EASTMAN

ENHANCING THE **QUALITY OF LIFE** *in a material way*

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DEAR FELLOW EASTMAN STOCKHOLDERS,

Last year was a very challenging yet rewarding year for Eastman. We delivered record sales revenue and adjusted EPS and laid out exciting plans for the future as a world-leading material innovation company. The global Eastman team did an outstanding job navigating through a very difficult operating environment that included unprecedented logistics and supply chain challenges; rapid, broad-based inflation; and labor shortages. The Delta and Omicron variants reminded us that we are not yet free of the ongoing threat of COVID-19 and the disruption and uncertainty it causes.

Even in this dynamic environment, we continued to deliver compelling revenue and earnings growth, advance our innovation programs and transformational initiatives, strengthen our business portfolio, achieve milestones toward our ambitious sustainability goals, and so much more. Here are just a few of our highlights from the year:

- Delivered record full-year revenue and adjusted earnings per share
- Generated approximately $600 million in new business revenue from innovation, driven by strong growth of specialty products across the company
- Accelerated leadership in the circular economy with plans to build multiple world-scale material-to-material molecular recycling facilities
- Generated $1.05 billion of free cash flow, marking our fifth consecutive year of delivering greater than $1 billion in free cash flow and demonstrating resilience in both good and challenging environments
- Returned approximately $1.4 billion to stockholders through dividends, which we increased for the twelfth consecutive year, and share repurchases
- Successfully divested our tire additives product lines and announced the divestiture of our adhesives resins product lines, resulting in a more strategic Additives & Functional Products segment
- Recognized by Fortune magazine as a “Change the World” company and named by Barron’s as one of the 100 Most Sustainable Companies

These results show that momentum is building across the company and demonstrate the value we are creating along these five themes:

1. OUR INNOVATION-DRIVEN GROWTH MODEL IS SUCCEEDING

Our innovation-driven growth model is at the heart of who we are and how we win in the marketplace every day. This model is delivering results, and we are demonstrating that our portfolio can grow above our underlying markets with products that have higher margins and drive strong mix upgrade. By leveraging this model, we expect to have delivered greater than $2 billion of new business revenue from 2018 through 2022.

As we look ahead, we are well positioned to leverage our model to drive not only meaningful growth but also meaningful change. One hundred percent of our top innovation programs are linked to disruptive, sustainably focused macro trends aimed

at solving the triple challenge of caring for the health and wellness of a growing society, reducing our impact on the climate, and addressing the plastic waste crisis.

Growth from these programs is at higher margin than company average. This significant mix upgrade is key to delivering growth in Advanced Materials and the performance that we expect in the more focused Additives & Functional Products.

2. CIRCULAR ECONOMY IS A NEW VECTOR OF SIGNIFICANT GROWTH

In my last letter to you, I described the circular economy as a new vector of significant growth for Eastman. We have a great opportunity to deliver attractive growth by addressing the plastic waste crisis and reducing our impact on climate at the same time. It starts with the global brands that are making significant commitments to reduce plastic waste and their carbon footprint. They are working with Eastman as a leader to help them meet their commitments for improving the environment without compromising on the quality of their products. We are well positioned to deliver solutions and create growth with our molecular recycling technologies for our world-class polyester platforms and with our biodegradable cellulosic biopolymers.

We are making great progress in scaling up our polyester renewal technology (PRT) with our two announced projects. In 2021, we began construction on our first project — a world-scale, material-to-material molecular recycling facility in Kingsport.

For our second PRT project, earlier this year, we announced plans alongside French President Emmanuel Macron to build the world's largest material-to-material molecular recycling facility in France. The facility, which will process up to 160 KMT of hard-to-recycle plastic waste annually, is expected to be operational in 2025. With the technology's inherent efficiencies and the renewable energy sources available in France, materials can be produced with carbon emissions up to 80% less than traditional methods. We also plan to establish an innovation center for molecular recycling and sustainable product development that will assist France in its effort to sustain a leadership role in the circular economy.

Our planned investment is being endorsed by several leading global brands, including LVMH Beauty, L'Oréal, Danone, The Estée Lauder Companies, Clarins, and Procter & Gamble. We expect to announce additional milestones in the coming months, including agreements related to sourcing the plastic waste feedstocks, completing commercial agreements, and finalizing the site location.

We expect new business revenue from innovation to accelerate as we advance our leadership in the circular economy. Our two announced PRT molecular recycling projects and a third in development have the potential to deliver greater than $450 million of EBITDA by 2026. We are showing the world what is possible today and that we can do this while delivering an attractive return on our investment.

3. STRENGTHENING EXECUTION TO CONVERT GROWTH TO VALUE

Our aggressive pursuit of productivity is part of the Eastman culture. We continue to make investments in strengthening our execution capability to drive the top line and translate it to the bottom line. This includes strengthening our commercial and product excellence. Our new integrated business planning system will enable us to support growth better while keeping inventory levels low. We are also transforming our operations by modernizing and digitizing our capabilities to improve our reliability and cost competitiveness. We have also optimized our manufacturing footprint around the world to better serve our customers as well as reduce overall costs.

4. SUSTAINABILITY AND ESG ARE INTEGRATED INTO HOW WE WIN

At Eastman, sustainability is a business imperative. That is why ESG is integrated into how we do business at Eastman. We have the responsibility and opportunity to lead, join others to address climate change, mainstream circularity as an economic model, and build a more inclusive and equitable world.

We are committed to reducing our greenhouse gas emissions by one-third by 2030 and achieving carbon neutrality by 2050. We have a detailed path to achieve these ambitious goals, which includes energy efficiency, process transformation, renewable energy, and technology breakthroughs.

Regarding our societal goals, we know that our people — combined with our values of safety and wellness, honesty and integrity, and inclusion and diversity — create the unique culture that is the Eastman advantage. We live our values with a zero-incident mindset regarding safety, ethics, compliance, and an inclusive workplace.

On that last point, last year we launched our first-ever I&D Annual Report to increase our transparency and accountability for achieving our goals. We also bolstered our internal resources so that our global team can take an active role in shaping a more diverse culture that creates opportunities and brings out the best in everyone.

5. POWER OF CASH FLOW AND THE BALANCE SHEET

We have developed a record of strong cash flow in most any environment. Over the next three years, we expect to deliver approximately $5 billion in operating cash flow, which is a new level of performance for Eastman that we expect to sustain for years to come.

We will continue to put our cash to work in a disciplined manner. We expect to deploy more than $6 billion from 2022 to 2024 for growth investments, capital expenditures, and returning cash to stockholders through dividends and share repurchases. Proceeds from the anticipated divestiture of the adhesives resins business are expected to be deployed early in the year to at least offset the dilutive impact of the divested earnings.

BUILDING ON RECORD GROWTH

Together, these five elements position us for another year of growth and value creation. Innovation and market development are expected to drive organic growth above our underlying end markets consistent with what we do every year. Our portfolio of specialty products is expected to deliver strong top-line and bottom-line growth. We also expect our price increases to catch up to higher raw material, energy, and distribution costs. And we expect to benefit from a continued disciplined approach to costs, underpinned by our operations transformation program.

Altogether, we expect to deliver growth again in 2022 with full-year adjusted earnings per share to be between $9.50 and $10, which is 7%–13% growth. We are well positioned to create our own growth and build on what was a record year in 2021.

BUILDING MOMENTUM

Momentum is building. The company is growing in exciting ways, and we are leading in areas that can make a real difference in the world. I am grateful to the global Eastman team for giving us many reasons to celebrate in 2021 and for giving us confidence in what we can deliver this year and in the years to come.

On behalf of all of us at Eastman, thank you for believing in our company and our vision for the future. Our success would not be possible without your trust and support.

Sincerely,

Mark Costa
March 21, 2022

Non-GAAP financial measures — adjusted earnings, free cash flow, and net debt: The Chairman and CEO's letter includes non-GAAP earnings adjusted to exclude certain non-core and unusual items; "free cash flow," which means GAAP cash provided by operating activities less net capital expenditures (typically GAAP cash used in additions to properties and equipment); and "net debt," defined as the GAAP measure total borrowings less the GAAP measure cash and cash equivalents. Reconciliations to the most directly comparable GAAP financial measures and other associated disclosures, including a description of the excluded and adjusted items, are available in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this Annual Report.

Forward-looking statements: This Annual Report, including the Chairman and CEO's letter, includes forward-looking statements concerning plans and expectations for Eastman Chemical Company. Actual results could differ materially from our expectations. See the "Forward-looking statements" and "Risk factors" sections in "Management's discussion and analysis of financial condition and results of operations" of this Annual Report.

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ABOUT OUR BUSINESS

Eastman Chemical Company ("Eastman" or the "Company") is a global specialty materials company that produces a broad range of products found in items people use every day. Eastman began business in 1920 for the purpose of producing chemicals for Eastman Kodak Company's photographic business and became a public company, incorporated in Delaware, on December 31, 1993. Eastman has 41 manufacturing facilities and has equity interests in three manufacturing joint ventures in 12 countries that supply products to customers throughout the world. The Company's headquarters and largest manufacturing facility are located in Kingsport, Tennessee. With a robust portfolio of specialty businesses, Eastman works with customers to deliver innovative products and solutions with commitment to safety and sustainability. Eastman's businesses are managed and reported in four operating segments: Additives & Functional Products ("AFP"), Advanced Materials ("AM"), Chemical Intermediates ("CI"), and Fibers. See "Business Segments".

In the first years as a stand-alone company, Eastman was diversified between commodity and more specialty chemical businesses. Beginning in 2004, the Company refocused its strategy and changed its businesses and portfolio of products, first by the divestiture and discontinuance of under-performing assets and commodity businesses and initiatives (including divestiture in 2004 of resins, inks, and monomers product lines, divestiture in 2006 of the polyethylene business, and divestiture from 2007 to 2010 of the polyethylene terephthalate ("PET") assets and business). The Company then pursued growth through the development and acquisition of more specialty businesses and product lines by inorganic acquisition and integration (including acquisitions of Solutia, Inc., a global leader in performance materials and specialty chemicals, in 2012, and Taminco Corporation, a global specialty chemical company, in 2014) and organic development and commercialization of new and enhanced technologies and products.

Eastman's objective is to be a global specialty materials company that enhances the quality of life in a material way with consistent, sustainable earnings growth and strong cash flow. Integral to the Company's strategy for growth is leveraging its heritage expertise and innovation within its cellulosic biopolymer and acetyl, olefins, polyester, and alkylamine chemistries. For each of these "streams", the Company has developed and acquired a combination of assets and technologies that combine scale and integration across multiple manufacturing units and sites as a competitive advantage. Management uses an innovation-driven growth model which consists of leveraging world class scalable technology platforms, delivering differentiated application development, and relentlessly engaging the market. The Company sells differentiated products into diverse markets and geographic regions and engages the market by collaborating and co-innovating with customers and downstream users in existing and new niche markets to creatively solve problems. Management believes that this innovation-driven growth model will result in consistent financial results by leveraging the Company's proven technology capabilities to improve product mix, increasing emphasis on specialty businesses, and sustaining and expanding market share through leadership in attractive niche markets. A consistent increase in earnings is expected to result from both organic growth initiatives and targeted bolt-on acquisitions.

Management is pursuing specific opportunities to leverage Eastman's innovation-driven growth model for continued greater than end-market growth by both sustaining the Company's leadership in existing markets and expanding into new markets.

Central to Eastman's innovation-driven growth model is management's dedication to enhance the quality of life in a material way with an ongoing commitment to sustainability. Management approaches sustainability as a source of competitive strength by focusing its innovation strategy on opportunities where disruptive macro trends align with the Company's differentiated technology platforms and applications development capabilities to develop innovative products, applications, and technologies that enable customers' development and sale of sustainable products. Eastman's sustainability-related growth initiatives include targeted products utilizing technologies that enhance end-use product durability, material usage, recyclability, and health and safety impact characteristics to reduce unnecessary waste and GHG emissions associated with climate change. Eastman has focused on communication and collaboration with stakeholders, including policymakers and other interested parties, to build support for the concepts of molecular recycling and mass balance accounting (an accepted and certified protocol that documents and tracks recycled content through complex manufacturing systems). Eastman has committed to reduce its absolute scope 1 (direct GHG emissions occurring from sources that are owned by Eastman) and scope 2 (indirect GHG associated with the purchase of electricity, steam, heat, or cooling and are a result of Eastman's energy use) emissions by one-third by 2030 in order to achieve carbon neutrality by 2050, and to innovate to provide products that enable energy savings and GHG emissions reductions to customers and end-users.

The Company's products and operations are managed and reported in four operating segments: Additives & Functional Products ("AFP"), Advanced Materials ("AM"), Chemical Intermediates ("CI"), and Fibers. This organizational structure is based on the management of the strategies, operating models, and sales channels that the various businesses employ and supports the Company's continued transformation towards a global specialty materials company.

ADDITIVES & FUNCTIONAL PRODUCTS SEGMENT

In the AFP segment, the Company manufactures materials for products in the transportation; personal care and wellness; food, feed, and agriculture; building and construction; water treatment and energy; consumables; and durables and electronics markets. Key technology platforms are cellulosic biopolymers, polyester polymers, alkylamine derivatives, and propylene derivatives.

The AFP segment's sales growth is typically above annual industrial production growth due to innovation and enhanced commercial execution with sales to a diverse set of end-markets. The segment is focused on producing high-value additives that provide critical functionality but which comprise a small percentage of total customer product cost. The segment principally competes on the differentiated performance characteristics of its products and through leveraging its strong customer base and long-standing customer relationships to promote substantial recurring business and product development. A critical element of the AFP segment's success is its close formulation collaboration with customers through advantaged application development capability.

ADVANCED MATERIALS SEGMENT

In the AM segment, the Company produces and markets polymers, films, and plastics with differentiated performance properties for value-added end-uses in transportation; durables and electronics; building and construction; medical and pharma; and consumables markets. Key technology platforms for this segment include cellulosic biopolymers, copolyesters, and PVB and polyester films.

Eastman's technical, application development, and market development capabilities enable the AM segment to modify its polymers, films, and plastics to control and customize their final properties for development of new applications with enhanced functionality. For example, Tritan™ copolyesters are a leading solution for food contact applications due to their performance and processing attributes and BPA free properties. The Saflex™ Q Series product line is a leading acoustic solution for architectural and automotive applications. The Company also maintains a leading solar control technology position in the window films market as well as advanced urethane film and coatings technologies in the paint protection film market. The segment principally competes on differentiated technology and application development capabilities. Management believes the AM segment's competitive advantages also include long-term customer relationships, vertical integration and scale in manufacturing, and leading market positions.

CHEMICAL INTERMEDIATES SEGMENT

Overview

Eastman leverages large scale and vertical integration from the cellulosic biopolymers and acetyl, olefins, and alkylamines streams to support the Company's specialty operating segments with advantaged cost positions. The CI segment sells excess intermediates beyond the Company's internal specialty needs into markets such as industrial chemicals and processing, building and construction, health and wellness, and agrochemicals. Key technology platforms include acetyls, oxos, plasticizers, polyesters, and alkylamines.

The CI segment product lines benefit from competitive cost positions primarily resulting from the use of and access to lower cost raw materials, and the Company's scale, technology, and operational excellence. Examples include coal used in the production of cellulosic biopolymers and acetyl stream product lines, propylene and ethylene used in the production of olefin derivative product lines such as oxo alcohols and plasticizers, and ammonia and methanol used to manufacture methylamines. The CI segment also provides superior reliability to customers through its backward integration into readily available raw materials, such as propane, ethane, coal, and propylene. In addition to a competitive cost position, the plasticizers business expects to continue to benefit from the growth in relative use of non-phthalate rather than phthalate plasticizers in the United States, Canada, and Europe.

Several CI segment product lines are affected by cyclicality, most notably olefin and acetyl-based products. See "Eastman Chemical Company General Information - Manufacturing Streams". This cyclicality is caused by periods of supply and demand imbalance, when either incremental capacity additions are not offset by corresponding increases in demand, or when demand exceeds existing supply. While management continues to take steps to reduce the impact of the trough of these cycles, future results are expected to fluctuate due to both general economic conditions and industry supply and demand.

FIBERS SEGMENT

In the Fibers segment, Eastman manufactures and sells acetate tow and triacetin plasticizers for use in filtration media, primarily cigarette filters; natural (undyed), cellulosic staple fibers and yarn for use in apparel, home furnishings, and industrial fabrics; nonwoven media for use in filtration and friction applications, used primarily in transportation, industrial, and agricultural markets; and cellulose acetate flake and acetyl raw materials for other acetate fiber producers. The Company is the world's largest producer of acetate yarn and has been in this business for over 85 years.

The Fibers segment's competitive strengths include a reputation for high-quality products, technical expertise, large scale vertically-integrated processes, reliability of supply, internally produced acetate flake supply for Fibers segment's products, a reputation for customer service excellence, and a customer base characterized by strategic long-term customers and end-user relationships. The Company continues to capitalize and build on these strengths to further improve the strategic position of its Fibers segment. In response to challenging acetate tow market conditions, including additional industry capacity and lower capacity utilization rates, the Company has taken actions in recent years expected to stabilize segment earnings, including the establishment of long-term acetate tow customer arrangements and agreements, development of innovative textile and nonwoven applications, and repurposing manufacturing capacity from acetate tow to new products.

The 10 largest Fibers segment customers accounted for approximately 60 percent of the segment's 2021 sales revenue, and include multinational as well as regional cigarette producers, fabric manufacturers, and other acetate fiber producers.

The Company's long history and experience in fibers markets are reflected in the Fibers segment's operating expertise, both within the Company and in support of its customers' processes. The Fibers segment's knowledge of the industry and of customers' processes allows it to assist its customers in maximizing their processing efficiencies, promoting repeat sales, and developing mutually beneficial, long-term customer relationships.

The Company's fully integrated fibers manufacturing process employs unique technology that allows it to use a broad range of high-purity wood pulps for which the Company has dependable sources of supply.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

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This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is based upon the consolidated financial statements of Eastman Chemical Company ("Eastman" or the "Company"), which have been prepared in accordance with accounting principles generally accepted ("GAAP") in the United States, and should be read in conjunction with the Company's consolidated financial statements and related notes included elsewhere in this Annual Report. All references to earnings per share ("EPS") contained in this report are to diluted EPS unless otherwise noted. EBIT is the GAAP measure earnings before interest and taxes.

CRITICAL ACCOUNTING ESTIMATES

In preparing the consolidated financial statements in conformity with GAAP, management must make decisions which impact the reported amounts and the related disclosures. Such decisions include the selection of the appropriate accounting principles to be applied and assumptions on which to base estimates and judgments that affect the reported amounts of assets, liabilities, sales revenue and expenses, fair value of disposal groups, and related disclosure of contingent assets and liabilities. On an ongoing basis, Eastman evaluates its estimates, including those related to impairment of long-lived assets, environmental costs, pension and other postretirement benefits, and income taxes. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Management believes the critical accounting estimates described below are the most important to the fair presentation of the Company's financial condition and results. These estimates require management's most significant judgments in the preparation of the Company's consolidated financial statements.

Impairment of Long-Lived Assets

Definite-lived Assets

Properties and equipment and definite-lived intangible assets to be held and used by Eastman are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The review of properties and equipment and the review of definite-lived intangible assets is performed at the asset group level, which is the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. If the carrying amount is not considered to be recoverable, an analysis of fair value is triggered. An impairment is recognized for the excess of the carrying amount of the asset over the fair value. The Company's assumptions to estimate cash flows in the evaluation of impairment related to long-lived assets are subject to change and impairments may be required in the future. If estimates of fair value less costs to sell are decreased, the carrying amount of the related asset is adjusted, resulting in a charge to earnings.

Goodwill

Goodwill is an asset determined as the residual of the purchase price over the fair value of identified assets and liabilities acquired in a business combination. Eastman conducts testing of goodwill for impairment annually in the fourth quarter or more frequently when events and circumstances indicate an impairment may have occurred. The testing of goodwill is performed at the "reporting unit" level which the Company has determined to be its "components". Components are defined as an operating segment or one level below an operating segment, and in order to be a reporting unit, the component must 1) be a "business" as defined by applicable accounting standards (an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing a return in the form of dividends, lower costs, or other economic benefits directly to the investors or other owners, members, or participants); 2) have discrete financial information available; and 3) be reviewed regularly by Company operating segment management. The Company aggregates certain components into reporting units based on economic similarities.

An impairment is recognized when the reporting unit's estimated fair value is less than its carrying value. The Company uses an income approach, specifically a discounted cash flow model in testing the carrying value of goodwill for each reporting unit for impairment. Key assumptions and estimates used in the Company's 2021 goodwill impairment testing included projections of revenues and EBIT determined using the Company's annual multi-year strategic plan, the estimated weighted average cost of capital ("WACC"), and a projected long-term growth rate. The Company believes these assumptions are consistent with those a hypothetical market participant would use given circumstances that were present at the time the estimates were made. However, actual results and amounts may be significantly different from the Company's estimates. In addition, the use of different estimates or assumptions could result in materially different estimated fair values of reporting units. The WACC is calculated incorporating weighted average returns on debt and equity from market participants. Therefore, changes in the market, which are beyond the control of the Company, may have an impact on future calculations of estimated fair value. For additional information, see Note 1, "Significant Accounting Policies", to the Company's consolidated financial statements in this Annual Report.

The Company had $3.6 billion of goodwill as of December 31, 2021. As a result of the goodwill impairment testing performed during fourth quarter 2021, fair values were determined to exceed the carrying values for each reporting unit tested. Declines in market conditions or forecasted revenue and EBIT could result in an impairment of goodwill.

Indefinite-lived Intangible Assets

Indefinite-lived intangible assets, consisting primarily of various tradenames, are tested for potential impairment by comparing the estimated fair value to the carrying amount. The Company uses an income approach, specifically the relief from royalty method, to test indefinite-lived intangible assets. The estimated fair value of tradenames is determined based on projections of revenue and an assumed royalty rate savings, discounted by the calculated market participant WACC plus a risk premium. The Company had $372 million in indefinite-lived intangible assets at the time of the annual impairment test. There was no impairment of the Company's indefinite-lived intangible assets as a result of the tests performed during fourth quarter 2021.

Declines in market conditions or forecasted revenue could result in impairment of indefinite-lived intangible assets. For additional information, see Note 1, "Significant Accounting Policies", Note 4, "Properties and Accumulated Depreciation", Note 5, "Goodwill and Other Intangible Assets", and Note 16, "Asset Impairments and Restructuring Charges, Net", to the Company's consolidated financial statements in this Annual Report.

The Company will continue to monitor both goodwill and indefinite-lived intangible assets for any indication of events which might require additional testing before the next annual impairment test and could result in material impairment charges.

Environmental Costs

Eastman recognizes environmental remediation costs when it is probable that the Company has incurred a liability at a contaminated site and the amount can be reasonably estimated. When a single amount cannot be reasonably estimated but the cost can be estimated within a range, the Company recognizes the minimum undiscounted amount. This undiscounted amount reflects liabilities expected to be paid within approximately 30 years and the Company's assumptions about remediation requirements at the contaminated site, the nature of the remedy, the outcome of discussions with regulatory agencies and other potentially responsible parties at multi-party sites, and the number and financial viability of other potentially responsible parties. Changes in the estimates on which the accruals are based, unanticipated government enforcement action, or changes in health, safety, environmental, and chemical control regulations and testing requirements could result in higher or lower costs. Estimated future environmental expenditures for undiscounted remediation costs ranged from the best estimate or minimum of $253 million to the maximum of $473 million at December 31, 2021. The best estimate or minimum estimated future environmental expenditures are considered to be probable and reasonably estimable and include the amounts recognized at December 31, 2021.

For additional information, see Note 13, "Environmental Matters and Asset Retirement Obligations", to the Company's consolidated financial statements in this Annual Report.

Pension and Other Postretirement Benefits

Eastman maintains defined benefit pension and other postretirement benefit plans that provide eligible employees with retirement benefits. The estimated amounts of the costs and obligations related to these benefits primarily reflect the Company's assumptions related to discount rates and expected return on plan assets. For the Company's U.S. and non-U.S. defined benefit pension plans, the Company assumed weighted average discount rates of 2.88 percent and 1.57 percent, respectively, and weighted average expected returns on plan assets of 7.07 percent and 3.81 percent, respectively, at December 31, 2021. The Company assumed a weighted average discount rate of 2.83 percent for its other postretirement benefit plans at December 31, 2021. The estimated cost of providing plan benefits also depends on demographic assumptions including retirements, mortality, turnover, and plan participation.

The projected benefit obligation as of December 31, 2021 and 2022 expense are affected by year-end 2021 assumptions. The following table illustrates the sensitivity to changes in the Company's long-term assumptions in the assumed discount rate and expected return on plan assets for all pension and other postretirement benefit plans. The sensitivities below are specific to the time periods noted. They also may not be additive, so the impact of changing multiple factors simultaneously cannot be calculated by combining the individual sensitivities shown.

Change in Assumption	Impact on 2022 Pre-tax Benefits Expense (Excludes mark-to-market impact) for Pension Plans	Impact on December 31, 2021 Projected Benefit Obligation for Pension Plans		Impact on 2022 Pre-tax Benefits Expense (Excludes mark-to-market impact) for Other Postretirement Benefit Plans	Impact on December 31, 2021 Benefit Obligation for Other Postretirement Benefit Plans
		U.S.	Non-U.S.		
25 basis point decrease in discount rate	$-4 Million	$+49 Million	$+42 Million	$-1 Million	$+16 Million
25 basis point increase in discount rate	$+2 Million	$-47 Million	$-40 Million	$+1 Million	$-15 Million
25 basis point decrease in expected return on plan assets	$+7 Million	No Impact	No Impact	<+$0.5 Million	No Impact
25 basis point increase in expected return on plan assets	$-7 Million	No Impact	No Impact	<-$0.5 Million	No Impact

The assumed discount rate and expected return on plan assets used to calculate the Company's pension and other postretirement benefit obligations are established each December 31. The assumed discount rate is based upon a portfolio of high-grade corporate bonds, which are used to develop a yield curve. This yield curve is applied to the expected cash flows of the pension and other postretirement benefit obligations. Because future health care benefits under the U.S. benefit plan have been fixed at a certain contribution amount, changes in the health care cost trend assumptions do not have a material impact on results of operations. The expected return on plan assets is based upon prior performance and the long-term expected returns in the markets in which the plans invest their funds, primarily in U.S. and non-U.S. fixed income securities, U.S. and non-U.S. public equity securities, private equity, and real estate. Moreover, the expected return on plan assets is a long-term assumption and on average is expected to approximate the actual return on plan assets. Actual returns will be subject to year-to-year variances and could vary materially from assumptions.

The Company calculates service and interest cost components of net periodic benefit costs for its significant defined benefit pension and other postretirement benefit plans by applying the specific spot rates along the yield curve to the plans' projected cash flows. This cost approach does not affect the measurement of the total benefit obligation or the annual net periodic benefit cost or credit of the plans because the change in the service and interest costs will be offset in the mark-to-market ("MTM") actuarial gain or loss. The MTM gain or loss, as described in the next paragraph, is typically recognized in the fourth quarter of each year or in any other quarters in which an interim remeasurement is triggered.

The Company uses fair value accounting for plan assets. If actual experience differs from actuarial assumptions, primarily discount rates and long-term assumptions for asset returns which were used in determining the current year expense, the difference is recognized as part of the MTM net gain or loss in fourth quarter each year, and any other quarter in which an interim remeasurement is triggered. See the calculation of the MTM pension and other post-retirement benefits (gain) loss table below in "NON-GAAP FINANCIAL MEASURES - Non-GAAP Financial Measures - Non-Core and Unusual Items Excluded from Earnings".

While changes in obligations do not correspond directly to cash funding requirements, it is an indication of the amount the Company will be required to contribute to the plans in future years. The amount and timing of such cash contributions is dependent upon interest rates, actual returns on plan assets, retirements, attrition rates of employees, and other factors.

For further information regarding pension and other postretirement benefit obligations, see Note 11, "Retirement Plans", to the Company's consolidated financial statements in this Annual Report.

Income Taxes

Amounts of deferred tax assets and liabilities on Eastman's Consolidated Statements of Financial Position are based on temporary differences between the financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. The ability to realize deferred tax assets is evaluated through the forecasting of taxable income and domestic and foreign taxes, using historical and projected future operating results, the reversal of existing temporary differences, and the availability of tax planning opportunities. Valuation allowances are recognized to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. In the event that the actual outcome of future tax consequences differs from management estimates and assumptions, the resulting change to the provision for income taxes could have a material impact on the consolidated results of operations and statements of financial position. As of December 31, 2021, valuation allowances of $339 million have been provided against the deferred tax assets.

The calculation of income tax liabilities involves uncertainties in the application of complex tax laws and regulations, which are subject to legal interpretation and management judgment. Eastman's income tax returns are regularly examined by federal, state and foreign tax authorities, and those audits may result in proposed adjustments which could result in additional income tax liabilities and income tax expense. Income tax expense could be materially impacted to the extent the Company prevails in a tax position or when the statute of limitations expires for a tax position for which a liability for unrecognized tax benefits or valuation allowances have been established, or to the extent payments are required in excess of the established liability for unrecognized tax benefits.

For further information, see Note 8, "Income Taxes", to the Company's consolidated financial statements in this Annual Report.

NON-GAAP FINANCIAL MEASURES

Non-GAAP financial measures, and the accompanying reconciliations of the non-GAAP financial measures to the most comparable GAAP measures, are presented below in this section and in "Overview", "Results of Operations", "Summary by Operating Segment", "Liquidity and Other Financial Information - Cash Flows", and "Outlook" in this MD&A.

Management discloses non-GAAP financial measures, and the related reconciliations to the most comparable GAAP financial measures, because it believes investors use these metrics in evaluating longer term period-over-period performance, and to allow investors to better understand and evaluate the information used by management to assess the Company's and its operating segments' performances, make resource allocation decisions, and evaluate organizational and individual performances in determining certain performance-based compensation. Non-GAAP financial measures do not have definitions under GAAP, and may be defined differently by, and not be comparable to, similarly titled measures used by other companies. As a result, management cautions investors not to place undue reliance on any non-GAAP financial measure, but to consider such measures alongside the most directly comparable GAAP financial measure.

Company Use of Non-GAAP Financial Measures

Non-Core Items and any Unusual or Non-Recurring Items Excluded from Non-GAAP Earnings

In addition to evaluating Eastman's financial condition, results of operations, liquidity, and cash flows as reported in accordance with GAAP, management also evaluates Company and operating segment performance, and makes resource allocation and performance evaluation decisions, excluding the effect of transactions, costs, and losses or gains that do not directly result from Eastman's normal, or "core", business and operations, or are otherwise of an unusual or non-recurring nature.

- Non-core transactions, costs, and losses or gains relate to, among other things, cost reductions, growth and profitability improvement initiatives, changes in businesses and assets, and other events outside of core business operations, and have included asset impairments and restructuring charges and gains, costs of and related to acquisitions, gains and losses from and costs related to dispositions, closure, or shutdowns of businesses or assets, financing transaction costs, and MTM losses or gains for pension and other postretirement benefit plans.

- In 2021 and 2019, the Company recognized an unusual net increase to earnings and an unusual net decrease to earnings, respectively, from adjustments of the net tax benefit recognized in fourth quarter 2017, resulting from tax law changes, primarily the 2017 Tax Cuts and Jobs Act (the "Tax Reform Act"), and related outside-U.S. entity reorganizations as part of the transition to an international treasury services center. Management considered these actions and associated costs and income unusual because of the infrequent nature of such changes in tax law and resulting actions and the significant impacts on earnings.

Because non-core, unusual, or non-recurring transactions, costs, and losses or gains may materially affect the Company's, or any particular operating segment's, financial condition or results in a specific period in which they are recognized, management believes it is appropriate to evaluate the financial measures prepared and calculated in accordance with both GAAP and the related non-GAAP financial measures excluding the effect on the Company's results of these non-core, unusual, or non-recurring items. In addition to using such measures to evaluate results in a specific period, management evaluates such non-GAAP measures, and believes that investors may also evaluate such measures, because such measures may provide more complete and consistent comparisons of the Company's, and its segments', operational performance on a period-over-period historical basis and, as a result, provide a better indication of expected future trends.

Adjusted Tax Rate and Provision for Income Taxes

In interim periods, Eastman discloses non-GAAP earnings with an adjusted effective tax rate and a resulting adjusted provision for income taxes using the Company's forecasted tax rate for the full year as of the end of the interim period. The adjusted effective tax rate and resulting adjusted provision for income taxes are equal to the Company's projected full year effective tax rate and provision for income taxes on earnings excluding non-core, unusual, or non-recurring items for completed periods. The adjusted effective tax rate and resulting adjusted provision for income taxes may fluctuate during the year for changes in events and circumstances that change the Company's forecasted annual effective tax rate and resulting provision for income taxes excluding non-core, unusual, or non-recurring items. Management discloses this adjusted effective tax rate, and the related reconciliation to the GAAP effective tax rate, to provide investors more complete and consistent comparisons of the Company's operational performance on a period-over-period interim basis and on the same basis as management evaluates quarterly financial results to provide a better indication of expected full year results.

Non-GAAP Cash Flow Measure

Eastman regularly evaluates and discloses to investors and securities analysts an alternative non-GAAP measure of "free cash flow", which management defines as net cash provided by or used in operating activities less the amount of net capital expenditures (typically the GAAP measure additions to properties and equipment). Such net capital expenditures are generally funded from available cash and, as such, management believes they should be considered in determining free cash flow. Management believes this is an appropriate metric to assess the Company's ability to fund priorities for uses of available cash. The priorities for cash after funding operations include payment of quarterly dividends, repayment of debt, funding targeted growth opportunities, and repurchasing shares. Management believes this metric is useful to investors and securities analysts to provide them with information similar to that used by management in evaluating financial performance and potential future cash available for various initiatives and assessing organizational performance in determining certain performance-based compensation and because management believes investors and securities analysts often use a similar measure of free cash flow to compare the results, and value, of comparable companies. In addition, Eastman may disclose to investors and securities analysts an alternative non-GAAP measure of "free cash flow yield", which management defines as annual free cash flow divided by the Company's market capitalization, and "free cash flow conversion", which management defines as annual free cash flow divided by adjusted net income. Management believes these metrics are useful to investors and securities analysts in comparing cash flow generation with that of peer and other companies.

Non-GAAP Debt Measure

Eastman from time to time evaluates and discloses to investors and securities and credit analysts the non-GAAP debt measure "net debt", which management defines as total borrowings less cash and cash equivalents. Management believes this metric is useful to investors and securities and credit analysts to provide them with information similar to that used by management in evaluating the Company's overall financial position, liquidity, and leverage and because management believes investors, securities analysts, credit analysts and rating agencies, and lenders often use a similar measure to assess and compare companies' relative financial position and liquidity.

Non-GAAP Measures in this Annual Report

The following non-core items are excluded by management in its evaluation of certain earnings results in this Annual Report:

- MTM pension and other postretirement benefit plans gains and losses resulting from the changes in discount rates and other actuarial assumptions and the difference between actual and expected returns on plan assets during the period;
- Asset impairments and restructuring charges, including severance costs and site closure or shutdown charges, net, of which asset impairments are non-cash transactions impacting profitability;
- Loss on divested business and transaction costs;
- Accelerated depreciation resulting from the closure of a manufacturing facility as part of ongoing site optimization; and
- Early debt extinguishment costs.

The following unusual item is excluded by management in its evaluation of certain earnings results in this Annual Report:

- Adjustments related to the estimated net tax benefit recognized in fourth quarter 2017 resulting from tax law changes, primarily the Tax Reform Act, and tax impact of related outside-U.S. entity reorganizations.

As described above, the alternative non-GAAP measures of cash flow, "free cash flow", and of debt, "net debt", are also presented in this Annual Report.

Non-GAAP Financial Measures - Non-Core and Unusual Items Excluded from Earnings

(Dollars in millions)	2021	2020	2019
Non-core items impacting EBIT:			
Mark-to-market pension and other postretirement benefits loss (gain), net	$ (267)	$ 240	$ 143
Asset impairments and restructuring charges, net	47	227	126
Loss on divested business and transaction costs	570	—	—
Accelerated depreciation	4	8	—
Total non-core items impacting EBIT	354	475	269
Non-core item impacting earnings before income taxes:			
Early debt extinguishment	1	1	—
Total non-core item impacting earnings before income taxes	1	1	—
Less: Items impacting provision for income taxes:			
Tax effect for non-core items	(16)	115	47
Adjustments from tax law changes	15	—	(7)
Total items impacting provision for income taxes	(1)	115	40
Total items impacting net earnings attributable to Eastman	$ 356	$ 361	$ 229

Below is the calculation of the "Other components of post-employment (benefit) cost, net" that are not included in the above non-core item "mark-to-market pension and other postretirement benefits loss (gain), net" and that are included in the non-GAAP results.

(Dollars in millions)	2021	2020	2019
Other components of post-employment (benefit) cost, net	$ (412)	$ 119	$ 60
Service cost	45	42	41
Net periodic benefit (credit) cost	(367)	161	101
Less: Mark-to-market pension and other postretirement benefits loss (gain), net	(267)	240	143
Components of post-employment (benefit) cost, net included in non-GAAP earnings measures	$ (100)	$ (79)	$ (42)

Below is the calculation of the MTM pension and other post-retirement benefits (gain) loss disclosed above.

(Dollars in millions)	2021		2020		2019	
Actual return and percentage of return on assets	$ 278	10 %	$ 260	9 %	$ 406	15 %
Less: expected return on assets	168	6 %	174	6 %	165	6 %
Mark-to-market (loss) gain on assets	110		86		241	
Actuarial (loss) gain [(1)]	157		(326)		(384)	
Total mark-to-market (loss) gain	$ 267		$ (240)		$ (143)	
Global weighted-average assumed discount rate for year ended December 31:	2.52 %		2.07 %		2.80 %	

(1) Actuarial (loss) gain resulted primarily from the change in discount rates from the prior year and changes in other actuarial assumptions.

For more detail about MTM pension and other postretirement benefit plans net gains and losses, including actual and expected return on plan assets and the components of the net gain or loss, see "Critical Accounting Estimates - Pension and Other Postretirement Benefits" above, and Note 11, "Retirement Plans", "Summary of Changes - Actuarial (gain) loss, Actual return on plan assets, and Reserve for third party contributions", and "Summary of Benefit Costs and Other Amounts Recognized in Other Comprehensive Income - Mark-to-market pension and other postretirement benefits (gain) loss, net" to the Company's consolidated financial statements in this Annual Report.

This MD&A includes the effect of the foregoing on the following GAAP financial measures:

- Gross profit,
- Selling, general and administrative ("SG&A") expenses,
- Other components of post-employment (benefit) cost, net,
- EBIT,
- Provision for income taxes,
- Net earnings attributable to Eastman,
- Diluted EPS, and
- Net cash provided by operating activities.

Other Non-GAAP Financial Measures

Alternative Non-GAAP Cash Flow Measure

In addition to the non-GAAP measures presented in this Annual Report and other periodic reports, management occasionally has evaluated and disclosed to investors and securities analysts the non-GAAP measure cash provided by or used in operating activities excluding certain non-core, unusual, or non-recurring sources or uses of cash or including cash from or used by activities that are managed as part of core business operations ("adjusted cash provided by or used in operating activities") when analyzing, among other things, business performance, liquidity and financial position, and performance-based compensation. Management has used this non-GAAP measure in conjunction with the GAAP measure cash provided by or used in operating activities because it believes it is an appropriate metric to evaluate the cash flows from Eastman's core operations that are available for organic and inorganic growth initiatives and because it allows for a more consistent period-over-period presentation of such amounts. In its evaluation, management generally excludes the impact of certain non-core activities and decisions of management that it considers not core, ongoing components of operations and the decisions to undertake or not to undertake such activities may be made irrespective of the cash generated from operations, and generally includes cash from or used in activities that are managed as operating activities and in business operating decisions. Management has disclosed this non-GAAP measure and the related reconciliation to investors and securities analysts to allow them to better understand and evaluate the information used by management in its decision-making processes and because management believes investors and securities analysts use similar measures to assess Company performance, liquidity, and financial position over multiple periods and to compare these with other companies.

Alternative Non-GAAP Earnings Measures

From time to time, Eastman may also disclose to investors and securities analysts the non-GAAP earnings measures "Adjusted EBIT Margin", "Adjusted EBITDA", "Adjusted EBITDA Margin", "Return on Invested Capital" (or "ROIC"), and "Adjusted ROIC". Management defines Adjusted EBIT Margin as the GAAP measure EBIT adjusted to exclude the same non-core, unusual, or non-recurring items as are excluded from the Company's other non-GAAP earnings measures for the same periods divided by the GAAP measure sales revenue in the Company's Consolidated Statement of Earnings, Comprehensive Income and Retained Earnings for the same period. Adjusted EBITDA is EBITDA (net earnings before interest, taxes, depreciation and amortization) adjusted to exclude the same non-core, unusual, or non-recurring items as are excluded from the Company's other non-GAAP earnings measures for the same periods. Adjusted EBITDA Margin is Adjusted EBITDA divided by the GAAP measure sales revenue in the Company's Consolidated Statement of Earnings, Comprehensive Income and Retained Earnings for the same periods. Management defines ROIC as net earnings plus interest expense after tax divided by average total borrowings plus average stockholders' equity for the periods presented, each derived from the GAAP measures in the Company's financial statements for the periods presented. Adjusted ROIC is ROIC adjusted to exclude from net earnings the same non-core, unusual, or non-recurring items as are excluded from the Company's other non-GAAP earnings measures for the same periods. Management believes that Adjusted EBIT Margin, Adjusted EBITDA, Adjusted EBITDA Margin, ROIC, and Adjusted ROIC are useful as supplemental measures in evaluating the performance of and returns from Eastman's operating businesses, and from time to time uses such measures in internal performance calculations. Further, management understands that investors and securities analysts often use similar measures of Adjusted EBIT Margin, Adjusted EBITDA, Adjusted EBITDA Margin, ROIC, and Adjusted ROIC to compare the results, returns, and value of the Company with those of peer and other companies.

OVERVIEW

Eastman's products and operations are managed and reported in four operating segments: Additives & Functional Products ("AFP"), Advanced Materials ("AM"), Chemical Intermediates ("CI"), and Fibers. Eastman uses an innovation-driven growth model which consists of leveraging world class scalable technology platforms, delivering differentiated application development capabilities, and relentlessly engaging the market. The Company's world class technology platforms form the foundation of sustainable growth by differentiated products through significant scale advantages in research and development ("R&D") and advantaged global market access. Differentiated application development converts market complexity into opportunities for growth and accelerates innovation by enabling a deeper understanding of the value of Eastman's products and how they perform within customers' and end-user products. Key areas of application development include thermoplastic conversion, functional films, coatings formulations, nonwovens and textiles, and animal nutrition. The Company engages the market by working directly with customers and downstream users, targeting attractive niche markets, and leveraging disruptive macro trends. Management believes that these elements of the Company's innovation-driven growth model, combined with disciplined portfolio management and balanced capital deployment, will result in consistent, sustainable earnings growth and strong cash flow.

The Company generated sales revenue of $10.5 billion and $8.5 billion for 2021 and 2020, respectively. EBIT was $1.3 billion and $741 million in 2021 and 2020, respectively. Excluding the non-core items referenced in "Non-GAAP Financial Measures", adjusted EBIT was $1.6 billion and $1.2 billion in 2021 and 2020, respectively. Sales revenue increased in 2021 compared to 2020 primarily due to higher selling prices and higher sales volume. Adjusted EBIT increased in 2021 compared to 2020 primarily due to higher sales volume and favorable product mix, particularly in the AM and AFP segments, and higher selling prices more than offsetting higher raw material and energy costs in the CI segment.

In 2020, capacity utilization was substantially lower due to lower sales volume resulting from the impact of the COVID-19 coronavirus global pandemic ("COVID-19") and the Company's focus on maximizing cash generation by reducing inventories, which reduced EBIT, particularly in the AM segment. As a result, cost reduction actions, including reduced discretionary spending, deferred asset maintenance turnarounds, and adjusted operations to ensure the health and safety of employees and contractors, totaled approximately $150 million in 2020, with approximately 60 percent presented in "Cost of Sales" and approximately 40 percent in "Selling, general and administrative expenses" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings. In 2021, demand across key end-markets affected by COVID-19 continued to recover, and despite the ongoing automotive original equipment manufacturer ("OEM") component shortages negatively impacting customers' demand for products in the transportation markets, especially in the AM segment, the Company had higher sales volume and favorable product mix of specialty products, which increased adjusted EBIT.

On November 1, 2021, the Company completed the sale of the rubber additives (including Crystex™ insoluble sulfur and Santoflex™ antidegradants) and other product lines and related assets and technology of the global tire additives business of its AFP segment ("rubber additives"). The sale did not include the Eastman Impera™ and other performance resins product lines of the tire additives business.

On October 28, 2021, the Company entered into a definitive agreement to sell the adhesives resins business, which includes hydrocarbon resins (including Impera™ tire resins), pure monomer resins, polyolefin polymers, rosins and dispersions, and oleochemical and fatty-acid based resins product lines, of its AFP segment ("adhesives resins") for $1 billion. The final purchase price is subject to working capital and other adjustments at closing. As of the definitive agreement date and until sale, the adhesives resins disposal group will be classified as held for sale.

For additional information on the sale of rubber additives and the pending sale of adhesives resins, see Note 2, "Divestiture and Business Held for Sale", to the Company's consolidated financial statements in this Annual Report.

Discussion of sales revenue and EBIT changes is presented in "Results of Operations" and "Summary by Operating Segment" in this MD&A.

Net earnings and EPS and adjusted net earnings and EPS were as follows:

	2021		2020	
(Dollars in millions, except diluted EPS)	$	EPS	$	EPS
Net earnings attributable to Eastman	$ 857	$ 6.25	$ 478	$ 3.50
Total non-core and unusual items, net of tax	356	2.60	361	2.65
Net earnings attributable to Eastman excluding non-core and unusual items	$ 1,213	$ 8.85	$ 839	$ 6.15

The Company generated $1.6 billion and $1.5 billion of cash from operating activities in 2021 and 2020, respectively. Free cash flow was $1.1 billion in both 2021 and 2020.

RESULTS OF OPERATIONS

Eastman's results of operations as presented in the Company's consolidated financial statements in this Annual Report are summarized and analyzed below.

Sales

	2021 Compared to 2020			2020 Compared to 2019		
(Dollars in millions)	2021	2020	Change	2020	2019	Change
Sales	$ 10,476	$ 8,473	24 %	$ 8,473	$ 9,273	(9)%
Volume / product mix effect			8 %			(5)%
Price effect			15 %			(4)%
Exchange rate effect			1 %			— %

2021 Compared to 2020

Sales revenue increased as a result of increases in all operating segments. Further discussion by operating segments is presented in "Summary of Operating Segment" in this MD&A.

2020 Compared to 2019

Sales revenue decreased as a result of decreases in all operating segments. Further discussion by operating segments is presented in "Summary of Operating Segment" in this MD&A.

Gross Profit

	2021 Compared to 2020			2020 Compared to 2019		
(Dollars in millions)	2021	2020	Change	2020	2019	Change
Gross profit	$ 2,500	$ 1,975	27 %	$ 1,975	$ 2,234	(12)%
Accelerated depreciation	4	8		8	—	
Gross profit excluding non-core item	$ 2,504	$ 1,983	26 %	$ 1,983	$ 2,234	(11)%

2021 Compared to 2020

Gross profit included accelerated depreciation resulting from the closure of an advanced interlayers manufacturing facility in North America in the AM segment as part of ongoing site optimization actions. Excluding this non-core item, gross profit increased as a result of increases in all operating segments, except the Fibers segment. Further discussion of sales revenue and EBIT changes is presented in "Summary by Operating Segment" in this MD&A.

2020 Compared to 2019

Gross profit included accelerated depreciation resulting from the closure of an advanced interlayers manufacturing facility in North America in the AM segment as part of ongoing site optimization actions. Excluding this non-core item, gross profit decreased as a result of decreases in all operating segments. Further discussion of sales revenue and EBIT changes is presented in "Summary by Operating Segment" in this MD&A.

Selling, General and Administrative Expenses

	2021 Compared to 2020			2020 Compared to 2019		
(Dollars in millions)	2021	2020	Change	2020	2019	Change
Selling, general and administrative expenses	$ 795	$ 654	22 %	$ 654	$ 691	(5)%
Transaction costs	(18)	—		—	—	
Selling, general and administrative expenses excluding non-core items	$ 777	$ 654	19 %	$ 654	$ 691	(5)%

2021 Compared to 2020

SG&A expenses in 2021 included transaction costs for the divestiture of rubber additives and the definitive agreement to sell adhesives resins, both of the AFP segment. Excluding these non-core items, SG&A expenses increased primarily as a result of higher variable compensation costs, including for incentive compensation based on annual business performance, and higher discretionary spending corresponding to strengthened business and market conditions.

2020 Compared to 2019

SG&A expenses decreased primarily due to cost reduction actions.

Research and Development Expenses

	2021 Compared to 2020			2020 Compared to 2019		
(Dollars in millions)	2021	2020	Change	2020	2019	Change
Research and development expenses	$ 254	$ 226	12 %	$ 226	$ 234	(3)%

2021 Compared to 2020

R&D expenses increased primarily due to higher growth initiative projects, particularly in the AM and AFP segments.

2020 Compared to 2019

R&D expenses decreased primarily due to cost reduction actions including an increased focus on project prioritization.

Asset Impairments and Restructuring Charges, Net

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Tangible Asset Impairments			
CI & AFP - Singapore [(1)]	$ 3	$ —	$ 27
Site optimizations			
AFP - Tire additives [(2)]	12	5	—
AM - Advanced interlayers [(3)]	1	—	—
AM - Performance films [(4)]	—	5	—
AFP - Animal nutrition [(5)]	—	3	—
Discontinuation of growth initiatives [(6)]	—	8	—
	16	21	27
Gain on Sale of Previously Impaired Assets			
Site optimizations			
AFP - Animal nutrition [(5)]	(1)	—	—
	(1)	—	—
Intangible Asset Impairments			
AFP - Tradenames [(7)]	—	123	—
AFP - Customer relationships [(8)]	—	2	—
AFP - Goodwill [(9)]	—	—	45
	—	125	45
Severance Charges			
Business improvement and cost reduction actions [(10)]	1	47	45
CI & AFP - Singapore [(1)]	—	6	—
Site optimizations			
AFP - Tire additives [(2)]	—	3	—
AM - Advanced interlayers [(3)]	1	5	—
AM - Performance films [(4)]	—	3	—
AFP - Animal nutrition [(5)]	—	1	—
	2	65	45
Other Restructuring Costs			
Cost reduction initiatives [(10)]	—	14	5
Discontinuation of growth initiatives contract termination fees [(6)]	—	4	—
CI & AFP - Singapore [(1)]	17	—	—
Site optimizations			
AFP - Tire additives [(2)]	6	—	—
AM - Advanced interlayers [(3)]	5	—	—
AM - Performance films [(4)]	2	—	—
AFP - Animal nutrition [(5)]	—	(2)	—
AFP - Discontinued capital project [(11)]	—	—	4
	30	16	9
Total	$ 47	$ 227	$ 126

(1) Asset impairment charges in 2021 of $2 million and $1 million in the CI segment and the AFP segment, respectively, and in 2019 of $22 million and $5 million in the CI segment and the AFP segment, respectively. Severance charges in 2020 of $5 million and $1 million in the CI segment and the AFP segment, respectively, and site closure costs, including contract termination fees, in 2021 of $14 million and $3 million in the CI segment and the AFP segment, respectively, resulting from the previously disclosed plan to discontinue production of certain products at the Singapore manufacturing site. Management expected and realized annual earnings benefit from this closure of approximately $25 million beginning in 2021 within the AFP and CI segments, primarily in "Cost of sales" in the Consolidated Statements Earnings, Comprehensive Income and Retained Earnings.

(2) Asset impairment charges of $8 million in 2021 in the AFP segment for assets associated with divested rubber additives. Asset impairment charges of $4 million and site closure costs of $6 million in the AFP segment in 2021 from the previously reported closure of a tire additives manufacturing facility in Asia Pacific as part of ongoing site optimization. Fixed asset impairments and severance in 2020 in the AFP segment from the closure of a tire additives manufacturing facility in Asia Pacific as part of ongoing site optimization.

(3) Asset impairments, severance charges, and site closure costs in the Advanced Materials ("AM") segment due to the closure of an advanced interlayers manufacturing facility in North America as part of ongoing site optimization. In addition, accelerated depreciation of $4 million and $8 million was recognized in "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings in 2021 and 2020, respectively, related to the closure of this facility.

(4) Fixed asset impairments, severance charges, and site closure costs in the AM segment from the closure of a performance films manufacturing facility in North America as part of ongoing site optimization.

(5) Fixed asset impairments, severance charges, and other restructuring gains in 2020 in the AFP segment from the closure of an animal nutrition manufacturing facility in Asia Pacific as part of ongoing site optimization, and in 2021 a gain from the sale of the previously impaired assets.

(6) Fixed asset impairments and contract termination fees resulting from management's decision to discontinue growth initiatives for polyester based microfibers, including Avra™ performance fibers, the financial results of which were not allocated to an operating segment and reported in "Other".

(7) Intangible asset impairment charges in the AFP segment tire additives business to reduce the carrying values of the Crystex™ and Santoflex™ tradenames to the estimated fair values. The estimated fair values were determined using an income approach, specifically, the relief from royalty method, including some unobservable inputs. The impairments are primarily the result of weakened demand in transportation markets impacted by COVID-19 and increased competitive pricing pressure as a result of global capacity increases.

(8) Intangible asset impairment charge for customer relationships.

(9) Goodwill impairment charge in the AFP segment resulting from the annual impairment test.

(10) Severance and related costs as part of business improvement and cost reduction initiatives which were reported in "Other".

(11) Additional restructuring charge related to a capital project in the AFP segment that was discontinued in 2016.

Other Components of Post-employment (Benefit) Cost, Net

	2021 Compared to 2020			2020 Compared to 2019		
(Dollars in millions)	2021	2020	Change	2020	2019	Change
Other components of post-employment (benefit) cost, net	$ (412)	$ 119	>(100%)	$ 119	$ 60	98 %
Mark-to-market pension and other postretirement benefit gain (loss), net	267	(240)		(240)	(143)	
Other components of post-employment (benefit) cost, net excluding non-core item	$ (145)	$ (121)	20 %	$ (121)	$ (83)	46 %

For more information regarding "Other components of post-employment (benefit) cost, net" see Note 1, "Significant Accounting Policies", and Note 11, "Retirement Plans", to the Company's consolidated financial statements in this Annual Report.

Other (Income) Charges, Net

(Dollars in millions)	2021	2020	2019
Foreign exchange transaction losses (gains), net	$ 10	$ 16	$ 9
(Income) loss from equity investments and other investment (gains) losses, net	(16)	(15)	(10)
Other, net	(11)	7	4
Other (income) charges, net	$ (17)	$ 8	$ 3

For more information regarding components of foreign exchange transaction losses, see Note 10, "Derivative and Non-Derivative Financial Instruments", to the Company's consolidated financial statements in this Annual Report.

Earnings Before Interest and Taxes

	2021 Compared to 2020			2020 Compared to 2019		
(Dollars in millions)	2021	2020	Change	2020	2019	Change
EBIT	$ 1,281	$ 741	73 %	$ 741	$ 1,120	(34)%
Mark-to-market pension and other postretirement benefit loss (gain), net	(267)	240		240	143	
Asset impairments and restructuring charges, net	47	227		227	126	
Loss on divested business and transaction costs	570	—		—	—	
Accelerated depreciation	4	8		8	—	
EBIT excluding non-core items	$ 1,635	$ 1,216	34 %	$ 1,216	$ 1,389	(12)%

Net Interest Expense

	2021 Compared to 2020			2020 Compared to 2019		
(Dollars in millions)	2021	2020	Change	2020	2019	Change
Gross interest expense	$ 206	$ 218		$ 218	$ 225	
Less: Capitalized interest	5	4		4	4	
Interest Expense	201	214		214	221	
Less: Interest income	3	4		4	3	
Net interest expense	$ 198	$ 210	(6)%	$ 210	$ 218	(4)%

2021 Compared to 2020

Net interest expense decreased primarily as a result of lower total borrowings.

2020 Compared to 2019

Net interest expense decreased primarily as a result of prior year repayment of public debt and lower interest rates.

Early Debt Extinguishment Costs

In fourth quarter 2021, the Company amended and restated the $1.50 billion revolving credit agreement (the "Credit Facility"). This resulted in a charge of $1 million for early debt extinguishment costs which was attributable to unamortized fees.

In third quarter 2020, the Company repaid the 364-Day Term Loan Credit Agreement (the "Term Loan") using available cash. The early repayment resulted in a charge of $1 million for early debt extinguishment costs for unamortized issuance costs.

For additional information regarding the early debt extinguishment costs, see Note 9, "Borrowings", to the Company's consolidated financial statements in this Annual Report.

Provision for Income Taxes

(Dollars in millions)	2021		2020		2019	
	$	%	$	%	$	%
Provision for income taxes and effective tax rate	$ 215	20 %	$ 41	8 %	$ 140	16 %
Tax provision for non-core items [1]	(16)		115		47	
Adjustments from tax law changes	15		—		(7)	
Adjusted provision for income taxes and effective tax rate	$ 214	15 %	$ 156	16 %	$ 180	15 %

[1] Provision for income taxes for non-core items is calculated using the tax rate for the jurisdiction where the gains are taxable and the expenses are deductible.

The 2021 effective tax rate includes a $78 million decrease to the provision for income taxes primarily related to previously unrecognized tax positions resulting from finalization of prior years' income tax audits, partially offset by current year increases. Additionally, the 2021 effective tax rate includes impacts of the divestiture of rubber additives, including an increase to the provision for income taxes related to non-deductible losses partially offset by a decrease to the provision for income taxes from the revaluation of deferred tax liabilities.

The 2020 effective tax rate includes a $27 million decrease to the provision for income taxes as a result of a decrease in unrecognized tax positions and a $7 million decrease to the provision for income taxes related to adjustments to certain prior year tax returns.

The 2019 effective tax rate includes a $7 million increase to the provision for income taxes resulting from adjustments to the net tax benefit recognized in fourth quarter 2017 resulting from tax law changes, primarily the Tax Reform Act and from outside-U.S. entity reorganizations. The 2019 effective tax rate also includes adjustments to the tax provision to reflect finalization of prior year's income tax returns and an increase to state income taxes related to additional valuation allowance provided against state income tax credits.

For more information, see Note 8, "Income Taxes", to the Company's consolidated financial statements in this Annual Report.

Net Earnings Attributable to Eastman and Diluted Earnings per Share

	2021		2020		2019	
(Dollars in millions, except per share amounts)	$	EPS	$	EPS	$	EPS
Net earnings and diluted earnings per share attributable to Eastman	$ 857	$ 6.25	$ 478	$ 3.50	$ 759	$ 5.48
Non-core items, net of tax: [1]						
Mark-to-market pension and other postretirement benefit loss (gain), net	(202)	(1.46)	180	1.32	109	0.79
Accelerated depreciation	3	0.02	6	0.05	—	—
Asset impairments and restructuring charges, net	39	0.28	174	1.28	113	0.81
Loss on divested business and transaction costs	530	3.86	—	—	—	—
Early debt extinguishment costs	1	0.01	1	—	—	—
Unusual item, net of tax:						
Adjustments from tax law changes	(15)	(0.11)	—	—	7	0.05
Adjusted net earnings and diluted earnings per share attributable to Eastman	$ 1,213	$ 8.85	$ 839	$ 6.15	$ 988	$ 7.13

[1] The provision for income taxes for non-core items is calculated using the tax rate for the jurisdiction where the gains are taxable and the expenses are deductible.

SUMMARY BY OPERATING SEGMENT

Eastman's products and operations are managed and reported in four operating segments: Additives & Functional Products ("AFP"), Advanced Materials ("AM"), Chemical Intermediates ("CI"), and Fibers. For additional financial and product information for each operating segment, see "About Our Business" section and Note 20, "Segment and Regional Sales Information", to the Company's consolidated financial statements in this Annual Report.

Additives & Functional Products Segment

	2021 Compared to 2020				2020 Compared to 2019			
			Change				Change	
(Dollars in millions)	2021	2020	$	%	2020	2019	$	%
Sales	$ 3,700	$ 3,022	$ 678	22 %	$ 3,022	$ 3,273	$ (251)	(8)%
Volume / product mix effect			272	9 %			(116)	(4)%
Price effect			358	12 %			(145)	(4)%
Exchange rate effect			48	1 %			10	— %
Earnings (loss) before interest and taxes	$ (54)	$ 312	$ (366)	>(100%)	$ 312	$ 496	$ (184)	(37)%
Loss on divested business and transaction costs	570	—	570		—	—	—	
Asset impairments and restructuring charges, net	21	136	(115)		136	54	82	
EBIT excluding non-core items	537	448	89	20 %	448	550	(102)	(19)%

2021 Compared to 2020

Sales revenue increased primarily due to higher selling prices and higher sales volume. Higher selling prices were primarily due to higher raw material, energy, and distribution prices. Higher sales volume was primarily due to strengthened demand and improved market conditions for coatings additives products sold in transportation, building and construction, and durable goods end-markets, resulting in a more favorable product mix.

Earnings (loss) before interest and taxes in 2021 included loss on business held for sale and related transaction costs, asset impairments, restructuring charges resulting from manufacturing facility closures, contract termination fees, and a gain on the sale of impaired assets. EBIT in 2020 included asset impairment and restructuring charges resulting from the impairment of tradenames and customer relationships, and the closure of manufacturing facilities. For more information regarding asset impairments and restructuring charges see Note 16, "Asset Impairments and Restructuring Charges, Net", to the Company's consolidated financial statements in this Annual Report.

Excluding these non-core items, EBIT increased primarily due to $178 million of higher sales volume. This increase was partially offset by higher raw material and energy costs and higher distribution costs offsetting higher selling prices by $95 million.

2020 Compared to 2019

Sales revenue decreased primarily due to lower selling prices and lower sales volume. Lower selling prices were due to lower raw material prices and competitive activity in animal nutrition, tire additives, and adhesives resins products. The negative impact of COVID-19 on demand resulted in lower sales volume of aviation fluids and coatings additives sold into transportation end-markets resulting in less favorable product mix.

EBIT in 2020 included asset impairment and restructuring charges resulting from the impairment of tradenames and customer relationships and the closure of manufacturing facilities. EBIT in 2019 included a goodwill impairment, an asset impairment related to discontinued production at the Singapore manufacturing site, and restructuring charges. For more information regarding asset impairments and restructuring charges see Note 16, "Asset Impairments and Restructuring Charges, Net", to the Company's consolidated financial statements in this Annual Report.

Excluding these non-core items, EBIT decreased primarily due to $133 million of lower sales volume and higher manufacturing costs primarily due to lower capacity utilization and reduction of inventory. These higher costs were partially offset by $41 million in cost reduction actions.

Initiatives

In 2021, the AFP segment:

- continued to advance growth and innovation of Tetrashield™ resins that enable low-volatile organic compounds ("VOC") formulations and eliminate energy intensive manufacturing steps, by working with key customers and other brands through the value chain;
- continued to expand capabilities of Eastapure™ electronic chemicals, an excellent choice for use in etching solutions for semiconductor chips and other electronic applications with extremely low metal content;
- increased capacity to produce tertiary amines at its Ghent, Belgium and Pace, Florida facilities by approximately 40 percent and 20 percent, respectively, to meet growing demand for hand sanitizers and other household cleaning products;
- completed raw material conversion project at its Oulu, Finland facility implementing more sustainable technology by switching to liquefied natural gas and improving its environmental footprint;
- introduced Fluid Genius™, a patent-pending product that equips end-users with predictive insights to optimize heat transfer fluid performance by leveraging artificial intelligence technology with Eastman expertise to monitor and maximize the life cycle of heat transfer fluids for a myriad of system applications;
- acquired 3F Food & Feed ("3F"), a manufacturer of additives for animal feed and human food which is expected to enhance continued global growth of the animal nutrition product lines;
- completed the sale of the rubber additives (including Eastman's Crystex™ insoluble sulfur and Santoflex™ antidegradants) and other product lines and related assets and technology; and
- entered into a definitive agreement to sell its adhesives resins assets and business, consisting of hydrocarbon resins (including Eastman Impera™ tire resins), pure monomer resins, polyolefin polymers, rosins and dispersions, and oleochemical and fatty-acid based resins product lines.

Advanced Materials Segment

	2021 Compared to 2020				2020 Compared to 2019			
			Change				Change	
(Dollars in millions)	2021	2020	$	%	2020	2019	$	%
Sales	$ 3,027	$ 2,524	$ 503	20 %	$ 2,524	$ 2,688	$ (164)	(6)%
Volume / product mix effect			406	16 %			(101)	(4)%
Price effect			57	2 %			(67)	(2)%
Exchange rate effect			40	2 %			4	— %
EBIT	$ 519	$ 427	$ 92	22 %	$ 427	$ 517	$ (90)	(17)%
Asset impairments and restructuring charges, net	9	13	(4)		13	1	12	
Accelerated depreciation	4	8	(4)		8	—	8	
EBIT excluding non-core items	532	448	84	19 %	448	518	(70)	(14)%

2021 Compared to 2020

Sales revenue increased primarily due to higher sales volume. Demand strengthened for specialty plastics products sold into durables goods, medical, and electronics end-markets, advanced interlayers products sold into transportation end-markets, and performance films premium automotive products, resulting in a more favorable product mix.

EBIT in 2021 and 2020 included asset impairments and restructuring charges and accelerated depreciation resulting from a manufacturing facility closure. For more information regarding asset impairments and restructuring charges see Note 16, "Asset Impairments and Restructuring Charges, Net", to the Company's consolidated financial statements in this Annual Report.

Excluding these non-core items, EBIT increased primarily due to $307 million of higher sales volume and a favorable product mix, partially offset by higher raw material and energy costs and higher distribution costs offsetting higher selling prices by $191 million and $35 million of higher growth initiatives costs.

2020 Compared to 2019

Sales revenue decreased due to lower sales volume and lower selling prices. The negative impact of COVID-19 on demand resulted in lower sales volume of advanced interlayers products sold into transportation end-markets, partially offset by increased sales volume in the fourth quarter for consumer durables and increased sales volume of certain standard copolyester products used in applications for personal care and wellness and consumables end-markets, resulting in a less favorable product mix. Lower selling prices were primarily attributed to lower raw material prices, particularly for paraxylene used in copolyester products.

EBIT in 2020 included severance charges, accelerated depreciation, and asset impairment and restructuring charges from a manufacturing facility closure. For more information regarding asset impairments and restructuring charges see Note 16, "Asset Impairments and Restructuring Charges, Net", to the Company's consolidated financial statements in this Annual Report.

Excluding these non-core items, EBIT decreased primarily due to $128 million of lower sales volume and higher manufacturing costs due to lower capacity utilization and reduction of inventory. These higher costs were partially offset by $53 million in cost reduction actions and lower raw material and energy costs offsetting lower selling prices by $19 million.

Initiatives

In 2021, the AM segment:

- adopted polyester renewal technology for products in various end-markets including, Tritan™ Renew in durable goods, such as electronic devices, power tools, consumer housewares, small appliances, and eyewear, as well as Cristal™ Renew and Cristal™ One Renew in packaging;
- commercialized new products with improved recyclability including Cristal™ One and Cristal™ One Renew with adoption in cosmetic packaging end markets;
- continued circular economy advancements (including the investment in the world's largest polyester material recycling facility);
- continued the growth of Tritan™ copolyester in the durable goods and health and wellness markets, supported by continued market and application development;
- continued to expand portfolio of differentiated next generation products for both automotive and architectural interlayer films products;
- developed and launched Eastman CORE (trademark and patent pending) digital product data analytics software for accessory sales management and installation of automotive window and paint protection films products;
- developed and launched the third generation of paint protection films leveraging Eastman proprietary Tetrashield™ coating technology to enable what the Company believes is best in class aesthetics and durability in paint protection films; and
- acquired the Matrix Films performance films business expanding paint protection film pattern development capabilities, pattern database, and installation training expertise.

Chemical Intermediates Segment

	2021 Compared to 2020				2020 Compared to 2019			
			Change				Change	
(Dollars in millions)	2021	2020	$	%	2020	2019	$	%
Sales	$ 2,849	$ 2,090	$ 759	36 %	$ 2,090	$ 2,443	$ (353)	(14)%
Volume / product mix effect			(47)	(3)%			(175)	(7)%
Price effect			792	38 %			(180)	(7)%
Exchange rate effect			14	1 %			2	— %
EBIT	$ 445	$ 166	$ 279	168 %	$ 166	$ 170	$ (4)	(2)%
Asset impairments and restructuring charges, net	16	5	11		5	22	(17)	
EBIT excluding non-core item	461	171	290	170 %	171	192	(21)	(11)%

2021 Compared to 2020

Sales revenue increased primarily due to higher selling prices, resulting from higher raw material, energy, and distribution prices. This increase was partially offset by lower sales volume, primarily due to the discontinued production of certain products at the Singapore manufacturing facility.

EBIT in 2021 and 2020 included restructuring charges resulting from the discontinued production of certain products. For more information regarding asset impairments and restructuring charges see Note 16, "Asset Impairments and Restructuring Charges, Net", to the Company's consolidated financial statements in this Annual Report.

Excluding this non-core item, EBIT increased primarily due to higher selling prices more than offsetting higher raw material and energy costs and higher distribution costs by $277 million.

2020 Compared to 2019

Sales revenue decreased primarily due to lower selling prices across the segment attributed to lower raw material prices, and lower sales volume in most product lines attributed to the negative impact of COVID-19 on demand and increased competitive pressure.

EBIT in 2020 and 2019 included restructuring charges resulting from the discontinued production of certain products. For more information regarding asset impairments and restructuring charges see Note 16, "Asset Impairments and Restructuring Charges, Net", to the Company's consolidated financial statements in this Annual Report.

Excluding this non-core item, EBIT decreased due to $66 million of lower sales volume and higher manufacturing costs due to lower capacity utilization, and lower selling prices partially offset by lower raw material and energy costs, totaling $17 million. The higher manufacturing costs were partially offset by $38 million of cost reduction actions and $18 million of technology licensing earnings in 2020.

Initiatives

In 2021, the CI segment:

- completed expansion of production capacity at St. Gabriel, Louisiana facility to support a strategic supply partnership;
- completed expansion of methylamines production capacity at Ghent, Belgium facility supporting market growth;
- completed closure of Singapore manufacturing site; and
- began the ethylene production to propylene capital investment which will provide low-cost propylene supply to internal derivatives and create lower volatility and improved earnings potential from enhanced operating flexibility.

Fibers Segment

(Dollars in millions)	2021 Compared to 2020				2020 Compared to 2019			
			Change				Change	
	2021	2020	$	%	2020	2019	$	%
Sales	$ 900	$ 837	$ 63	8 %	$ 837	$ 869	$ (32)	(4)%
Volume / product mix effect			57	7 %			(18)	(2)%
Price effect			2	— %			(14)	(2)%
Exchange rate effect			4	1 %			—	— %
EBIT	$ 142	$ 180	$ (38)	(21)%	$ 180	$ 194	$ (14)	(7)%

2021 Compared to 2020

Sales revenue increased primarily due to higher sales volume of textile products due to strengthened end-market demand attributed to continued recovery of the textiles end-market negatively impacted by COVID-19. Acetate tow sales volume was relatively unchanged.

EBIT decreased primarily due to higher raw material and energy costs and higher distribution costs, totaling $37 million.

2020 Compared to 2019

Sales revenue decreased primarily due to lower textile products sales volume attributed to the impact of COVID-19 on demand and lower acetate tow selling prices primarily due to previously negotiated multi-year contracts.

EBIT decreased primarily due to $26 million of lower sales volume and higher manufacturing costs due to lower capacity utilization and reduction of inventory. These higher costs were partially offset by $10 million in cost reduction actions.

Initiatives

In 2021, the Fibers segment:
- introduced Naia™ staple fiber for spun yarns for apparel and home textiles; and
- developed Naia™ Renew yarns and staple fibers made from approximately 40 percent recycled plastic and textiles waste, enabled by Eastman's carbon renewal technology.

Other

(Dollars in millions)	2021	2020	2019
Loss before interest and taxes			
Growth initiatives and businesses not allocated to operating segments	$ (134)	$ (95)	$ (102)
Pension and other postretirement benefit plans income (expense), net not allocated to operating segments	375	(156)	(97)
Asset impairments and restructuring charges, net	(1)	(73)	(49)
Other income (charges), net not allocated to operating segments	(11)	(20)	(9)
Gain (loss) before interest and taxes before non-core items	$ 229	$ (344)	$ (257)
Mark-to-market pension and other postretirement benefit plans loss (gain), net	(267)	240	143
Asset impairments and restructuring charges, net	1	73	49
Loss before interest and taxes excluding non-core items	(37)	(31)	(65)

Costs related to growth initiatives, R&D costs, certain components of pension and other postretirement benefits, and other expenses and income not identifiable to an operating segment are not included in operating segment results for any of the periods presented and are included in "Other". In 2021, the Company recognized severance and related costs as part of business improvement and cost reduction initiatives. In 2020, the Company recognized severance and related costs as part of business improvement and cost reduction initiatives, contract termination fees, and asset impairments charges from discontinue growth initiatives. In 2019, the Company recognized severance and related restructuring costs. For more information regarding asset impairments and restructuring charges and debt extinguishment costs see Note 16, "Asset Impairments and Restructuring Charges, Net" and Note 9, "Borrowings", respectively, to the Company's consolidated financial statements in this Annual Report.

SALES BY CUSTOMER LOCATION

	Sales Revenue							
			Change				Change	
(Dollars in millions)	2021	2020	$	%	2020	2019	$	%
United States and Canada	$ 4,578	$ 3,579	$ 999	28 %	$ 3,579	$ 3,885	$ (306)	(8)%
Europe, Middle East, and Africa	2,735	2,299	436	19 %	2,299	2,544	(245)	(10)%
Asia Pacific	2,549	2,111	438	21 %	2,111	2,278	(167)	(7)%
Latin America	614	484	130	27 %	484	566	(82)	(14)%
Total	$10,476	$ 8,473	$ 2,003	24 %	$ 8,473	$ 9,273	$ (800)	(9)%

2021 Compared to 2020

Sales revenue increased 24 percent due to increases in sales revenue across all regions. Higher sales revenue was primarily due to higher selling prices (up 15 percent) and higher sales volume (up 8 percent) across all regions. The most significant increase in sales revenue occurred in United States and Canada, primarily due to higher selling prices and sales volume in the CI and AFP segments. The increase in Asia Pacific was partially offset by lower sales volume in the CI segment primarily resulting from the closure of the Singapore manufacturing facility.

2020 Compared to 2019

Sales revenue decreased 9 percent due to decreases in sales revenue across all regions. Lower sales revenue was primarily due to lower sales volume (down 5 percent) and lower selling prices (down 4 percent) across all regions. The most significant decrease in sales revenue occurred in United States and Canada, primarily due to lower selling prices in all operating segments and lower sales volume in the CI and AM segments. Europe, Middle East, and Africa also had an significant decrease in sales revenue due to lower sales volume and lower selling prices in all operating segments.

See Note 20, "Segment and Regional Sales Information", to the Company's consolidated financial statements in this Annual Report for segment sales revenues by customer location.

LIQUIDITY AND OTHER FINANCIAL INFORMATION

Cash Flows

The Company had cash and cash equivalents as follows:

(Dollars in millions)		December 31,	
	2021	2020	2019
Cash and cash equivalents	$ 459	$ 564	$ 204

Cash flows from operations, cash and cash equivalents, and other sources of liquidity are expected to be available and sufficient to meet foreseeable cash requirements. However, the Company's cash flows from operations can be affected by numerous factors including risks associated with global operations, raw material availability and cost, demand for and pricing of Eastman's products, capacity utilization, and other factors described under "Risk Factors" in this MD&A. Management believes maintaining a financial profile that supports an investment grade credit rating is important to its long-term strategy and financial flexibility.

	For years ended December 31,		
(Dollars in millions)	2021	2020	2019
Net cash provided by (used in):			
Operating activities	$ 1,619	$ 1,455	$ 1,504
Investing activities	(29)	(394)	(480)
Financing activities	(1,690)	(704)	(1,043)
Effect of exchange rate changes on cash and cash equivalents	(5)	3	(3)
Net change in cash and cash equivalents	(105)	360	(22)
Cash and cash equivalents at beginning of period	564	204	226
Cash and cash equivalents at end of period	$ 459	$ 564	$ 204

2021 Compared to 2020

Cash provided by operating activities increased $164 million due to higher net earnings, partially offset by higher net working capital (trade receivables, inventories, and trade payables), as higher inventories and trade receivables more than offset higher trade payables.

Cash used in investing activities decreased $365 million due to the proceeds from the divestiture of rubber additives in the AFP segment partially offset by higher capital expenditures related to growth initiatives and acquisitions in the AFP and AM segments.

Cash used in financing activities increased $986 million primarily due to higher share repurchases.

2020 Compared to 2019

Cash provided by operating activities decreased $49 million due to lower net earnings, partially offset by lower net working capital (trade receivables, inventories, and trade payables), primarily due to a decrease in inventories.

Cash used in investing activities decreased $86 million due to lower additions to properties and equipment. Additionally, there were acquisitions in the AFP and Fibers segments in 2019.

Cash used in financing activities decreased $339 million due to lower share repurchases and lower debt repayments.

	For years ended December 31,		
(Dollars in millions)	2021	2020	2019
Net cash provided by operating activities	$ 1,619	$ 1,455	$ 1,504
Additions to properties and equipment	(555)	(383)	(425)
Free cash flow	$ 1,064	$ 1,072	$ 1,079

Working Capital Management

Eastman applies a proactive and disciplined approach to working capital management to optimize cash flow and to enable a full range of capital allocation options in support of the Company's strategy. Eastman expects to continue utilizing the programs described below to support free cash flow consistent with the Company's past practices.

The Company has an off balance sheet, uncommitted accounts receivable factoring program under which entire invoices may be sold, without recourse, to third-party financial institutions. Available capacity under these agreements, which the Company uses as a routine source of working capital funding, is dependent on the level of accounts receivable eligible to be sold and the financial institutions' willingness to purchase such receivables. The total amount of receivables sold in 2021 and 2020 were $1.2 billion and $1.5 billion, respectively. Based on the original terms of receivables sold for certain agreements and actual outstanding balance of receivables under service agreements, the Company estimates that $239 million and $150 million of these receivables would have been outstanding as of December 31, 2021 and 2020, respectively, had they not been sold under these factoring agreements.

Eastman works with suppliers to optimize payment terms and conditions on accounts payable to enhance timing of working capital and cash flows. The Company has a voluntary supply chain finance program to provide suppliers with the opportunity to sell receivables due from Eastman to a participating financial institution. See Note 1, "Significant Accounting Policies", to the Company's consolidated financial statements in this Annual Report for additional information regarding both programs.

Debt and Other Commitments

(Dollars in millions)	Payments Due for						
Period	**Debt Securities**	**Credit Facilities and Other**	**Interest Payable**	**Purchase Obligations**	**Operating Leases**	**Other Liabilities**	**Total**
2022	$ 747	$ —	$ 167	$ 164	$ 55	$ 269	$ 1,402
2023	850	—	154	156	44	77	1,281
2024	241	—	135	148	31	87	642
2025	698	—	117	124	24	81	1,044
2026	565	—	106	116	18	84	889
2027 and beyond	2,058	—	1,183	2,436	53	960	6,690
Total	$ 5,159	$ —	$ 1,862	$ 3,144	$ 225	$ 1,558	$ 11,948

At December 31, 2021, Eastman's borrowings totaled approximately $5.2 billion with various maturities. In fourth quarter 2021, the Company repaid the 3.5% notes due December 2021 ($300 million principal) using available cash. In fourth quarter 2020, the Company repaid the 4.5% notes due January 2021 ($185 million principal) using available cash. In second quarter 2020, the Company borrowed $250 million under a new Term Loan and in third quarter 2020, the Term Loan was repaid using available cash, For information about debt and related interest, see Note 9, "Borrowings", to the Company's consolidated financial statements in this Annual Report.

For information about purchase obligations and operating leases, see Note 12, "Leases and Other Commitments", to the Company's consolidated financial statements in this Annual Report.

Amounts in other liabilities represent the current estimated cash payments required to be made by the Company primarily for pension and other postretirement benefits, accrued compensation benefits, environmental loss contingency estimates, uncertain tax liabilities, and commodity and foreign exchange hedging in the periods indicated. Due to uncertainties in the timing of the effective settlement of tax positions with respect to taxing authorities, management is unable to determine the timing of payments related to uncertain tax liabilities and these amounts are included in the "2027 and beyond" line item.

The amount and timing of pension and other postretirement benefit payments included in other liabilities is dependent upon interest rates, health care cost trends, actual returns on plan assets, retirement and attrition rates of employees, continuation or modification of the benefit plans, and other factors. Such factors can significantly impact the amount and timing of any future contributions by the Company. Excess contributions are periodically made by management in order to keep the plans' funded status above 80 percent under the funding provisions of the Pension Protection Act to avoid partial benefit restrictions on accelerated forms of payment. The Company's U.S. defined benefit pension plans are not currently under any benefit restrictions. See Note 11, "Retirement Plans", to the Company's consolidated financial statements in this Annual Report, for more information regarding pension and other postretirement benefit obligations.

The resolution of uncertainties related to environmental matters included in other liabilities may have a material adverse effect on the Company's consolidated results of operations in the period recognized, however, because of the availability of legal defenses, the Company's preliminary assessment of actions that may be required, and, if applicable, the expected sharing of costs, management does not believe that the Company's liability for these environmental matters, individually or in the aggregate, will be material to the Company's consolidated financial position, results of operations, or cash flows. See Note 1, "Significant Accounting Policies", to the Company's consolidated financial statements in this Annual Report for the Company's accounting policy for environmental costs, and see Note 13, "Environmental Matters and Asset Retirement Obligations", to the Company's consolidated financial statements in this Annual Report for more information regarding outstanding environmental matters and asset retirement obligations.

Credit Facility and Commercial Paper Borrowings

The Company has access to a $1.50 billion Credit Facility that was amended and restated in December 2021. The amendments include the addition of sustainability-linked pricing terms and extends the maturity to December 2026. This resulted in a charge of $1 million for early debt extinguishment costs which was attributable to unamortized fees. Borrowings under the Credit Facility are subject to interest at varying spreads above quoted market rates and a commitment fee is paid on the total unused commitment. The Credit Facility provides available liquidity for general corporate purposes and supports commercial paper borrowings. Commercial paper borrowings are classified as short-term. At December 31, 2021, the Company had no outstanding borrowings under the Credit Facility. At December 31, 2021, the Company had no outstanding commercial paper borrowings. See Note 9, "Borrowings", to the Company's consolidated financial statements in this Annual Report.

The Credit Facility contains customary covenants, including requirements to maintain certain financial ratios, that determine the events of default, amounts available, and terms of borrowings. The Company was in compliance with all covenants at December 31, 2021. The total amount of available borrowings under the Credit Facility was approximately $1.50 billion as of December 31, 2021.

Net Debt

(Dollars in millions)	December 31, 2021	December 31, 2020
Total borrowings	$ 5,159	$ 5,618
Less: Cash and cash equivalents	459	564
Net debt [(1)]	$ 4,700	$ 5,054

(1) Includes a non-cash decrease of $113 million in 2021 and a non-cash increase of $132 million in 2020 resulting from foreign currency exchange rates.

Capital Expenditures

Capital expenditures were $555 million, $383 million, and $425 million in 2021, 2020, and 2019, respectively. Capital expenditures in 2021 were primarily for the AM segment methanolysis plastic-to-plastic molecular recycling manufacturing facility in Kingsport, Tennessee, and other targeted growth initiatives and site modernization projects.

The Company expects that 2022 capital spending will be approximately $700 million, primarily for targeted growth initiatives, including the AM segment methanolysis plastic-to-plastic molecular recycling manufacturing facility and the Tritan™ capacity expansion, both in Kingsport, Tennessee, and other targeted growth initiatives and site modernization projects.

The Company had capital expenditures related to environmental protection and improvement of approximately $38 million, $42 million, and $27 million in 2021, 2020, and 2019, respectively. The Company does not currently expect near term environmental capital expenditures arising from requirements of environmental laws and regulations to materially impact the Company's planned level of annual capital expenditures for environmental control facilities.

Dividends and Stock Repurchases

In February 2018, the Company's Board of Directors authorized the repurchase of up to an additional $2 billion of the Company's outstanding common stock at such times, in such amounts, and on such terms, as determined by management to be in the best interest of the Company and its stockholders. As of December 31, 2021, a total of 15,948,995 shares have been repurchased under the 2018 authorization for a total amount of $1,533 million. During 2021, the Company repurchased a total of 8,061,779 shares for a total cost of approximately $900 million, of which $400 million was repurchased under an accelerated share repurchase program ("ASR") entered into in December 2021. An additional $100 million of share repurchases under the ASR have been accounted for as a reduction to "Additional paid-in capital" in the Company's Consolidated Statements of Financial Position, as it has been paid, but shares have not yet been delivered. See Note 15, "Stockholders' Equity", to the Company's consolidated financial statements in this Annual Report for details of the ASR program.

In December 2021, the Company's Board of Directors authorized the additional repurchase of up to $2.5 billion of the Company's outstanding common stock at such time, in such amounts, and on such terms, as determined by management to be in the best interest of the Company and its stockholders. No shares have been repurchased under the December 2021 authorization.

The Board of Directors has declared a cash dividend of $0.76 per share during the first quarter of 2022, payable on April 1, 2022 to stockholders of record on March 15, 2022. Both dividends and share repurchases are key strategies employed by the Company to return value to its stockholders.

INFLATION

In 2021, the Company experienced rapid, broad-based inflation across its portfolio, including higher raw material and energy costs. The cost of raw materials is generally based on market prices, although derivative financial instruments are utilized, as appropriate, to mitigate short-term market price fluctuations. Management expects the volatility of raw material and energy prices and costs to continue and the Company will continue to pursue pricing and hedging strategies and ongoing cost control initiatives to offset the effects. For additional information, see Note 10, "Derivative and Non-Derivative Financial Instruments", to the Company's consolidated financial statements in this Annual Report.

RECENTLY ISSUED ACCOUNTING STANDARDS

For information regarding the impact of recently issued accounting standards, see Note 1, "Significant Accounting Policies", to the Company's consolidated financial statements in this Annual Report.

OUTLOOK

In 2022, management expects adjusted EPS to be between $9.50 and $10.00 and operating cash flow to be greater than $1.6 billion. These expectations assume:

- innovation and market development driving growth above underlying end-markets;
- timing of price increases in response to higher raw material, energy, and distribution prices and disciplined cost management to positively impact financial results;
- earnings to be negatively impacted by the divested rubber additives and adhesives resins product lines, continued investment in growth, and normalization of selling price/cost spreads in the Chemical Intermediates segment;
- interest expense of approximately $190 million;
- depreciation and amortization of approximately $490 million; and
- the full-year effective tax rate on adjusted earnings before income tax to be between 15 and 16 percent.

In addition, the Company expects to deploy strong operating cash flow and divestiture proceeds through the combination of bolt-on mergers and acquisitions and share repurchases, and to have capital expenditures of approximately $700 million.

The Company's 2022 financial results forecast does not include non-core, unusual, or non-recurring items. Accordingly, management is unable to reconcile projected earnings excluding non-core, unusual, or non-recurring items to projected reported GAAP earnings without unreasonable efforts.

See "Forward-Looking Statements" and "Risk Factors" below.

FORWARD-LOOKING STATEMENTS

Certain statements made or incorporated by reference in this Annual Report are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act (Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities and Exchange Act of 1934, as amended). Forward-looking statements are all statements, other than statements of historical fact, that may be made by Eastman Chemical Company ("Eastman" or the "Company") from time to time. In some cases, you can identify forward-looking statements by terminology such as "anticipates", "believes", "estimates", "expects", "intends", "may", "plans", "projects", "forecasts", "will", "would", and similar expressions or expressions of the negative of these terms. Forward-looking statements may relate to, among other things, such matters as planned and expected capacity increases and utilization; anticipated capital spending; expected depreciation and amortization; environmental matters and opportunities (including potential risks associated with physical impacts of climate change and related voluntary and regulatory carbon requirements); exposure to and effects of hedging raw material and energy prices and costs and foreign currencies exchange and interest rates; disruption or interruption of operations and of raw material or energy supply (including as a result of cyber-attacks or other breaches of information security systems); global and regional economic, political, and business conditions; competition; growth opportunities; supply and demand, volume, price, cost, margin and sales; pending and future legal proceedings; earnings, cash flow, dividends, stock repurchases and other expected financial results, events, decisions, and conditions; expectations, strategies, and plans for individual assets and products, businesses, and operating segments, as well as for the whole of Eastman; cash sources and requirements and uses of available cash; financing plans and activities; pension expenses and funding; credit ratings; anticipated and other future restructuring, acquisition, divestiture, and consolidation activities; cost reduction and control efforts and targets; the timing and costs of, benefits from the integration of, and expected business and financial performance of acquired businesses as well as the subsequent impairment assessments of acquired long-lived assets; strategic, technology, and product innovation initiatives and development, production, commercialization and acceptance of new products, services and technologies and related costs; asset, business, and product portfolio changes; and expected tax rates and interest costs.

Forward-looking statements are based upon certain underlying assumptions as of the date such statements were made. Such assumptions are based upon internal estimates and other analyses of current market conditions and trends, management expectations, plans, and strategies, economic conditions, and other factors. Forward-looking statements and the assumptions underlying them are necessarily subject to risks and uncertainties inherent in projecting future conditions and results. Actual results could differ materially from expectations expressed in the forward-looking statements if one or more of the underlying assumptions and expectations proves to be inaccurate or is unrealized. The known material factors, risks, and uncertainties that could cause actual results to differ materially from those in the forward-looking statements are identified and discussed under "Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Factors" in this Annual Report. Other factors, risks or uncertainties of which management is not aware, or presently deems immaterial, could also cause actual results to differ materially from those in the forward-looking statements.

The Company cautions you not to place undue reliance on forward-looking statements, which speak only as of the date such statements are made. Except as may be required by law, the Company undertakes no obligation to update or alter these forward-looking statements, whether as a result of new information, future events, or otherwise. Investors are advised, however, to consult any further public Company disclosures (such as filings with the Securities and Exchange Commission, Company press releases, or pre-noticed public investor presentations) on related subjects.

RISK FACTORS

In addition to factors described elsewhere in this Annual Report, the following are the material known factors, risks, and uncertainties that could cause actual results to differ materially from those under "Outlook" and in the forward-looking statements made in this Annual Report and elsewhere from time to time. See "Forward-Looking Statements". The following risk factors are not necessarily presented in the order of importance. In addition, there may be other factors, not currently known to the Company, which could, in the future, materially adversely affect the Company, its business, financial condition, or results of operations. This and other related disclosures made by the Company in this Annual Report, and elsewhere from time to time, represent management's best judgment as of the date the information is given. The Company does not undertake responsibility for updating any of such information, whether as a result of new information, future events, or otherwise, except as required by law. Investors are advised, however, to consult any further public Company disclosures (such as in filings with the Securities and Exchange Commission, in Company press releases, or other public presentations) on related subjects.

Risks Related to Global Economy and Industry Conditions

Continued uncertain conditions in the global economy, labor market, and financial markets could negatively impact the Company.

The Company's business and operating results were impacted by the last global recession, and its related impacts, such as the credit market crisis, declining consumer and business confidence, fluctuating commodity prices, volatile exchange rates, and other challenges that impacted the global economy. Similarly, as a company which operates and sells products worldwide, uncertainty in the global economy, labor market, and capital markets (including resulting from the continuing COVID-19 pandemic and subsequent changes and disruptions in business, political, and economic conditions) have impacted and may adversely impact demand for and the costs of certain Eastman products and accordingly results of operations, and may adversely impact the Company's financial condition and cash flows and ability to access the credit and capital markets under attractive rates and terms and negatively impact the Company's liquidity or ability to pursue certain growth initiatives.

Volatility in costs for strategic raw material and energy commodities or disruption in the supply and transportation of these commodities and in transportation of company products could adversely impact the Company's financial results.

Eastman is reliant on certain strategic raw material and energy commodities for its operations and utilizes risk management tools, including hedging, as appropriate, to mitigate market fluctuations in raw material and energy costs. These risk mitigation measures do not eliminate all exposure to market fluctuations and may limit the Company from fully benefiting from lower raw material costs and, conversely, offset the impact of higher raw material costs. In addition, the global COVID-19 pandemic and subsequent changes and disruptions in business and economic conditions, which has adversely impacted cost and availability and transportation of commodities and transportation of Company products, natural disasters, plant interruptions, supply chain and transportation disruptions (related to the global COVID-19 pandemic and otherwise), changes in laws or regulations, levels of unemployment and inflation, higher interest rates, war or other outbreak of hostilities or terrorism, and breakdown or degradation of transportation and supply chain infrastructure used for delivery of strategic raw material and energy commodities and for transportation of Company products, could adversely impact both the cost and availability of these commodities and sales of Company products.

The Company's substantial global operations subject it to risks of doing business in other countries, including U.S. and non-U.S. trade relations, which could adversely impact its business, financial condition, and results of operations.

More than half of Eastman's sales for 2021 were to customers outside of North America. The Company expects sales from international markets to continue to represent a significant portion of its sales. Also, a significant portion of the Company's manufacturing capacity is located outside of the United States. Accordingly, the Company's business is subject to risks related to the differing legal, political, cultural, social and regulatory requirements, and economic conditions of many jurisdictions including the unique geographic impacts of the global COVID-19 pandemic. Fluctuations in exchange rates may impact product demand and may adversely impact the profitability in U.S. dollars of products and services provided in foreign countries. In addition, the U.S. and foreign countries have imposed and may impose additional taxes or otherwise tax Eastman's foreign income (see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Estimates - Income Taxes" in this Annual Report), or adopt or increase restrictions on foreign trade or investment, including currency exchange controls, tariffs or other taxes, or limitations on imports or exports (including recent and proposed changes in U.S. trade policy and resulting retaliatory actions by other countries, including China, which have recently reduced and which may increasingly reduce demand for and increase costs of impacted products or result in U.S.-based trade counterparties limiting trade with U.S.-based companies or non-U.S. customers limiting their purchases from U.S.-based companies). Certain legal and political risks are also inherent in the operation of a company with Eastman's global scope. For example, it may be more difficult for Eastman to enforce its agreements or collect receivables through foreign legal systems, and the laws of some countries may not protect the Company's intellectual property rights to the same extent as the laws of the U.S. Failure of foreign countries to have laws to protect Eastman's intellectual property rights or an inability to effectively enforce such rights in foreign countries could result in loss of valuable proprietary information. There is also risk that foreign governments may nationalize private enterprises in certain countries where Eastman operates. Social and cultural norms in certain countries may not support compliance with Eastman's corporate policies including those that require compliance with substantive laws and regulations. Also, changes in general economic and political conditions in countries where Eastman operates are a risk to the Company's financial performance. As Eastman continues to operate its business globally, its success will depend, in part, on its ability to anticipate and effectively manage and mitigate these and other related risks. There can be no assurance that the consequences of these and other factors relating to its multinational operations will not have an adverse impact on Eastman's business, financial condition, or results of operations.

Risks Related to the Company's Business and Strategy

The Company's business is subject to operating risks common to chemical and specialty materials manufacturing businesses, including cybersecurity risks, any of which could disrupt manufacturing operations or related infrastructure and adversely impact results of operations.

As a global specialty materials company, Eastman's business is subject to operating risks common to chemical manufacturing, storage, handling, and transportation, including explosions, fires, inclement weather, natural disasters, mechanical failure, unscheduled downtime, transportation and supply chain interruptions, remediation, chemical spills, and discharges or releases of toxic or hazardous substances or gases. Significant limitation on the Company's ability to manufacture products due to disruption of manufacturing operations or related infrastructure could have a material adverse impact on the Company's sales revenue, costs, results of operations, credit ratings, and financial condition. Disruptions could occur due to internal factors such as computer or equipment malfunction (accidental or intentional), operator error, or process failures; or external factors such as supply chain disruption, computer or equipment malfunction at third-party service providers, natural disasters, changes in laws or regulations, war or other outbreak of hostilities or terrorism, cyber-attacks, or breakdown or degradation of transportation and supply chain infrastructure used for delivery of supplies to the Company or for delivery of products to customers. The Company has in the past experienced cyber-attacks and breaches of its computer information systems, although none of these have had a material adverse impact on the Company's operations and financial results. While the Company remains committed to managing cyber related risk, no assurances can be provided that any future disruptions due to these, or other, circumstances will not have a material impact on operations. Unplanned disruptions of manufacturing operations or related infrastructure could be significant in scale and could negatively impact operations, neighbors, and the environment, and could have a negative impact on the Company's results of operations.

Growth initiatives may not achieve desired business or financial objectives and may require significant resources in addition to or different from those available or in excess of those estimated or budgeted for such initiatives.

Eastman continues to identify and pursue growth opportunities through both organic and inorganic initiatives, such as Eastman's sustainable innovation initiatives which aim to develop a more "circular economy." These and other growth opportunities include development and commercialization or licensing of innovative new products and technologies and related employee leadership, expertise, skill development and retention, expansion into new markets and geographic regions, alliances, ventures, and acquisitions that complement and extend the Company's portfolio of businesses and capabilities. Such initiatives are necessarily constrained by availability and development of additional resources, including development, attraction, and retention of employee leadership, application development, and sales and marketing talent and capabilities. There can be no assurance that such innovation, development and commercialization or licensing efforts, investments, or acquisitions and alliances (including integration of acquired businesses) will receive necessary governmental or regulatory approvals, or result in financially successful commercialization of products, or acceptance by existing or new customers, or successful entry into new markets or otherwise achieve their underlying strategic business objectives or that they will be beneficial to the Company's results of operations. There also can be no assurance that capital projects for growth efforts can be completed within the time or at the costs projected due, among other things, to demand for and availability of construction materials and labor and obtaining regulatory approvals and operating permits and reaching agreement on terms of key agreements and arrangements with potential suppliers and customers. Any such delays or cost overruns or the inability to obtain such approvals or to reach such agreements on acceptable terms could negatively impact the returns from any proposed or current investments and projects.

Significant acquisitions or divestitures could expose the Company to risks and uncertainties, the occurrence of any of which could materially adversely affect the Company's business, financial condition, and results of operations.

While acquisitions and divestitures have been and continue to be a part of Eastman's strategy, acquisitions of large companies and acquisitions or divestitures of businesses subject the Company to a number of risks and uncertainties, the occurrence of any of which could have a material adverse effect on Eastman. These include, but are not limited to, the possibility that the actual and projected future financial performance of the acquired or remaining business may be significantly worse than expected and that, in the case of an acquired business and as reported in "Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Estimates - Impairment of Long-Lived Assets - Goodwill" in this Annual Report, the carrying values of goodwill and certain assets from acquisitions may, as has been the case for certain acquired assets, be impaired resulting in non-cash charges to future earnings and, in the case of a divested business, the divestiture could reduce Eastman's revenue and, potentially, margins and increase its costs and liabilities in the form of transition costs and retained liabilities from the operations divested, including environmental liabilities; that significant additional indebtedness may constrain the Company's ability to access the credit and capital markets at attractive interest rates and favorable terms, which may negatively impact the Company's liquidity or ability to pursue certain growth initiatives; that the Company may not be able to achieve the cost, revenue, tax, or other "synergies" expected from any acquisition, or that there may be delays in achieving any such synergies; that management's time and effort may be dedicated to the integration of the new business or specific assets or product lines or separation of the divested business or specific assets or product lines resulting in a loss of focus on the successful operation of the Company's legacy businesses; and that the Company may be required to expend significant additional resources in order to integrate any acquired business or specific assets or product lines into Eastman or separate any divested business or specific assets or product lines from Eastman, or that the integration or separation efforts will not achieve the expected benefits.

Risks Related to Regulatory Changes and Compliance

Legislative, regulatory, or voluntary actions, including associated with physical impacts of climate change, could increase the Company's future health, safety, and environmental compliance costs.

Eastman, its facilities, and its businesses are subject to complex health, safety, and environmental laws, regulations, and related voluntary actions, both in the U.S. and internationally, which require and will continue to require significant expenditures to remain in compliance with such laws, regulations, and voluntary actions. The Company's accruals for such costs and associated liabilities are subject to changes in estimates on which the accruals are based. For example, any amount accrued for environmental matters reflects the Company's assumptions about remediation requirements at the contaminated site, the nature of the remedy, the outcome of discussions with regulatory agencies and other potentially responsible parties at multi-party sites, and the number of and financial viability of other potentially responsible parties. Changes in the estimates on which the accruals are based, unanticipated government enforcement action, or changes in health, safety, environmental, chemical control regulations and actions, and testing requirements could result in higher costs. Specifically, while the Company's sustainability and "circular economy" innovation initiatives are sources of competitive strength, future changes in legislation and regulation and related voluntary actions associated with physical impacts of climate change may increase the likelihood that the Company's manufacturing facilities will in the future be impacted by carbon requirements, regulation of greenhouse gas emissions, and energy policy, and may result in capital expenditures, increases in costs for raw materials and energy, limitations on raw material and energy source and supply choices, and other direct and indirect compliance or other costs or consequences including decreased demand for products related to carbon-based energy sources or increased demand for goods that result in lower emissions than competing products and reputational risk resulting from operations with greenhouse gas emissions.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Eastman has exposure to various market risks principally due to changes in foreign currency exchange rates, the pricing of various commodities, and interest rates. In an effort to manage these risks, the Company employs various strategies, including pricing, inventory management, and hedging. The Company enters into derivative contracts which are governed by policies, procedures, and internal processes set forth by its Board of Directors.

The Company determines its exposures to market risk by utilizing sensitivity analyses, which measure the potential losses in fair value resulting from one or more selected hypothetical changes in foreign currency exchange rates, commodity prices, or interest rates.

Foreign Currency Risk

Due to a portion of the Company's operating cash flows and borrowings being denominated in foreign currencies, the Company is exposed to market risk from changes in foreign currency exchange rates. The Company continually evaluates its foreign currency exposure based on current market conditions and the locations in which the Company conducts business. The Company manages most foreign currency exposures on a consolidated basis, which allows the Company to net certain exposures and take advantage of natural offsets. To mitigate foreign currency risk, from time to time, the Company enters into derivative instruments to hedge the cash flows related to certain sales and purchase transactions expected within a rolling three year period and denominated in foreign currencies, and enters into forward exchange contracts to hedge certain firm commitments denominated in foreign currencies. The gains and losses on these contracts offset changes in the value of related exposures. Additionally, the Company, from time to time, enters into non-derivative and derivative instruments to hedge the foreign currency exposure of the net investment in certain foreign operations. The foreign currency change in the designated investment values of the foreign subsidiaries will generally be offset by a foreign currency change in the carrying value of the euro-denominated borrowings. It is the Company's policy to enter into foreign currency derivative and non-derivative instruments only to the extent considered necessary to meet its objectives as stated above. The Company does not enter into foreign currency derivative financial instruments for speculative purposes.

At December 31, 2021, the market risk associated with certain cash flows under these derivative transactions assuming a 10 percent adverse move in the U.S. dollar relative to these foreign currencies was $49 million, with an additional $5 million exposure for each additional one percentage point adverse change in those foreign currency rates. Since the Company utilizes currency-sensitive derivative instruments for hedging anticipated foreign currency transactions, a loss in fair value from those instruments is generally offset by an increase in the value of the underlying anticipated transactions.

At December 31, 2021, a 10 percent fluctuation in the euro currency rate would have had a $238 million impact on the designated net investment values in the foreign subsidiaries. As a result of the designation of the euro-denominated borrowings and designated cross-currency interest rate swaps as hedges of the net investments, foreign currency translation gains and losses on the borrowings and designated cross-currency interest rate swaps are recorded as a component of the "Change in cumulative translation adjustment" within "Other comprehensive income (loss), net of tax" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings in this Annual Report. Therefore, a foreign currency change in the designated investment values of the foreign subsidiaries will generally be offset by a foreign currency change in the carrying value of the euro-denominated borrowings or the foreign currency change in the designated cross-currency interest rate swaps.

Commodity Risk

The Company is exposed to fluctuations in market prices for certain of its raw materials and energy, as well as contract sales of certain commodity products. To mitigate short-term fluctuations in market prices for certain commodities, principally propane, ethane, natural gas, paraxylene, ethylene, and benzene, as well as selling prices for ethylene, the Company enters into derivative transactions, from time to time, to hedge the cash flows related to certain sales and purchase transactions expected within a rolling three year period. At December 31, 2021, the market risk associated with these derivative contracts, assuming an instantaneous parallel shift in the underlying commodity price of 10 percent and no corresponding change in the selling price of finished goods, was $12 million, with an additional $1 million of exposure at December 31, 2021 for each one percentage point move in closing price thereafter.

Interest Rate Risk

Eastman is exposed to interest rate risk primarily as a result of its borrowing and investing activities, which include long-term borrowings used to maintain liquidity and to fund its business operations and capital requirements. The nature and amount of the Company's long-term and short-term debt may vary from time to time as a result of business requirements, market conditions, and other factors. The Company manages global interest rate exposure as part of regular operational and financing strategies. The Company had no variable interest rate borrowings (including credit facility borrowings and commercial paper borrowings) at December 31, 2021.

Eastman may enter into interest rate swaps, collars, or similar instruments with the objective of reducing interest rate volatility relating to the Company's borrowing costs. As of December 31, 2021, the Company had interest rate swaps outstanding with notional values of $150 million. For purposes of calculating the market risks associated with the fair value of interest-rate-sensitive instruments, the Company uses a hypothetical 10 percent increase in interest rates. The corresponding market risk of the interest rate swap hedging the interest rate risk on the 3.8% bonds maturing March 2025 and the interest rate swap hedging the variability in interest rates for long-term debt issuances was $1 million as of December 31, 2021.

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS

Management is responsible for the preparation and integrity of the accompanying consolidated financial statements of Eastman Chemical Company ("Eastman" or the "Company"). Eastman has prepared these consolidated financial statements in accordance with accounting principles generally accepted in the United States, and the statements of necessity include some amounts that are based on management's best estimates and judgments.

Eastman's accounting systems include extensive internal controls designed to provide reasonable assurance of the reliability of its financial records and the proper safeguarding and use of its assets. Such controls are based on established policies and procedures, are implemented by trained, skilled personnel with an appropriate segregation of duties, and are monitored through a comprehensive internal audit program. The Company's policies and procedures prescribe that the Company and all employees are to maintain the highest ethical standards and that its business practices throughout the world are to be conducted in a manner that is above reproach.

The accompanying consolidated financial statements have been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, who were responsible for conducting their audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Their report is included herein.

The Board of Directors exercises its responsibility for these financial statements through its Audit Committee, which consists entirely of non-management Board members. PricewaterhouseCoopers LLP and internal auditors have full and free access to the Audit Committee. The Audit Committee meets periodically with PricewaterhouseCoopers LLP and Eastman's Director of Corporate Audit Services, both privately and with management present, to discuss accounting, auditing, policies and procedures, internal controls, and financial reporting matters.

/s/ Mark J. Costa	/s/ William T. McLain, Jr.
Mark J. Costa	William T. McLain, Jr.
Chief Executive Officer	Senior Vice President and Chief Financial Officer
February 24, 2022	February 24, 2022

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Eastman Chemical Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Eastman Chemical Company and its subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of earnings, comprehensive income and retained earnings, and of cash flows for each of the three years in the period ended December 31, 2021, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

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

Basis for Opinions

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

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

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

Annual Goodwill Impairment Assessments - Certain Reporting Units in the Additives & Functional Products and Chemical Intermediates Segments

As described in Notes 1 and 5 to the consolidated financial statements, the Company's consolidated goodwill balance was $3,641 million as of December 31, 2021, and the goodwill associated with the Additives & Functional Products and Chemical Intermediates segments was $1,585 million and $760 million, respectively. Management conducts testing of goodwill for impairment annually in the fourth quarter or more frequently when events and circumstances indicate an impairment may have occurred. Management uses an income approach, specifically a discounted cash flow model in testing the carrying value of goodwill of each reporting unit for impairment. Key assumptions and estimates used in the Company's goodwill impairment testing included projections of revenues and earnings before interest and taxes ("EBIT"), the estimated weighted average cost of capital ("WACC") and a projected long-term growth rate. The principal considerations for our determination that performing procedures relating to the goodwill impairment assessments for certain reporting units in the Additives & Functional Products and Chemical Intermediates segments is a critical audit matter are (i) the significant judgment by management when estimating the fair value of the reporting units; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to projections of revenues and EBIT, the estimated WACC, and the projected long-term growth rate; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge. Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessments, including controls over the valuation of certain reporting units in the Additives & Functional Products and Chemical Intermediates segments.

These procedures also included, among others (i) testing management's process for developing the fair value estimate of certain reporting units in the Additives & Functional Products and Chemical Intermediates segments, (ii) evaluating the appropriateness of the discounted cash flow model, (iii) testing the completeness, accuracy and relevance of underlying data used in the model, and (iv) evaluating the significant assumptions used by management related to projections of revenues and EBIT, the estimated WACC, and the projected long-term growth rate. Evaluating management's assumptions related to projections of revenues and EBIT and the projected long- term growth rate involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the reporting unit, (ii) the consistency with external industry reports, and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow model and the estimated WACC assumption.

/s/ PricewaterhouseCoopers LLP
Charlotte, North Carolina
February 24, 2022

We have served as the Company's auditor since 1993.

EASTMAN

CONSOLIDATED STATEMENTS OF EARNINGS, COMPREHENSIVE INCOME AND RETAINED EARNINGS

(Dollars in millions, except per share amounts)	For years ended December 31, 2021	2020	2019
Sales	$ 10,476	$ 8,473	$ 9,273
Cost of sales	7,976	6,498	7,039
Gross profit	2,500	1,975	2,234
Selling, general and administrative expenses	795	654	691
Research and development expenses	254	226	234
Asset impairments and restructuring charges, net	47	227	126
Other components of post-employment (benefit) cost, net	(412)	119	60
Other (income) charges, net	(17)	8	3
Loss on divested business	552	—	—
Earnings before interest and taxes	1,281	741	1,120
Net interest expense	198	210	218
Early debt extinguishment costs	1	1	—
Earnings before income taxes	1,082	530	902
Provision for income taxes	215	41	140
Net earnings	867	489	762
Less: Net earnings attributable to noncontrolling interest	10	11	3
Net earnings attributable to Eastman	$ 857	$ 478	$ 759
Basic earnings per share attributable to Eastman	$ 6.35	$ 3.53	$ 5.52
Diluted earnings per share attributable to Eastman	$ 6.25	$ 3.50	$ 5.48
Comprehensive Income			
Net earnings including noncontrolling interest	$ 867	$ 489	$ 762
Other comprehensive income (loss), net of tax:			
Change in cumulative translation adjustment	56	(29)	45
Defined benefit pension and other postretirement benefit plans:			
Prior service credit arising during the period	—	9	—
Amortization of unrecognized prior service credits included in net periodic costs	(28)	(28)	(29)
Derivatives and hedging:			
Unrealized gain (loss) during period	66	(34)	(20)
Reclassification adjustment for (gains) losses included in net income, net	(3)	23	15
Total other comprehensive income (loss), net of tax	91	(59)	11
Comprehensive income including noncontrolling interest	958	430	773
Less: Comprehensive income attributable to noncontrolling interest	10	11	3
Comprehensive income attributable to Eastman	$ 948	$ 419	$ 770
Retained Earnings			
Retained earnings at beginning of period	$ 8,080	$ 7,965	$ 7,573
Cumulative effect adjustment resulting from adoption of new accounting standards	—	—	(20)
Net earnings attributable to Eastman	857	478	759
Cash dividends declared	(380)	(363)	(347)
Retained earnings at end of period	$ 8,557	$ 8,080	$ 7,965

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

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(Dollars in millions, except per share amounts)	December 31, 2021	December 31, 2020
Assets		
Current assets		
Cash and cash equivalents	$ 459	$ 564
Trade receivables, net of allowance for credit losses	1,091	1,033
Miscellaneous receivables	489	482
Inventories	1,504	1,379
Other current assets	96	83
Assets held for sale	1,007	—
Total current assets	4,646	3,541
Properties		
Properties and equipment at cost	12,680	13,531
Less: Accumulated depreciation	7,684	7,982
Net properties	4,996	5,549
Goodwill	3,641	4,465
Intangible assets, net of accumulated amortization	1,362	1,792
Other noncurrent assets	874	736
Total assets	$ 15,519	$ 16,083
Liabilities and Stockholders' Equity		
Current liabilities		
Payables and other current liabilities	$ 2,133	$ 1,689
Borrowings due within one year	747	349
Liabilities held for sale	91	—
Total current liabilities	2,971	2,038
Long-term borrowings	4,412	5,269
Deferred income tax liabilities	810	848
Post-employment obligations	811	1,143
Other long-term liabilities	727	677
Total liabilities	9,731	9,975
Commitments and contingencies (Note 12)		
Stockholders' equity		
Common stock ($0.01 par value per share – 350,000,000 shares authorized; shares issued – 221,809,309 and 220,641,506 for 2021 and 2020, respectively)	2	2
Additional paid-in capital	2,187	2,174
Retained earnings	8,557	8,080
Accumulated other comprehensive loss	(182)	(273)
	10,564	9,983
Less: Treasury stock at cost (92,892,229 and 84,830,450 shares for 2021 and 2020, respectively)	4,860	3,960
Total Eastman stockholders' equity	5,704	6,023
Noncontrolling interest	84	85
Total equity	5,788	6,108
Total liabilities and stockholders' equity	$ 15,519	$ 16,083

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

EASTMAN

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Operating activities			
Net earnings	$ 867	$ 489	$ 762
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	538	574	611
Mark-to-market pension and other postretirement benefit plans (gain) loss, net	(267)	240	143
Asset impairment charges	16	146	72
Early debt extinguishment costs	1	1	—
Loss from sale of business	552	—	—
Provision for (benefit from) deferred income taxes	(38)	(111)	23
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:			
(Increase) decrease in trade receivables	(281)	(31)	170
(Increase) decrease in inventories	(389)	291	(80)
Increase (decrease) in trade payables	554	(100)	(27)
Pension and other postretirement contributions (in excess of) less than expenses	(185)	(136)	(119)
Variable compensation payments (in excess of) less than expenses	162	87	38
Other items, net	89	5	(89)
Net cash provided by operating activities	1,619	1,455	1,504
Investing activities			
Additions to properties and equipment	(555)	(383)	(425)
Proceeds from sale of business	667	—	—
Acquisitions, net of cash acquired	(114)	(1)	(48)
Additions to capitalized software	(23)	(13)	(6)
Other items, net	(4)	3	(1)
Net cash used in investing activities	(29)	(394)	(480)
Financing activities			
Net increase (decrease) in commercial paper and other borrowings	(50)	(121)	(70)
Proceeds from borrowings	—	249	460
Repayment of borrowings	(300)	(435)	(760)
Dividends paid to stockholders	(375)	(358)	(343)
Treasury stock purchases	(1,000)	(60)	(325)
Other items, net	35	21	(5)
Net cash used in financing activities	(1,690)	(704)	(1,043)
Effect of exchange rate changes on cash and cash equivalents	(5)	3	(3)
Net change in cash and cash equivalents	(105)	360	(22)
Cash and cash equivalents at beginning of period	564	204	226
Cash and cash equivalents at end of period	$ 459	$ 564	$ 204

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

1. SIGNIFICANT ACCOUNTING POLICIES

Financial Statement Presentation

The consolidated financial statements of Eastman Chemical Company ("Eastman" or the "Company") and subsidiaries are prepared in conformity with accounting principles generally accepted ("GAAP") in the United States and of necessity include some amounts that are based upon management estimates and judgments. Future actual results could differ from such current estimates. The consolidated financial statements include assets, liabilities, sales revenue, and expenses of all majority-owned subsidiaries and joint ventures in which a controlling interest is maintained. Eastman accounts for other joint ventures and investments in minority-owned companies where it exercises significant influence on the equity basis. Intercompany transactions and balances are eliminated in consolidation. Certain prior period data has been reclassified in the consolidated financial statements and accompanying footnotes to conform to current period presentation.

Recently Adopted Accounting Standards

Accounting Standards Update ("ASU") ASU 2019-12 Income Taxes - Simplifying the Accounting for Income Taxes: On January 1, 2021, Eastman adopted this update which is a part of the Financial Accounting Standards Board's ("FASB") initiative to reduce complexity in accounting standards. Adoption methods varied based on the specific tax items impacted. The adoption of this standard did not have a material impact on the Company's financial statements and related disclosures.

ASU 2020-01 Investments - Equity Securities (Topic 321), Investments - Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815) - Clarifying the Interactions between Topic 321, Topic 323, and Topic 815: On January 1, 2021, Eastman prospectively adopted this update which provides clarification that an entity should consider observable transactions that require the application or discontinuance of the equity method of accounting for the purposes of applying the measurement alternative and clarification that certain forward contracts and purchased options to purchase securities that, upon settlement, would be accounted for under the equity method of accounting. The adoption of this standard did not have an impact to the Company's financial statements and related disclosures.

ASU 2021-01 Reference Rate Reform (Topic 848): In January 2021, the FASB issued this update to clarify that certain optional expedients and exceptions under this topic for contract modifications and hedge accounting apply to derivatives instruments that use an interest rate for margining, discounting, or contract price alignment that is modified as a result of reference rate reform (the global financial markets transition in contracts, hedging relationships, and other transactions from referencing the London Interbank Offered Rate (LIBOR) and other interbank offered rates to new reference rates). This update was effective immediately upon release. The Company has had no reference rate reform modifications to date; this update will be adopted on a prospective basis in the event of any such modifications.

Accounting Standards Issued But Not Adopted as of December 31, 2021

ASU 2021-05 Leases - Lessors - Certain Leases with Variable Lease Payments (Topic 842): In July 2021, this update was issued as a part of the FASB's post-implementation review of this Topic. The update provides that lessors should classify and account for a lease with variable lease payments that do not depend on a reference index or a rate as an operating lease if both: the lease would have been classified as a sales-type lease or a direct financing lease and the lessor would have otherwise recognized a day-one loss. This guidance is effective for fiscal years beginning after December 15, 2021 and interim periods within those fiscal years. Adoption can be applied on either a retrospective or prospective basis. Management does not expect that changes required by the new standard will materially impact the Company's financial statements and related disclosures.

ASU 2021-08 Business Combinations - Accounting for Contract Assets and Contract Liabilities from Contracts with Customers (Topic 805): The FASB issued this update in October 2021, which requires that an entity (acquirer) recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606 *Revenue from Contracts with Customers*, as if it had originated the contracts. The update also provides certain practical expedients for acquirers and is applicable to all contract assets and liabilities within the scope of Topic 606. This guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within those years. Early adoption is permitted, including adoption in an interim period. Adoption is on a prospective basis to business combinations occurring on or after the initial application and if adopted early, retrospectively to all business combinations for which the acquisition date occurs on or after the beginning of the fiscal year that includes the interim period of early application. Management does not expect that changes required by the new standard will impact the Company's financial statements and related disclosures.

ASU 2021-10 Government Assistance - Disclosures by Business Entities about Government Assistance (Topic 832): The FASB issued this guidance in November 2021, given the lack of specific authoritative guidance in GAAP. The amendment requires annual disclosures about transactions with a government that are accounted for by applying a grant or contribution accounting model by analogy (for example, a grant model within International Financial Reporting Standards).This guidance is effective for financial statements issued for annual periods beginning after December 15, 2021, and early adoption is permitted. The guidance can be adopted prospectively or retrospectively. Management does not expect that changes required by the new standard will impact the Company's related disclosures.

Revenue Recognition

Eastman recognizes revenue when performance obligations of the sale are satisfied. Eastman sells to customers through master sales agreements or standalone purchase orders. The majority of the Company's terms of sale have a single performance obligation to transfer products. Accordingly, the Company recognizes revenue when control has been transferred to the customer, generally at the time of shipment of products.

Eastman accounts for shipping and handling as activities to fulfill the promise to transfer the good and does not allocate revenue to those activities. All related shipping and handling costs are recognized at the time of shipment. Amounts collected for sales or other similar taxes are presented net of the related tax expense rather than presenting them as additional revenue. The incremental cost of obtaining a sales contract is recognized as a selling expense when incurred given the potential amortization period for such an asset is one year or less. The possible existence of a significant financing component within a sales contract is ignored when the time between cash collection and performance is less than one year. Finally, the Company does not disclose any unfulfilled obligations as customer purchase order commitments have an original expected duration of one year or less and no consideration from customers is excluded from the transaction price.

The timing of Eastman's customer billings does not always match the timing of revenue recognition. When the Company is entitled to bill a customer in advance of the recognition of revenue, a contract liability is recognized. When the Company is not entitled to bill a customer until a period after the related recognition of revenue, a contract asset is recognized. Contract assets represent the Company's right to consideration for the exchange of goods under a contract but which are not yet billable to a customer for consignment inventory or pursuant to certain shipping terms. Contract liabilities were $14 million and $18 million as of December 31, 2021 and 2020, respectively, and are included as a part of "Payables and other current liabilities" and "Other long-term liabilities" in the Consolidated Statements of Financial Position. Contract assets were $82 million and $62 million as of December 31, 2021 and 2020, respectively, and are included as a component of "Miscellaneous receivables" in the Consolidated Statements of Financial Position.

For additional information, see Note 20, "Segment and Regional Sales Information".

Pension and Other Postretirement Benefits

Eastman maintains defined benefit pension and other postretirement benefits plans that provide eligible employees with retirement benefits. The estimated amounts of the costs and obligations related to these benefits reflect the Company's assumptions related to discount rates, expected return on plan assets, rate of compensation increase or decrease for employees, and health care cost trends. The estimated cost of providing plan benefits also depends on demographic assumptions including retirements, mortality, turnover, and plan participation.

Eastman's pension and other postretirement benefit plans costs consist of two elements: 1) ongoing costs recognized quarterly, which are comprised of service and interest costs, expected returns on plan assets, and amortization of prior service credits; and 2) mark-to-market ("MTM") gains and losses recognized annually, in the fourth quarter of each year, primarily resulting from changes in actuarial assumptions for discount rates and the differences between actual and expected returns on plan assets. Any interim remeasurements triggered by a curtailment, settlement, or significant plan changes are recognized in the quarter in which such remeasurement event occurs.

For additional information, see Note 11, "Retirement Plans".

Environmental Costs

Eastman recognizes environmental remediation costs when it is probable that the Company has incurred a liability at a contaminated site and the amount can be reasonably estimated. When a single amount cannot be reasonably estimated but the cost can be estimated within a range, the Company recognizes the minimum undiscounted amount. This undiscounted amount reflects liabilities expected to be paid within approximately 30 years and the Company's assumptions about remediation requirements at the contaminated site, the nature of the remedy, the outcome of discussions with regulatory agencies and other potentially responsible parties at multi-party sites, and the number and financial viability of other potentially responsible parties. Changes in the estimates on which the accruals are based, unanticipated government enforcement action, or changes in health, safety, environmental, and chemical control regulations and testing requirements could result in higher or lower costs.

The Company also establishes reserves for closure and post-closure costs associated with the environmental and other assets it maintains. Environmental assets include but are not limited to waste management units, such as landfills, water treatment facilities, and surface impoundments. When these types of assets are constructed or installed, a loss contingency reserve is established for the anticipated future costs associated with the retirement or closure of the asset based on its expected life and the applicable regulatory closure requirements. The Company recognizes the asset retirement obligations in the period in which they are incurred if a reasonable estimate of fair value can be made. The asset retirement obligations are discounted to expected present value and subsequently adjusted for changes in fair value. These future estimated costs are charged to earnings over the estimated useful life of the assets. If the Company changes its estimate of the environmental asset retirement obligation costs or its estimate of the useful lives of these assets, earnings will be impacted in the period the estimate is changed. The associated estimated asset retirement costs are capitalized as part of the carrying value of the long-lived assets and depreciated over their useful life and charged to "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings.

Environmental costs are capitalized if they extend the life of the related property, increase its capacity, or mitigate the possibility of future contamination. The cost of operating and maintaining environmental control facilities is charged to "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings, as incurred.

For additional information see Note 13, "Environmental Matters and Asset Retirement Obligations".

Share-Based Compensation

Eastman recognizes compensation expense in "Selling, general and administrative expense" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings for stock options and other share-based compensation awards based upon the grant-date fair value over the substantive vesting period.

For additional information, see Note 18, "Share-Based Compensation Plans and Awards".

Restructuring of Operations

Eastman records restructuring charges for costs incurred in connection with consolidation of operations, exited business or product lines, or shutdowns of specific sites that are expected to be substantially completed within twelve months. These restructuring charges are recorded as incurred, and are associated with site closures, legal and environmental matters, demolition, contract terminations, obsolete inventory, or other costs and charges directly related to the restructuring. The Company records severance charges for employee separations when the separation is probable and reasonably estimable. In the event employees are required to perform future service, the Company records severance charges ratably over the remaining service period of those employees.

For additional information, see Note 16, "Asset Impairments and Restructuring Charges, Net".

Income Taxes

The provision for income taxes has been determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for income taxes represents income taxes paid or payable for the current year plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax bases of Eastman's assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. The recoverability of the Company's deferred tax assets are evaluated each quarter by assessing the likelihood of future profitability and available tax planning strategies that could be implemented to realize the Company's net deferred tax assets. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. Provision has been made for income taxes on unremitted earnings of subsidiaries and affiliates, except for subsidiaries in which earnings are deemed to be indefinitely reinvested. The calculation of income tax liabilities involves uncertainties in the application of complex tax laws and regulations, which are subject to legal interpretation and management judgment. Eastman's income tax returns are regularly examined by federal, state and foreign tax authorities, and those audits may result in proposed adjustments. The Company has evaluated these potential issues under the more-likely-than-not standard of the accounting literature. A tax position is recognized if it meets this standard and is measured at the largest amount of benefit that has a greater than 50 percent likelihood of being realized. Such judgments and estimates may change based on audit settlements, court cases and interpretation of tax laws and regulations. The Company accrues interest related to unrecognized income tax positions, which is included as a component of the income tax provision on the balance sheet. The accrued interest related to unrecognized income tax positions and taxes resulting from the global intangible low-tax income are recorded as a component of the income tax provision.

For additional information, see Note 8, "Income Taxes".

Cash and Cash Equivalents

Cash and cash equivalents include cash, time deposits, and readily marketable securities with original maturities of three months or less.

Fair Value Measurements

Eastman records recurring and non-recurring financial assets and liabilities as well as all non-financial assets and liabilities subject to fair value measurement at the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. These fair value principles prioritize valuation inputs across three broad levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument. Level 3 inputs are unobservable inputs based on the Company's assumptions used to measure assets and liabilities at fair value. An asset or liability's classification within the various levels is determined based on the lowest level input that is significant to the fair value measurement.

Accounts Receivable and Allowance for Credit Losses

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Eastman maintains allowances for estimated credit losses, which are developed at a market, country, and region level based on risk of collection as well as current and forecasted economic conditions. The Company calculates the allowance based on an assessment of the risk when the accounts receivable is recognized. Write-offs are recorded at the time a customer receivable is deemed uncollectible. Allowance for credit losses was $17 million and $14 million as of December 31, 2021 and 2020, respectively. The Company does not enter into receivables of a long-term nature, also known as financing receivables, in the normal course of business.

Inventories

Inventories measured by the last-in, first-out ("LIFO") method are valued at the lower of cost or market and inventories measured by the first-in, first-out ("FIFO") method are valued at the lower of cost or net realizable value. Eastman determines the cost of most raw materials, work in process, and finished goods inventories in the United States and Switzerland by the LIFO method. The cost of all other inventories is determined by the average cost method, which approximates the FIFO method. The Company writes-down its inventories equal to the difference between the carrying value of inventory and the estimated market value or net realizable value based upon assumptions about future demand and market conditions.

For additional information, see Note 3, "Inventories".

Properties

Eastman records properties at cost. Maintenance and repairs are charged to earnings; replacements and betterments are capitalized. When Eastman retires or otherwise disposes of assets, it removes the cost of such assets and related accumulated depreciation from the accounts. The Company records any profit or loss on retirement or other disposition in "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings. Asset impairments are reflected as increases in accumulated depreciation for properties that have been placed in service. In instances when an asset has not been placed in service and is impaired, the associated costs are removed from the appropriate property accounts.

Depreciation and Amortization

Depreciation expense is calculated based on historical cost and the estimated useful lives of the assets, generally using the straight-line method. Estimated useful lives for buildings and building equipment generally range from 20 to 50 years. Estimated useful lives generally ranging from 3 to 33 years are applied to machinery and equipment in the following categories: computer software (3 to 5 years); office furniture and fixtures and computer equipment (5 to 10 years); vehicles, railcars, and general machinery and equipment (5 to 20 years); and manufacturing-related improvements (20 to 33 years). Accelerated depreciation is reported when the estimated useful life is shortened and continues to be reported in "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings.

For additional information, see Note 4, "Properties and Accumulated Depreciation".

Amortization expense for definite-lived intangible assets is generally determined using a straight-line method over the estimated useful life of the asset. Amortization expense is reported in "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings.

For additional information, see Note 5, "Goodwill and Other Intangible Assets".

Impairment of Long-Lived Assets

Definite-lived Assets

Properties and equipment and definite-lived intangible assets to be held and used by Eastman are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The review of properties and equipment and the review of definite-lived intangible assets is performed at the asset group level, which is the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. If the carrying amount is not considered to be recoverable, an analysis of fair value is triggered. An impairment is recognized for the excess of the carrying amount of the asset over the fair value.

Goodwill

Goodwill is an asset determined as the residual of the purchase price over the fair value of identified assets and liabilities acquired in a business combination. Eastman conducts testing of goodwill for impairment annually in the fourth quarter or more frequently when events and circumstances indicate an impairment may have occurred. The testing of goodwill is performed at the "reporting unit" level which the Company has determined to be its "components". Components are defined as an operating segment or one level below an operating segment, and in order to be a reporting unit, the component must 1) be a "business" as defined by applicable accounting standards (an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing a return in the form of dividends, lower costs, or other economic benefits directly to the investors or other owners, members, or participants); 2) have discrete financial information available; and 3) be reviewed regularly by Company operating segment management. The Company aggregates certain components into reporting units based on economic similarities. An impairment is recognized when the reporting unit's estimated fair value is less than its carrying value. The Company uses an income approach, specifically a discounted cash flow model in testing the carrying value of goodwill of each reporting unit for impairment.

Indefinite-lived Intangible Assets

Eastman conducts testing of indefinite-lived intangible assets annually in the fourth quarter or more frequently when events and circumstances indicate an impairment may have occurred. The carrying value of an indefinite-lived intangible asset is considered to be impaired when the fair value, as established by appraisal or based on discounted future cash flows of certain related products, is less than the respective carrying value.

Indefinite-lived intangible assets, consisting primarily of various tradenames, are tested for potential impairment by comparing the estimated fair value to the carrying amount. The Company uses an income approach, specifically the relief from royalty method, to test indefinite-lived intangible assets. The estimated fair value of tradenames is determined based on an assumed royalty rate savings, discounted by the calculated market participant estimated weighted average cost of capital ("WACC") plus a risk premium.

For additional information, see Note 5, "Goodwill and Other Intangible Assets".

Leases

There are two types of leases: finance and operating. Both types of leases have associated right-to-use assets and lease liabilities that are valued at the net present value of the lease payments and recognized on the Consolidated Statements of Financial Position. The discount rate used in the measurement of a right-to-use asset and lease liability is the rate implicit in the lease whenever that rate is readily determinable. If the rate implicit in the lease is not readily determinable, the collateralized incremental borrowing rate is used. The Company elected the accounting policy not to apply the recognition and measurement requirements to short-term leases with a term of 12 months or less and do not include a bargain purchase option. Residual guarantee payments that become probable and estimable are recognized as rent expense over the remaining life of the applicable lease.

For lease accounting policies, see Note 12, "Leases and Other Commitments".

Investments

The consolidated financial statements include the accounts of Eastman and all its subsidiaries and entities or joint ventures in which a controlling interest is maintained. The Company includes its share of earnings and losses of such investments in "Net earnings attributable to Eastman" and "Comprehensive income attributable to Eastman" located in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings and in "Total equity" located in the Consolidated Statements of Financial Position.

Investments in affiliates over which the Company has significant influence but not a controlling interest are carried under the equity method of accounting. These investments are included in "Other noncurrent assets" in the Consolidated Statements of Financial Position. The Company includes its share of earnings and losses of such investments in "Other (income) charges, net" located in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings.

For additional information, see Note 6, "Equity Investments".

Derivative and Non-Derivative Financial Instruments

Eastman uses derivative and non-derivative instruments to manage its exposure to market risks, such as changes in foreign currency exchange rates, commodity prices, and interest rates. The Company does not enter into derivative transactions for speculative purposes.

The Company's derivative instruments are recognized as either assets or liabilities on the Consolidated Statements of Financial Position and measured at fair value. Hedge accounting will be discontinued prospectively for all hedges that no longer qualify for hedge accounting treatment.

For additional information, see Note 10, "Derivative and Non-Derivative Financial Instruments".

Litigation and Contingent Liabilities

From time to time, Eastman and its operations are parties to or targets of lawsuits, claims, investigations and proceedings, including product liability, personal injury, asbestos, patent and intellectual property, commercial, contract, environmental, antitrust, health and safety, and employment matters, which are handled and defended in the ordinary course of business. The Company accrues a contingent loss liability for such matters when it is probable that a liability has been incurred and the amount can be reasonably estimated. When a single amount cannot be reasonably estimated but the cost can be estimated within a range, the Company accrues the minimum amount. The Company expenses legal costs, including those expected to be incurred in connection with a loss contingency, as incurred.

Working Capital Management and Off Balance Sheet Arrangements

The Company has an off balance sheet, uncommitted accounts receivable factoring program under which entire invoices may be sold, without recourse, to third-party financial institutions. Under these agreements, the Company sells the invoices at face value, less a transaction fee, which substantially equals the carrying value and fair value with no gain or loss recognized, and no credit loss exposure is retained. Available capacity under these agreements, which the Company uses as a routine source of working capital funding, is dependent on the level of accounts receivable eligible to be sold and the financial institutions' willingness to purchase such receivables. In addition, certain agreements also require that the Company continue to service, administer, and collect the sold accounts receivable at market rates. The total amount of receivables sold in 2021 and 2020 were $1.2 billion and $1.5 billion, respectively.

The Company works with suppliers to optimize payment terms and conditions on accounts payable to enhance timing of working capital and cash flows. The Company has a voluntary supply chain finance program to provide suppliers with the opportunity to sell receivables due from Eastman to a participating financial institution. Eastman's responsibility is limited to making payments on the terms originally negotiated with suppliers, regardless of whether the suppliers sell their receivables to the financial institution. The range of payment terms Eastman negotiates with suppliers are consistent, regardless of whether a supplier participates in the program. All of Eastman's accounts payable and associated payments are reported consistently in the Company's Consolidated Statements of Financial Position and Consolidated Statements of Cash Flows regardless of whether they are associated with a vendor who participates in the program.

2. DIVESTITURE AND BUSINESS HELD FOR SALE

Divestiture

On November 1, 2021, Eastman completed the previously reported sale of rubber additives (including Crystex™ insoluble sulfur and Santoflex™ antidegradants) and other product lines and related assets and technology of the global tire additives business ("rubber additives") of its Additives & Functional Products ("AFP") segment to an affiliate of One Rock Capital Partners, LLC ("One Rock"). The sale did not include the Eastman Impera™ and other performance resins product lines of the tire additives business. The Company will provide certain business transition and post-closing services to One Rock on agreed terms. The business being sold was not reported as a discontinued operation because the sale did not have a major effect on the Company's operations and financial results.

The total estimated consideration, after estimates of contingent consideration and post-closing adjustments and ongoing agreements through October 2027, was $687 million. The additional amount of consideration of up to $75 million is to be paid based on performance of divested rubber additives through December 2023. The divestiture resulted in a $552 million loss (including cumulative translation adjustment liquidation of $23 million and certain costs to sell of $10 million).

The major classes of divested assets and liabilities were as follows:

(Dollars in millions)	
Assets divested	
Trade receivables, net of allowance for doubtful accounts	$ 107
Inventories	94
Other assets	26
Properties, net of accumulated depreciation	300
Goodwill	398
Intangible assets, net of accumulated amortization	381
Assets divested	1,306
Liabilities divested	
Payables and other liabilities	48
Post-employment obligations	34
Other liabilities	18
Liabilities divested	100
Disposal group, net	$ 1,206

Separately, the Company recognized $15 million of transaction costs for the sale of the business in 2021. Transaction costs are expensed as incurred and are included in the "Selling, general and administrative expenses" line item in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings.

Business Held for Sale

On October 28, 2021, the Company entered into a definitive agreement to sell the adhesives resins business, which includes hydrocarbon resins (including Impera™ tire resins), pure monomer resins, polyolefin polymers, rosins and dispersions, and oleochemical and fatty-acid based resins product lines ("adhesives resins"), of its AFP segment for $1 billion. The sale, subject to regulatory approvals and satisfaction of other customary closing conditions, is expected to be completed in first half 2022. The final purchase price is subject to working capital and other adjustments at closing. The business being sold will not be reported as a discontinued operation because the sale will not have a major effect on the Company's operations and financial results. As of the definitive agreement date and until the sale, the adhesives resins business disposal group will be classified as held for sale and reported at its carrying value given this value is lower than the estimated fair value less cost to sell. Long-lived assets and definite-lived intangible assets are not depreciated or amortized while classified as held for sale.

The major classes of assets and liabilities of the business classified as held for sale as of December 31, 2021 were as follows:

(Dollars in millions)	December 31, 2021
Assets held for sale	
Trade receivables, net of allowance for doubtful accounts	$ 110
Inventories	143
Other assets	40
Properties, net of accumulated depreciation	301
Goodwill	399
Intangible assets, net of accumulated amortization	14
Assets held for sale	1,007
Liabilities held for sale	
Payables and other liabilities	82
Deferred tax liability	7
Other liabilities	2
Liabilities held for sale	91
Disposal group, net	$ 916

The Company recognized $3 million of transaction costs for the business held for sale in 2021. Transaction costs are expensed as incurred and are included in the "Selling, general and administrative expenses" line item in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings.

3. INVENTORIES

(Dollars in millions)	December 31, 2021	December 31, 2020
Finished goods	$ 1,007	$ 891
Work in process	273	203
Raw materials and supplies	589	511
Total inventories at FIFO or average cost	1,869	1,605
Less: LIFO reserve	365	226
Total inventories	$ 1,504	$ 1,379

Inventories valued on the LIFO method were approximately 50 percent of total inventories at both December 31, 2021 and 2020. In 2020, a $13 million LIFO decrement was recognized due to inventory reduction actions, resulting in an increase to "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings and a decrease to "Inventories" in the Consolidated Statements of Financial Position.

4. PROPERTIES AND ACCUMULATED DEPRECIATION

(Dollars in millions)	December 31, 2021	December 31, 2020
Properties		
Land	$ 150	$ 163
Buildings [1]	1,458	1,468
Machinery and equipment	10,449	11,494
Construction in progress [1]	623	406
Properties and equipment at cost	$ 12,680	$ 13,531
Less: Accumulated depreciation	7,684	7,982
Net properties	$ 4,996	$ 5,549

[1] December 31, 2020 is revised from Note 3, "Properties and Accumulated Depreciation", to the Company's 2020 Annual Report on Form 10-K, which reported Buildings as $1,824 million and Construction in progress as $50 million.

Depreciation expense was $426 million, $445 million, and $450 million for 2021, 2020, and 2019, respectively.

Cumulative construction-period interest of $99 million and $100 million, reduced by accumulated depreciation of $45 million and $41 million, is included in net properties at December 31, 2021 and 2020, respectively.

Eastman capitalized $5 million of interest in 2021, and $4 million of interest in both 2020 and 2019.

5. GOODWILL AND OTHER INTANGIBLE ASSETS

Below is a summary of the change in goodwill during 2021 and 2020.

(Dollars in millions)	Additives & Functional Products	Advanced Materials	Chemical Intermediates	Other	Total
Balance at December 31, 2019	$ 2,377	$ 1,282	$ 762	$ 10	$ 4,431
Currency translation adjustments	20	10	4	—	34
Balance at December 31, 2020	2,397	1,292	766	10	4,465
Divestiture	(398)	—	—	—	(398)
Held for sale	(399)	—	—	—	(399)
Currency translation adjustments	(15)	(6)	(6)	—	(27)
Balance at December 31, 2021	$ 1,585	$ 1,286	$ 760	$ 10	$ 3,641

The reported balance of goodwill included accumulated impairment losses of $106 million, $12 million, and $14 million in the AFP segment, Chemical Intermediates ("CI") segment, and other segments, respectively, at both December 31, 2021 and 2020.

The carrying amounts of intangible assets follow:

		December 31, 2021			December 31, 2020		
(Dollars in millions)	Estimated Useful Life in Years	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Amortizable intangible assets:							
Customer relationships	8 - 25	$ 1,144	$ 479	$ 665	$ 1,589	$ 571	$ 1,018
Technology	7 - 20	581	304	277	687	392	295
Tradenames	--	—	—	—	44	2	42
Other	18 - 37	87	26	61	86	23	63
Indefinite-lived intangible assets:							
Tradenames		349	—	349	364	—	364
Other		10	—	10	10	—	10
Total identified intangible assets		$ 2,171	$ 809	$ 1,362	$ 2,780	$ 988	$ 1,792

In second quarter 2020, outside of the annual impairment testing process, the Company reviewed the indefinite-lived intangible assets associated with the now divested tire additives reporting unit for impairment. As a result of the review, the Company recognized intangible asset impairments of $123 million in second quarter 2020 in the tire additives reporting unit to reduce the carrying value of the Crystex™ and Santoflex™ tradenames to the estimated fair value. The impairments are primarily the result of weakened demand in transportation end markets impacted by the COVID-19 coronavirus global pandemic ("COVID-19") and increased competitive pricing pressure as a result of global capacity increases. Amortization began in third quarter 2020 for the remaining value of the Crystex™ tradename of $42 million.

Amortization expense of definite-lived intangible assets was $108 million, $128 million, and $160 million for 2021, 2020, and 2019, respectively. Estimated amortization expense for future periods is $85 million in 2022 and 2023, $80 million in 2024, and $75 million in 2025 and 2026.

The Company will continue to monitor both goodwill and indefinite-lived intangible assets for any indication of events which might require additional testing before the next annual impairment test and could result in material impairment charges.

6. EQUITY INVESTMENTS

Eastman owns a 50 percent or less interest in joint ventures which are accounted for under the equity method. These include a 45 percent interest in a joint venture with China National Tobacco Corporation that manufactures acetate tow in Hefei, China. The Company owns a 50 percent interest in a joint venture that has a manufacturing facility in Nanjing, China. The Nanjing facility produces Eastotac™ hydrocarbon tackifying resins for pressure-sensitive adhesives, caulks, and sealants, which is expected to be sold in 2022 as part of the previously announced definitive agreement the Company entered into to sell the adhesives resins business. For additional information see, Note 2, "Divestiture and Business Held for Sale". These joint ventures also include a joint venture with a 50 percent interest for the manufacture of compounded cellulose diacetate ("CDA") in Shenzhen, China. CDA is a bio-derived material, which is used in various injection molded applications, including but not limited to ophthalmic frames, tool handles, and other end-use products. At December 31, 2021 and 2020, the Company's total investment in these joint ventures was $96 million and $111 million, respectively, included in "Other noncurrent assets" in the Consolidated Statements of Financial Position.

7. PAYABLES AND OTHER CURRENT LIABILITIES

(Dollars in millions)	December 31, 2021	2020
Trade creditors	$ 1,228	$ 799
Accrued payrolls, vacation, and variable-incentive compensation	311	228
Accrued taxes	138	178
Post-employment obligations	70	138
Dividends payable to stockholders	101	94
Other	285	252
Total payables and other current liabilities	$ 2,133	$ 1,689

The "Other" above consists primarily of accruals for the current portion of interest payable, operating lease liabilities, environmental liabilities, and miscellaneous accruals.

8. INCOME TAXES

Components of earnings before income taxes and the provision for U.S. and other income taxes from operations follow:

	For years ended December 31,		
(Dollars in millions)	2021	2020	2019
Earnings before income taxes			
United States	$ 645	$ 164	$ 454
Outside the United States	437	366	448
Total	$ 1,082	$ 530	$ 902
Provision for income taxes			
United States Federal			
Current	$ 114	$ 70	$ 55
Deferred	18	(96)	19
Outside the United States			
Current	115	77	62
Deferred	(42)	(14)	(32)
State and other			
Current	24	5	—
Deferred	(14)	(1)	36
Total	$ 215	$ 41	$ 140

The following represents the deferred tax (benefit) charge recorded as a component of "Accumulated other comprehensive income (loss)" ("AOCI") in the Consolidated Statements of Financial Position:

	For years ended December 31,		
(Dollars in millions)	2021	2020	2019
Defined benefit pension and other postretirement benefit plans	$ (10)	$ (7)	$ (10)
Derivatives and hedging	21	(4)	(2)
Total	$ 11	$ (11)	$ (12)

Total income tax expense (benefit) included in the consolidated financial statements was composed of the following:

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Earnings before income taxes	$ 215	$ 41	$ 140
Other comprehensive income	11	(11)	(12)
Total	$ 226	$ 30	$ 128

Differences between the provision for income taxes and income taxes computed using the U.S. Federal statutory income tax rate follow:

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Amount computed using the statutory rate	$ 225	$ 109	$ 189
State income taxes, net	(4)	2	36
Foreign rate variance	(28)	(49)	(68)
Change in reserves for tax contingencies	(39)	4	36
General business credits	(21)	(39)	(52)
U.S. tax on foreign earnings, net of credits	2	13	(17)
Divestiture	89	—	—
Tax law changes and tax loss from outside-U.S. entity reorganizations	(15)	—	7
Other	6	1	9
Provision for income taxes	$ 215	$ 41	$ 140
Effective income tax rate	20 %	8 %	16 %

The 2021 effective tax rate includes a $78 million decrease to the provision for income taxes primarily related to previously unrecognized tax positions resulting from finalization of prior years' income tax audits, partially offset by current year increases. Additionally, the 2021 effective tax rate includes impacts of the divestiture of rubber additives, including an increase to the provision for income taxes related to non-deductible losses partially offset by a decrease to the provision for income taxes from the revaluation of deferred tax liabilities.

The 2020 effective tax rate includes a $27 million decrease to the provision for income taxes as a result of a decrease in previously unrecognized tax positions and a $7 million decrease to the provision for income taxes related to adjustments to certain prior year tax returns.

The 2019 effective tax rate includes a $7 million increase to the provision for income taxes resulting from adjustments to the net tax benefit recognized in fourth quarter 2017 resulting from tax law changes, primarily the 2017 Tax Cuts and Jobs Act (the "Tax Reform Act"). The 2019 effective tax rate also includes adjustments to the tax provision to reflect finalization of prior year's income tax returns and an increase to state income taxes related to additional valuation allowance provided against state income tax credits.

Income tax incentives, in the form of tax holidays, have been granted to the Company in certain jurisdictions to attract investment and encourage industrial development. The expiration of these tax holidays varies by country. The tax holidays are conditional on the Company meeting certain requirements, including employment and investment thresholds; determination of compliance with these conditions may be subject to challenge by tax authorities in those jurisdictions. No individual tax holiday had a material impact to the Company's earnings in 2021, 2020, or 2019.

The significant components of deferred tax assets and liabilities follow:

(Dollars in millions)	December 31, 2021	December 31, 2020
Deferred tax assets		
Post-employment obligations	$ 176	$ 280
Net operating loss carryforwards	637	619
Tax credit carryforwards	212	216
Environmental contingencies	67	68
Unrealized derivative loss	1	22
Other	223	213
Total deferred tax assets	1,316	1,418
Less: Valuation allowance	339	393
Deferred tax assets less valuation allowance	$ 977	$ 1,025
Deferred tax liabilities		
Property, plant, and equipment	$ (843)	$ (893)
Intangible assets	(288)	(388)
Investments	(369)	(305)
Other	(171)	(175)
Total deferred tax liabilities	$ (1,671)	$ (1,761)
Net deferred tax liabilities	$ (694)	$ (736)
As recorded in the Consolidated Statements of Financial Position:		
Other noncurrent assets	$ 116	$ 112
Deferred income tax liabilities	(810)	(848)
Net deferred tax liabilities	$ (694)	$ (736)

All foreign earnings, with the exception of short-term liquid assets on certain foreign subsidiaries, including basis differences, continue to be considered indefinitely reinvested. As of December 31, 2021, unremitted earnings of subsidiaries outside the U.S. totaled approximately $2.2 billion of which a substantial portion has already been subject to U.S. tax. The Company has not determined the deferred tax liability associated with these unremitted earnings and basis differences, as such determination is not practicable.

For certain consolidated foreign subsidiaries, income and losses directly flow through to taxable income in the U.S. These entities are also subject to taxation in the foreign tax jurisdictions. Net operating loss carryforwards exist to offset future taxable income in foreign tax jurisdictions and valuation allowances are provided to reduce related deferred tax assets if it is more likely than not that this benefit will not be realized. Changes in the estimated realizable amount of deferred tax assets associated with net operating losses for these entities could result in changes in the deferred tax asset valuation allowance in the foreign tax jurisdiction. At the same time, because these entities are also subject to tax in the U.S., a deferred tax liability for the expected future taxable income will be established concurrently. Therefore, the impact of any reversal of valuation allowances on consolidated income tax expense will be only to the extent that there are differences between the U.S. statutory tax rate and the tax rate in the foreign jurisdiction. A valuation allowance of $25 million at December 31, 2021 has been provided against the deferred tax asset resulting from these operating loss carryforwards.

At December 31, 2021, foreign net operating loss carryforwards totaled $2.3 billion. Of this total, $800 million will expire in 1 to 20 years and $1.5 billion have no expiration date. A valuation allowance of approximately $175 million has been provided against such net operating loss carryforwards.

At December 31, 2021, there were no federal net operating loss carryforwards available to offset future taxable income. At December 31, 2021, foreign tax credit carryforwards of approximately $54 million were available to reduce possible future U.S. income taxes and which expire from 2022 to 2031. As a result of the Tax Reform Act, the Company may no longer be able to utilize certain U.S. foreign tax credit carryforwards. A valuation allowance of $36 million has been established on a portion of deferred tax assets as of December 31, 2021.

At December 31, 2021, a partial valuation allowance of $55 million has been provided against state tax credits that the Company may not be able to utilize.

A partial valuation allowance of $46 million has been established for the Solutia, Inc. ("Solutia") state net operating loss carryforwards. The valuation allowance will be retained until there is sufficient positive evidence to conclude that it is more likely than not that the deferred tax assets will be realized, or the related statute expires.

Amounts due to and from tax authorities as recorded in the Consolidated Statements of Financial Position:

(Dollars in millions)	December 31, 2021	December 31, 2020
Miscellaneous receivables	$ 173	$ 311
Payables and other current liabilities	$ 68	$ 147
Other long-term liabilities	130	83
Total income taxes payable	$ 198	$ 230

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

(Dollars in millions)	2021	2020	2019
Balance at January 1	$ 257	$ 202	$ 182
Adjustments based on tax positions related to current year	6	14	25
Adjustments based on tax positions related to prior years	2	63	(3)
Lapse of statute of limitations	(45)	(22)	(2)
Settlements	(20)	—	—
Balance at December 31 [1]	$ 200	$ 257	$ 202

[1] Approximately $195 million of the unrecognized tax benefits as of December 31, 2021, would, if recognized, impact the Company's effective tax rate.

A reconciliation of the beginning and ending amounts of accrued interest related to unrecognized tax positions is as follows:

(Dollars in millions)	2021	2020	2019
Balance at January 1	$ 13	$ 13	$ 10
Expense for interest, net of tax	9	5	5
Income for interest, net of tax	(9)	(5)	(2)
Balance at December 31	$ 13	$ 13	$ 13

Accrued penalties related to unrecognized tax positions were immaterial as of December 31, 2021, 2020, and 2019.

Eastman files federal income tax returns in the U.S. and income tax returns in various state and foreign jurisdictions. The Company is no longer subject to U.S. federal income tax examinations by tax authorities for years before 2017. With few exceptions, Eastman is no longer subject to state and local income tax examinations by tax authorities for years before 2015. Solutia and related subsidiaries are no longer subject to state and local income tax examinations for years before 2002. With few exceptions, the Company is no longer subject to foreign income tax examinations by tax authorities for tax years before 2015.

It is reasonably possible that, as a result of the resolution of federal, state, and foreign examinations and appeals, and the expiration of various statutes of limitation, unrecognized tax benefits could decrease within the next twelve months by up to $20 million.

9. BORROWINGS

(Dollars in millions)	December 31, 2021	December 31, 2020
Borrowings consisted of:		
3.5% notes due December 2021	$ —	$ 299
3.6% notes due August 2022	747	744
1.50% notes due May 2023 [(1)]	850	919
7 1/4% debentures due January 2024	198	198
7 5/8% debentures due June 2024	43	43
3.8% notes due March 2025	698	701
1.875% notes due November 2026 [(1)]	565	609
7.60% debentures due February 2027	195	195
4.5% notes due December 2028	494	493
4.8% notes due September 2042	494	493
4.65% notes due October 2044	875	874
Commercial paper and short-term borrowings	—	50
Total borrowings	5,159	5,618
Borrowings due within one year	747	349
Long-term borrowings	$ 4,412	$ 5,269

(1) The carrying value of the euro-denominated 1.50% notes due May 2023 and 1.875% notes due November 2026 will fluctuate with changes in the euro exchange rate. The carrying value of these euro-denominated borrowings have been designated as non-derivative net investment hedges of a portion of the Company's net investments in euro functional-currency denominated subsidiaries to offset foreign currency fluctuations.

In fourth quarter 2021, the Company repaid the 3.5% notes due December 2021 ($300 million principal) using available cash. There were no debt extinguishment costs associated with the repayment of this debt. The total consideration for this redemption is reported under financing activities on the Consolidated Statement of Cash Flows.

In fourth quarter 2020, the Company repaid the 4.5% notes due January 2021 ($185 million principal) using available cash. There were no material debt extinguishment costs associated with the early repayment of this debt. The total consideration for this redemption is reported under financing activities on the Consolidated Statement of Cash Flows.

Loan Agreement, Credit Facility, and Commercial Paper Borrowings

In second quarter 2020, the Company borrowed $250 million under a new 364-Day Term Loan Credit Agreement (the "Term Loan") as a precautionary measure due to increased financial market volatility, particularly in the availability and terms of commercial paper, resulting from COVID-19. In third quarter 2020, the Term Loan was repaid using available cash. The early repayment resulted in a charge of $1 million for early debt extinguishment costs which was primarily attributable to related unamortized issuance costs.

The Company has access to a $1.50 billion revolving credit agreement (the "Credit Facility") that was amended and restated in December 2021. The amendments include the addition of sustainability-linked pricing terms and extending the maturity to December 2026. This resulted in a charge of $1 million for early debt extinguishment costs which was attributable to unamortized fees. Borrowings under the Credit Facility are subject to interest at varying spreads above quoted market rates and a commitment fee is paid on the total unused commitment. The Credit Facility provides available liquidity for general corporate purposes and supports commercial paper borrowings. Commercial paper borrowings are classified as short-term. At December 31, 2021 and 2020, the Company had no outstanding borrowings under the Credit Facility. At December 31, 2021, the Company had no outstanding commercial paper borrowings. At December 31, 2020, the Company's commercial paper borrowings were $50 million with a weighted average interest rate of 0.25 percent.

The Credit Facility contains customary covenants, including requirements to maintain certain financial ratios, that determine the events of default, amounts available, and terms of borrowings. The Company was in compliance with all applicable covenants at both December 31, 2021 and 2020.

Fair Value of Borrowings

Eastman has classified its total borrowings at December 31, 2021 and 2020 under the fair value hierarchy as defined in the accounting policies in Note 1, "Significant Accounting Policies". The fair value for fixed-rate debt securities is based on quoted market prices for the same or similar debt instruments and is classified as Level 2. The fair value for the Company's other borrowings primarily under the commercial paper and receivables facility equals the carrying value and is classified as Level 2. At December 31, 2021 and 2020, the fair value of total borrowings was $5,737 million and $6,449 million, respectively. The Company had no borrowings classified as Level 1 or Level 3 as of December 31, 2021 and 2020.

10. DERIVATIVE AND NON-DERIVATIVE FINANCIAL INSTRUMENTS

Overview of Hedging Programs

Eastman is exposed to market risks, such as changes in foreign currency exchange rates, commodity prices, and interest rates. To mitigate these market risks and their effects on the cash flows of the underlying transactions and investments in foreign subsidiaries, the Company uses various derivative and non-derivative financial instruments, when appropriate, in accordance with the Company's hedging strategy and policies. Designation is performed on a specific exposure basis to support hedge accounting. The Company does not enter into derivative transactions for speculative purposes.

Cash Flow Hedges

Cash flow hedges are derivative instruments designated as and used to hedge the exposure to variability in expected future cash flows that are attributable to a particular risk. The derivative instruments that are designated and qualify as a cash flow hedge are reported on the balance sheet at fair value and the changes in fair value of these hedging instruments are offset in part or in whole by corresponding changes in the anticipated cash flows of the underlying exposures being hedged. The change in the hedge instrument is reported as a component of AOCI located in the Consolidated Statements of Financial Position and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Cash flows from cash flow hedges are classified as operating activities in the Consolidated Statements of Cash Flows.

Foreign Currency Exchange Rate Hedging

Eastman manufactures and sells its products in a number of countries throughout the world and, as a result, is exposed to changes in foreign currency exchange rates. To manage the volatility relating to these exposures, the Company nets the exposures on a consolidated basis to take advantage of natural offsets. To manage the remaining exposure, the Company enters into currency option and forward cash flow hedges to hedge probable anticipated, but not yet committed, export sales and purchase transactions expected within a rolling three year period and denominated in foreign currencies (principally the euro). Additionally, the Company, from time to time, enters into forward exchange contract cash flow hedges to hedge certain firm commitments denominated in foreign currencies.

Commodity Hedging

Certain raw material and energy sources used by Eastman, as well as sales of certain commodity products by the Company, are subject to price volatility caused by weather, supply and demand conditions, economic variables and other unpredictable factors. This volatility is primarily related to the market pricing of benzene, ethane, ethylene, natural gas, paraxylene, and propane. In order to mitigate expected fluctuations in market prices, from time to time, the Company enters into option and forward contracts and designates these contracts as cash flow hedges. The Company currently hedges commodity price risks using derivative financial instrument transactions within a rolling three year period. The Company weights its hedge portfolio more heavily in the first year with declining coverage over the remaining periods.

Interest Rate Hedging

Eastman's policy is to manage interest expense using a mix of fixed and variable rate debt. To manage interest rate risk effectively, the Company, from time to time, enters into cash flow interest rate derivative instruments, primarily forward starting swaps and treasury locks, to hedge the Company's exposure to movements in interest rates prior to anticipated debt offerings. These instruments are designated as cash flow hedges.

In first, second, and third quarters 2020, Eastman entered into forward-starting interest rate swaps with a notional amount of $25 million in each period to mitigate the risk of variability in interest rates for an expected long-term debt issuance by August 2022. These swaps were designated as cash flow hedges and will be settled upon debt issuance. The total notional for outstanding forward starting swaps as of December 31, 2021 was $75 million.

Fair Value Hedges

Fair value hedges are defined as derivative or non-derivative instruments designated as and used to hedge the exposure to changes in the fair value of an asset or a liability or an identified portion thereof that is attributable to a particular risk. The derivative instruments that are designated and qualify as fair value hedges are reported as "Long-term borrowings" on the Consolidated Statements of Financial Position at fair value and the changes in fair value of these hedging instruments are offset in part or in whole by corresponding changes in the anticipated fair value of the underlying exposures being hedged. The net of the change in the hedge instrument and item being hedged for qualifying fair value hedges is recognized in earnings in the same period or periods during which the hedged transaction affects earnings. Cash flows from fair value hedges are classified as operating activities in the Consolidated Statements of Cash Flows.

Interest Rate Hedging

Eastman's policy is to manage interest expense using a mix of fixed and variable rate debt. To manage the Company's mix of fixed and variable rate debt effectively, from time to time, the Company enters into interest rate swaps in which the Company agrees to exchange the difference between fixed and variable interest amounts calculated by reference to an agreed upon notional principal amount. These swaps are designated as hedges of the fair value of the underlying debt obligations and the interest rate differential is reflected as an adjustment to interest expense over the life of the swaps.

Net Investment Hedges

Net investment hedges are defined as derivative or non-derivative instruments designated as and used to hedge the foreign currency exposure of the net investment in certain foreign operations. The net of the change in the hedge instrument and item being hedged for qualifying net investment hedges is reported as a component of the "Cumulative Translation Adjustment" ("CTA") within AOCI located in the Consolidated Statements of Financial Position. Cash flows from the CTA component are classified as operating activities in the Consolidated Statements of Cash Flows. Recognition in earnings of amounts previously recognized in CTA is limited to circumstances such as complete or substantially complete liquidation of the net investment in the hedged foreign operation. In the event of a complete or substantially complete liquidation of the net investment, cash flows from net investment hedges are classified as investing activities in the Consolidated Statements of Cash Flows.

For derivative cross-currency interest rate swap net investment hedges, gains and losses representing hedge components excluded from the assessment of effectiveness are recognized in CTA within AOCI and recognized in earnings through the periodic swap interest accruals. The cross-currency interest rate swaps designated as net investment hedges are included as part of "Other long-term liabilities" or "Other noncurrent assets" within the Consolidated Statements of Financial Position. Cash flows from excluded components are classified as operating activities in the Consolidated Statements of Cash Flows.

In September 2020, the Company entered into fixed-to-fixed cross-currency swaps and designated these swaps to hedge a portion of its net investment in a euro functional currency denominated subsidiary against foreign currency fluctuations. These contracts involve the exchange of fixed U.S. dollars with fixed euro interest payments periodically over the life of the contracts and an exchange of the notional amounts at maturity. The fixed-to-fixed cross-currency swaps include €152 million ($180 million) maturing December 2028.

Summary of Financial Position and Financial Performance of Hedging Instruments

The following table presents the notional amounts outstanding at December 31, 2021 and 2020 associated with Eastman's hedging programs.

Notional Outstanding	December 31, 2021	December 31, 2020
Derivatives designated as cash flow hedges:		
Foreign Exchange Forward and Option Contracts (in millions)		
EUR/USD (in EUR)	€429	€521
Commodity Forward and Collar Contracts		
Feedstock (in million barrels)	1	—
Energy (in million british thermal units)	13	17
Interest rate swaps for the future issuance of debt (in millions)	$75	$75
Derivatives designated as fair value hedges:		
Fixed-for-floating interest rate swaps (in millions)	$75	$75
Derivatives designated as net investment hedges:		
Cross-currency interest rate swaps (in millions)		
EUR/USD (in EUR)	€853	€853
Non-derivatives designated as net investment hedges:		
Foreign Currency Net Investment Hedges (in millions)		
EUR/USD (in EUR)	€1,246	€1,245

Fair Value Measurements

For additional information on fair value measurement, see Note 1, "Significant Accounting Policies".

All the Company's derivative assets and liabilities are currently classified as Level 2. Level 2 fair value is based on estimates using standard pricing models. These standard pricing models use inputs that are derived from or corroborated by observable market data such as interest rate yield curves and currency spot and forward rates. The fair value of commodity contracts is derived using forward curves supplied by an industry recognized and unrelated third party. In addition, on an ongoing basis, the Company tests a subset of its valuations against valuations received from the transaction's counterparty to validate the accuracy of its standard pricing models. The Company had no derivatives classified as Level 1 or Level 3 as of December 31, 2021 or December 31, 2020. Counterparties to these derivative contracts are highly rated financial institutions which the Company believes carry minimal risk of nonperformance and the Company diversifies its positions among such counterparties to reduce its exposure to counterparty risk and credit losses. The Company monitors the creditworthiness of its counterparties on an ongoing basis. The Company did not realize a credit loss during the years ended December 31, 2021 or 2020.

All the Company's derivative contracts are subject to master netting arrangements, or similar agreements, which provide for the option to settle contracts on a net basis when they settle on the same day and in the same currency. In addition, these arrangements provide for a net settlement of all contracts with a given counterparty in the event that the arrangement is terminated due to the occurrence of default or a termination event. The Company does not have any cash collateral due under such agreements.

The Company presents derivative contracts on a gross basis within the Consolidated Statements of Financial Position. The following table presents the financial assets and liabilities valued on a recurring and gross basis and includes where the financial assets and liabilities are located within the Consolidated Statements of Financial Position as of December 31, 2021 and 2020.

The Financial Position and Fair Value Measurements of Hedging Instruments on a Gross Basis

(Dollars in millions)

Derivative Type	Statements of Financial Position Location	December 31, 2021 Level 2	December 31, 2020 Level 2
Derivatives designated as cash flow hedges:			
Commodity contracts	Other current assets	$ 16	$ 1
Commodity contracts	Other noncurrent assets	2	—
Foreign exchange contracts	Other current assets	12	—
Foreign exchange contracts	Other noncurrent assets	6	—
Forward starting interest rate swap contracts	Other noncurrent assets	5	1
Derivatives designated as fair value hedges:			
Fixed-for-floating interest rate swap	Other current assets	1	1
Fixed-for-floating interest rate swap	Other noncurrent assets	1	4
Derivatives designated as net investment hedges:			
Cross-currency interest rate swaps	Other current assets	20	—
Cross-currency interest rate swaps	Other noncurrent assets	35	40
Total Derivative Assets		$ 98	$ 47
Derivatives designated as cash flow hedges:			
Commodity contracts	Payables and other current liabilities	$ 1	$ 6
Commodity contracts	Other long-term liabilities	1	—
Foreign exchange contracts	Payables and other current liabilities	1	21
Foreign exchange contracts	Other long-term liabilities	—	14
Derivatives designated as net investment hedges:			
Cross-currency interest rate swaps	Other long-term liabilities	5	51
Total Derivative Liabilities		$ 8	$ 92
Total Net Derivative Assets (Liabilities)		$ 90	$ (45)

In addition to the fair value associated with derivative instruments designated as cash flow hedges, fair value hedges, and net investment hedges noted in the table above, the Company had a carrying value of $1.4 billion and $1.5 billion associated with non-derivative instruments designated as foreign currency net investment hedges as of December 31, 2021 and 2020, respectively. The designated foreign currency-denominated borrowings are included as part of "Long-term borrowings" within the Consolidated Statements of Financial Position.

As of December 31, 2021 and 2020, the following amounts were included within the Consolidated Statements of Financial Position related to cumulative basis adjustments for fair value hedges.

(Dollars in millions)	Carrying amount of the hedged liabilities		Cumulative amount of fair value hedging loss adjustment included in the carrying amount of the hedged liability[(1)]	
Line item in the Consolidated Statements of Financial Position in which the hedged item is included	December 31, 2021	December 31, 2020	December 31, 2021	December 31, 2020
Borrowings due within one year	$ 697	$ —	$ (2)	$ —
Long-term borrowings	76	772	1	(1)

(1) As December 31, 2021 and 2020, losses of $2 million and $5 million, respectively, relate to hedged liabilities for which hedge accounting has been discontinued.

The following table presents the effect of the Company's hedging instruments on Other comprehensive income (loss), net of tax ("OCI") and financial performance for the twelve months ended December 31, 2021 and 2020:

(Dollars in millions)	Change in amount of after tax gain/(loss) recognized in OCI on Derivatives		Pre-tax amount of gain/(loss) reclassified from AOCI into income	
	December 31,		December 31,	
Hedging Relationships	2021	2020	2021	2020
Derivatives in cash flow hedging relationships:				
Commodity contracts	$ 15	$ 17	$ 20	$ (31)
Foreign exchange contracts	39	(36)	(7)	9
Forward starting interest rate and treasury lock swap contracts	9	8	(9)	(9)
Non-derivatives in net investment hedging relationships (pre-tax):				
Net investment hedges	116	(130)	—	—
Derivatives in net investment hedging relationships (pre-tax):				
Cross-currency interest rate swaps	74	(88)	—	—
Cross-currency interest rate swaps excluded component	(12)	10	—	—

The following table presents the effect of fair value and cash flow hedge accounting on the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings for 2021 and 2020.

Location and Amount of Gain or (Loss) Recognized in Earnings on Fair Value and Cash Flow Hedging Relationships

	Twelve Months					
	2021			2020		
(Dollars in millions)	Sales	Cost of Sales	Net interest expense	Sales	Cost of Sales	Net interest expense
Total amounts of income and expense line items presented in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings in which the effects of fair value or cash flow hedges are recognized	$ 10,476	$ 7,976	$ 198	$ 8,473	$ 6,498	$ 210
The effects of fair value and cash flow hedging:						
Gain or (loss) on fair value hedging relationships:						
Interest contracts (fixed-for-floating interest rate swaps):						
Hedged items			2			1
Derivatives designated as hedging instruments			(2)			(1)
Gain or (loss) on cash flow hedging relationships:						
Interest contracts (forward starting interest rate and treasury lock swap contracts):						
Amount reclassified from AOCI into earnings			(9)			(9)
Commodity Contracts:						
Amount reclassified from AOCI into earnings		20			(31)	
Foreign Exchange Contracts:						
Amount reclassified from AOCI into earnings	(7)			9		

The Company enters into foreign exchange derivatives denominated in multiple currencies which are transacted and settled in the same quarter. These derivatives are not designated as hedges due to the short-term nature and the gains or losses on these derivatives are marked-to-market in the line item "Other (income) charges, net" of the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings. The Company recognized no gain or loss in 2021 and a net loss of $1 million in 2020 on these derivatives.

Pre-tax monetized positions and MTM gains and losses from raw materials and energy, currency, and certain interest rate hedges that were included in AOCI included losses of $7 million at December 31, 2021 and losses of $270 million at December 31, 2020. Losses in AOCI decreased in 2021 compared to 2020 primarily as a result of an decrease in foreign currency exchange rates, particularly the euro. If realized, approximately $20 million in pre-tax gains will be reclassified into earnings during the next 12 months.

11. RETIREMENT PLANS

As described below, Eastman offers various postretirement benefits to its employees.

Defined Contribution Plans

Eastman sponsors a defined contribution employee stock ownership plan (the "ESOP"), which is a component of the Eastman Investment Plan and Employee Stock Ownership Plan ("EIP/ESOP"), under Section 401(a) of the Internal Revenue Code. Eastman made a contribution in February 2022 to the EIP/ESOP for substantially all U.S. employees equal to 5 percent of their eligible compensation for the 2021 plan year. Employees may allocate contributions to other investment funds within the EIP from the ESOP at any time without restrictions. Allocated shares in the ESOP totaled 1,909,362; 1,997,587; and 2,076,203 shares as of December 31, 2021, 2020, and 2019, respectively. Dividends on shares held by the EIP/ESOP are charged to retained earnings. All shares held by the EIP/ESOP are treated as outstanding in computing earnings per share ("EPS").

In 2006, the Company amended its EIP/ESOP to provide a Company match of 50 percent of the first 7 percent of an employee's compensation contributed to the plan for employees who are hired on or after January 1, 2007. Employees who are hired on or after January 1, 2007, are also eligible for the contribution to the ESOP as described above.

Charges for domestic contributions to the EIP/ESOP were $73 million, $67 million, and $68 million for 2021, 2020, and 2019, respectively.

Defined Benefit Pension Plans and Other Postretirement Benefit Plans

Pension Plans

Eastman maintains defined benefit pension plans that provide eligible employees with retirement benefits.

Effective January 1, 2000, the Company's Eastman Retirement Assistance Plan, a U.S. defined benefit pension plan, was amended. Employees' accrued pension benefits earned prior to January 1, 2000 are calculated based on previous plan provisions using the employee's age, years of service, and final average compensation as defined in the plans. The amended plan uses a pension equity formula to calculate an employee's retirement benefits from January 1, 2000 forward. Benefits payable will be the combined pre-2000 and post-1999 benefits. Employees hired on or after January 1, 2007 are not eligible to participate in Eastman's U.S. defined benefit pension plans.

Benefits are paid to employees from trust funds. Contributions to the trust funds are made as permitted by laws and regulations. The pension trust funds do not directly own any of the Company's common stock.

Pension coverage for employees of Eastman's non-U.S. operations is provided, to the extent deemed appropriate, through separate plans. The Company systematically provides for obligations under such plans by depositing funds with trustees, under insurance policies, or by book reserves.

Other Postretirement Benefit Plans

Under its other postretirement benefit plans in the U.S., Eastman provides life insurance for eligible retirees hired prior to January 1, 2007. Eastman provided a subsidy for pre-Medicare health care and dental benefits to eligible retirees hired prior to January 1, 2007 that ended on December 31, 2021. Company funding is also provided for eligible Medicare retirees hired prior to January 1, 2007 with a health reimbursement arrangement. A few of the Company's non-U.S. operations have supplemental health benefit plans for certain retirees, the cost of which is not significant to the Company.

Below is a summary balance sheet of the change in plan assets during 2021 and 2020, the funded status of the plans and amounts recognized in the Consolidated Statements of Financial Position.

Summary of Changes

(Dollars in millions)	Pension Plans 2021 U.S.	Pension Plans 2021 Non-U.S.	Pension Plans 2020 U.S.	Pension Plans 2020 Non-U.S.	Postretirement Benefit Plans 2021	Postretirement Benefit Plans 2020
Change in projected benefit obligation:						
Benefit obligation, beginning of year	$ 2,050	$ 1,089	$ 2,067	$ 972	$ 745	$ 716
Service cost	26	19	25	17	—	—
Interest cost	37	12	57	15	12	19
Actuarial (gain) loss	(49)	(68)	203	66	(40)	57
Settlement	(6)	—	(122)	(6)	—	—
Divestitures	—	(32)	—	—	(2)	—
Plan amendments and other	—	—	—	(12)	—	—
Plan participants' contributions	—	1	—	1	9	10
Effect of currency exchange	—	(43)	—	61	—	—
Federal subsidy on benefits paid	—	—	—	—	1	1
Benefits paid	(166)	(30)	(180)	(25)	(60)	(58)
Benefit obligation, end of year	$ 1,892	$ 948	$ 2,050	$ 1,089	$ 665	$ 745
Change in plan assets:						
Fair value of plan assets, beginning of year	$ 1,798	$ 938	$ 1,919	$ 820	$ 144	$ 139
Actual return on plan assets	247	31	175	72	7	18
Effect of currency exchange	—	(39)	—	54	—	—
Company contributions	4	23	6	22	40	39
Reserve for third party contributions	—	—	—	—	(7)	(5)
Plan participants' contributions	—	1	—	1	9	10
Benefits paid	(166)	(30)	(180)	(25)	(60)	(58)
Federal subsidy on benefits paid	—	—	—	—	1	1
Settlements	(6)	—	(122)	(6)	—	—
Fair value of plan assets, end of year	$ 1,877	$ 924	$ 1,798	$ 938	$ 134	$ 144
Funded status at end of year	$ (15)	$ (24)	$ (252)	$ (151)	$ (531)	$ (601)
Amounts recognized in the Consolidated Statements of Financial Position consist of:						
Other noncurrent assets	$ 41	$ 42	$ —	$ 1	$ 62	$ 57
Current liabilities	(3)	—	(3)	(1)	(38)	(46)
Post-employment obligations	(53)	(66)	(249)	(151)	(555)	(612)
Net amount recognized, end of year	$ (15)	$ (24)	$ (252)	$ (151)	$ (531)	$ (601)
Accumulated benefit obligation	$ 1,803	$ 910	$ 1,979	$ 1,036		
Amounts recognized in accumulated other comprehensive income consist of:						
Prior service (credit) cost	$ 1	$ (10)	$ 1	$ (11)	$ (68)	$ (105)

Actuarial gains in the projected benefit obligations for 2021 were primarily due to higher discount rates and higher return on plan assets. Actuarial losses in the projected benefit obligations for 2020 were primarily due to lower discount rates.

In fourth quarter 2020, the Company settled approximately $110 million of one of the U.S. defined benefit pension plans' obligation to an insurer through the purchase of a nonparticipating group annuity contract. In addition, there were settlements for several pension plans where lump sum payments exceeded the sum of the service and interest cost components of net periodic benefit cost of the respective plan for the year.

In 2020, the Company had a plan amendment that changed benefits provided by a Netherlands defined benefit pension plan which resulted in a remeasurement of the plan's obligation. The remeasurement resulted in a pre-tax reduction in the projected benefit obligation of $12 million which is being amortized as a prior service from accumulated other comprehensive income over approximately 13 years.

Information for pension plans with projected benefit obligations in excess of plan assets:

(Dollars in millions)	2021		2020	
	U.S.	Non-U.S.	U.S.	Non-U.S.
Projected benefit obligation	$ 175	$ 288	$ 2,050	$ 769
Fair value of plan assets	119	222	1,798	617

Information for pension plans with accumulated benefit obligations in excess of plan assets:

(Dollars in millions)	2021		2020	
	U.S.	Non-U.S.	U.S.	Non-U.S.
Accumulated benefit obligation	$ 161	$ 272	$ 1,979	$ 693
Fair value of plan assets	119	222	1,798	574

Postretirement benefit plans with accumulated benefit obligations in excess of plan assets are $592 million and $658 million at December 31, 2021 and 2020, respectively. The plans have no assets.

Summary of Benefit Costs and Other Amounts Recognized in Other Comprehensive Income

	Pension Plans						Postretirement Benefit Plans		
	2021		2020		2019		2021	2020	2019
(Dollars in millions)	U.S.	Non-U.S.	U.S.	Non-U.S.	U.S.	Non-U.S.			
Components of net periodic benefit (credit) cost:									
Service cost	$ 26	$ 19	$ 25	$ 17	$ 27	$ 14	$ —	$ —	$ —
Interest cost	37	12	57	15	76	20	12	19	25
Expected return on plan assets	(126)	(37)	(135)	(34)	(128)	(32)	(5)	(5)	(5)
Amortization of:									
Prior service (credit) cost	—	(1)	1	(1)	—	—	(37)	(38)	(39)
Mark-to-market pension and other postretirement benefits loss (gain), net	(170)	(62)	163	28	39	43	(35)	49	61
Net periodic benefit (credit) cost	$ (233)	$ (69)	$ 111	$ 25	$ 14	$ 45	$ (65)	$ 25	$ 42
Other changes in plan assets and benefit obligations recognized in other comprehensive income:									
Current year prior service credit (cost)	$ —	$ —	$ —	$ 12	$ —	$ —	$ —	$ —	$ —
Amortization of:									
Prior service (credit) cost	—	(1)	1	(1)	—	—	(37)	(38)	(39)
Total	$ —	$ (1)	$ 1	$ 11	$ —	$ —	$ (37)	$ (38)	$ (39)

Plan Assumptions

The assumptions used to develop the projected benefit obligation for Eastman's significant U.S. and non-U.S. defined benefit pension plans and U.S. postretirement benefit plans are provided in the following tables.

	Pension Plans						Postretirement Benefit Plans		
	2021		2020		2019		2021	2020	2019
Weighted-average assumptions used to determine benefit obligations for years ended December 31:	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**			
Discount rate	2.88 %	1.57 %	2.48 %	1.08 %	3.25 %	1.56 %	2.83 %	2.38 %	3.21 %
Interest crediting rate	5.50 %	N/A	5.50 %	N/A	5.52 %	N/A	N/A	N/A	N/A
Rate of compensation increase	3.00 %	3.00 %	2.75 %	2.94 %	3.25 %	2.94 %	N/A	N/A	3.25 %
Health care cost trend									
Initial							6.00 %	6.25 %	6.50 %
Decreasing to ultimate trend of							5.00 %	5.00 %	5.00 %
in year							2026	2026	2026
Weighted-average assumptions used to determine net periodic cost for years ended December 31:	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**			
Discount rate	2.48 %	1.08 %	3.25 %	1.56 %	4.29 %	2.35 %	2.39 %	3.21 %	4.26 %
Discount rate for service cost	2.57 %	1.08 %	3.31 %	1.56 %	4.32 %	2.35 %	1.90 %	2.92 %	4.05 %
Discount rate for interest cost	1.79 %	1.08 %	2.83 %	1.56 %	3.96 %	2.35 %	1.74 %	2.80 %	3.93 %
Expected return on assets	7.29 %	4.04 %	7.37 %	4.26 %	7.43 %	4.49 %	3.75 %	3.75 %	3.75 %
Rate of compensation increase	2.75 %	2.94 %	3.25 %	2.94 %	3.25 %	2.94 %	N/A	3.25 %	3.25 %
Interest crediting rate	5.50 %	N/A	5.52 %	N/A	5.54 %	N/A	N/A	N/A	N/A
Health care cost trend									
Initial							6.25 %	6.50 %	6.50 %
Decreasing to ultimate trend of							5.00 %	5.00 %	5.00 %
in year							2026	2026	2025

The Company calculates service and interest cost components of net periodic benefit costs for its significant defined benefit pension and other postretirement benefit plans by applying the specific spot rates along the yield curve to the plans' projected cash flows.

The fair value of plan assets for the U.S. pension plans at December 31, 2021 and 2020 was $1.9 billion and $1.8 billion, respectively, while the fair value of plan assets at December 31, 2021 and 2020 for non-U.S. pension plans was $924 million and $938 million, respectively. At December 31, 2021 and 2020, the expected weighted-average long-term rate of return on U.S. pension plan assets was 7.07 percent and 7.29 percent, respectively. The expected weighted-average long-term rate of return on non-U.S. pension plans assets was 3.81 percent and 4.04 percent at December 31, 2021 and 2020, respectively.

Plan Assets

The following tables reflect the fair value of the defined benefit pension plans assets.

(Dollars in millions)

			Fair Value Measurements at December 31, 2021					
Description	**Total Fair Value**		**Quoted Prices in Active Markets for Identical Assets (Level 1)**		**Significant Other Observable Inputs (Level 2)**		**Significant Unobservable Inputs (Level 3)**	
Pension Assets:	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**
Cash and Cash Equivalents [1]	$ 45	$ 37	$ 45	$ 37	$ —	$ —	$ —	$ —
Public Equity - United States [2]	3	—	3	—	—	—	—	—
Other Investments [3]	—	59	—	—	—	—	—	59
Total Assets at Fair Value	$ 48	$ 96	$ 48	$ 37	$ —	$ —	$ —	$ 59
Investments Measured at Net Asset Value [4]	1,829	828						
Total Assets	$ 1,877	$ 924						

(Dollars in millions)

			Fair Value Measurements at December 31, 2020					
Description	**Total Fair Value**		**Quoted Prices in Active Markets for Identical Assets (Level 1)**		**Significant Other Observable Inputs (Level 2)**		**Significant Unobservable Inputs (Level 3)**	
Pension Assets:	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**
Cash and Cash Equivalents [1]	$ 47	$ 103	$ 47	$ 103	$ —	$ —	$ —	$ —
Public Equity - United States [2]	1	—	1	—	—	—	—	—
Other Investments [3]	—	68	—	—	—	—	—	68
Total Assets at Fair Value	$ 48	$ 171	$ 48	$ 103	$ —	$ —	$ —	$ 68
Investments Measured at Net Asset Value [4]	1,750	767						
Total Assets	$ 1,798	$ 938						

(1) Cash and Cash Equivalents: Funds generally invested in actively managed collective trust funds or interest bearing accounts.

(2) Public Equity - United States: Common stock equity securities which are primarily valued using a market approach based on the quoted market prices.

(3) Other Investments: Primarily consist of insurance contracts which are generally valued using a crediting rate that approximates market returns and investments in underlying securities whose market values are unobservable and determined using pricing models, discounted cash flow methodologies, or similar techniques.

(4) Investments Measured at Net Asset Value: The underlying debt, public equity, and public real asset investments in this category are generally held in common trust funds, which are either actively or passively managed investment vehicles, that are valued at the net asset value per unit/share multiplied by the number of units/shares held as of the measurement date. The other alternative investments in this category are valued under the practical expedient method which is based on the most recently reported net asset value provided by the management of each private investment fund, adjusted as appropriate, for any lag between the date of the financial reports and the measurement date.

The following tables reflect the fair value of the postretirement benefit plan assets. The postretirement benefit plan is for the voluntary employees' beneficiary association ("VEBA") trust the Company assumed as part of the Solutia acquisition.

(Dollars in millions)		Fair Value Measurements at December 31, 2021		
Description	**Total Fair Value**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Postretirement Benefit Plan Assets:				
Cash and Cash Equivalents [1]	$ —	$ —	$ —	$ —
Debt [2]:				
Fixed Income (U.S.)	79	—	79	—
Fixed Income (Non-U.S.)	29	—	29	—
Total	$ 108	$ —	$ 108	$ —

(Dollars in millions)		Fair Value Measurements at December 31, 2020		
Description	**Total Fair Value**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Postretirement Benefit Plan Assets:				
Cash & Cash Equivalents [1]	$ 1	$ 1	$ —	$ —
Debt [2]:				
Fixed Income (U.S.)	89	—	89	—
Fixed Income (Non-U.S.)	25	—	25	—
Total	$ 115	$ 1	$ 114	$ —

(1) Cash and Cash Equivalents: Funds generally invested in actively managed collective trust funds or interest bearing accounts.
(2) Debt: The fixed income securities are primarily valued upon a market approach, using matrix pricing and considering a security's relationship to other securities for which quoted prices in an active market may be available, or an income approach, converting future cash flows to a single present value amount. Inputs used in developing fair value estimates include reported trades, broker quotes, benchmark yields, and base spreads.

The Company valued assets with unobservable inputs (Level 3), primarily insurance contracts, using a crediting rate that approximates market returns and investments in underlying securities whose market values are unobservable and determined using pricing models, discounted cash flow methodologies, or similar techniques.

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
	Other Investments[1]
(Dollars in millions)	**Non-U.S. Pension Plans**
Balance at December 31, 2019	$ 57
Unrealized gains	9
Purchases, issuances, sales, and settlements	2
Balance at December 31, 2020	68
Unrealized losses	(9)
Balance at December 31, 2021	$ 59

(1) Primarily consists of insurance contracts.

The following table reflects the target allocation for the Company's U.S. and non-U.S. pension and postretirement benefit plans assets for 2022 and the asset allocation at December 31, 2021 and 2020, by asset category.

	U.S. Pension Plans			Non-U.S. Pension Plans			Postretirement Benefit Plan		
	2022 Target Allocation	Plan Assets at December 31, 2021	Plan Assets at December 31, 2020	2022 Target Allocation	Plan Assets at December 31, 2021	Plan Assets at December 31, 2020	2022 Target Allocation	Plan Assets at December 31, 2021	Plan Assets at December 31, 2020
Asset category									
Equity securities	39%	38%	39%	23%	22%	20%	—%	—%	—%
Debt securities	42%	43%	43%	59%	59%	57%	100%	100%	100%
Real estate	3%	3%	2%	4%	4%	6%	—%	—%	—%
Other investments [1]	16%	16%	16%	14%	15%	17%	—%	—%	—%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

(1) U.S. primarily consists of private equity and natural resource and energy related limited partnership investments and public real assets. Non-U.S. primarily consists of annuity contracts and alternative investments.

Investment Strategy

Eastman's investment strategy for its defined benefit pension plans is to maximize the long-term rate of return on plan assets within an acceptable level of risk in order to meet or exceed the plan's actuarially assumed long-term rate of return and to minimize the cost of providing pension benefits. A periodic asset/liability study is conducted in order to assist in the determination and, if necessary, modification of the appropriate long-term investment policy for the plan. The investment policy establishes a target allocation range for each asset class and the fund is managed within those ranges. The plans use a number of investment approaches including investments in equity, real estate, and fixed income funds in which the underlying securities are marketable in order to achieve this target allocation. The plans also invest in private equity and other funds. Diversification is created through investments across various asset classes, geographies, fund managers, and individual securities. This investment process is designed to provide for a well-diversified portfolio with no significant concentration of risk. The investment process is monitored by an investment committee that includes senior management.

Eastman's investment strategy for its VEBA trust is to invest in intermediate-term, well diversified, high quality investment instruments, with a primary objective of capital preservation.

The expected rate of return for all plans was determined primarily by modeling the expected long-term rates of return for the categories of investments held by the plans and the targeted allocation percentage against various potential economic scenarios.

The Company made no contributions to its U.S. defined benefit pension plans in 2021 or 2020. For 2022 calendar year, there are no minimum required cash contributions for the U.S. defined benefit pension plans under the Employee Retirement Income Security Act of 1974, as amended, and the Internal Revenue Code of 1986, as amended.

The estimated future benefit payments, reflecting expected future service, as appropriate, are as follows:

	Pension Plans		Postretirement Benefit Plans
(Dollars in millions)	U.S.	Non-U.S.	
2022	$ 132	$ 30	$ 46
2023	142	35	47
2024	135	34	47
2025	132	35	46
2026	134	38	46
2027-2031	634	222	214

12. LEASES AND OTHER COMMITMENTS

Leases

There are two types of leases: finance and operating. Both types of leases have associated right-to-use assets and lease liabilities that are valued at the net present value of the lease payments and recognized on the Consolidated Statements of Financial Position. The discount rate used in the measurement of a right-to-use asset and lease liability is the rate implicit in the lease whenever that rate is readily determinable. If the rate implicit in the lease is not readily determinable, the collateralized incremental borrowing rate is used. The Company elected the accounting policy not to apply the recognition and measurement requirements to short-term leases with a term of 12 months or less and do not include a bargain purchase option.

The Company has operating leases, as a lessee, with customary terms that do not include: significant variable lease payments; significant reasonably certain extensions or options required to be included in the lease term; restrictions; or other covenants for real property, rolling stock, and machinery and equipment. Real property leases primarily consist of office space and rolling stock leases primarily for railcars and fleet vehicles. At December 31, 2021 and 2020, operating right-to-use assets of $216 million and $185 million, respectively, are included as a part of "Other noncurrent assets" in the Consolidated Statements of Financial Position and includes $3 million and $9 million of assets previously classified as lease intangibles and $5 million and $9 million of prepaid lease assets, respectively. Operating lease liabilities are included as a part of "Payables and other current liabilities" and "Other long-term liabilities" in the Consolidated Statements of Financial Position.

As of December 31, 2021, maturities of operating lease liabilities is provided below:

(Dollars in millions)	Operating lease liabilities
2022	$ 55
2023	44
2024	31
2025	24
2026	18
2027 and beyond	53
Total lease payments	225
Less: amounts of lease payments representing interest	18
Present value of future lease payments	207
Less: current obligations under leases	50
Long-term lease obligations	$ 157

As of December 31, 2020, maturities of operating lease liabilities is provided below:

(Dollars in millions)	Operating lease liabilities
2021	$ 60
2022	44
2023	31
2024	18
2025	12
2026 and beyond	28
Total lease payments	193
Less: amounts of lease payments representing interest	14
Present value of future lease payments	179
Less: current obligations under leases	56
Long-term lease obligations	$ 123

The Company has operating leases, primarily leases for railcars, with terms that require the Company to guarantee a portion of the residual value of the leased assets upon termination of the lease that will expire beginning second quarter 2022. Residual guarantee payments that become probable and estimable are recognized as rent expense over the remaining life of the applicable lease. Management's current expectation is that the likelihood of material residual guarantee payments is remote.

Lease costs during the period and other information is provided below:

(Dollars in millions)	2021	2020
Lease costs:		
Operating lease costs	$ 71	$ 73
Short-term lease costs	40	37
Sublease income	(4)	(4)
Total	$ 107	$ 106
Other operating lease information:		
Cash paid for amounts included in the measurement of lease liabilities	$ 69	$ 72
Right-to-use assets obtained in exchange for new lease liabilities	$ 110	$ 55
Weighted-average remaining lease term, in years	6	5
Weighted-average discount rate	2.7 %	3.6 %

Debt and Other Commitments

Eastman's obligations are summarized in the following table.

(Dollars in millions)	Payments Due for						
Period	**Debt Securities**	**Credit Facilities and Other**	**Interest Payable**	**Purchase Obligations**	**Operating Leases**	**Other Liabilities**	**Total**
2022	$ 747	$ —	$ 167	$ 164	$ 55	$ 269	$ 1,402
2023	850	—	154	156	44	77	1,281
2024	241	—	135	148	31	87	642
2025	698	—	117	124	24	81	1,044
2026	565	—	106	116	18	84	889
2027 and beyond	2,058	—	1,183	2,436	53	960	6,690
Total	$ 5,159	$ —	$ 1,862	$ 3,144	$ 225	$ 1,558	$ 11,948

Estimated future payments of debt securities assumes the repayment of principal upon stated maturity, and actual amounts and the timing of such payments may differ materially due to repayment or other changes in the terms of such debt prior to maturity.

Eastman had various purchase obligations at December 31, 2021 totaling approximately $3.1 billion over a period of approximately 30 years for materials, supplies, and energy incident to the ordinary conduct of business.

Amounts in other liabilities represent the current estimated cash payments required to be made by the Company primarily for pension and other postretirement benefits, accrued compensation benefits, environmental loss contingency estimates, uncertain tax liabilities, and commodity and foreign exchange hedging in the periods indicated. Due to uncertainties in the timing of the effective settlement of tax positions with respect to taxing authorities, management is unable to determine the timing of payments related to uncertain tax liabilities and these amounts are included in the "2027 and beyond" line item.

The amount and timing of pension and other postretirement benefit payments included in other liabilities is dependent upon interest rates, health care cost trends, actual returns on plan assets, retirement and attrition rates of employees, continuation or modification of the benefit plans, and other factors. Such factors can significantly impact the amount and timing of any future contributions by the Company. Excess contributions are periodically made by management in order to keep the plans' funded status above 80 percent under the funding provisions of the Pension Protection Act to avoid partial benefit restrictions on accelerated forms of payment. The Company's U.S. defined benefit pension plans are not currently under any benefit restrictions. See Note 11, "Retirement Plans", for more information regarding pension and other postretirement benefit obligations.

The resolution of uncertainties related to environmental matters included in other liabilities may have a material adverse effect on the Company's consolidated results of operations in the period recognized, however, because of the availability of legal defenses, the Company's preliminary assessment of actions that may be required, and, if applicable, the expected sharing of costs, management does not believe that the Company's liability for these environmental matters, individually or in the aggregate, will be material to the Company's consolidated financial position, results of operations, or cash flows. See Note 1, "Significant Accounting Policies", for environmental costs, and see Note 13, "Environmental Matters and Asset Retirement Obligations", for more information regarding outstanding environmental matters and asset retirement obligations.

Guarantees and claims also arise during the ordinary course of business from relationships with customers, suppliers, joint venture partners, and other parties when the Company undertakes an obligation to guarantee the performance of others if specified triggering events occur. Non-performance under a contract could trigger an obligation of the Company. The Company's current other guarantees include guarantees relating to intellectual property, environmental matters, and other indemnifications and have arisen through the normal course of business. The ultimate effect on future financial results is not subject to reasonable estimation because considerable uncertainty exists as to the final outcome of these claims, if they were to occur. These other guarantees have terms up to 30 years with maximum potential future payments of approximately $40 million in the aggregate, with none of these guarantees being individually significant to the Company's operating results, financial position, or liquidity. Management's current expectation is that future payment or performance related to non-performance under other guarantees is remote.

13. ENVIRONMENTAL MATTERS AND ASSET RETIREMENT OBLIGATIONS

Certain Eastman manufacturing facilities generate hazardous and nonhazardous wastes, the treatment, storage, transportation, and disposal of which are regulated by various governmental agencies. In connection with the cleanup of various hazardous waste sites, the Company, along with many other entities, has been designated a potentially responsible party ("PRP") by the U.S. Environmental Protection Agency under the Comprehensive Environmental Response, Compensation and Liability Act, which potentially subjects PRPs to joint and several liability for certain cleanup costs. In addition, the Company will incur costs for environmental remediation and closure and post-closure under the federal Resource Conservation and Recovery Act. Reserves for environmental contingencies have been established in accordance with Eastman's policies described in Note 1, "Significant Accounting Policies". The resolution of uncertainties related to environmental matters may have a material adverse effect on the Company's consolidated results of operations in the period recognized. However, because of the availability of legal defenses, the Company's preliminary assessment of actions that may be required, and the extended period of time that the obligations are expected to be satisfied, management does not believe that the Company's liability for these environmental matters, individually or in the aggregate, will have a material adverse effect on the Company's future overall financial position, results of operations, or cash flows. The Company's net reserve for environmental contingencies was $281 million and $285 million at December 31, 2021 and 2020, respectively.

Environmental Remediation and Environmental Asset Retirement Obligations

The Company's net environmental reserve for environmental contingencies, including remediation costs and asset retirement obligations, is included as part of "Other noncurrent assets", "Payables and other current liabilities", and "Other long-term liabilities" in the Consolidated Statements of Financial Position as follows:

(Dollars in millions)	December 31,	
	2021	2020
Environmental contingencies, current	$ 20	$ 15
Environmental contingencies, long-term	261	270
Total	$ 281	$ 285

Environmental Remediation

Estimated future environmental expenditures for undiscounted remediation costs ranged from the best estimate or minimum of $253 million to the maximum of $473 million and from the best estimate or minimum of $257 million to the maximum of $501 million at December 31, 2021 and 2020, respectively. The best estimate or minimum estimated future environmental expenditures are considered to be probable and reasonably estimable and include the amounts recognized at both December 31, 2021 and 2020.

Costs of certain remediation projects included in the environmental reserve are subject to a cost-sharing arrangement with Monsanto Company ("Monsanto") under the provisions of the Amended and Restated Settlement Agreement effective February 28, 2008 (the "Effective Date"), into which Solutia entered with Monsanto upon its emergence from bankruptcy (the "Monsanto Settlement Agreement"). Under the provisions of the Monsanto Settlement Agreement, Solutia, which became a wholly-owned subsidiary of Eastman on July 2, 2012, shares responsibility with Monsanto for remediation at certain locations outside of the boundaries of plant sites in Anniston, Alabama and Sauget, Illinois (the "Shared Sites"). Solutia is responsible for the funding of environmental liabilities at the Shared Sites up to a total of $325 million from the Effective Date. If remediation costs for the Shared Sites exceed this amount, such costs will thereafter be shared equally between Solutia and Monsanto. Including payments by Solutia prior to its acquisition by Eastman, $110 million had been paid for costs at the Shared Sites as of December 31, 2021. As of December 31, 2021, an additional $200 million has been recognized for estimated future remediation costs at the Shared Sites, over a period of approximately 30 years.

Reserves for environmental remediation include liabilities expected to be paid within approximately 30 years. The amounts charged to pre-tax earnings for environmental remediation and related charges are recognized in "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings. Changes in the reserves for environmental remediation liabilities during full year 2021 and full year 2020 are summarized below:

(Dollars in millions)	Environmental Remediation Liabilities
Balance at December 31, 2019	$ 260
Changes in estimates recognized in earnings and other	7
Cash reductions	(10)
Balance at December 31, 2020	257
Changes in estimates recognized in earnings and other	9
Cash reductions	(13)
Balance at December 31, 2021	$ 253

Environmental Asset Retirement Obligations

An asset retirement obligation is an obligation for the retirement of a tangible long-lived asset that is incurred upon the acquisition, construction, development, or normal operation of that long-lived asset. Environmental asset retirement obligations consist of primarily closure and post-closure costs. For sites that have environmental asset retirement obligations, the best estimate recognized to date for these environmental asset retirement obligation costs was $28 million at both December 31, 2021 and 2020.

Other

Eastman's cash expenditures related to environmental protection and improvement were $281 million, $265 million, and $244 million in 2021, 2020, and 2019, respectively, and include operating costs associated with environmental protection equipment and facilities, engineering costs, and construction costs. The cash expenditures above include environmental capital expenditures of approximately $38 million, $42 million, and $27 million in 2021, 2020, and 2019, respectively.

The Company has contractual asset retirement obligations not associated with environmental liabilities. Eastman's non-environmental asset retirement obligations are primarily associated with the future closure of leased manufacturing assets in Pace, Florida and Oulu, Finland. These non-environmental asset retirement obligations were $51 million at both December 31, 2021 and 2020, and are included in "Other long-term liabilities" in the Consolidated Statements of Financial Position.

14. LEGAL MATTERS

From time to time, Eastman and its operations are parties to, or targets of, lawsuits, claims, investigations and proceedings, including product liability, personal injury, asbestos, patent and intellectual property, commercial, contract, environmental, antitrust, health and safety, and employment matters, which are handled and defended in the ordinary course of business. While the Company is unable to predict the outcome of these matters, it does not believe, based upon currently available facts, that the ultimate resolution of any such pending matters will have a material adverse effect on its overall financial position, results of operations, or cash flows.

15. STOCKHOLDERS' EQUITY

A reconciliation of the changes in stockholders' equity for 2021, 2020, and 2019 is provided below:

(Dollars in millions)	Common Stock at Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock at Cost	Total Eastman Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at December 31, 2018	$ 2	$ 2,048	$ 7,573	$ (245)	$ (3,575)	$ 5,803	$ 75	$ 5,878
Cumulative Effect of Adoption of New Accounting Standards [1]	—	—	(20)	20	—	—	—	—
Net Earnings	—	—	759	—	—	759	3	762
Cash Dividends [2]	—	—	(347)	—	—	(347)	—	(347)
Other Comprehensive (Loss)	—	—	—	11	—	11	—	11
Share-Based Compensation Expense [3]	—	59	—	—	—	59	—	59
Stock Option Exercises	—	9	—	—	—	9	—	9
Other [4]	—	(11)	—	—	—	(11)	—	(11)
Share Repurchase	—	—	—	—	(325)	(325)	—	(325)
Distributions to noncontrolling interest	—	—	—	—	—	—	(4)	(4)
Balance at December 31, 2019	$ 2	$ 2,105	$ 7,965	$ (214)	$ (3,900)	$ 5,958	$ 74	$ 6,032
Net Earnings	—	—	478	—	—	478	11	489
Cash Dividends [2]	—	—	(363)	—	—	(363)	—	(363)
Other Comprehensive Income	—	—	—	(59)	—	(59)	—	(59)
Share-Based Compensation Expense [3]	—	44	—	—	—	44	—	44
Stock Option Exercises	—	36	—	—	—	36	—	36
Other [4]	—	(11)	—	—	—	(11)	2	(9)
Share Repurchase	—	—	—	—	(60)	(60)	—	(60)
Distributions to noncontrolling interest	—	—	—	—	—	—	(2)	(2)
Balance at December 31, 2020	$ 2	$ 2,174	$ 8,080	$ (273)	$ (3,960)	$ 6,023	$ 85	$ 6,108
Net Earnings	—	—	857	—	—	857	10	867
Cash Dividends [2]	—	—	(380)	—	—	(380)	—	(380)
Other Comprehensive Income	—	—	—	91	—	91	—	91
Share-Based Compensation Expense [3]	—	70	—	—	—	70	—	70
Stock Option Exercises	—	62	—	—	—	62	—	62
Other [4]	—	(19)	—	—	—	(19)	3	(16)
Share Repurchase [5]	—	(100)	—	—	(900)	(1,000)	—	(1,000)
Distributions to noncontrolling interest	—	—	—	—	—	—	(14)	(14)
Balance at December 31, 2021	$ 2	$ 2,187	$ 8,557	$ (182)	$ (4,860)	$ 5,704	$ 84	$ 5,788

(1) On January 1, 2019, Eastman adopted *ASU 2018-02 Income Statement - Reporting Comprehensive Income* resulting in the reclassification of $20 million of stranded tax expense from AOCI to retained earnings.
(2) Cash dividends includes cash dividends paid and dividends declared, but unpaid.
(3) Share-based compensation expense is the fair value of share-based awards.
(4) Additional paid-in capital includes value of shares withheld for employees' taxes on vesting of share-based compensation awards.
(5) Additional paid-in capital includes payment for repurchase of shares under the ASR which have not yet been delivered.

Eastman is authorized to issue 400 million shares of all classes of stock, of which 50 million may be preferred stock, par value $0.01 per share, and 350 million may be common stock, par value $0.01 per share. The Company declared dividends per share of $2.83 in 2021, $2.67 in 2020, and $2.52 in 2019.

The Company established a benefit security trust in 1997 to provide a degree of financial security for unfunded obligations under certain unfunded plans and contributed to the trust a warrant to purchase up to 6 million shares of common stock of the Company for par value. The warrant, which remains outstanding, is exercisable by the trustee if the Company does not meet certain funding obligations, which obligations would be triggered by certain occurrences, including a change in control or potential change in control, as defined, or failure by the Company to meet its payment obligations under certain covered unfunded plans. Such warrant is excluded from the computation of diluted EPS because the conditions upon which the warrant becomes exercisable have not been met.

In February 2018, the Company's Board of Directors authorized the repurchase of up to $2 billion of the Company's outstanding common stock at such times, in such amounts, and on such terms, as determined by management to be in the best interest of the Company.

In December 2021, the Company entered into an accelerated share repurchase program ("ASR") to purchase $500 million of the Company's common stock under the 2018 authorization. In exchange for upfront payment totaling $500 million, the financial institutions committed to deliver shares during the ASR's purchase period, which will end in March 2022. The total number of shares ultimately delivered will be determined at the end of the applicable purchase period based on the volume-weighted average price of the Company's stock during the term of the ASR, less a discount. During the fourth quarter of 2021, 3,658,314 shares for a total of $400 million were delivered to the Company, representing approximately 80 percent of the expected share repurchases under the ASR. The remaining $100 million has been accounted for as a reduction to "Additional paid-in capital" in the Company's Consolidated Statements of Financial Position, as it has been paid, but shares have not yet been delivered.

As of December 31, 2021, a total of 15,948,995 shares have been repurchased under the 2018 authorization for a total of $1,533 million. During 2021, 2020, and 2019, the Company repurchased shares of common stock of 8,061,779, 1,134,052, and 4,282,409, respectively, for a cost of approximately $900 million, $60 million, and $325 million, respectively.

In December 2021, the Company's Board of Directors authorized the additional repurchase of up to $2.5 billion of the Company's outstanding common stock at such times, in such amounts, and on such terms, as determined by management to be in the best interest of the Company. No shares have been repurchased under the December 2021 authorization.

The additions to paid-in capital in 2021, 2020, and 2019 are primarily for compensation expense of equity awards and employee stock option exercises, offset in 2021 by the ASR payment for which shares have not yet been delivered.

The Company's charitable foundation held 50,798 issued and outstanding shares of the Company's common stock at December 31, 2021, 2020, and 2019 which are included in treasury stock in the Consolidated Statements of Financial Position and excluded from calculations of diluted EPS.

The following table sets forth the computation of basic and diluted EPS:

	For years ended December 31,		
(In millions, except per share amounts)	2021	2020	2019
Numerator			
Net earnings attributable to Eastman	$ 857	$ 478	$ 759
Denominator			
Weighted average shares used for basic EPS	134.9	135.5	137.4
Dilutive effect of stock options and other award plans	2.2	1.0	1.1
Weighted average shares used for diluted EPS	137.1	136.5	138.5
EPS [1]			
Basic	$ 6.35	$ 3.53	$ 5.52
Diluted	$ 6.25	$ 3.50	$ 5.48

(1) EPS is calculated using whole dollars and shares.

Shares underlying stock options excluded from the 2021, 2020, and 2019 calculations of diluted EPS were 150,781, 2,424,826, and 2,183,875, respectively, because the grant price of these options was greater than the average market price of the Company's common stock and the effect of including them in the calculation of diluted EPS would have been antidilutive.

Shares of common stock issued, including shares held in treasury, are presented below:

	For years ended December 31,		
	2021	2020	2019
Balance at beginning of year	220,641,506	219,638,646	219,140,523
Issued for employee compensation and benefit plans	1,167,803	1,002,860	498,123
Balance at end of year	221,809,309	220,641,506	219,638,646

Accumulated Other Comprehensive Income (Loss)

(Dollars in millions)	Cumulative Translation Adjustment	Benefit Plans Unrecognized Prior Service Credits	Unrealized Gains (Losses) on Cash Flow Hedges	Unrealized Losses on Investments	Accumulated Other Comprehensive Income (Loss)
Balance at December 31, 2019	$ (264)	$ 106	$ (55)	$ (1)	$ (214)
Period change	(29)	(19)	(11)	—	(59)
Balance at December 31, 2020	(293)	87	(66)	(1)	(273)
Period change	56	(28)	63	—	91
Balance at December 31, 2021	$ (237)	$ 59	$ (3)	$ (1)	$ (182)

Amounts of other comprehensive income (loss) are presented net of applicable taxes. Eastman records deferred income taxes on the cumulative translation adjustment related to branch operations and income from other entities included in the Company's consolidated U.S. tax return. No deferred income taxes are recognized on the cumulative translation adjustment of other subsidiaries outside the United States, as the cumulative translation adjustment is considered to be a component of indefinitely invested, unremitted earnings of these foreign subsidiaries.

Components of total other comprehensive income (loss) recorded in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings are presented below, before tax and net of tax effects:

	For years ended December 31,					
	2021		2020		2019	
(Dollars in millions)	Before Tax	Net of Tax	Before Tax	Net of Tax	Before Tax	Net of Tax
Change in cumulative translation adjustment	$ 56	$ 56	$ (29)	$ (29)	$ 45	$ 45
Defined benefit pension and other postretirement benefit plans:						
Prior service credit arising during the period	—	—	12	9	—	—
Amortization of unrecognized prior service credits included in net periodic costs	(38)	(28)	(38)	(28)	(39)	(29)
Derivatives and hedging:						
Unrealized gain (loss) during period	88	66	(46)	(34)	(27)	(20)
Reclassification adjustment for (gains) losses included in net income, net	(4)	(3)	31	23	20	15
Total other comprehensive income (loss)	$ 102	$ 91	$ (70)	$ (59)	$ (1)	$ 11

For additional information regarding the impact of reclassifications into earnings, refer to Note 10, "Derivative and Non-Derivative Financial Instruments", and Note 11, "Retirement Plans".

16. ASSET IMPAIRMENTS AND RESTRUCTURING CHARGES, NET

Components of asset impairments and restructuring charges, net, are presented below:

	For years ended December 31,		
(Dollars in millions)	2021	2020	2019
Tangible Asset Impairments			
CI & AFP - Singapore [1]	$ 3	$ —	$ 27
Site optimizations			
AFP - Tire additives [2]	12	5	—
AM - Advanced interlayers [3]	1	—	—
AM - Performance films [4]	—	5	—
AFP - Animal nutrition [5]	—	3	—
Discontinuation of growth initiatives [6]	—	8	—
	16	21	27
Gain on Sale of Previously Impaired Assets			
Site optimizations			
AFP - Animal nutrition [5]	(1)	—	—
	(1)	—	—
Intangible Asset Impairments			
AFP - Tradenames [7]	—	123	—
AFP - Customer relationships [8]	—	2	—
AFP - Goodwill [9]	—	—	45
	—	125	45
Severance Charges			
Business improvement and cost reduction actions [10]	1	47	45
CI & AFP - Singapore [1]	—	6	—
Site optimizations			
AFP - Tire additives [2]	—	3	—
AM - Advanced interlayers [3]	1	5	—
AM - Performance films [4]	—	3	—
AFP - Animal nutrition [5]	—	1	—
	2	65	45
Other Restructuring Costs			
Cost reduction initiatives [10]	—	14	5
Discontinuation of growth initiatives contract termination fees [6]	—	4	—
CI & AFP - Singapore [1]	17	—	—
Site optimizations			
AFP - Tire additives [2]	6	—	—
AM - Advanced interlayers [3]	5	—	—
AM - Performance films [4]	2	—	—
AFP - Animal nutrition [5]	—	(2)	—
AFP - Discontinued capital project [11]	—	—	4
	30	16	9
Total	$ 47	$ 227	$ 126

(1) Asset impairment charges in 2021 of $2 million and $1 million in the CI segment and the AFP segment, respectively, and in 2019 of $22 million and $5 million in the CI segment and the AFP segment, respectively. Severance charges in 2020 of $5 million and $1 million in the CI segment and the AFP segment, respectively, and site closure costs, including contract termination fees, in 2021 of $14 million and $3 million in the CI segment and the AFP segment, respectively, resulting from the previously disclosed plan to discontinue production of certain products at the Singapore manufacturing site.

(2) Asset impairment charges of $8 million in 2021 in the AFP segment for assets associated with divested rubber additives. Asset impairment charges of $4 million and site closure costs of $6 million in the AFP segment in 2021 from the previously reported closure of a tire additives manufacturing facility in Asia Pacific as part of ongoing site optimization. Fixed asset impairments and severance in 2020 in the AFP segment from the closure of a tire additives manufacturing facility in Asia Pacific as part of ongoing site optimization.

(3) Asset impairments, severance charges, and site closure costs in the Advanced Materials ("AM") segment due to the closure of an advanced interlayers manufacturing facility in North America as part of ongoing site optimization. In addition, accelerated depreciation of $4 million and $8 million was recognized in "Cost of sales" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings in 2021 and 2020, respectively, related to the closure of this facility.

(4) Fixed asset impairments, severance charges, and site closure costs in the AM segment from the closure of a performance films manufacturing facility in North America as part of ongoing site optimization.

(5) Fixed asset impairments, severance charges, and other restructuring gains in 2020 in the AFP segment from the closure of an animal nutrition manufacturing facility in Asia Pacific as part of ongoing site optimization, and in 2021 a gain from the sale of the previously impaired assets.

(6) Fixed asset impairments and contract termination fees resulting from management's decision to discontinue growth initiatives for polyester based microfibers, including Avra™ performance fibers, the financial results of which were not allocated to an operating segment and reported in "Other".

(7) Intangible asset impairment charges in the now divested AFP segment tire additives business to reduce the carrying values of the Crystex™ and Santoflex™ tradenames to the estimated fair values. The estimated fair values were determined using an income approach, specifically, the relief from royalty method, including some unobservable inputs. The impairments are primarily the result of weakened demand in transportation markets impacted by COVID-19 and increased competitive pricing pressure as a result of global capacity increases.

(8) Intangible asset impairment charge for customer relationships.

(9) Goodwill impairment charge in the AFP segment resulting from the annual impairment test.

(10) Severance and related costs as part of business improvement and cost reduction initiatives which were reported in "Other".

(11) Additional restructuring charge related to a capital project in the AFP segment that was discontinued in 2016.

Reconciliations of the beginning and ending restructuring liability amounts are as follows:

(Dollars in millions)	Balance at January 1, 2021	Provision/ Adjustments	Non-cash Reductions/ Additions	Cash Reductions	Balance at December 31, 2021
Non-cash charges	$ —	$ 16	$ (16)	$ —	$ —
Severance costs	65	2	(1)	(54)	12
Site closure & restructuring costs	14	29	(9)	(29)	5
Total	$ 79	$ 47	$ (26)	$ (83)	$ 17

(Dollars in millions)	Balance at January 1, 2020	Provision/ Adjustments	Non-cash Reductions/ Additions	Cash Reductions	Balance at December 31, 2020
Non-cash charges	$ —	$ 145	$ (145)	$ —	$ —
Severance costs	17	65	1	(18)	65
Site closure & restructuring costs	11	17	—	(14)	14
Total	$ 28	$ 227	$ (144)	$ (32)	$ 79

(Dollars in millions)	Balance at January 1, 2019	Provision/ Adjustments	Non-cash Reductions/ Additions	Cash Reductions	Balance at December 31, 2019
Non-cash charges	$ —	$ 72	$ (72)	$ —	$ —
Severance costs	6	45	—	(34)	17
Site closure & restructuring costs	8	9	1	(7)	11
Total	$ 14	$ 126	$ (71)	$ (41)	$ 28

Substantially all costs remaining for severance are expected to be applied to the reserves within one year.

17. OTHER (INCOME) CHARGES, NET

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Foreign exchange transaction losses (gains), net [1]	$ 10	$ 16	$ 9
(Income) loss from equity investments and other investment (gains) losses, net	(16)	(15)	(10)
Other, net	(11)	7	4
Other (income) charges, net	$ (17)	$ 8	$ 3

(1) Net impact of revaluation of foreign entity assets and liabilities and effects of foreign exchange non-qualifying derivatives.

18. SHARE-BASED COMPENSATION PLANS AND AWARDS

2021 Omnibus Stock Compensation Plan

Eastman's 2021 Omnibus Stock Compensation Plan ("2021 Omnibus Plan") was approved by stockholders at the May 6, 2021 Annual Meeting of Stockholders and shall remain in effect until its fifth anniversary. The 2021 Omnibus Plan authorizes the Compensation and Management Development Committee of the Board of Directors to grant awards, designate participants, determine the types and numbers of awards, determine the terms and conditions of awards and determine the form of award settlement. Under the 2021 Omnibus Plan, the aggregate number of shares reserved and available for issuance is 10 million, which consist of shares not previously authorized for issuance under any other plan. The number of shares covered by an award is counted against this share reserve as of the grant date of the award. Shares covered by full value awards (e.g. performance shares and restricted stock awards) are counted against the total number of shares available for issuance or delivery under the plan as 2.5 shares for every one share covered by the award. Any stock distributed pursuant to an award may consist of, in whole or in part, authorized and unissued stock, treasury stock, or stock purchased on the open market. Under the 2021 Omnibus Plan and previous plans, the forms of awards have included restricted stock and restricted stock units, stock options, stock appreciation rights ("SARs"), and performance shares. The 2021 Omnibus Plan is flexible as to the number of specific forms of awards, but provides that stock options and SARs are to be granted at an exercise price not less than 100 percent of the per share fair market value on the date of the grant.

Director Stock Compensation Subplan

Eastman's 2021 Director Stock Compensation Subplan ("Directors' Subplan"), a component of the 2021 Omnibus Plan, remains in effect until terminated by the Board of Directors or the earlier termination of the 2021 Omnibus Plan. The Directors' Subplan provides for structured awards of restricted shares to non-employee members of the Board of Directors. Restricted shares awarded under the Directors' Subplan are subject to the same terms and conditions of the 2021 Omnibus Plan. The Directors' Subplan does not constitute a separate source of shares for grants of equity awards and all shares awarded are part of the 10 million shares authorized under the 2021 Omnibus Plan. Shares of restricted stock are granted on the first day of a non-employee director's initial term of service and shares of restricted stock are granted each year to each non-employee director on the date of the annual meeting of stockholders.

It has been the Company's practice to issue new shares rather than treasury shares for equity awards for compensation plans, including the 2021 Omnibus Plan and the Directors' Subplan, that require settlement by the issuance of common stock and to withhold or accept back shares awarded to cover the related income tax obligations of employee participants. Shares of unrestricted common stock owned by non-employee directors are not eligible to be withheld or acquired to satisfy the withholding obligation related to their income taxes. Shares of unrestricted common stock owned by specified senior management level employees are accepted by the Company to pay the exercise price of stock options in accordance with the terms and conditions of their awards.

Compensation Expense

For 2021, 2020, and 2019, total share-based compensation expense (before tax) of approximately $70 million, $44 million, and $59 million, respectively, was recognized in "Selling, general and administrative expense" in the Consolidated Statements of Earnings, Comprehensive Income and Retained Earnings for all share-based awards of which approximately $9 million, $7 million, and $9 million, respectively, related to stock options. The compensation expense is recognized over the substantive vesting period, which may be a shorter time period than the stated vesting period for qualifying termination eligible employees as defined in the forms of award notice. Approximately $2 million for 2021, $1 million for 2020, and $3 million for 2019 of stock option compensation expense was recognized each year due to qualifying termination eligibility preceding the requisite vesting period.

Stock Option Awards

Options have been granted on an annual basis by the Compensation and Management Development Committee of the Board of Directors under the 2021 Omnibus Plan and predecessor plans to employees. Option awards have an exercise price equal to the closing price of the Company's stock on the date of grant. The term of options is 10 years with vesting periods that vary up to three years. Vesting usually occurs ratably over the vesting period or at the end of the vesting period. The Company utilizes the Black Scholes Merton option valuation model which relies on certain assumptions to estimate an option's fair value.

The weighted average assumptions used in the determination of fair value for stock options awarded in 2021, 2020, and 2019 are provided in the table below:

Assumptions	2021	2020	2019
Expected volatility rate	28.99%	21.56%	19.80%
Expected dividend yield	3.58%	3.30%	2.51%
Average risk-free interest rate	0.95%	0.94%	2.44%
Expected term years	6.0	5.9	5.7

The volatility rate of grants is derived from historical Company common stock price volatility over the same time period as the expected term of each stock option award. The volatility rate is derived by mathematical formula utilizing the weekly high closing stock price data over the expected term. The expected dividend yield is calculated using the Company's average of the last four quarterly dividend yields. The average risk-free interest rate is derived from United States Department of Treasury published interest rates of daily yield curves for the same time period as the expected term. The weighted average expected term reflects the analysis of historical share-based award transactions and includes option swap and reload grants which may have much shorter remaining expected terms than new option grants.

A summary of the activity of the Company's stock option awards for 2021, 2020, and 2019 is presented below:

	2021		2020		2019	
	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price
Outstanding at beginning of year	3,526,600	$ 79	3,479,300	$ 80	2,905,600	$ 79
Granted	449,700	109	622,000	62	786,000	81
Exercised	(807,200)	77	(568,800)	64	(135,700)	67
Cancelled, forfeited, or expired	(600)	74	(5,900)	82	(76,600)	88
Outstanding at end of year	3,168,500	$ 84	3,526,600	$ 79	3,479,300	$ 80
Options exercisable at year-end	2,047,500		2,192,300		2,077,600	
Available for grant at end of year	9,866,480		4,046,748		6,085,857	

The following table provides the remaining contractual term and weighted average exercise prices of stock options outstanding and exercisable at December 31, 2021:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding at December 31, 2021	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Number Exercisable at December 31, 2021	Weighted-Average Exercise Price
$61-$70	843,400	6.8	$ 63	420,900	$ 64
$71-$80	702,800	4.8	78	678,800	78
$81-$90	630,400	6.5	83	405,500	84
$91-$109	991,900	7.5	106	542,300	104
	3,168,500	6.5	$ 84	2,047,500	$ 83

The range of exercise prices of options outstanding at December 31, 2021, is approximately $61 to $109 per share. The aggregate intrinsic value of total options outstanding and total options exercisable at December 31, 2021 is $117 million and $77 million, respectively. Intrinsic value is the amount by which the closing market price of the stock at December 31, 2021 exceeds the exercise price of the option grants.

The weighted average remaining contractual life of all exercisable options at December 31, 2021 is 5.5 years.

The weighted average fair value of options granted during 2021, 2020, and 2019 was $19.81, $7.92, and $13.12, respectively. The total intrinsic value of options exercised during the years ended December 31, 2021, 2020, and 2019, was $31 million, $14 million, and $2 million, respectively. Cash proceeds received by the Company from option exercises totaled $62 million and the related tax benefit was $5 million, respectively, for 2021, $36 million and the related tax benefit was $2 million, respectively, for 2020, and $9 million and de minimis, respectively, for 2019. The total fair value of shares vested during the years ended December 31, 2021, 2020, and 2019 was $8 million, $9 million, and $8 million, respectively.

A summary of the changes in the Company's nonvested options during the year ended December 31, 2021 is presented below:

Nonvested Options	Number of Options	Weighted-Average Grant Date Fair Value
Nonvested at January 1, 2021	1,334,300	$11.11
Granted	449,700	$19.81
Vested	(663,000)	$12.33
Nonvested options at December 31, 2021	1,121,000	$13.88

For nonvested options at December 31, 2021, approximately $2 million in compensation expense will be recognized over the next two years.

Other Share-Based Compensation Awards

In addition to stock option awards, Eastman has awarded long-term performance share awards, restricted stock awards, and SARs. The long-term performance share awards are based upon actual return on capital compared to a target return on capital and total stockholder return compared to a peer group ranking by total stockholder return over a three year performance period. The awards are valued using a Monte Carlo Simulation based model and vest pro-rata over the three year performance period. The number of long-term performance award target shares granted for the 2021-2023, 2020-2022, and 2019-2021 periods were 311 thousand, 423 thousand, and 412 thousand, respectively. The target shares granted are assumed to be 100 percent. At the end of the three-year performance period, the actual number of shares awarded can range from zero percent to 250 percent of the target shares granted based on the award notice. The number of restricted stock awards granted during 2021, 2020, and 2019 were 166 thousand, 227 thousand, and 189 thousand, respectively. The fair value of a restricted stock award is equal to the closing stock price of the Company's stock on the date of grant and normally vests over a period of three years. The recognized compensation expense before tax for these other share-based awards in the years ended December 31, 2021, 2020, and 2019 was approximately $60 million, $37 million, and $50 million, respectively. The unrecognized compensation expense before tax for these same type awards at December 31, 2021 was approximately $65 million and will be recognized primarily over a period of two years.

19. SUPPLEMENTAL CASH FLOW INFORMATION

Included in the line item "Other items, net" of the "Operating activities" section of the Consolidated Statements of Cash Flows are specific changes to certain balance sheet accounts as follows:

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Current assets	$ (57)	$ (1)	$ (5)
Other assets	(32)	(14)	15
Current liabilities	109	5	(82)
Long-term liabilities and equity	69	15	(17)
Total	$ 89	$ 5	$ (89)

The above changes included transactions such as accrued taxes, deferred taxes, environmental liabilities, monetized positions from raw material and energy, currency, and certain interest rate hedges, equity investment dividends, prepaid insurance, miscellaneous deferrals, value-added taxes, and other miscellaneous accruals.

Cash flows from derivative financial instruments accounted for as hedges are classified in the same category as the item being hedged.

Cash paid for interest and income taxes is as follows:

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Interest, net of amounts capitalized	$ 170	$ 191	$ 235
Income taxes, net of refunds	122	179	217
Non-cash investing activities:			
Outstanding trade payables related to capital expenditures	22	20	22

20. SEGMENT AND REGIONAL SALES INFORMATION

The Company's products and operations are managed and reported in four operating segments: Additives & Functional Products ("AFP"), Advanced Materials ("AM"), Chemical Intermediates ("CI"), and Fibers.

Additives & Functional Products Segment

In the AFP segment, the Company manufactures materials for products in the transportation; personal care and wellness; food, feed, and agriculture; building and construction; water treatment and energy; consumables; and durables and electronics markets.

The products the Company manufactures in the adhesives resins product line consists of hydrocarbon and rosin resins. The animal nutrition business consists of organic acid-based solutions product lines. The care additives business consists of amine derivative-based building blocks for the production of flocculants, intermediates for surfactants, fumigants, fungicides, and plant growth regulator products. The coatings and inks additives product line can be broadly classified as polymers and additives and solvents and include specialty coalescents, specialty solvents, paint additives, and specialty polymers. In the specialty fluids product line, the Company produces heat transfer and aviation fluids products. The tire additives product line includes insoluble sulfur rubber additives, antidegradant rubber additives, and performance resins. The Company divested insoluble sulfur rubber additives and antidegradant rubber additives in November 2021. For additional information, see Note 2, "Divestiture and Business Held for Sale".

	Percentage of Total Segment Sales		
Product Lines	**2021**	**2020**	**2019**
Adhesives Resins	17%	16%	15%
Animal Nutrition	9%	8%	9%
Care Additives	23%	24%	22%
Coatings and Inks Additives	28%	25%	24%
Specialty Fluids	13%	13%	14%
Tire Additives	10%	14%	16%
Total	100%	100%	100%

	Percentage of Total Segment Sales		
Sales by Customer Location	**2021**	**2020**	**2019**
United States and Canada	39%	38%	37%
Asia Pacific	24%	24%	24%
Europe, Middle East, and Africa	31%	32%	33%
Latin America	6%	6%	6%
Total	100%	100%	100%

Advanced Materials Segment

In the AM segment, the Company produces and markets polymers, films, and plastics with differentiated performance properties for value-added end-uses in transportation; durables and electronics; building and construction; medical and pharma; and consumables markets.

The advanced interlayers product line includes polyvinyl butyral sheet and specialty polyvinyl butyral intermediates. The performance films product line primarily consists of window films and protective films products for aftermarket applied films. The specialty plastics product line consists of two primary products: copolyesters and cellulosic biopolymers.

	Percentage of Total Segment Sales		
Product Lines	**2021**	**2020**	**2019**
Advanced Interlayers	29%	29%	32%
Performance Films	20%	20%	19%
Specialty Plastics	51%	51%	49%
Total	100%	100%	100%

Sales by Customer Location	Percentage of Total Segment Sales		
	2021	2020	2019
United States and Canada	30%	34%	34%
Asia Pacific	38%	33%	32%
Europe, Middle East, and Africa	27%	27%	28%
Latin America	5%	6%	6%
Total	100%	100%	100%

Chemical Intermediates Segment

Eastman leverages large scale and vertical integration from the cellulosic biopolymers and acetyl, olefins, and alkylamines streams to support the Company's specialty operating segments with advantaged cost positions. The CI segment sells excess intermediates beyond the Company's internal specialty needs into markets such as industrial chemicals and processing, building and construction, health and wellness, and agrochemicals.

The functional amines product lines include methylamines and salts, and higher amines and solvents. In the intermediates product line, the Company produces olefin derivatives, acetyl derivatives, ethylene, and commodity solvents. The plasticizers product line consists of a unique set of primary non-phthalate and phthalate plasticizers and a range of niche non-phthalate plasticizers.

Product Lines	Percentage of Total Segment Sales		
	2021	2020	2019
Functional Amines	21%	23%	20%
Intermediates	57%	57%	59%
Plasticizers	22%	20%	21%
Total	100%	100%	100%

Sales by Customer Location	Percentage of Total Segment Sales		
	2021	2020	2019
United States and Canada	70%	65%	64%
Asia Pacific	8%	13%	14%
Europe, Middle East, and Africa	16%	16%	15%
Latin America	6%	6%	7%
Total	100%	100%	100%

Fibers Segment

In the Fibers segment, Eastman manufactures and sells acetate tow and triacetin plasticizers for use in filtration media, primarily cigarette filters; natural (undyed), cellulosic staple fibers and yarn for use in apparel, home furnishings, and industrial fabrics; nonwoven media for use in filtration and friction applications, used primarily in transportation, industrial, and agricultural markets; and cellulose acetate flake and acetyl raw materials for other acetate fiber producers.

Product Lines	Percentage of Total Segment Sales		
	2021	2020	2019
Acetate Tow	64%	70%	68%
Acetate Yarn	14%	9%	12%
Acetyl Chemical Products	16%	16%	15%
Nonwovens	6%	5%	5%
Total	100%	100%	100%

	Percentage of Total Segment Sales		
Sales by Customer Location	**2021**	**2020**	**2019**
United States and Canada	25%	26%	25%
Asia Pacific	35%	32%	32%
Europe, Middle East, and Africa	37%	39%	39%
Latin America	3%	3%	4%
Total	100%	100%	100%

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Sales by Segment			
Additives & Functional Products	$ 3,700	$ 3,022	$ 3,273
Advanced Materials	3,027	2,524	2,688
Chemical Intermediates	2,849	2,090	2,443
Fibers	900	837	869
Total Sales	$ 10,476	$ 8,473	$ 9,273

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Earnings (Loss) Before Interest and Taxes by Segment			
Additives & Functional Products	$ (54)	$ 312	$ 496
Advanced Materials	519	427	517
Chemical Intermediates	445	166	170
Fibers	142	180	194
Total EBIT by Operating Segment	1,052	1,085	1,377
Other			
Growth initiatives and businesses not allocated to operating segments	(134)	(95)	(102)
Pension and other postretirement benefit plans income (expense), net not allocated to operating segments	375	(156)	(97)
Asset impairments and restructuring charges, net	(1)	(73)	(49)
Other income (charges), net not allocated to operating segments	(11)	(20)	(9)
Total EBIT	$ 1,281	$ 741	$ 1,120

(Dollars in millions)	December 31, 2021	2020
Assets by Segment [(1)]		
Additives & Functional Products	$ 4,643	$ 6,238
Advanced Materials	4,661	4,345
Chemical Intermediates	2,703	2,614
Fibers	972	978
Total Assets by Operating Segment	12,979	14,175
Corporate Assets	2,540	1,908
Total Assets	$ 15,519	$ 16,083

(1) The chief operating decision maker holds operating segment management accountable for accounts receivable, inventory, fixed assets, goodwill, and intangible assets.

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Depreciation and Amortization Expense by Segment			
Additives & Functional Products	$ 186	$ 220	$ 218
Advanced Materials	177	187	172
Chemical Intermediates	111	108	150
Fibers	60	56	64
Total Depreciation and Amortization Expense by Operating Segment	534	571	604
Other	4	3	7
Total Depreciation and Amortization Expense	$ 538	$ 574	$ 611

(Dollars in millions)	For years ended December 31, 2021	2020	2019
Capital Expenditures by Segment			
Additives & Functional Products	$ 117	$ 126	$ 152
Advanced Materials	280	140	130
Chemical Intermediates	124	84	98
Fibers	33	31	42
Total Capital Expenditures by Operating Segment	554	381	422
Other	1	2	3
Total Capital Expenditures	$ 555	$ 383	$ 425

Sales are attributed to geographic areas based on customer location and long-lived assets are attributed to geographic areas based on asset location.

(Dollars in millions) **Geographic Information**	For years ended December 31, 2021	2020	2019
Sales			
United States	$ 4,397	$ 3,437	$ 3,720
All foreign countries	6,079	5,036	5,553
Total	$ 10,476	$ 8,473	$ 9,273

	December 31, 2021	2020	2019
Net properties			
United States	$ 3,847	$ 4,106	$ 4,178
All foreign countries	1,149	1,443	1,393
Total	$ 4,996	$ 5,549	$ 5,571

21. QUARTERLY SALES AND EARNINGS DATA – UNAUDITED

(Dollars in millions, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2021				
Sales	$ 2,409	$ 2,653	$ 2,720	$ 2,694
Gross profit	598	681	662	559
Asset impairments and restructuring charges, net	7	15	7	18
Net earnings (loss) attributable to Eastman	$ 274	$ (146)	$ 351	$ 378
Net earnings (loss) per share attributable to Eastman[1]				
Basic	$ 2.01	$ (1.07)	$ 2.60	$ 2.85
Diluted	$ 1.99	$ (1.07)	$ 2.57	$ 2.81

(1) Each quarter is calculated as a discrete period; the sum of the four quarters may not equal the calculated full year amount.

(Dollars in millions, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2020				
Sales	$ 2,241	$ 1,924	$ 2,122	$ 2,186
Gross profit	577	371	501	526
Asset impairments and restructuring charges, net	14	141	60	12
Net earnings attributable to Eastman	$ 258	$ 27	$ 161	$ 32
Net earnings per share attributable to Eastman[1]				
Basic	$ 1.90	$ 0.20	$ 1.19	$ 0.23
Diluted	$ 1.89	$ 0.20	$ 1.18	$ 0.23

(1) Each quarter is calculated as a discrete period; the sum of the four quarters may not equal the calculated full year amount.

22. RESERVE ROLLFORWARDS

Valuation and Qualifying Accounts

(Dollars in millions)

		Additions			
	Balance at January 1, 2021	Charges (Credits) to Cost and Expense	Other Accounts [1]	Deductions [2]	Balance at December 31, 2021
Reserve for:					
Credit losses	$ 14	$ 4	$ (1)	$ —	$ 17
LIFO inventory	226	159	(30)	(10)	365
Non-environmental asset retirement obligations	51	2	(1)	1	51
Environmental contingencies	285	11	—	15	281
Deferred tax valuation allowance	393	(55)	1	—	339
	$ 969	$ 121	$ (31)	$ 6	$ 1,053

(1) Other accounts in the reserve for LIFO inventory is due to assets held for sale classification resulting from the Company entering into a definitive agreement to sell the adhesives resins business.

(2) Deductions in the reserve for LIFO inventory is the result of the divestiture of rubber additives. For additional information, see Note 2, "Divestiture and Business Held for Sale".

(Dollars in millions)

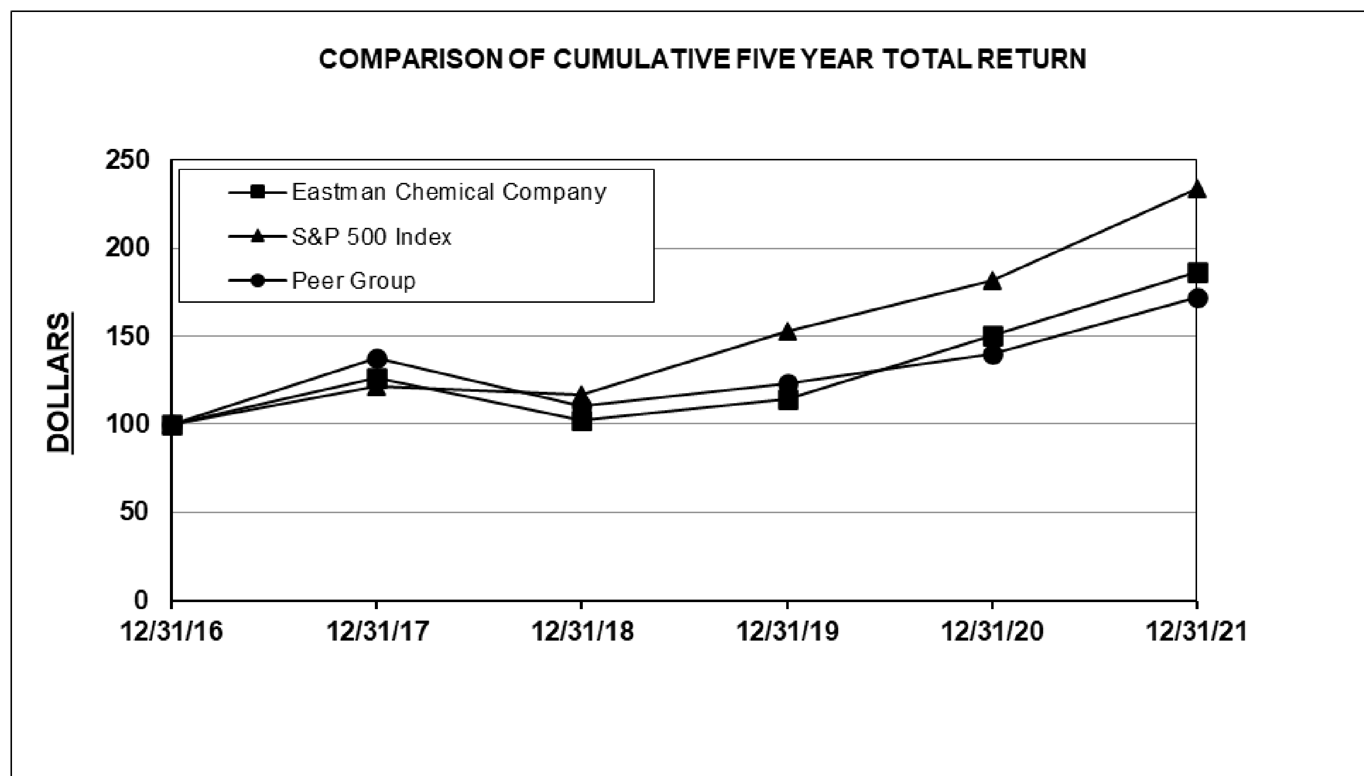
		Additions			
	Balance at January 1, 2020	Charges (Credits) to Cost and Expense	Other Accounts	Deductions	Balance at December 31, 2020
Reserve for:					
Credit losses	$ 11	$ 4	$ —	$ 1	$ 14
LIFO inventory	248	(22)	—	—	226
Non-environmental asset retirement obligations	48	2	1	—	51
Environmental contingencies	287	8	—	10	285
Deferred tax valuation allowance	453	(61)	1	—	393
	$ 1,047	$ (69)	$ 2	$ 11	$ 969

(Dollars in millions)

		Additions			
	Balance at January 1, 2019	Charges (Credits) to Cost and Expense	Other Accounts	Deductions	Balance at December 31, 2019
Reserve for:					
Credit losses	$ 11	$ —	$ —	$ —	$ 11
LIFO inventory	337	(89)	—	—	248
Non-environmental asset retirement obligations	46	2	—	—	48
Environmental contingencies	296	7	—	16	287
Deferred tax valuation allowance	487	(20)	(14)	—	453
	$ 1,177	$ (100)	$ (14)	$ 16	$ 1,047

PERFORMANCE GRAPH

The following graph compares the cumulative total return on Eastman Chemical Company common stock from December 31, 2016, through December 31, 2021, to that of the Standard & Poor's ("S&P") 500 Stock Index and a group of peer issuers in the chemical industry. The peer group consists of the 14 chemical companies which meet three objective criteria: (i) common shares traded on a major trading market; (ii) similar lines of business to those of the Company; and (iii) more than $3 billion in annual sales. Cumulative total return represents the change in stock price and the amount of dividends received during the indicated period, assuming reinvestment of dividends. The graph assumes an investment of $100 on December 31, 2016. All data in the graph have been provided by S&P Capital IQ. The stock performance shown in the graph is included in response to Securities and Exchange Commission ("SEC") requirements and is not intended to forecast or to be indicative of future performance.



Company Name / Index	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021
Eastman Chemical Company	100	126.28	102.16	114.43	150.79	186.28
S&P 500 Index	100	121.83	116.49	153.17	181.35	233.41
Peer Group	100	137.42	110.70	123.39	140.05	171.76

(1) The peer group for 2021 consists of the following issuers: Akzo Nobel NV; Albemarle Corporation; Ashland Global Holdings Inc.; Celanese Corporation; Dow Inc.; DuPont de Nemours, Inc.; FMC Corporation; Huntsman Corporation; International Flavors & Fragrances Inc.; Lanxess AG; LyondellBasell Industries NV; PPG Industries Inc.; The Sherwin Williams Company; and Westlake Chemical Corporation. In accordance with SEC requirements, the return for each issuer has been weighted according to the respective issuer's stock market capitalization at the beginning of each period for which a return is indicated.

STOCKHOLDER INFORMATION

Corporate Offices

Eastman Chemical Company
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P. O. Box 431
Kingsport, TN 37662-5280 U.S.A.
http://www.eastman.com

Eastman Stockholder Information

877-EMN-INFO (877-366-4636)
http://www.eastman.com
Stockholders of record at year-end 2021: 12,168
Shares outstanding at year-end 2021: 128,967,878
Employees at year-end 2021: approximately 14,000

Stock Transfer Agent and Registrar

Inquiries and changes to stockholder accounts should be directed to our transfer agent:
American Stock Transfer & Trust Company
59 Maiden Lane
New York, NY 10038
In the United States: 800-937-5449
Outside the United States: (1) 212-936-5100 or (1) 718-921-8200
http://www.amstock.com

Stock Exchange Listing

Eastman Chemical Company common stock is listed and traded on the New York Stock Exchange under the ticker symbol EMN.

2022 Annual Meeting

Virtual via live webcast (https://register.proxypush.com/emn)
May 5, 2022
11:30 a.m. EDT

Annual Report on Form 10-K

Eastman's Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the Securities and Exchange Commission, is available upon written request of any stockholder to Eastman Chemical Company, P.O. Box 431, Kingsport, Tennessee 37662-5280, Attention: Investor Relations. This information is also available via the Internet at Eastman's Web site (www.eastman.com) in the investor information section, and on the SEC's website (www.sec.gov).

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Michelle R. Stewart
Vice President, Corporate Controller, and Chief Accounting Officer

EASTMAN

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