest rate derivatives, primarily with a diversified group of highly rated counterparties. We continually monitor our positions and the credit ratings of the counterparties involved and limit the amount of credit exposure to any one party. While we may be exposed to potential losses due to the credit risk of non-performance by these counterparties, material losses are not anticipated. We closely monitor the credit risk associated with our counterparties and customers and to date have not experienced material losses.

16. FAIR VALUE MEASUREMENTS

Following is a summary of the valuation techniques for assets and liabilities recorded in our Consolidated Balance Sheets at fair value on a recurring basis:

Foreign Currency Derivatives—The foreign currency derivative instruments that we currently use are forward contracts and zero-cost collars, which typically expire within 18 months. Most of the valuations are adjusted by a forward yield curve or interest rates. In such cases, these derivative contracts are classified within Level 2. Some valuations are based on exchange-quoted prices, which are classified as Level 1. Changes in the fair market values of these contracts are recognized in the Consolidated Financial Statements as a component of cost of goods sold in our Corporate, Eliminations and Other segment or foreign currency transaction gain (loss). As of December 31, 2022, and 2021, the gross asset position of our foreign currency derivative instruments was \$20.7 million and \$27.0 million, respectively, and the gross liability position of our foreign currency derivative instruments was \$49.2 million and \$45.4 million, respectively.

Commodity Derivatives—The commodity contracts primarily relate to natural gas. The commodity derivative instruments that we currently use are forward purchase contracts, swaps and three-way collars. The natural gas contracts settle using NYMEX futures or AECO price indexes, which represent fair value at any given time. The contracts' maturities and settlements are scheduled for future months and settlements are scheduled to coincide with anticipated gas purchases during those future periods. Quoted market prices from NYMEX and AECO are used to determine the fair value of these instruments. These market prices are adjusted by a forward yield curve and are classified within Level 2. Changes in the fair market values of these contracts are recognized in the Consolidated Financial Statements as a component of cost of goods sold in our Corporate, Eliminations and Other segment. As of December 31, 2022 and 2021, the gross asset position of our commodity derivative instruments was \$18.1 million and \$18.3 million, respectively, and the gross liability position of our commodity derivative instruments was \$0.9 million and \$0.1 million, respectively.

Interest Rate Derivatives—We manage interest expense through interest rate contracts to convert a portion of our fixed-rate debt into floating-rate debt. From time to time, we also enter into interest rate swap agreements to hedge our exposure to changes in future interest rates related to anticipated debt issuances. Valuations are based on external pricing sources and are classified as Level 2. Changes in the fair market values of these contracts are recognized in the Consolidated Financial

Statements as a component of interest expense. We did not hold any interest rate derivative positions as of December 31, 2022 or 2021.

Financial Instruments

The carrying amounts and estimated fair values of our financial instruments are as follows:

	December 31,									
		20	22			2021				
	Carrying			Fair	Carrying			Fair		
(in millions)		Amount	Value			Amount	Value			
Cash and cash equivalents	\$	735.4	\$	735.4	\$	769.5	\$	769.5		
Accounts receivable		1,699.9		1,699.9		1,531.9		1,531.9		
Accounts payable		1,292.5		1,292.5		1,260.7		1,260.7		
Structured accounts payable arrangements		751.2		751.2		743.7		743.7		
Short-term debt		224.9		224.9		302.8		302.8		
Long-term debt, including current portion		3,397.2		3,276.5		3,978.8		4,516.1		

For cash and cash equivalents, accounts receivable, net, accounts payable, structured accounts payable arrangements and short-term debt, the carrying amount approximates fair value because of the short-term maturity of those instruments. The fair value of long-term debt, including the current portion, is estimated using quoted market prices for the publicly registered notes and debentures, classified as Level 1 and Level 2, respectively, within the fair value hierarchy, depending on the market liquidity of the debt. For information regarding the fair value of our marketable securities held in trusts, see Note 12 of our Notes to Consolidated Financial Statements.

17. GUARANTEES AND INDEMNITIES

We enter into various contracts that include indemnification and guarantee provisions as a routine part of our business activities. Examples of these contracts include asset purchase and sale agreements, surety bonds, financial assurances to regulatory agencies in connection with reclamation and closure obligations, commodity sale and purchase agreements, and other types of contractual agreements with vendors and other third parties. These agreements indemnify counterparties for matters such as reclamation and closure obligations, tax liabilities, environmental liabilities, litigation and other matters, as well as breaches by Mosaic of representations, warranties and covenants set forth in these agreements. In many cases, we are essentially guaranteeing our own performance, in which case the guarantees do not fall within the scope of the accounting and disclosures requirements under U.S. GAAP.

Our more significant guarantees and indemnities are as follows:

Guarantees to Brazilian Financial Parties. From time to time, we issue guarantees to financial parties in Brazil for certain amounts owed the institutions by certain customers of Mosaic. The guarantees are for all or part of the customers' obligations. In the event that the customers default on their payments to the institutions and we would be required to perform under the guarantees, we have in most instances obtained collateral from the customers. We monitor the nonperformance risk of the counterparties and have noted no material concerns regarding their ability to perform on their obligations. The guarantees generally have a one-year term but may extend up to two years or longer depending on the crop cycle, and we expect to renew many of these guarantees on a rolling 12-month basis. As of December 31, 2022, we have estimated the maximum potential future payment under the guarantees to be \$77.5 million. The fair value of our guarantees is immaterial to the Consolidated Financial Statements as of December 31, 2022 and 2021.

Other Indemnities. Our maximum potential exposure under other indemnification arrangements can range from a specified dollar amount to an unlimited amount, depending on the nature of the transaction. Total maximum potential exposure under these indemnification arrangements is not estimable due to uncertainty as to whether claims will be made or how they will be resolved. We do not believe that we will be required to make any material payments under these indemnity provisions.

Because many of the guarantees and indemnities we issue to third parties do not limit the amount or duration of our obligations to perform under them, there exists a risk that we may have obligations in excess of the amounts described above.

For those guarantees and indemnities that do not limit our liability exposure, we may not be able to estimate what our liability would be until a claim is made for payment or performance due to the contingent nature of these arrangements.

18. PENSION PLANS AND OTHER BENEFITS

We sponsor pension and postretirement benefits through a variety of plans including defined benefit plans, defined contribution plans and postretirement benefit plans in North America and certain of our international locations. We reserve the right to amend, modify or terminate the Mosaic sponsored plans at any time, subject to provisions of the Employee Retirement Income Security Act of 1974 ("*ERISA*"), prior agreements and our collective bargaining agreements.

Defined Benefit

During fiscal 2022, we terminated the defined benefit pension plan in the U.S, which was a frozen defined benefit pension plan at the time of termination. In connection with the plan termination, we settled all future obligations under the terminated plan through a combination of lump-sum payments to eligible participants who elected to receive them through a lump-sum window, and the transfer of any remaining benefit obligations under the terminated plans to a third-party insurance company under a group annuity contract. As a result of these actions, we recognized a non-cash pre-tax pension settlement charge of \$41.9 million in our 2022 Consolidated Statements of Earnings (Loss) in Other (expense) income. The remaining over-funded plan assets of \$11.4 million have been or will be utilized to fund remaining expenses related to the terminated plans, as well as obligations associated with other qualified retirement plans.

We sponsor various defined benefit pension plans in Canada. Benefits are based on different combinations of years of service and compensation levels, depending on the plan. Generally, contributions to Canadian plans are made in accordance with Pension Benefits Acts instituted by the provinces of Saskatchewan and Ontario. Certain employees in Canada, whose pension benefits exceed Canada Revenue Agency limitations, are covered by supplementary non-qualified, unfunded pension plans.

We sponsor various defined benefit pension plans in Brazil, and we acquired through the Acquisition multi-employer pension plans for certain of our Brazil associates. All our pension plans are governed by the Brazilian pension plans regulatory agency, National Superintendence of Supplementary Pensions. Our Brazil plans are not individually significant to the Company's consolidated financial statements after factoring in the multi-employer pension plan indemnification that we acquired through the Acquisition. We made contributions to these plans, net of indemnification, of \$0.2 million for the years ended December 31, 2022 and December 31, 2021, respectively and \$0.4 million for the year ended December 31, 2020.

Accounting for Pension Plans

The year-end status of the North American pension plans was as follows:

	Pension Plans							
		Years Ended l	Decer	nber 31,				
(in millions)		2022		2021				
Change in projected benefit obligation:								
Benefit obligation at beginning of period	\$	739.6	\$	796.6				
Service cost		4.2		4.4				
Interest cost		16.8		14.6				
Actuarial gain		(158.8)		(31.1)				
Currency fluctuations		(19.0)		0.3				
Benefits paid and transfers		(322.2)		(45.2)				
Liability loss due to curtailment/settlement		38.9		_				
Projected benefit obligation at end of period	\$	299.5	\$	739.6				
Change in plan assets:								
Fair value at beginning of period	\$	807.0	\$	845.2				
Currency fluctuations		(21.3)		0.4				
Actual return		(124.9)		1.1				
Company contribution		7.0		5.5				
Benefits paid and transfers		(322.2)		(45.2)				
Fair value at end of period	\$	345.6	\$	807.0				
Funded status of the plans as of the end of period	\$	46.1	\$	67.4				
Amounts recognized in the consolidated balance sheets:								
Noncurrent assets	\$	52.9	\$	78.1				
Current liabilities		(0.5)		(0.9)				
Noncurrent liabilities		(6.3)		(9.8)				
Amounts recognized in accumulated other comprehensive (income) loss								
Prior service cost	\$	10.9	\$	13.7				
Actuarial loss		67.2		83.1				

The accumulated benefit obligation for the defined benefit pension plans was \$299.1 million and \$739.1 million as of December 31, 2022 and 2021, respectively.

The components of net annual periodic benefit costs and other amounts recognized in other comprehensive income include the following components:

	Pension Plans								
(in millions)		Year							
		2022		2021		2020			
Net Periodic Benefit Cost									
Service cost	\$	4.2	\$	4.4	\$	4.2			
Interest cost		16.8		14.6		20.9			
Expected return on plan assets		(26.1)		(30.4)		(34.2)			
Amortization of:									
Prior service cost		2.1		2.1		2.3			
Actuarial loss		1.9		3.8		9.2			
Preliminary net periodic benefit cost	\$	(1.1)	\$	(5.5)	\$	2.4			
Curtailment/settlement expense		40.8				1.0			
Total net periodic benefit cost	\$	39.7	\$	(5.5)	\$	3.4			
Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income									
Prior service credit	\$	(2.1)	\$	(2.1)	\$	(2.3)			
Net actuarial gain		(11.6)		(5.6)		(8.6)			
Total recognized in other comprehensive income (loss)	\$	(13.7)	\$	(7.7)	\$	(10.9)			
Total recognized in net periodic benefit income and other comprehensive income	\$	26.0	\$	(13.2)	\$	(7.5)			

The estimated net actuarial (gain) loss and prior service cost (credit) for the pension plans and postretirement plans that will be amortized from accumulated other comprehensive income into net periodic benefit cost in 2023 is \$4.2 million.

The following estimated benefit payments, which reflect estimated future service are expected to be paid by the related plans in the years ending December 31:

	(in millions)		Pension Plans Benefit Payments	Other Postretirement Plans Benefit Payments	Medicare Part D Adjustments
2023		-	\$ 23.9	\$ 2.6	\$ 0.1
2024			9.0	2.4	0.1
2025			9.7	2.2	0.1
2026			10.3	1.9	<u> </u>
2027			10.8	1.8	_
2028-2032			46.1	6.8	0.1

In 2023, we expect to contribute cash of at least \$4.1 million to the pension plans to meet minimum funding requirements.

Plan Assets and Investment Strategies

The Company's overall investment strategy is to obtain sufficient return and provide adequate liquidity to meet the benefit obligations of our pension plans. The majority of investments are made in public securities to ensure adequate liquidity to support benefit payments. Domestic and international stocks and bonds provide diversification to the portfolio.

For the Canadian pension plans the primary investment objective is to secure the promised pension benefits through capital preservation and appreciation to better manage the asset/liability gap and interest rate risk. A secondary investment objective is to most effectively manage investment volatility to reduce the variability of the Company's required contributions. The plans are expected to achieve an annual overall return, over a five-year rolling period, consistent with or in excess of total fund benchmarks that reflect each plan's strategic allocations and respective market benchmarks at the individual asset class level. Management of the asset/liability gap of the plans and performance results are reviewed quarterly. Currently, our policy

includes an 80% allocation to fixed income and 20% to return-seeking strategies for the salaried and hourly plans. The Canadian Actual allocations may experience temporary fluctuations based on market movements and investment strategies.

A significant amount of the assets are invested in funds that are managed by a group of professional investment managers through Mosaic's investment advisor. These funds are mainly commingled funds. Performance is reviewed by Mosaic management monthly by comparing each fund's return to a benchmark with an in-depth quarterly review presented by Mosaic's investment advisor to the Global Pension Investment Committee. We do not have significant concentrations of credit risk or industry sectors within the plan assets. Assets may be indirectly invested in Mosaic stock, but any risk related to this investment would be immaterial due to the insignificant percentage of the total pension assets that would be invested in Mosaic stock.

Fair Value Measurements of Plan Assets

The following tables provide fair value measurement, by asset class, of the Company's defined benefit plan assets:

(in millions)	December 31, 2022											
Pension Plan Asset Category - U.S. and Canadian	Total		Total Level		Total Level 1		Level 1		Level 2		Level 3	
Cash	\$	3.9	\$	3.9	\$	_	\$	_				
Equity securities ^(a)		33.8		_		33.8		_				
Fixed income ^(b)		269.0		_		269.0						
Private equity funds		22.3						22.3				
Remaining U.S. plan assets cash		16.6		16.6				_				
Total assets at fair value	\$	345.6	\$	20.5	\$	302.8	\$	22.3				

(in millions)	December 31, 2021													
Pension Plan Asset Category - U.S. and Canadian	Total		Total Level		Total		Total Level 1		Level 1		Level 2			Level 3
Cash	\$	5.2	\$	5.2	\$		\$	_						
Equity securities ^(a)		71.3		_		71.3								
Fixed income ^(b)		720.0		_		720.0		_						
Private equity funds		10.5						10.5						
Total assets at fair value	\$	807.0	\$	5.2	\$	791.3	\$	10.5						

⁽a) This class, which includes several funds, was invested approximately 63% in U.S. equity securities and 36% in international equity securities as of December 31, 2022, and 44% in U.S. equity securities and 56% in international equity securities as of December 31, 2021.

Rates and Assumptions

The approach used to develop the discount rate for the pension and postretirement plans is commonly referred to as the yield curve approach. Under this approach, we use a hypothetical curve formed by the average yields of available corporate bonds rated AA and above and match it against the projected benefit payment stream. Each category of cash flow of the projected benefit payment stream is discounted back using the respective interest rate on the yield curve. Using the present value of projected benefit payments, a weighted-average discount rate is derived.

The approach used to develop the expected long-term rate of return on plan assets combines an analysis of historical performance, the drivers of investment performance by asset class and current economic fundamentals. For returns, we utilized a building block approach starting with inflation expectations and added an expected real return to arrive at a long-term nominal expected return for each asset class. Long-term expected real returns are derived from future expectations of the U.S. Treasury real yield curve.

⁽b) This class, which includes several funds, was invested approximately 32% in corporate debt securities, 66% in governmental securities in the U.S. and Canada and 2% in other foreign entity debt securities as of December 31, 2022, and 44% in corporate debt securities, 49% in governmental securities in the U.S. and Canada and 7% in other foreign entity debt securities as of December 31, 2021.

Weighted average assumptions used to determine benefit obligations were as follows:

		Pension Plans					
	Years	Years Ended December 31,					
	2022	2021	2020				
Discount rate	5.05 %	2.84 %	2.40 %				
Expected return on plan assets	4.89 %	3.25 %	3.89 %				
Rate of compensation increase	3.00 %	3.00 %	3.00 %				

Weighted-average assumptions used to determine net benefit cost were as follows:

		Pension Plans					
	Years	Years Ended December 31,					
	2022	2021	2020				
Discount rate	2.84 %	2.44 %	3.12 %				
Service cost discount rate	3.05 %	2.64 %	3.15 %				
Interest cost discount rate	2.40 %	1.90 %	2.83 %				
Expected return on plan assets	3.25 %	3.89 %	4.88 %				
Rate of compensation increase	3.00 %	3.00 %	3.00 %				

Defined Contribution Plans

Eligible salaried and non-union hourly employees in the U.S. participate in a defined contribution investment plan which permits employees to defer a portion of their compensation through payroll deductions and provides matching contributions. We match 100% of the first 3% of the participant's contributed pay plus 50% of the next 3% of the participant's contributed pay, subject to Internal Revenue Service limits. Participant contributions, matching contributions and the related earnings immediately vest. Mosaic also provides an annual non-elective employer contribution feature for eligible salaried and non-union hourly employees based on the employee's age and eligible pay. Participants are generally vested in the non-elective employer contributions after three years of service. In addition, a discretionary feature of the plan allows the Company to make additional contributions to employees. Certain union employees participate in a defined contribution retirement plan based on collective bargaining agreements.

Canadian salaried and non-union hourly employees participate in an employer funded plan with employer contributions similar to the U.S. plan. The plan provides a profit sharing component which is paid each year. We also sponsor one mandatory union plan in Canada. Benefits in these plans vest after two years of consecutive service.

The expense attributable to defined contribution plans in the U.S. and Canada was \$55.7 million, \$55.8 million and \$48 million for 2022, 2021 and 2020, respectively.

Postretirement Medical Benefit Plans

We provide certain health care benefit plans for certain retired employees ("*Retiree Health Plans*") which may be either contributory or non-contributory and contain certain other cost-sharing features such as deductibles and coinsurance.

The North American Retiree Health Plans are unfunded and the projected benefit obligation was \$22.6 million and \$31.1 million as of December 31, 2022 and 2021, respectively. This liability should continue to decrease due to our limited exposure. The related income statement effects of the Retiree Health Plans are not material to the Company. We anticipate contributing cash of at least \$2.6 million in 2023 to the postretirement medical benefit plans to fund anticipated benefit payments.

The year-end status of the Brazil postretirement medical benefit plans with a discount rate of 10.30% and 7.69% on each of December 31, 2022 and December 31, 2021, respectively was as follows:

	Postretirement Medical Benefits				
		Years Ended	Decen	nber 31,	
(in millions)		2022		2021	
Change in accumulated postretirement benefit obligation ("APBO"):					
APBO at beginning of year	\$	58.0	\$	96.8	
Service cost		0.1		0.3	
Interest cost		5.8		6.6	
Actuarial gain		(7.6)		(22.8)	
Currency fluctuations		3.8		(3.9)	
Benefits paid		(1.0)		(1.7)	
Plan Amendments				(17.3)	
APBO at end of year	\$	59.1	\$	58.0	
Change in plan assets:					
Company contribution	\$	1.0	\$	1.7	
Benefits paid		(1.0)		(1.7)	
Fair value at end of year	\$		\$	_	
Unfunded status of the plans as of the end of the year	\$	(59.1)	\$	(58.0)	
Amounts recognized in the consolidated balance sheets:					
Current liabilities	\$	(1.2)	\$	_	
Noncurrent liabilities		(57.9)		(58.0)	
Amounts recognized in accumulated other comprehensive income					
Prior service credit	\$	(14.1)	\$	(14.8)	
Actuarial loss	\$	6.6	\$	16.1	

19. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) ("AOCI")

The following table sets forth the changes in AOCI by component during the years ended December 31, 2022, 2021 and 2020:

(in millions)	T	Foreign Currency Translation Sain (Loss)	(Net Actuarial Gain and rior Service Cost	(mortization of Gain on iterest Rate Swap	N	Net Gain (Loss) on Iarketable curities Held in Trust	Total
Balance at December 31, 2019	\$	(1,476.8)	\$	(129.6)	\$	2.1	\$	6.1	(1,598.2)
Other comprehensive income (loss)		(246.1)		12.2		2.0		16.6	(215.3)
Tax (expense) or benefit		(3.4)		7.7		(0.4)		(3.8)	0.1
Other comprehensive income (loss), net of tax		(249.5)		19.9		1.6		12.8	(215.2)
Addback: loss attributable to noncontrolling interest		7.2							7.2
Balance at December 31, 2020	\$	(1,719.1)	\$	(109.7)	\$	3.7	\$	18.9	\$ (1,806.2)
Other comprehensive income (loss)		(117.0)		56.5		2.0		(22.7)	(81.2)
Tax (expense) or benefit		8.8		(19.6)		(0.5)		5.1	(6.2)
Other comprehensive income (loss), net of tax		(108.2)		36.9		1.5		(17.6)	(87.4)
Addback: loss attributable to noncontrolling interest		1.8							1.8
Balance at December 31, 2021	\$	(1,825.5)	\$	(72.8)	\$	5.2	\$	1.3	\$ (1,891.8)
Other comprehensive income (loss)		(261.1)		28.6		2.0		(32.4)	(262.9)
Tax (expense) or benefit		6.1		(8.9)		(0.5)		7.6	4.3
Other comprehensive income (loss), net of tax		(255.0)		19.7		1.5		(24.8)	(258.6)
Less: gain attributable to noncontrolling interest		(1.8)				<u> </u>		<u> </u>	(1.8)
Balance at December 31, 2022	\$	(2,082.3)	\$	(53.1)	\$	6.7	\$	(23.5)	\$ (2,152.2)

20. SHARE REPURCHASES

In August 2021, our Board of Directors authorized a \$1.0 billion share repurchase program. Following the completion of this program in 2022, our Board of Directors approved two additional share repurchase programs for a total of \$3.0 billion. Our repurchase programs allow the Company to repurchase shares of our Common Stock through open market purchases, accelerated share repurchase arrangements, privately negotiated transactions or otherwise. These programs have no set expiration dates.

On February 24, 2022, pursuant to existing stock repurchase authorizations, we entered into an accelerated share repurchase ("ASR") agreement with a third-party financial institution to repurchase \$400 million of our Common Stock. At inception, we paid the financial institution \$400 million and took initial delivery of 7,056,229 shares of our Common Stock. Under the terms of the ASR agreement, upon settlement, we would either receive additional shares from the financial institution or be required to deliver additional shares or cash to the financial institution. In the second quarter of 2022, the ASR agreement was completed and we paid the financial institution an additional \$54.2 million. When combining the initial \$400 million paid at the inception of the ASR agreement and the cash settlement of \$54.2 million at the termination of the ASR agreement, we repurchased 7,056,229 shares at an average repurchase price of \$64.37 per share.

During the year ended December 31, 2022, under the 2022 repurchase programs, we repurchased 30,810,173 shares of Common Stock in the open market for approximately \$1.7 billion. This includes the 7,056,229 shares purchased under the ASR agreement.

During the year ended December 31, 2021, under the 2021 repurchase program, we repurchased 11,200,371 shares of Common Stock for a total of approximately \$410.9 million. This includes 8,544,144 shares we purchased in an underwritten secondary offering by Vale S.A. when they fully divested their interest in Mosaic.

The extent to which we repurchase our shares and the timing of any such repurchases depend on a number of factors, including market and business conditions, the price of our shares, and corporate, regulatory and other considerations.

21. SHARE-BASED PAYMENTS

The Mosaic Company 2014 Stock and Incentive Plan (the "2014 Stock and Incentive Plan") was approved by our stockholders and became effective on May 15, 2014. It permits up to 25 million shares of common stock to be issued under share-based awards granted under the plan. The 2014 Stock and Incentive Plan provides for grants of stock options, restricted stock, restricted stock units, performance units and a variety of other share-based and non-share-based awards. Our employees, officers, directors, consultants, agents, advisors and independent contractors, as well as other designated individuals, are eligible to participate in the 2014 Stock and Incentive Plan.

The Mosaic Company 2004 Omnibus Stock and Incentive Plan (the "*Omnibus Plan*"), which was approved by our stockholders and became effective in 2004 and subsequently amended, provided for the grant of shares and share options to employees for up to 25 million shares of common stock. While awards may no longer be made under the Omnibus Plan, it will remain in effect with respect to the awards that had been granted thereunder prior to its termination.

Mosaic settles stock option exercises, restricted stock units and certain performance units and performance shares with newly issued common shares. The Compensation Committee of the Board of Directors administers the 2014 Stock and Incentive Plan and the Omnibus Plan subject to their respective provisions and applicable law.

Stock Options

Stock options are granted with an exercise price equal to the market price of our stock at the date of grant and have a ten-year contractual term. The fair value of each option award is estimated on the date of the grant using the Black-Scholes option valuation model. Stock options vest in equal annual installments in the first three years following the date of grant (graded vesting). Stock options are expensed on a straight-line basis over the required service period, based on the estimated fair value of the award on the date of grant, net of estimated forfeitures.

Valuation Assumptions

Assumptions used to calculate the fair value of stock options awarded in 2017 are noted in the following table. There were no stock options granted or issued in 2022, 2021, or 2020. Expected volatility is based on the simple average of implied and

historical volatility using the daily closing prices of the Company's stock for a period equal to the expected term of the option. The risk-free interest rate is based on the U.S. Treasury rate at the time of the grant for instruments of comparable life.

	Year Ended December 31, 2017
Weighted average assumptions used in option valuations:	
Expected volatility	35.35 %
Expected dividend yield	1.97 %
Expected term (in years)	7
Risk-free interest rate	2.34 %

A summary of the status of our stock options as of December 31, 2022, and activity during 2022, is as follows:

	Shares (in millions)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	 Aggregate Intrinsic Value
Outstanding as of December 31, 2021	1.1	\$ 38.47		
Granted	_	_		
Exercised	(0.4)	\$ 40.15		
Cancelled or forfeited	(0.1)	\$ 53.55		
Outstanding as of December 31, 2022	0.6	\$ 36.12	2.98	\$ 6.5
Exercisable as of December 31, 2022	0.6	\$ 36.12	2.98	\$ 6.5

The outstanding and exercisable options as of December 31, 2022, includes 534,126 options issued from the 2014 Stock and Incentive Plan and 117,330 options issued from the 2004 Stock and Incentive Plan.

Restricted Stock Units

Restricted stock units are issued to various employees, officers and directors at a value equal to the market price of our stock at the date of grant. The fair value of restricted stock units is equal to the market price of our stock at the date of grant. Restricted stock units generally cliff vest after three years of continuous service and are expensed on a straight-line basis over the required service period, based on the estimated grant date fair value, net of estimated forfeitures.

A summary of the status of our restricted stock units as of December 31, 2022, and activity during 2022, is as follows:

	Shares (in millions)	A (Da Va	eighted verage Grant ate Fair alue Per Share
Restricted stock units as of December 31, 2021	2.4	\$	22.44
Granted	0.4		55.54
Issued and cancelled or forfeited	(0.6)	\$	26.71
Restricted stock units as of December 31, 2022	2.2	\$	27.68

Performance Units

During the years ended December 31, 2022, 2021 and 2020, 540,915, 717,952 and 1,309,170 total stockholder return ("**TSR**") performance units were granted, respectively. Final performance units are awarded based on the increase or decrease, subject to certain limitations, in Mosaic's share price from the grant date to the third anniversary of the award, plus dividends (a measure of total stockholder return or TSR). The beginning and ending stock prices are based on a 30 trading-day average stock price. Holders of the awards must be employed at the end of the performance period in order for any units to vest, except in the event of death, disability or retirement at or after age 60, certain changes in control or the exercise of Committee or Board discretion as provided in the related award agreements.

The fair value of each TSR performance unit is determined using a Monte Carlo simulation. This valuation methodology utilizes assumptions consistent with those of our other share-based awards and a range of ending stock prices; however, the expected term of the awards is three years, which impacts the assumptions used to calculate the fair value of performance units as shown in the table below. 195,755 and 262,308 of the TSR performance awards issued in 2022 and 2021, respectively, are to be settled in cash, and are therefore accounted for as a liability with changes in value recorded through earnings during the service period. The remaining TSR performance units issued in 2022 and 2021, and all of the 2020 TSR performance units, are considered equity-classified fixed awards measured at grant-date fair value and not subsequently remeasured. All of the TSR performance units cliff vest after three years of continuous service and are expensed on a straight-line basis over the required service period, based on the estimated grant date fair value of the award net of estimated forfeitures.

A summary of the assumptions used to estimate the fair value of TSR performance units is as follows:

	Years Ended December 31,					
	2022			2021		2020
Performance units granted		540,915		717,952	1,	309,170
Average fair value of performance units on grant date	\$	55.08	\$	27.91	\$	13.52
Weighted average assumptions used in performance unit valuations:						
Expected volatility		54.77 %		58.26 %		43.49 %
Expected dividend yield		0.81 %		0.68 %		1.24 %
Expected term (in years)		3		3		3
Risk-free interest rate		1.68 %		0.32 %		0.61 %

The performance units granted as of December 31, 2022, 2021 and 2020 include 195,755, 262,308, 419,472 cash-settled performance units, respectively.

A summary of our performance unit activity during 2022 is as follows:

	Shares (in millions)	Weighted Average Grant Date Fair Value Per Share
Outstanding as of December 31, 2021	2.8	\$ 18.91
Granted	0.5	55.08
Issued and cancelled or forfeited	(0.7)	\$ 25.70
Outstanding as of December 31, 2022	2.6	\$ 21.89

The outstanding performance units as of December 31, 2022, and 2021 include 791,624 and 885,562 cash-settled performance units, respectively.

Share-Based Compensation Expense

We recorded share-based compensation expense of \$61.1 million, \$63.5 million and \$24.5 million for 2022, 2021 and 2020, respectively. The tax benefit related to share exercises and lapses in the year was \$7.5 million, \$6.5 million and \$5.2 million for 2022, 2021 and 2020, respectively.

As of December 31, 2022, there was \$31.1 million of total unrecognized compensation cost related to options, restricted stock units and performance units and shares granted under the 2014 Stock and Incentive Plan and the Omnibus Plan. The unrecognized compensation cost is expected to be recognized over a weighted-average period of one year. No options vested in 2022, 2021 and 2020.

We received \$16.0 million from exercises of share-based payment arrangements for 2022. There was no cash received from exercises of share-based payment arrangements for 2021 or 2020. We incurred a tax benefit for tax deductions from options of \$13.4 million, \$14.0 million and \$3.3 million in 2022, 2021 and 2020, respectively.

22. COMMITMENTS

We lease certain plants, warehouses, terminals, office facilities, railcars and various types of equipment under operating leases, some of which include rent payment escalation clauses, with lease terms ranging from one to 29 years. In addition to minimum lease payments, some of our office facility leases require payment of our proportionate share of real estate taxes and building operating expenses. Our future obligations under these leases are included in Note 4 of our Notes to Consolidated Financial Statements.

We also have purchase obligations to purchase goods and services, primarily for raw materials used in products sold to customers. In 2013, we entered into an ammonia supply agreement with CF (the "*CF Ammonia Supply Agreement*") that commenced in 2017, under which Mosaic agreed to purchase approximately 545,000 to 725,000 tonnes of ammonia per year at a price tied to the prevailing price of U.S. natural gas. On October 14, 2022, we received notice from CF to exercise the bilateral, contractual right to end the ammonia supply agreement in its current form, effective January 1, 2025.

We have long-term agreements for the purchase of sulfur, which is used in the production of phosphoric acid, and natural gas, which is a significant raw material used primarily in the solution mining process in our Potash segment as well as in our phosphate concentrates plants. Also, we have agreements for capital expenditures primarily in our Potash segment related to our expansion projects.

A schedule of future minimum long-term purchase commitments, based on expected market prices as of December 31, 2022 is as follows:

	(in millions)	Purchase Commitments
2023	\$	4,393.0
2024		1,054.2
2025		307.7
2026		216.3
2027		40.0
Subsequent years	_	92.3
	<u>\$</u>	6,103.5

Purchases made under long-term commitments were \$4.6 billion in 2022, \$3.1 billion in 2021, and \$1.9 billion in 2020, respectively.

Most of our export sales of potash crop nutrients are marketed through a North American export association, Canpotex, which may fund its operations in part through third-party financing facilities. As a member, Mosaic or our subsidiaries are contractually obligated to reimburse Canpotex for their pro rata share of any operating expenses or other liabilities incurred. The reimbursements are made through reductions to members' cash receipts from Canpotex.

We incur liabilities for reclamation activities and Gypstack closures in our Florida and Louisiana operations where, in order to obtain necessary permits, we must either pass a test of financial strength or provide credit support, typically in the form of cash deposits, surety bonds or letters of credit. The surety bonds generally expire within one year or less but a substantial portion of these instruments provide financial assurance for continuing obligations and, therefore, in most cases, must be renewed on an annual basis. As of December 31, 2022, we had \$724.2 million in surety bonds outstanding, of which \$382.3 million is for reclamation obligations, primarily related to mining in Florida. In addition, included in the total amount is \$300.8 million, reflecting our updated closure cost estimates, delivered to the EPA as a substitute for the financial assurance provided through the Plant City Trust. The remaining balance in surety bonds outstanding of \$41.1 million is for other matters.

23. CONTINGENCIES

We have described below the material judicial and administrative proceedings to which we are subject.

Environmental Matters

We have contingent environmental liabilities that arise principally from three sources: (i) facilities currently or formerly owned by our subsidiaries or their predecessors; (ii) facilities adjacent to currently or formerly owned facilities; and

(iii) third-party Superfund or state equivalent sites. At facilities currently or formerly owned by our subsidiaries or their predecessors, the historical use and handling of regulated chemical substances, crop and animal nutrients and additives and by-product or process tailings have resulted in soil, surface water and/or groundwater contamination. Spills or other releases of regulated substances, subsidence from mining operations and other incidents arising out of operations, including accidents, have occurred previously at these facilities, and potentially could occur in the future, possibly requiring us to undertake or fund cleanup or result in monetary damage awards, fines, penalties, other liabilities, injunctions or other court or administrative rulings. In some instances, pursuant to consent orders or agreements with governmental agencies, we are undertaking certain remedial actions or investigations to determine whether remedial action may be required to address contamination. At other locations, we have entered into consent orders or agreements with appropriate governmental agencies to perform required remedial activities that will address identified site conditions. Taking into consideration established accruals of approximately \$185.5 million and \$57.3 million, as of December 31, 2022 and 2021, respectively, expenditures for these known conditions currently are not expected, individually or in the aggregate, to have a material effect on our business or financial condition. However, material expenditures could be required in the future to remediate the contamination at known sites or at other current or former sites or as a result of other environmental, health and safety matters. Below is a discussion of certain environmental matters.

New Wales Phase II East Stack. In April 2022, we confirmed the presence of a cavity in and liner tear beneath the southern part of the active phosphogypsum stack at the Company's New Wales facility in Florida which resulted in process water draining beneath the stack. The circumstances were reported to the FDEP and the EPA. Phase I of the repairs, consisting of stabilizing the cavity by depositing low pressure grout into it began in July 2022 and now is complete. Phase II will then inject high pressure grout beneath the stack to restore the geological confining layer beneath it. That work began in early in 2023 and is expected to conclude in the fourth quarter of 2023.

As of December 31, 2022, we have a reserve of \$73.1 million for the estimated repairs. We are unable to estimate at this time potential future additional financial impacts or a range of loss, if any, due to the ongoing evaluation.

EPA RCRA Initiative. We have certain financial assurance and other obligations under consent decrees and a separate financial assurance arrangement relating to our facilities in Florida and Louisiana. These obligations are discussed in Note 14 of our Notes to Consolidated Financial Statements.

Other Environmental Matters. Superfund and equivalent state statutes impose liability without regard to fault or to the legality of a party's conduct on certain categories of persons who are considered to have contributed to the release of "hazardous substances" into the environment. Under Superfund, or its various state analogues, one party may, under certain circumstances, be required to bear more than its proportionate share of cleanup costs at a site where it has liability if payments cannot be obtained from other responsible parties. Currently, certain of our subsidiaries are involved or concluding involvement at several Superfund or equivalent state sites. Our remedial liability from these sites, alone or in the aggregate, currently is not expected to have a material effect on our business or financial condition. As more information is obtained regarding these sites and the potentially responsible parties involved, this expectation could change.

We believe that, pursuant to several indemnification agreements, our subsidiaries are entitled to at least partial, and in many instances complete, indemnification for the costs that may be expended by us or our subsidiaries to remedy environmental issues at certain facilities. These agreements address issues that resulted from activities occurring prior to our acquisition of facilities or businesses from parties including, but not limited to, ARCO (BP); Beatrice Fund for Environmental Liabilities; Conoco; Conserv; Estech, Inc.; Kaiser Aluminum & Chemical Corporation; Kerr-McGee Inc.; PPG Industries, Inc.; The Williams Companies; CF; and certain other private parties. Our subsidiaries have already received and anticipate receiving amounts pursuant to the indemnification agreements for certain of their expenses incurred to date as well as future anticipated expenditures. We record potential indemnifications as an offset to the established accruals when they are realizable or realized. The failure of an indemnitor to fulfill its obligations could result in future costs that could be material.

Louisiana Parishes Coastal Zone Cases

Several Louisiana parishes and the City of New Orleans have filed lawsuits against hundreds of oil and gas companies seeking regulatory, restoration and compensatory damages in connection with historical oil, gas and sulfur mining and transportation operations in the coastal zone of Louisiana. Mosaic is the corporate successor to certain companies which performed these types of operations in the coastal zone of Louisiana. Mosaic has been named in two of the lawsuits filed to date. In addition, in several other cases, historical oil, gas and sulfur operations which may have been related to Mosaic's corporate predecessors have been identified in the complaints. Based upon information known to date, Mosaic has contractual indemnification rights against third parties for any loss or liability arising out of these claims pursuant to indemnification

agreements entered into by Mosaic's corporate predecessor(s) with third parties. There may also be insurance contracts which may respond to some or all of the claims. However, the financial ability of the third-party indemnitors, the extent of potential insurance coverage and the extent of potential liability from these claims is currently unknown.

As of October of 2022, a memorandum of understanding has been executed by the State of Louisiana and the plaintiff parishes that filed claims against Mosaic and its corporate predecessors on one hand, and Mosaic Global Holdings Inc. and its third-party indemnitors on the other hand which, when fully implemented, will release and dismiss Mosaic and its corporate predecessors from the coastal zone cases. Funding obligations in the memorandum of understanding are expected to be undertaken by third-party indemnitors and/or insurers.

Brazil Legal Contingencies

Our Brazilian subsidiaries are engaged in a number of judicial and administrative proceedings regarding labor, environmental, mining and civil claims that allege aggregate damages and/or fines of approximately \$807.7 million. We estimate that our probable aggregate loss with respect to these claims is approximately \$62.3 million, which is included in our accrued liabilities in our Consolidated Balance Sheets at December 31, 2022. Approximately \$608.5 million of the maximum potential loss above, relates to labor claims of which approximately \$53.3 million is included in accrued liabilities in our Consolidated Balance Sheets at December 31, 2022

Based on Brazil legislation and the current status of similar labor cases involving unrelated companies, we believe we have recorded adequate loss contingency reserves sufficient to cover our estimate of probable losses. If the status of similar cases involving unrelated companies were to adversely change in the future, our maximum exposure could increase and additional accruals could be required.

Brazil Tax Contingencies

Our Brazilian subsidiaries are engaged in a number of judicial and administrative proceedings relating to various non-income tax matters. We estimate that our maximum potential liability with respect to these matters is approximately \$472.5 million, of which \$205.0 million is subject to an indemnification agreement entered into with Vale S.A in connection with the Acquisition.

Approximately \$331.4 million of the maximum potential liability relates to a Brazilian federal value added tax, PIS and COFINS, and tax credit cases, while the majority of the remaining amount relates to various other non-income tax cases. The maximum potential liability can increase with new audits. Based on Brazil legislation and the current status of similar tax cases involving unrelated taxpayers, we believe we have recorded adequate loss contingency reserves sufficient to cover our estimate of probable losses, which are immaterial. If the status of similar tax cases involving unrelated taxpayer changes in the future, additional accruals could be required.

Other Claims

We also have certain other contingent liabilities with respect to judicial, administrative and arbitration proceedings and claims of third parties, including tax matters, arising in the ordinary course of business. We do not believe that any of these contingent liabilities will have a material adverse impact on our business or financial condition, results of operations, and cash flows.

24. RELATED PARTY TRANSACTIONS

We enter into transactions and agreements with certain of our non-consolidated companies and other related parties from time to time. As of December 31, 2022, the net amount due to our non-consolidated companies totaled \$56.8 million. As of December 31, 2021, the net amount due from our non-consolidated companies totaled \$63.0 million.

The Consolidated Statements of Earnings included the following transactions with our non-consolidated companies:

	Years Ended December 31,					,
(in millions)		2022		2021		2020
Transactions with non-consolidated companies included in net sales	\$	3,015.3	\$	1,120.9	\$	819.6
Transactions with non-consolidated companies included in cost of goods sold	\$	3,245.2	\$	1,483.8	\$	950.1

As part of the MWSPC joint venture, we market approximately 25% of the MWSPC production, for which approximately \$23.1 million, \$12.2 million and \$8.5 million is included in revenue for the years ended December 31, 2022, 2021 and 2020, respectively.

We financed the purchase and construction of two articulated tug and barge units through a bridge loan agreement with Gulf Marine Solutions, LLC ("GMS"). GMS is a wholly-owned subsidiary of Gulf Sulphur Services ("GSS"), an entity in which we and a joint venture partner, Savage Companies ("Savage"), each indirectly own a 50% equity interest. We are the primary beneficiary of GMS, a variable interest entity, and consolidate GMS's operations. Effective during the first quarter of 2023, Mosaic assumed ownership of Savage's 50% equity and now wholly-owns GSS. Several subsidiaries of Savage continue to provide vessel operations services to Mosaic under time charter agreements.

25. BUSINESS SEGMENTS

The reportable segments are determined by management based upon factors such as products and services, production processes, technologies, market dynamics, and for which segment financial information is available for our chief operating decision maker.

For a description of our business segments see Note 1 of our Notes to Consolidated Financial Statements. We evaluate performance based on the operating earnings of the respective business segments, which includes certain allocations of corporate selling, general and administrative expenses. The segment results may not represent the actual results that would be expected if they were independent, stand-alone businesses. Intersegment eliminations, including profit on intersegment sales, mark-to-market gains/losses on derivatives, debt expenses, Streamsong Resort® results of operations and the results of the China and India distribution business are included within Corporate, Eliminations and Other. Certain selling, general and administrative costs that are not controllable by the business segments are included within Corporate, Eliminations and Other.

Segment information for the years 2022, 2021 and 2020 is as follows:

(in millions)	Pł	osphates	Potash	Mosaic Fertilizantes		El	Corporate, iminations id Other ^(a)	Total
Year Ended December 31, 2022								
Net sales to external customers	\$	4,546.4	\$ 5,122.8	\$	8,287.2	\$	1,168.8	\$ 19,125.2
Intersegment net sales		1,637.8	85.7		_		(1,723.5)	_
Net sales		6,184.2	5,208.5		8,287.2		(554.7)	19,125.2
Gross margin		1,759.0	2,843.0		1,045.6		108.2	5,755.8
Canadian resource taxes		_	927.9		_		_	927.9
Gross margin (excluding Canadian resource taxes)		1,759.0	3,770.9		1,045.6		108.2	6,683.7
Operating earnings		1,347.2	2,767.7		910.4		(240.0)	4,785.3
Capital expenditures		631.8	281.6		306.4		27.5	1,247.3
Depreciation, depletion and amortization expense		485.1	307.3		125.5		16.0	933.9
Equity in net earnings of nonconsolidated companies		192.4	_		_		3.6	196.0
Year Ended December 31, 2021								
Net sales to external customers	\$	3,889.7	\$ 2,587.9	\$	5,088.5	\$	791.3	\$ 12,357.4
Intersegment net sales		1,033.2	38.9		_		(1,072.1)	_
Net sales		4,922.9	2,626.8		5,088.5		(280.8)	12,357.4
Gross margin		1,305.4	1,057.5		842.7		(5.3)	3,200.3
Canadian resource taxes			259.5				_	259.5
Gross margin (excluding Canadian resource taxes)		1,305.4	1,317.0		842.7		(5.3)	3,459.8
Impairment, restructuring and other expenses		_	158.1		_		_	158.1
Operating earnings		1,179.8	836.6		745.9		(293.8)	2,468.5
Capital expenditures		649.9	410.1		216.1		12.5	1,288.6
Depreciation, depletion and amortization expense		428.7	267.8		101.2		15.2	812.9
Equity in net earnings of nonconsolidated companies		5.4	_		_		2.4	7.8
Year Ended December 31, 2020								
Net sales to external customers	\$	2,543.5	\$ 1,988.6	\$	3,481.6	\$	668.0	\$ 8,681.7
Intersegment net sales		572.9	30.7				(603.6)	
Net sales		3,116.4	2,019.3		3,481.6		64.4	8,681.7
Gross margin		125.5	468.3		419.6		51.5	1,064.9
Canadian resource taxes			146.1					146.1
Gross margin (excluding Canadian resource taxes)		125.5	614.4		419.6		51.5	1,211.0
Operating earnings		(147.1)	401.5		346.5		(188.0)	412.9
Capital expenditures		538.1	478.2		144.9		9.4	1,170.6
Depreciation, depletion and amortization expense		443.4	282.4		105.7		16.1	847.6
Equity in net (loss) earnings of nonconsolidated companies		(94.1)	_		_		0.3	(93.8)
Total assets as of December 31, 2022	\$	9,570.5	\$ 9,582.2	\$	5,562.7	\$	(1,329.4)	\$ 23,386.0
Total assets as of December 31, 2021		8,776.4	8,312.8		4,908.2		39.0	22,036.4
Total assets as of December 31, 2020		7,022.1	7,614.8		4,127.7		1,025.2	19,789.8

⁽a) The "Corporate, Eliminations and Other" category includes the results of our ancillary distribution operations in India and China. For the years ended December 31, 2022, 2021 and 2020, distribution operations in India and China had revenues of \$1.1 billion, \$730.1 million, and \$639.4 million, respectively and gross margins of \$130.9 million, \$141.6 million, and \$58.7 million, respectively.

Financial information relating to our operations by geographic area is as follows:

		Years Ended December 31,				
(in millions)	20	122	2021		2020	
Net sales ^(a) :						
Brazil	\$ 8	3,045.5	\$ 5,002.2	\$	3,377.1	
Canpotex ^(b)	2	2,961.6	1,089.6		795.2	
Canada		966.0	794.9		547.5	
China		648.2	396.0		334.2	
India		512.5	340.3		318.4	
Paraguay		227.1	113.8		94.3	
Argentina		224.6	101.3		121.0	
Mexico		165.5	93.6		77.1	
Japan		162.0	112.4		58.8	
Colombia		125.9	135.1		93.4	
Australia		101.6	64.8		85.1	
Peru		70.2	40.0		62.0	
Dominican Republic		34.1	29.8		17.1	
Honduras		31.2	22.3		31.0	
Thailand		6.3	18.1		21.2	
Other		100.8	73.9		75.0	
Total international countries	14	1,383.1	8,428.1		6,108.4	
United States	4	1,742.1	3,929.3		2,573.3	
Consolidated	\$ 19	9,125.2	\$ 12,357.4	\$	8,681.7	

⁽a) Revenues are attributed to countries based on location of customer.

⁽b) Canpotex is the export association of two Saskatchewan potash producers. The net sales of potash from Mosaic to Canpotex included in our consolidated financial statements in the Net Sales line represent Mosaic's sales of potash to Canpotex, and are recognized upon delivery to the unrelated third-party customer. Canpotex sales to the ultimate third-party customers are approximately: 28% to customers based in Brazil, 14% to customers based in China, 12% to customers based in Indonesia, 8% to customers based in India, and 38% to customers based in the rest of the world.

	December 31,			1,
(in millions)	2022			2021
Long-lived assets:				
Canada	\$	4,716.2	\$	5,012.2
Brazil		2,153.5		2,011.0
Other		1,432.5		1,285.0
Total international countries		8,302.2		8,308.2
United States		6,658.6		6,233.6
Consolidated	\$	14,960.8	\$	14,541.8

Excluded from the table above as of December 31, 2022 and 2021, are goodwill of \$1,116.3 million and \$1,172.2 million and deferred income tax assets of \$752.3 million and \$997.1 million, respectively.

Net sales by product type for the years 2022, 2021 and 2020 are as follows:

	Years Ended December 31,			1,		
(in millions)		2022		2021		2020
Sales by product type:						
Phosphate Crop Nutrients	\$	4,465.0	\$	3,552.7	\$	2,477.0
Potash Crop Nutrients		6,484.1		3,367.9		2,566.7
Crop Nutrient Blends		2,970.0		1,800.0		1,232.7
Performance Products ^(a)		3,025.8		1,973.6		1,370.8
Phosphate Rock		125.9		75.5		42.0
Other ^(b)		2,054.4		1,587.7		992.5
	\$	19,125.2	\$	12,357.4	\$	8,681.7

⁽a) Includes sales of MicroEssentials®, K-Mag®, Aspire® and Sus-TerraTM
(b) Includes sales of industrial potash, feed products, nitrogen and other products.

26. MINE CLOSURE COSTS

Due to increased brine inflows, on June 4, 2021, the Company made the decision to accelerate the timing of the shutdown of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine. Closing the K1 and K2 shafts are key pieces of the transition to the K3 shaft, but the timeline for the closure was accelerated by approximately nine months. In 2021, we had pretax costs of \$158.1 million related to the permanent closure of these facilities. These costs consisted of \$109.9 million related to the write-off of fixed assets, \$37.1 million related to AROs, and \$11.1 million related to inventory and other reserves. In the third quarter of 2021, we resumed production at our previously idled Colonsay potash mine to offset a portion of the production lost by the early closure of the K1 and K2 shafts at Esterhazy.

27. SUBSEQUENT EVENTS

On January 12, 2023, we completed the sale of the Streamsong Resort® (the "*Resort*") and approximately 7,000 acres of land on which it sits to Lone Windmill LLC, a subsidiary of Kemper Sports Management LLC, for a purchase price of \$160 million. The Resort is a destination resort and conference center, which we developed in an area of previously mined land as part of our long-term business strategy to maximize the value and utility of our extensive land holdings in Florida. In addition to a hotel and conference center, the Resort includes multiple golf courses, a clubhouse and ancillary facilities.

Subsequent to year end, our Board of Directors approved an ASR of \$300 million which is expected to be initiated in the first quarter of 2023. Also, in February 2023, the Board of Directors approved a special dividend of \$0.25 per share to be distributed in March, 2023 to our stockholders of record as of March 15, 2023.

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining effective internal control over financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control system is a process designed to provide reasonable assurance to our management, Board of Directors and stockholders regarding the reliability of financial reporting and the preparation and fair presentation of our consolidated financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"), and includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. GAAP, and that receipts and expenditures are being made only in accordance with authorizations from our management and Board of Directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

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

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. In assessing the effectiveness of our internal control over financial reporting as of December 31, 2022 management used the control criteria framework of the Committee of Sponsoring Organizations (COSO) of the Treadway Commission published in its report entitled *Internal Control—Integrated Framework (2013)*. Based on their evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2022. KPMG LLP, the independent registered public accounting firm that audited the financial statements included in this Form 10-K, has issued an auditors' report on the Company's internal control over financial reporting as of December 31, 2022.

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RECONCILIATION OF NON-GAAP FINANCIAL MEASURES

THIS SECTION IS NOT PART OF THE 10-K

This document includes the presentation of non-GAAP adjusted EBITDA, referred to as a non-GAAP financial measure. Generally, a non-GAAP financial measure is a supplemental numerical measure of a company's performance, financial position or cash flows that either excludes or includes amounts that are not normally excluded or included in the most directly comparable measure calculated and presented in accordance with U.S. generally accepted accounting principles, or GAAP. Non-GAAP financial measures should not be considered as substitutes for, or superior to, measures of financial performance prepared in accordance with GAAP. In addition, because non-GAAP measures are not determined in accordance with GAAP, they are thus susceptible to varying interpretations and calculations and may not be comparable to other similarly titled measures of other companies. Adjusted metrics, including adjusted EBITDA are calculated by excluding the impact of notable items from the GAAP measure. Notable items impact on adjusted EBITDA is pretax. Management believes that these adjusted measures provide securities analysts, investors, management and others with useful supplemental information regarding our performance by excluding certain items that may not be indicative of, or are unrelated to, our core operating results. Management utilizes these adjusted measures in analyzing and assessing Mosaic's overall performance and financial trends, for financial and operating decision-making, and to forecast and plan for future periods. These adjusted measures also assist our management in comparing our and our competitors' operating results. We are not a quantitative reconciliation of forwardlooking adjusted EBITDA because we are unable to predict with reasonable certainty our notable items without unreasonable effort. Historically, our notable items have included, but are not limited to, foreign currency transaction gain or loss, unrealized gain or loss on derivatives, acquisition-related fees, discrete tax items, contingencies and certain other gains or losses. These items are uncertain, depend on various factors, and could have a material impact on U.S. GAAP reported results for the guidance period. Reconciliations for Non-GAAP financial measures contained in this document are found below.

Reconciliation of Non-GAAP Measures

Consolidated Earnings (in millions)	2022	2021
Consolidated net earnings attributable to Mosaic	\$3,583	\$1,631
Less: Consolidated interest expense, net	(139)	(169)
Plus: Consolidated depreciation, depletion and amortization	933	813
Plus: Accretion expense	81	72
Plus: Share-based compensation expense	27	30
Plus: Consolidated provision for income taxes	1,224	598
Less: Equity in net earnings (loss) of nonconsolidated companies, net of dividends	196	8
Plus: Notable items	425	280
Adjusted EBITDA	\$6,216	\$3,585

Potash Earnings (in millions)	2022	2021
Operating earnings	\$2,768	\$837
Plus: Depreciation, depletion and amortization	307	268
Plus: Accretion expense	8	10
Plus: Foreign exchange gain (loss)	(19)	8
Plus: Other income (expense)	-	-
Plus: notable items	53	163
Adjusted EBITDA	\$3,117	\$1,286

Phosphate Earnings (in millions)	2022	2021
Operating earnings	\$1,347	\$1,180
Plus: Depreciation, depletion and amortization	485	429
Plus: Accretion expense	55	48
Plus: Foreign exchange gain (loss)	(8)	9
Plus: Other income (expense)	(32)	8
Less: Earnings (loss) from consolidated noncontrolling interests	32	6
Plus: notable items	404	61
Adjusted EBITDA	\$2,219	\$1,729

Mosaic Fertilizantes Earnings (in millions)	2022	2021
Operating earnings	\$910	\$745
Plus: Depreciation, depletion and amortization	125	101
Plus: Accretion expense	17	14
Plus: Foreign exchange gain (loss)	8	(70)
Plus: Other income (expense)	(4)	(6)
Less: Earnings (loss) from consolidated noncontrolling interests	(1)	(1)
Plus: notable items	(8)	36
Adjusted EBITDA	\$1,049	\$821

BOARD OF DIRECTORS

GREGORY L. EBEL

President and Chief Executive
Officer of Enbridge, Inc.
Chairman of The Mosaic Company

Committees: Audit; Corporate Governance and Nominating

CHERYL K. BEEBE

Retired Chief Financial Officer of Ingredion Incorporated

Committees: Audit (Chair); Corporate Governance and Nominating

TIMOTHY S. GITZEL

President and Chief Executive Officer of Cameco Corporation

Committees: Compensation (Chair); Corporate Governance and Nominating

DENISE C. JOHNSON

Group President, Resources Industries Group of Caterpillar, Incorporated

Committees: Compensation; Environmental, Health, Safety and Sustainable Development

EMERY N. KOENIG

Retired Vice Chairman and Chief Risk Officer of Cargill, Incorporated

Committees: Environmental, Health, Safety and Sustainable Development (Chair); Corporate Governance and Nominating

JAMES "JOC" C. O'ROURKE

President and Chief Executive Officer of The Mosaic Company

DAVID T. SEATON

Former Chairman and Chief Executive Officer of Fluor Corporation

Committees: Audit; Compensatio and Human Resources

STEVEN M. SEIBERT

Attorney at The Seibert Law Firm

Committees: Audit; Environmental, Health, Safety and Sustainable Development

JOÃO ROBERTO GONÇALVES TEIXEIRA

Former Chief Executive Officer of Copersucar

Committees: Audit; Environmental, Health, Safety and Sustainable Development

GRETCHEN H. WATKINS

President of Shell USA, Inc.

Committees: Compensation; Environmental, Health, Safety and Sustainable Development

KELVIN R. WESTBROOK

President and Chief Executive Officer of KRW Advisors, LLC

Committees: Corporate Governance and Nominating (Chair); Environmental, Health, Safety and Sustainable Development

EXECUTIVE OFFICERS

JAMES "JOC" C. O'ROURKE

President and Chief Executive Officer

PHILE. BAUER

Senior Vice President, General Counsel and Corporate Secretary

BRUCE M. BODINE

Senior Vice President - North America

CLINT C. FREELAND

Senior Vice President and Chief Financial Officer

CHRISTOPHER A. LEWIS

Senior Vice President – Human Resources

BENJAMIN J. PRATT

Senior Vice President - Government and Public Affairs

WALTER F. PRECOURT III

Senior Vice President - Strategy and Growth

CORRINE D. RICARD

Senior Vice President - Mosaic Fertilizantes

KAREN A. SWAGER

Senior Vice President – Supply Chain

YIJUN "JENNY" WANG

Senior Vice President – Global Strategic Marketing, Head of China and India

SHAREHOLDER INFORMATION

Safe Harbor

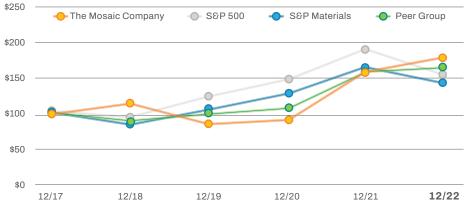
Certain statements in this report that are neither reported financials nor other historical information are forward-looking statements. Such forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results and Mosaic's plans and objectives to differ materially from those expressed in the forward-looking statements. Additional information about such risks and uncertainties is set forth in our reports filed with the Securities and Exchange Commission.

Shareholder Return Information

The following performance graph compares the cumulative total return on our common stock for a period beginning December 31, 2017, with the cumulative total return of the Standard & Poor's 500 Stock Index, the Standard & Poor's Materials Index and a peer group of companies selected by us. Our 2022 peer group is comprised of Nutrien Ltd., CF Industries Holdings Inc., ICL Group, Ltd., K+S Aktiengesellschaft and Yara International ASA. Our stock price performance differs from that of our peer group during some periods due to differences in the market segments in which we compete or in the level of our participation in such segments compared to other members of the peer group. In accordance with Standard & Poor's policies, companies with less than a majority of their stock publicly traded are not included in the S&P 500 Index. The comparisons set forth below assume an initial investment of \$100 and reinvestment of dividends or distributions.

COMPARISON OF 5-YEAR CUMULATIVE TOTAL RETURN*

AMONG THE MOSAIC COMPANY, S&P 500 AND PEER GROUP INDEX



*\$100 invested on 12/31/17 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

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CORPORATE HEADQUARTERS

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STOCK EXCHANGE

New York Stock Exchange Ticker Symbol: MOS

TRANSFER AGENT

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INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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Mosaic's 10-K Report, filed in February 2023 with the Securities and Exchange Commission, is available to shareholders and interested parties without charge by contacting Paul Massoud.

WEBSITE

mosaicco.com



www.Mosaicco.com/2022AnnualReport



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