

EASTMAN CHEMICAL COMPANY (EMN)

March 8, 2024

Materials – Specialty Chemicals

Stock Rating

HOLD

Investment Thesis

We recommend a **HOLD** rating for Eastman Chemical with an upside potential of 9%. Eastman’s diverse specialty chemicals portfolio, coupled with strategic innovations in recycling technology and timely emergence from the destocking cycle, presents substantial growth opportunities for the company.

Drivers of Thesis

- The startup of the Kingsport molecular recycling plant, with the introduction of feedstock, represents a significant step towards operational efficiency. This achievement establishes a basis for increased productivity and customer service resulting in \$75 million of added EBITDA.
- The end of the destocking cycle signals a return to normal demand, which benefits Eastman’s Advanced Materials segment. This change should help increase sales and strengthen the segment’s proven history of success. This aligns with our forecasted recovery and growth in the AM segment by 6.54% in 2024.
- By constructing a new molecular recycling plant in France, Eastman is strategically positioning itself to meet the European Union’s circularity targets. These developments are expected to satisfy the increasing demand for recycled content, which currently exceeds available mechanical capacity.

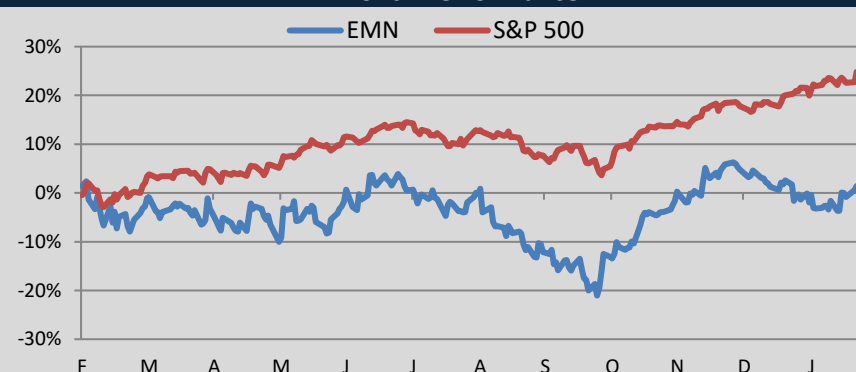
Risks to Thesis

- A sustained period of low demand could impact the speed and scale of customer engagements and product launches, potentially delaying the realization of projected growth.
- While Eastman has demonstrated a capacity to manage inflationary pressures, continued volatility in raw materials and energy prices remains a significant risk factor that could influence operating costs and margins.

Earnings Estimates

Year	2021	2022	2023	2024E	2025E	2026E
EPS	\$6.35	\$6.35	\$7.49	\$7.58	\$8.82	\$9.46
HF est.				\$7.65	\$8.17	\$8.88
Growth		0.0%	17.4%	2.1%	6.8%	8.7%

12 Month Performance



Target Price

\$94-114

Henry Fund DCF	\$94
Henry Fund DDM	\$71
Relative Multiple	\$131

Price Data

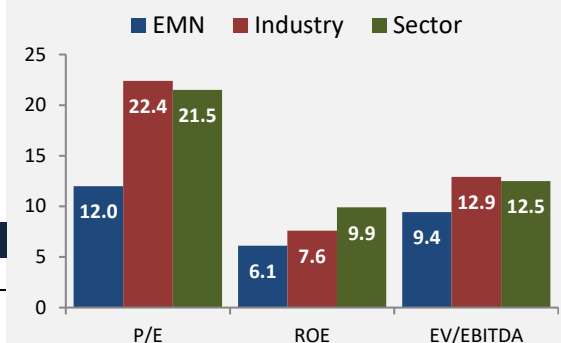
Current Price	\$86.4
52wk Range	\$68.8 – 91.3
Consensus 1yr Target	\$93.3

Key Statistics

Market Cap (B)	\$11.2
Shares Outstanding (M)	117.3
Institutional Ownership	83.6%
Beta	1.3
Dividend Yield	3.7%
Est. 5yr Growth	4.8%
Price/Earnings (TTM)	13.5
Price/Earnings (FY1)	11.3
Price/Sales (TTM)	1.1
Price/Book (mrq)	1.8

Profitability

Operating Margin	11.9%
Profit Margin	9.7%
Return on Assets (TTM)	5.1%
Return on Equity (TTM)	14.1%



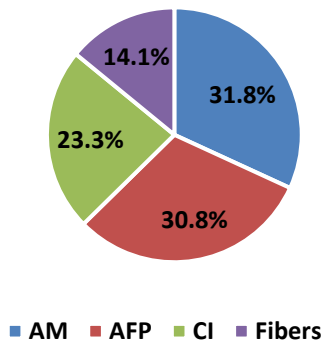
Company Description

Eastman Chemical is a global specialty chemicals company that focuses on creating a wide range of products that find applications in everyday items and serve multiple markets such as healthcare, construction, automotive, and consumer goods. These products are organized into four different operating segments: Advanced Materials, Additives & Functional Products, Chemical Intermediates, and Fibers.

COMPANY DESCRIPTION

Eastman Chemical is a global specialty chemicals company that produces a wide range of products found in everyday products. The company operates through the following four segments: Advanced Materials (AM), Additive and Functional Products (AFP), Chemical Intermediates (CI), and Fibers. These segments create products that find applications in different industries including automotive, consumer goods, electronics, packaging, construction, and agriculture, among others.

EMN 2023 Revenue by Segment (\$9.2B)

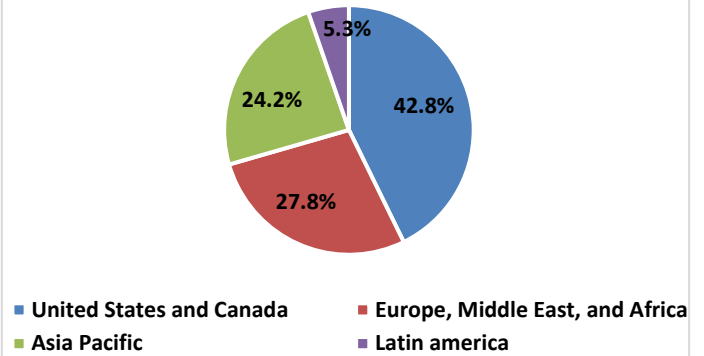


Source: Eastman Chemical 10-K

Eastman operates globally with 36 manufacturing facilities and equity interests in two manufacturing joint ventures in 12 countries including locations in Belgium, Germany, Finland, Spain, the United Kingdom, Brazil, Mexico, China, Korea, and Malaysia, in addition to numerous sites in the U.S.¹ This extensive international presence indicates that not all production is centralized in the United States and also helps Eastman manage its supply chain more effectively and respond to regional market demands.

The company employs approximately 14,000 people in North America, Europe, Asia-Pacific, and Latin America. In addition to the manufacturing facilities, Eastman has research and development centers strategically located in these regions to support innovation and customer collaboration.¹

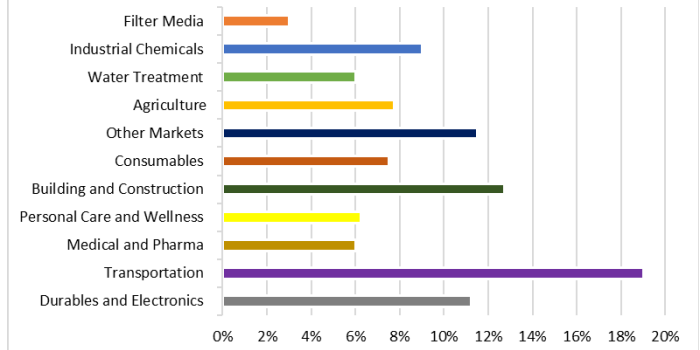
2023 Sales by Customer Location



Source: Eastman Chemical 10-K

As a specialty chemicals company, Eastman manufactures innovative and sustainable products across diverse markets. As shown in the graph below, the top three end-use markets that Eastman serves are transportation (19% of total revenues), building and construction (13%), and "other markets" (12%). In transportation, Eastman supplies advanced materials to automotive and aerospace industries, including coatings, adhesives, and specialty plastics that improve durability and performance. In building and construction, the company provides a variety of products such as window films for energy efficiency, paint protection films, and chemicals for construction materials. "Other markets" includes specialized areas that are not large enough to be listed as their own category; these include eyewear, flirtation, graphic arts, and janitorial & household cleaners, among others.

EMN Sales by End-use Market



Source: EMN 10-K 2023

Eastman differentiates itself from other specialty chemicals companies because it operates in a wide array of markets which diversifies its revenue streams and reduces dependence on any single industry. In addition to

this, the company places a heavy focus on sustainability and the circular economy, developing products and processes that reduce environmental impact and waste. Moreover, as the world's largest producer of acetate yarn, Eastman enjoys a comparative advantage through its scale and market leadership in this sector. This position gives the company influence over the supply chain, favorable economies of scale, and the ability to drive innovation in textile applications, all of which contribute to its strong competitive edge in the specialty chemicals industry.

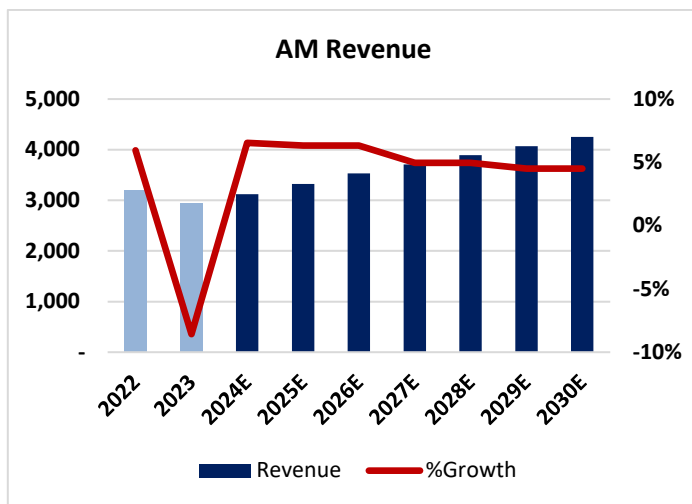
Company Analysis

In 2021, Eastman started building a new methanolysis (i.e. molecular recycling) facility in Kingsport, Tennessee. This facility will break down hard-to-recycle polyester products and polyethylene terephthalate (PET) materials into raw materials for specialty plastics. The United States generates about 73 million metric tons of plastic waste each year⁶ from which less than 10% is recycled.¹³ Eastman's facility will have the capacity to process 111,000 metric tons of polymer per year which is less than 1% of the total U.S. plastic waste generated. Despite this seemingly small percentage, Eastman's initiative represents a significant step forward. By acting where many other chemical companies have not, Eastman is setting a precedent and potentially paving the way for broader industry change.

As of February 2024, Eastman has already started introducing feedstock at this facility and expects to have it up and running by the end of the year increasing EBITDA by \$75 million in 2025. The company also has plans to build a similar molecular recycling plant in France and a third one somewhere else in the U.S.

Advanced Materials (AM) Segment

The Advanced Materials segment produces polymers, films, and plastics. These products serve transportation, durables and electronics, building and construction, medical and pharma, and consumables end-markets. Historically, the AM segment has been the largest contributor to revenues and was responsible for almost 32% of total revenues in 2023. However, the segment faced lower sales volume/mix driven by weak demand and destocking across end-markets, particularly medical, packaging, and building, and construction, partially offset by continued strength in automotive.



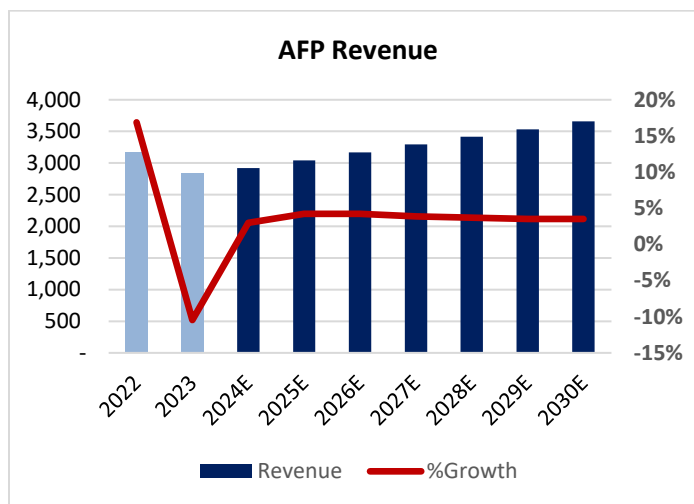
Source: Henry Fund Model

The graph above depicts historical and forecasted revenues for the Advanced Materials segment. Despite a decrease in revenues for this segment in 2023, we expect it to experience a growth of 6.54% and 6.34% in 2024 and 2025 respectively. This is due to the decrease in destocking and the recent developments at the Kingsport facility which is expected to increment EBITDA for this segment by \$50 million. First, the reduction of destocking in the AM segment is expected to account for two-thirds of the anticipated recovery for the company. Additionally, the plant in France is expected to be operational by 2026 with it reaching full capacity by 2030. The project is expected to recycle up to 200,000 tons annually of hard-to-recycle plastic waste and be the world's largest plant of its kind. This recycled plastic will be used as raw materials for the specialty plastics product line within the AM segment. We forecast that revenues for this segment will continue to grow at a 4.50% rate due to the competitive advantage obtained from Eastman's role as a first mover in molecular recycling technologies. With the Kingsport and France facilities up and running, the AM segment revenues will continue to increase while also decreasing the costs of raw materials.

Additives & Functional Products (AFP) Segment

The Additives & Functional Products segment manufactures materials for products in the food, feed and agriculture, transportation, water treatment, and energy, personal care and wellness, building and construction, electronics, and consumables end-markets. The AFP segment was negatively impacted by lower selling prices caused by cost-pass-through contracts. Sales volume/mix also decreased due to weak demand, especially in the

building and construction end market and timing for some heat transfer fluid fills, as well as aggressive customer inventory destocking in the agriculture end market. Despite these challenges, the AFP segment accounted for 30.8% of sales in 2023.



Source: Henry Fund Model

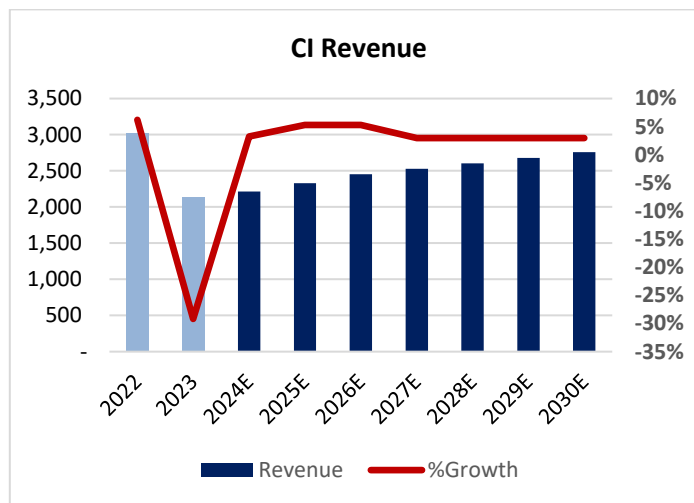
The graph above shows a change of -10.46% for this segment in 2023. Nonetheless, we forecast a positive change of 3% for AFP in 2024; higher than the 1.96% consensus estimate. We believe that as destocking ends, this segment has significant potential to bounce back up and increase revenues.

Furthermore, the functional amines product line was recently transferred from the Chemical Intermediates (CI) segment to the Additives & Functional Products (AFP) segment. These amines are fundamental to the creation of downstream derivative products utilized in personal and home care, agriculture, water treatment, animal nutrition, and paper among other end-use markets. One specific product, Dimethylaminopropylamine (DMAPA), is widely used in the production of amphoteric surfactants like betaines and sultaines, which are common in personal care products such as shampoos and conditioners.¹⁴ The functional amines product line has seen its revenues increase by an average of 20% over the last few years. Now, as part of the AFP segment, we consider it a significant contributor to the segment's revenues.

Finally, we anticipate a growth of 3.50% on average for this segment driven by the increasing demand for additives and functional products that contribute to sustainability goals which aligns perfectly with the development of the methanolysis facilities.

Chemical Intermediates (CI) Segment

The Chemical Intermediates segment sells excess intermediates beyond the Company's internal specialty needs into end markets such as industrial chemicals and processing, building and construction, health and wellness, and food and feed. Key technology platforms include acetyls, oxos, plasticizers, and polyesters.¹ The following graph depicts a decrease in revenues for 2023 in the CI segment. This was caused by lower selling prices that resulted from lower raw material prices and weak end-market demand as well as inventory destocking.



Source: Henry Fund Model

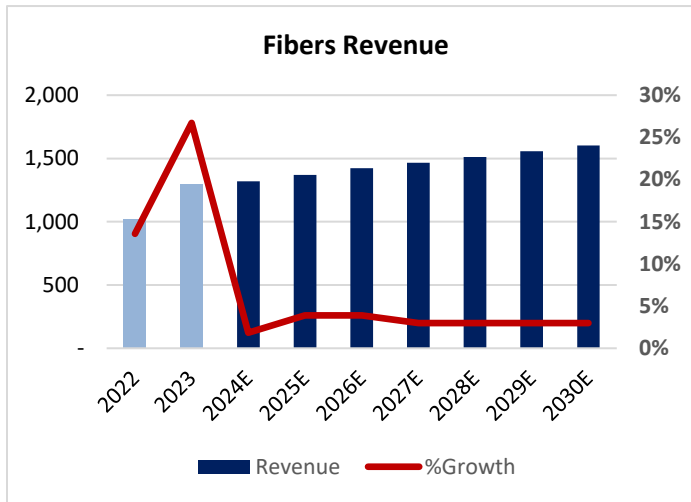
We anticipate growth of 3.23% and 5.30% for 2024 and 2025 respectively aligning with estimates. This is due to the increasing prices of oxos and plasticizers. After this, we forecasted a steady growth of 3%.

Fibers Segment

In the Fibers segment, Eastman manufactures and sells acetate tow and triacetin plasticizers for use in filtration media, primarily cigarette filters; cellulosic filament yarn and staple fibers 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 end-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.¹ First, their Naia™ cellulose acetate yarn is used extensively in the fashion industry for manufacturing luxurious, eco-friendly women's clothes and intimate apparel. Second,

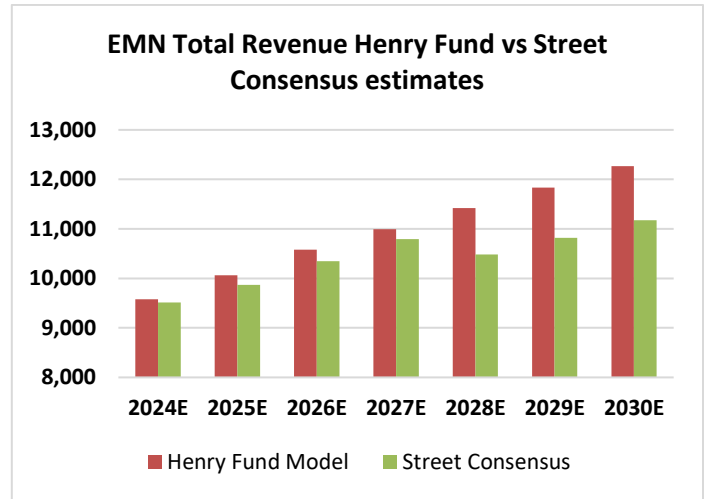
their Estron™ acetate tow is a critical component for cigarette filters, known for its effective filtration properties.¹⁴



Source: Henry Fund Model

The Fibers segment is the only one that reported positive revenue in 2023. This is mainly driven by higher prices for acetate tow caused by an increase in industry capacity utilization and higher raw material, energy, and distribution prices throughout 2022. We anticipate this segment to grow at rates of 3.23% and 5.30% in 2024 and 2025, and eventually reach a steady state rate of 3%. This is driven by the significant competitive advantage Eastman has as the world’s largest producer of acetate yarn and the long-term relationships it has established with its clients. Moreover, the 10 largest customers in this segment accounted for approximately 60% of the Fibers segment sales in 2023.¹

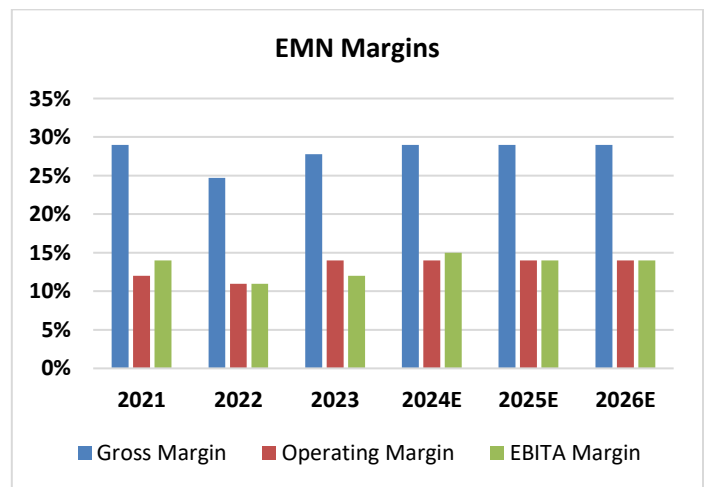
The graph below depicts the Henry Fund's total estimated revenue growth compared to consensus estimates over the forecast period. Notably, our projections reflect a more optimistic outlook compared to consensus estimates. This optimism is rooted in the expected performance of the company’s three molecular recycling facilities as they reach completion and begin operations.



Source: Henry Fund Model, Bloomberg

Cost Structure Analysis

Eastman's cost structure is multifaceted. The cost of sales excluding D&A forms the largest expense, encompassing raw materials, direct labor, and manufacturing overhead. This is followed by SG&A and R&D expenses. Research and Development expenses are a critical investment in the specialty chemicals industry where innovation is the driver of growth. Eastman’s R&D strategy is mainly focused on sustainable growth and includes multi-generational product development for specialty products, faster and more differentiated product development by leveraging global application development capabilities, and the creation of value through the integration of multiple technology platforms. In 2023, R&D expenses accounted for 7.89% as a percentage of sales. This number is high compared to the historical average of 2.42% and is mainly due to the development of the new recycling plants.



Source: Henry Fund Model

As shown in the graph, we anticipate gross margin to continue growing driven by Eastman’s strategic initiatives to optimize and integrate processes. We estimate a steady growth of 29% in gross margin due to the decrease in cost of goods sold expected to result from the opening of the methanolysis facilities. The forecasted gross margin is higher compared to the street consensus obtained from Bloomberg for 2024E and 2025E which indicate 23.5% and 24% respectively.

Additionally, we anticipate a gain in EBIT margin driven by the culmination of the destocking phase which is expected to positively impact sales and thus, cause a rebound in pricing. We forecast a jump to 15% in EBITA margin for 2024 which is when Eastman will experience the biggest impact of the end of destocking. Afterward, we estimated a steady rate of 14%. Additionally, we forecast R&D expenses as an average percentage of revenue over the past ten years. We anticipate a constant but positive operating margin due to Eastman’s continuous commitment to reduce operating expenses through technology and process innovation (rooted in its R&D efforts).

Debt Maturity Analysis

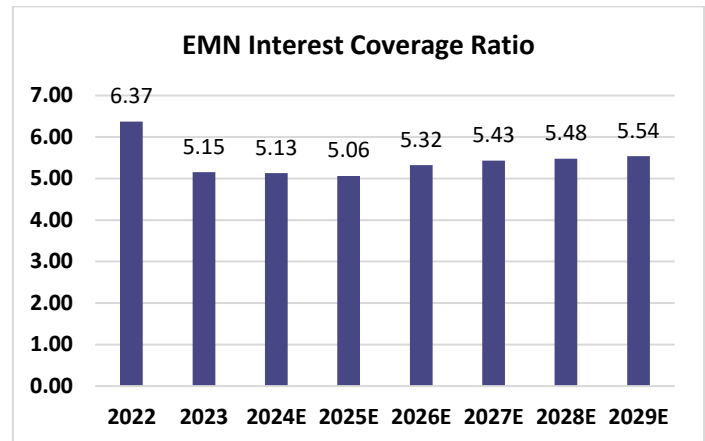
Five-Year Debt Maturity Schedule

Fiscal Year	PAYMENT (\$MIL)
2024	241
2025	696
2026	550
2027	196
2028	495
2029 and beyond	1,869
TOTAL	4,047

Source: EMN 10-K 2023

As of December 2023, Eastman had a total debt outstanding of \$4.8 billion, \$0.4 billion less compared to September 2023.³ According to the company’s debt maturity schedule, there is a required repayment of \$241 million by the end of 2024 and we have projected capital expenditures of \$678 million. We estimate operating cash flows of \$1.1 billion for the year, which will require prudent management. Historically, Eastman has demonstrated strong capabilities in managing its debt obligations. Therefore, we are confident in Eastman’s financial strategy and track record to meet these obligations.

The chart below shows Eastman’s historical and forecasted interest coverage ratios.



Source: HF model

Eastman has maintained a strong interest coverage ratio over the past couple of years, with a forecast to maintain this performance into the future. The high ratios indicate good debt repayment capability; therefore, the Henry Fund expects Eastman to continue earning significantly more than its debt obligations.

Company	D/E Ratio	S&P Credit Rating
Eastman	0.88	BBB
Dow Inc	0.76	BBB+
LyondellBasell	0.86	BBB
Celanese	1.93	BBB
Olin Corp	1.19	BBB-

Source: FactSet

Eastman has a moderate D/E ratio compared to its peers, suggesting that Eastman has a relatively prudent borrowing strategy, maintaining a level of financial leverage that does not overly rely on debt. The company’s credit rating of BBB indicates a good credit quality with a stable outlook, reflecting an adequate capacity to meet financial commitments, albeit with some susceptibility to adverse economic conditions.

ESG Analysis

At Eastman, innovation and sustainability strategies are integrated, and sustainability has become a business imperative. The company focuses on solving the world’s most significant problems by leveraging its scale, integration, and world-class technology platforms.⁴

RECENT DEVELOPMENTS

Recent Earnings Announcement

On February 1, 2024, Eastman announced its Q4 and FYE 2023 results. Eastman delivered approximately \$1.4 billion in cash from operating activities highlighting its strong cash flow generation capabilities. Despite the lower sales/volume mix and the impact of customer destocking that affected the entire chemical sector, the company’s pricing strategy and cost reduction initiatives contributed to solid earnings. Furthermore, Eastman’s EPS outperformed consensus estimates showing financial strength and discipline in managing costs and maintaining operational efficiency. The company also reduced costs by approximately \$200 million in 2023.

Looking forward, management’s guidance for 2024 indicates confidence in the company’s ability to continue generating growth despite global economic uncertainty. Additionally, the Kingsport methanolysis facility is expected to contribute to both revenue and earnings. The forecast for 2024 EPS is between \$7.25 - \$8.00, with operating cash expected to be approximately \$1.4 billion. This aligns with the Henry Fund’s estimated EPS of \$7.65 and operating cash flows of \$1,392 million for 2024.

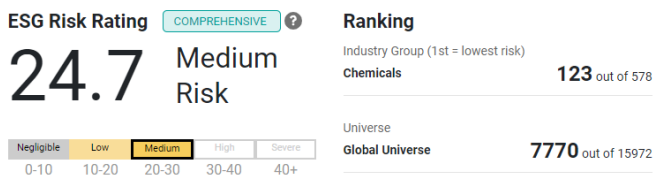
Texas City Divestiture

On December 1, 2023, Eastman completed the sale of its Texas City Operations located in Texas City, Texas, which was reported in the CI segment. The sale excluded the plasticizer operations which are now operated by the buyer, INEOS Acetyls. Eastman will also continue to manufacture acetyls at its Tennessee Operations in Kingsport. The total sale price after adjustments was \$498 million; the divestiture resulted in a \$323 million gain.¹ This divestiture contributed to an increase in adjusted EBIT to \$222 million from \$171 million in Q4 2022. Eastman has not specified how it intends to utilize the proceeds from this sale.

Dalian Ai-Red Technology Acquisition

On February 1, 2023, Eastman announced it acquired Ai-Red Technology (Dalian) Co., Ltd., a manufacturer and supplier of paint protection and window film for the auto market in the Asia Pacific region for approximately \$75

Eastman’s sustainability goals include reducing greenhouse gas emissions by one-third by 2030 and achieving carbon neutrality by 2050. The company is also committed to mainstreaming circularity through the implementation of molecular recycling technologies (methanolysis). In addition to this, Eastman issued a Green Bond in February 2023, and it was the first unsecured green bond offered by a U.S. issuer in the chemical sector. These bonds differ from regular bonds primarily in their purpose and use of proceeds. They are designed to finance projects that have environmental benefits. The company has allocated the net proceeds of the \$496 million from the issuance of the \$500 million notes to finance or refinance eligible projects related to ecoefficient and/or circular economy-adapted products, production technologies, and processes.



Source: Morningstar Sustainalytics

According to Morningstar Sustainalytics, Eastman has a 24.7 ESG rating and it is considered “Medium Risk”. This moderate rating reflects a balanced approach to managing ESG responsibilities.

Company	ESG Risk Rating	
Eastman Chemical (EMN)	24.7	Medium
Dow Inc (DOW)	21.3	Medium
LyondellBasell Industries (LYB)	20.7	Medium
Celanese Corporation (CE)	26.1	Medium
Olin Corporation (OLN)	40.8	Severe

Source: Morningstar Sustainalytics

Although not the one with the lowest risk among its peers, Eastman's rating indicates a good approach to addressing ESG concerns, which is key for maintaining corporate resilience and stakeholder trust. This moderate rating may attract sustainability-conscious investors and could be seen as a differentiator in the marketplace. This ESG rating, especially when compared to Olin Corporation's “Severe” rating, showcases Eastman's relatively stronger commitment to ESG principles, which have been gaining relevance among consumers, investors, and regulators.

million, net of cash acquired. This investment provides additional capacity to serve the growing demand for Eastman’s products and creates additional capacity for innovation and product scale-up from their existing operations.¹ This acquisition is expected to enhance the continued global growth of the Advanced Materials segment performance films product line.

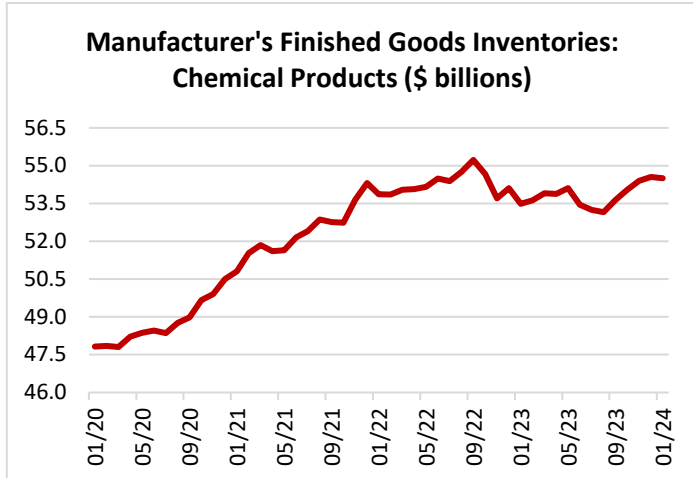
INDUSTRY TRENDS

Eastman operates within the specialty chemicals industry. This industry, a key part of the broader chemical sector, focuses on producing small volumes of chemicals for specific applications. Segments include agrochemicals, paints and coatings, food additives, water treatment chemicals, catalysts, electronic chemicals, and plastic and textile additives among others, each serving different customer bases. This industry promotes innovation and is essential for various sectors of the economy and everyday life.

Chemical Industry Destocking

The chemical industry is currently facing a significant destocking challenge as inventories of key chemicals remain historically high. Capacity utilization across the industry was around 70% in 2023.⁸ meaning that despite companies running at a relatively lower capacity, most materials are still abundant due to the decrease in demand.

The situation was caused by different factors including the supply-chain disruptions and stock-outs triggered by the COVID-19 pandemic which led to an artificial inflation of demand as companies over-purchased raw materials. However, supply conditions normalized quicker than anticipated resulting in excess inventory across the value chain. This issue was further complicated by the sharp increase in interest rates and geopolitical events, such as the Russia-Ukraine crisis which decreased demand in Europe and drove up energy costs, adding pressure to an already strained industry.



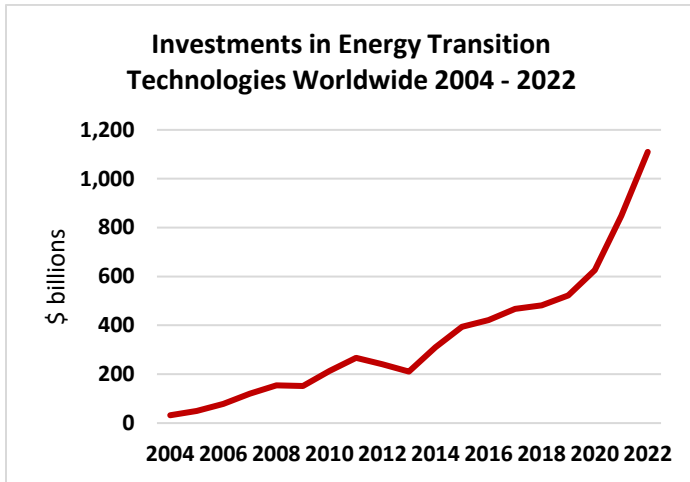
Source: St. Louis FRED

Energy Transition

Energy transition refers to the global energy sector’s shift from fossil-based systems of energy production and consumption to renewable energy sources.⁹ In July 2022, Congress enacted the Creating Helpful Incentives to Produce Semiconductors (CHIPS) Act that sought to bolster US semiconductor capacity while implementing clean technology. Then in August of that same year, the federal government made the single largest investment in climate and energy in American history through the Inflation Reduction Act (IRA).

The legislation along with stakeholder pressure has increased investment in the energy transition and thus demand for specialty chemicals necessary for these industries. After the implementation of the CHIPS Act, there was a significant surge in private sector commitments, with \$166 billion directed towards semiconductor manufacturing investments. Similarly, in 2023, a year after the enactment of the IRA, there were approximately \$88 billion in announcements for clean energy manufacturing investments. This showcases the impact of these legislative measures on stimulating industry growth and investment in key technological sectors consequently causing a surge in manufacturing activities that rely on chemicals and materials.

Although overall chemical demand was soft in 2023, we believe that the demand for chemicals and materials supporting the energy transition will grow in 2024 and beyond, reflecting the economic impact of these policies.



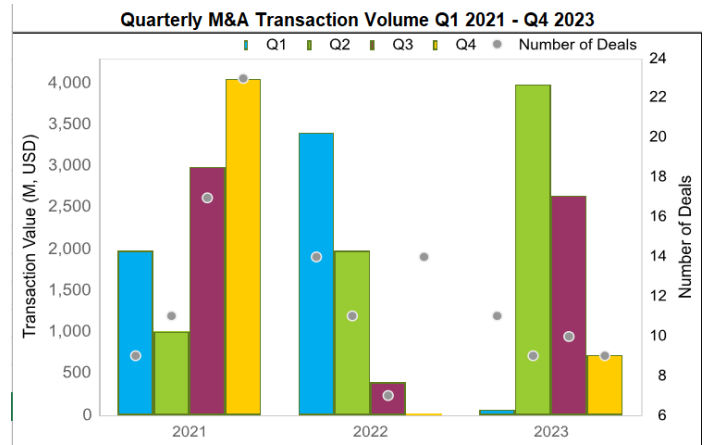
Source: Statista

M&A Activity

The specialty chemicals industry is characterized by its collaborative environment in the development of new products and active M&A landscape. However, in 2023 higher interest rates, credit tightening, macro and geopolitical concerns, and recessionary fears caused compression for many deals.

Despite all of that, there were a total of 145 deals between Q1 of 2021 and Q4 of 2023. While the transaction value increased by 6258% in Q4 2023 compared to Q4 2022, the number of deals decreased by 35% during the same period. This suggests that while there were fewer deals in Q4 2023, the deals that did occur were of much higher value, indicating a trend towards larger and potentially more strategic M&A activities within the industry. The M&A activity within the specialty chemicals market has been significantly influenced by a shift towards environmentally friendly products and sustainable production. This transformation has led to a reevaluation of product portfolios and supply chains, making value-added distributors increasingly important in bridging the gap between manufacturers and consumer end markets. The focus has been particularly strong in sectors like food & beverage, personal care, and pharmaceuticals, which continue to demand high-quality chemical solutions.

The Henry Fund anticipates that M&A activity will continue to increase as the industry transitions from destocking to restocking and supply and demand continue to normalize.



Source: FactSet

MARKETS AND COMPETITION

The global specialty chemicals market was valued at \$641 billion in 2023, and it is anticipated to grow at a CAGR of 5.2% from 2024 to 2030. Eastman Chemical is not one of the top industry players since its market cap is only \$10.54 billion. In addition to this, specialty chemicals companies greatly differ from one another since each one of them focuses on manufacturing specific products for very specific applications and industries. Therefore, the peers used in this analysis are companies of similar size and that manufacture similar products to Eastman's.

Peer Comparisons

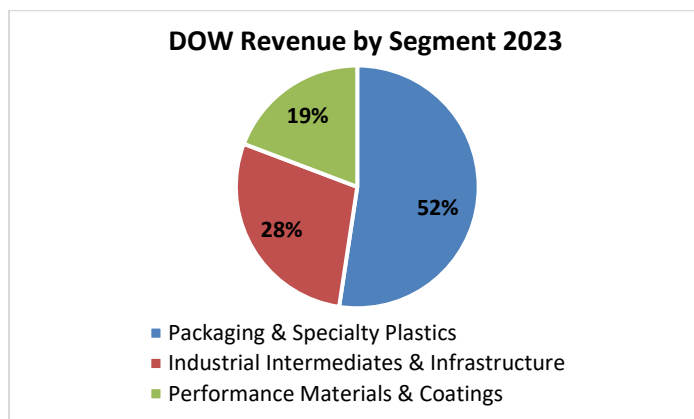
Company	Mkt Cap	Revenue	Net Income
Dow Inc	39,959	44,622	578
LyondellBasell	32,446	40,919	2,119
Celanese	17,235	10,940	1,969
Eastman	11,286	9,198	894
Olin Corp	6,362	6,833	460

Source: FactSet (\$ millions)

Dow Inc (DOW)

Dow Inc. focuses on solutions for packaging, infrastructure, mobility, and consumer applications globally. Its business is structured into three segments: Packaging & Specialty Plastics, Industrial Intermediates & Infrastructure, and Performance Materials & Coatings. These segments cater to diverse end markets by providing a range of products from ethylene and polyethylene to architectural paints and industrial coatings.

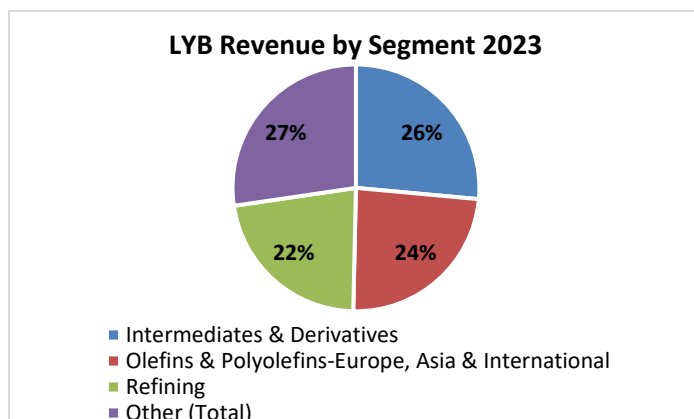
Headquartered in Midland, Michigan, Dow emphasizes innovation and sustainability across its operations.



Source: FactSet

LyondellBasell Industries (LYB)

LyondellBasell is a leading multinational chemical company, operating across several segments including Olefins and Polyolefins, Intermediates and Derivatives, Advanced Polymer Solutions, and Refining. Recognized as the largest licensor of polyethylene and polypropylene technologies, it focuses on the production of chemicals, polymers, and fuels. Established in 2007, LyondellBasell has grown into the third-largest independent chemical manufacturer in the U.S., emphasizing innovation and sustainability to serve diverse industries globally.

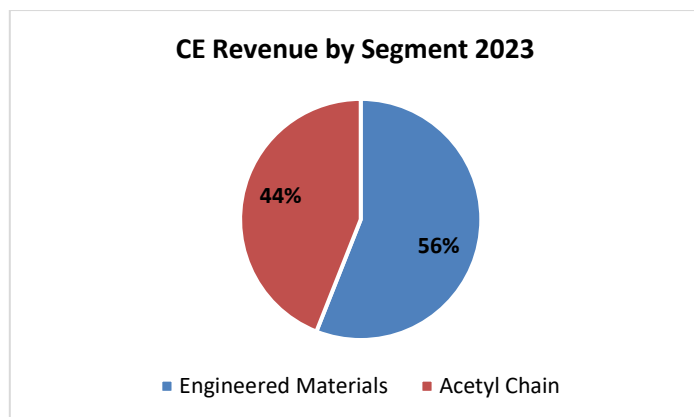


Source: FactSet

Celanese Corporation (CE)

Celanese Corporation is a global company in the chemical and specialty materials industry, focusing on the production of high-performance engineered polymers and acetyl products that serve a wide range of applications. The company operates in two different business

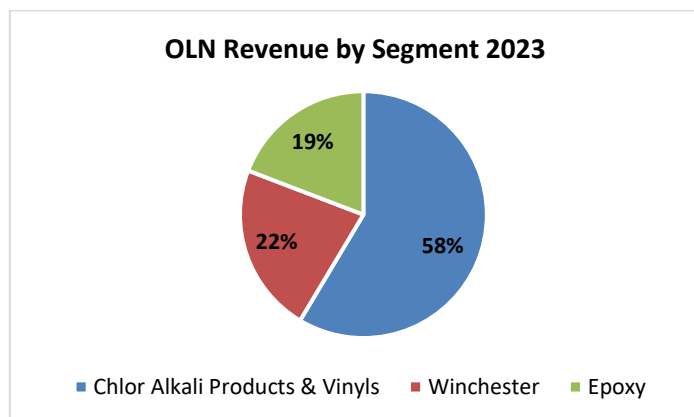
segments: Engineered Materials and Acetyl Chain. Their products are integral to the automotive, medical, electronics, and consumer goods industries, among others, enabling innovations and enhancing performance in various applications. Celanese's commitment to sustainability, technological advancements, and global presence positions it uniquely to address the evolving demands of its diverse customer base.



Source: FactSet

Olin Corporation (OLN)

Olin Corporation manufactures and distributes chemical products across the United States, Europe, and Asia Pacific. It operates through three main segments: Chlor Alkali Products and Vinyls; Epoxy; and Winchester, serving various industries, including construction, automotive, and defense. Olin's strategic focus lies in delivering high-quality chemical products while expanding its global footprint.



Source: FactSet

Financial and Operating Metrics

Market Valuation

Ticker	Market Cap (B)	P/E
EMN	10.54	12.00
DOW	39.75	67.27
LYB	32.10	14.71
CE	16.93	8.67
OLN	6.82	15.10

Source: FactSet

In the table above, we can see that Eastman has a market capitalization of \$10.54 billion and a P/E ratio of 12.00, suggesting it is valued lower than Dow and LyondellBasell in terms of market cap but has a more attractive P/E ratio compared to Dow. This makes Eastman a more attractive investment opportunity as a company with better earnings relative to its share price than Dow. Compared to Celanese, which has a lower P/E, Eastman might be seen as having less earnings potential per share or as being a less risky investment. Finally, Olin has a smaller market cap but a slightly higher P/E than Eastman, possibly reflecting a higher growth expectation from the market or a premium for its market position.

Ticker	Dividend Yield (%)	Payout ratio (%)
EMN	3.54	42.46
DOW	5.11	341.41
LYB	5.20	76.23
CE	1.80	15.56
OLN	1.48	22.41

Source: FactSet

Based on the table above, Eastman (EMN) presents a dividend yield of 3.54%, positioning it among its peers in terms of shareholder returns through dividends. Additionally, with a payout ratio of 42.46%, it maintains a balance, suggesting a good approach to returning income to shareholders while retaining a portion of earnings for potential reinvestment or future growth.

Dow (DOW) and LyondellBasell (LYB) both offer higher yields at 5.11% and 5.20% respectively, accompanied by higher payout ratios of 341.41% and 76.23%. These elevated payout ratios, especially in the case of Dow, reflect a strategy to distribute a large proportion of earnings as dividends, which can be very attractive to

dividend-seeking investors but also may indicate less reinvestment in the business or a potential warning sign of unsustainable dividend policies if the payout ratios are consistently over 100%.

On the other hand, Celanese Corporation (CE) and Olin (OLN) offer lower yields of 1.80% and 1.48% with payout ratios of 15.56% and 22.41% respectively. The lower payout ratios suggest a conservative dividend policy, indicating a preference for reinvesting a larger share of profits back into the business for growth.

Profitability Ratios

Ticker	Net Margin	ROA (%)	ROE (%)
EMN	9.72	6.10	16.85
DOW	1.30	0.97	2.94
LYB	5.18	5.78	16.59
CE	18.00	7.45	30.94
OLN	6.73	5.84	19.27

Source: FactSet

Within the profitability ratios, Eastman stands out with a good net margin of 9.72%, signaling efficient cost control and strong pricing power. Its ROE of 16.85% shows its effectiveness in generating profits from shareholders' equity, although not the highest among its peers. Dow's net margin of only 1.30% and a ROE of 2.94%, reflect the company's conservative approach and value-oriented focus. LyondellBasell presents a balance between net margin and ROE, reflecting stable profitability and good equity utilization. Celanese Corporation's agility, cost management, and growth strategies have led to the highest net margin at 18.00% and an impressive ROE of 30.94. Finally, Olin, despite being smaller in market cap, shows strong profitability indicators with a net margin of 6.73% and ROE of 19.27%, highlighting effective operations and strategic financial management.

Industry Ratios

Ticker	R&D % of Sales	EV/EBITDA
EMN	2.60%	9.47
DOW	1.86%	9.78
LYB	0.32%	7.77
CE	1.33%	15.32
OLN	0.29%	6.71

Source: FactSet

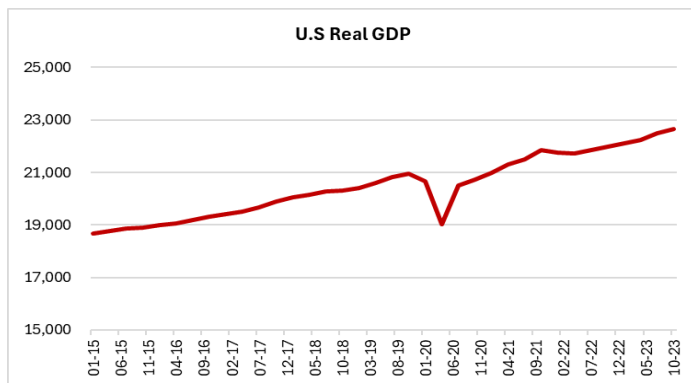
Eastman demonstrates a strong commitment to innovation with the highest R&D percentage of sales among its peer group. However, having a low R&D percentage of sales is not entirely bad. In the case of LyondellBasell and Olin having the lowest R&D may indicate that the companies have reached a steady state in which they may have a portfolio of mature products that require less developmental investment. It may also suggest that these two companies are more risk-averse than Eastman to invest in new technologies and markets.

In terms of EV/EBITDA, Eastman's ratio of 9.47 suggests that investors see the company as fairly valued or expecting stable growth. Dow's ratio is slightly higher at 9.78, which implies a slightly higher expectation for future growth or a premium for their market position. LYB's lower ratio of 7.77 suggests a potentially undervalued status or robust earnings capability, while CE's higher ratio of 15.32 indicates that its earnings quality is valued highly by the market or there are anticipated growth prospects. Olin's lowest ratio of 6.71 indicates it is the most undervalued among its peers.

ECONOMIC OUTLOOK

Real GDP Growth

The US economy expanded 3.1% year-on-year in the fourth quarter of 2023, the strongest rise in about two years, following a 2.9% rise in Q3.¹⁰ Although the U.S. economy started 2024 on strong footing, the Conference Board forecasts overall GDP growth to slow to under 1% in Q2 and Q3 2024. Thereafter, inflation and interest rates should normalize, and quarterly annualized GDP growth should converge toward its potential of nearly 2 percent in 2025.¹¹



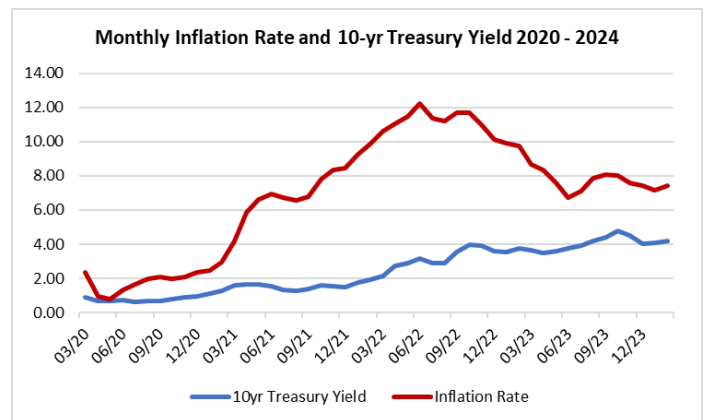
Source: St. Louis FRED

Historically, sales in the chemical sector have shown a high correlation with overall economic expansion; as a strong economy results in increased manufacturing and construction activity, consequently boosting demand for chemicals and advanced materials. This also translates into higher sales for Eastman. The Henry Fund believes that as the U.S. economy continues to stabilize, there will be a slowdown of GDP growth, yet it will remain positive. This could result in a moderation of demand for specialty chemicals.

Inflation and Interest Rates

According to the Congressional Budget Office, interest rates rose in 2023 as the federal funds rate increased to its highest level since 2001. In CBO's projections, that rate begins to decline in Q2 for 2024. Interest rates on 10-year Treasury notes are expected to increase in 2024 and then fall through 2026.

Inflation rates, on the other hand, slowed significantly in 2023 compared to the previous year. In CBO's projections, it slows further in 2024 to a rate like the Federal Reserve's long-run goal of 2 percent, then it is expected to go up in 2025, before declining slightly.¹²



Source: Statista and St. Louis FRED

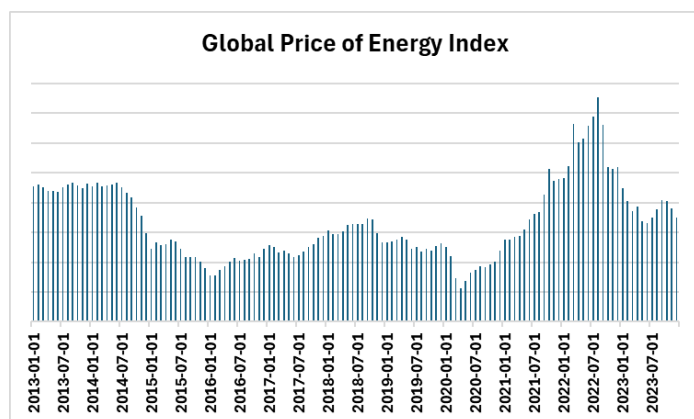
The specialty chemicals industry, being capital and resource-intensive, is significantly impacted by inflation because it affects the cost of raw materials and energy. High inflation leads to elevated production costs for Eastman, which decreases profit margins. Additionally, interest rates, which are closely tied to inflation, influence the cost of capital. If inflationary pressures stay high, interest rates also remain at higher levels, impacting the company's investment and growth potential. Although there is general optimism regarding interest rates, we

don't believe they will decrease significantly, at least in the short term. As interest rates remain high, consumer spending is reduced which can lead to decreased demand in end-markets that use Eastman's chemicals; thus, hurting the company.

Energy Prices

Energy markets have been quite volatile over the last few years. Coming off of 15-year lows in 2019 to reaching 20-year highs in 2021. Specialty chemicals companies like Eastman are significantly influenced by global energy prices, driven by factors such as the push for renewables, geopolitical conflicts, and political climate, especially in major economies like the U.S. Renewable energy's higher costs, compared to fossil fuels, gradually increase electricity prices. However, shifts from natural gas decrease its demand, potentially stabilizing prices.

With raw material and energy costs representing approximately 45 percent of Eastman's total cost of operations in 2023¹, the company's financial performance is notably impacted by fluctuations in energy markets. This considerable proportion indicates that any increase in energy prices has the potential to elevate production costs and compress profit margins. With uncertainty around the coming U.S. presidential election and global tension between the Russia-Ukraine and Israel-Gaza conflicts, we believe that energy prices will increase into 2024, thus impacting Eastman.



Source: St. Louis FRED

VALUATION

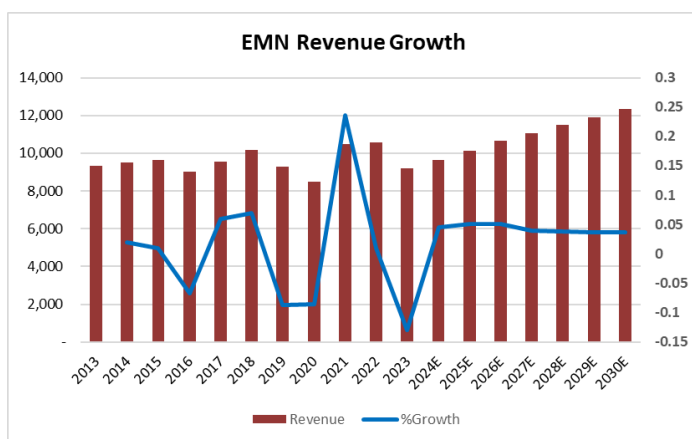
Revenue Growth

The Henry Fund forecasts Eastman revenue to grow by 4.59% in 2024 with the Advanced Materials segment

showing the highest growth at 6.54%. This aligns with company expectations for the AM segment to fully recover after the challenges faced in FY22 and FY23 and position as the strongest segment with the highest growth.

For each of the segments, the Henry Fund used growth rates based on consensus estimates obtained from Bloomberg for FY24, FY25, and FY26. For the following years, the assumptions were made based on historical and consensus data.

EMN is a company that focuses on innovation and development. Therefore, we believe that it will experience slow but steady growth as it recovers from destocking and demand stabilizes in 2024.



Source: HF model

Operating Expenses

Eastman's operating expenses as a percentage of sales have fluctuated over time. Thus, our model takes an average of those changes and applies it to the forecast. We expect operating costs to increase as Eastman continues to line out and optimize operations at its Kingsport new methanolysis facility.

SG&A and R&D Expenses

The assumptions made for SG&A and R&D were based on an average of the changes throughout the years. We established a constant rate because Eastman's SG&A has remained relatively constant throughout time. We forecast R&D expenses as an average percentage of revenue over the past ten years. We anticipate a constant but positive operating margin due to Eastman's continuous commitment to reduce operating expenses through technology and process innovation (rooted in its R&D efforts).

Earnings estimates

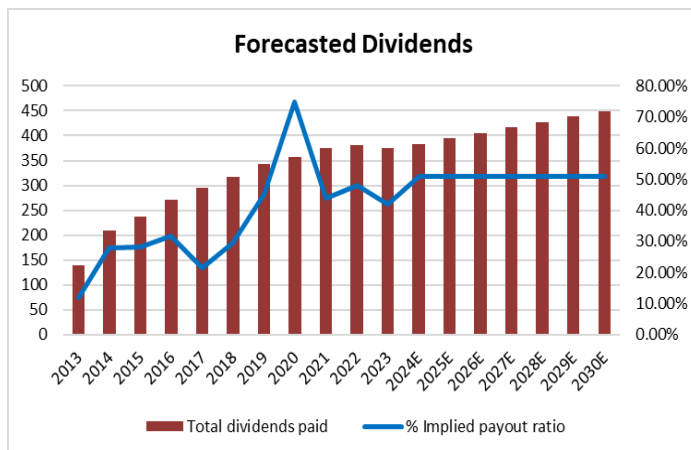
Our forecasted earnings per share for 2024 and 2025 are slightly lower compared to consensus estimates primarily due to persistent levels of low demand. However, our EPS is still anticipated to be higher than in previous years. This projection is mainly driven by an expected improvement in utilization rates and the anticipated contributions from the Kingsport facility.

Share Repurchases

In its most recent 10-K, Eastman stated that the company engages in dividends and share repurchases as key strategies to return value to its stockholders. Since Eastman does not give specific guidance regarding future repurchases, we forecast this using the difference between FY23 and FY22 in share repurchases.

Payout Policy Forecasts

Using a historical average, we forecasted an implied total dividend payout ratio of 50.79% for Eastman. This high ratio is mainly driven by the company's capacity to reduce its debt levels and its commitment to meeting shareholder expectations for steady returns.



Source: HF model

Capital Expenditures

Eastman does not provide guidance on CapEx for the upcoming years on its 10-k. However, we anticipate EMN to decrease capital expenditures in 2024 compared to 2023. The reason for this initial expected decrease is that in 2023, EMN faced higher-than-usual expenses due to unforeseen issues with the pipelines at their Kingsport facility. However, now that these issues have been

resolved and the facility is operational, we foresee lower capital expenditures for this upcoming year. After 2024, we anticipate capital expenditures to increase at a rate consistent with the historical average and the inflation rate over the forecasted period. This aligns with our expectation for the company's capital expenditures to increase as they build the other two molecular recycling plants.

WACC Assumptions

Our calculated weighted average cost of capital (WACC) for Eastman was 9.05%, above the 8.3% consensus estimate. For this calculation, we made the following assumptions:

Risk-Free Rate: We used the 10-year Treasury bond yield as of February 16, 2024.

Beta: We obtained 1.37 beta from Bloomberg using the average 5-year weekly raw beta.

Equity Risk Premium: We used the Henry Fund consensus estimate of 5.00%

Pre-Tax Cost of Debt: We obtained 5.70% from Bloomberg as the yield to maturity for an EMN 10-year corporate bond.

Tax Rate: We used an implied marginal tax rate of 15.39% based on EMN's historical average.

Discounted Cash Flow Model (DCF)

The Henry Fund DCF and Economic Profit (EP) models resulted in an implied share price of \$94.53. We have a strong level of confidence in this model, as it considers more company-specific factors and allows us to incorporate growth assumptions per business segment. The approach involves adjusting for non-operating assets, excess cash, debt, employee-stock options, and non-controlling interest (NCI). By accounting for all free cash flows and discounting by WACC, this model draws a picture of the company's potential. Thus, it results in a more optimistic valuation.

Dividend Discount Model (DDM)

The DDM model calculates the per-share value of equity by applying the cost of equity to future dividend payments to determine an appropriate share purchase price, which

is \$71.22 in this case. This number is significantly lower compared to the value obtained from DCF. This is because DDM is solely focused on dividends and discounts them by the cost of equity. Since the cost of equity does not account for debt, it is generally higher, consequently resulting in a lower valuation. Therefore, we do not believe this model is accurately pricing the stock.

Relative Valuation Model

For this model, we calculated Eastman's relative value using peers' average EV/EBITDA ratio for the last twelve months. These peers were chosen based on market cap and revenue segments. We selected companies that have a diversified portfolio and have product lines very similar to Eastman's. We obtained the names directly from Eastman's 10-k.

After comparing the median multiple of Eastman's ratio, we obtained a value of \$131.92. We have our reservations regarding this model as it suggests a trading price that is \$50 over its current trading price. This significant disparity can be justified by considering the unique characteristics of Eastman, which set it apart from its peers. Eastman's business model includes a diverse range of products, exclusive contracts, and patents that add complexity to a valuation comparison. Therefore, we believe that these specific characteristics may not be adequately captured by a median industry multiple, leading to a valuation that does not accurately reflect Eastman's specific business model and growth prospects.

KEYS TO MONITOR

Drivers

We recognize the considerable progress and potential for Eastman's Kingsport methanolysis plant. Despite initial struggles, including labor skill mismatches, severe weather conditions, and unexpected increase in capital expenditures; as of the last conference call, it was announced that the facility is now introducing feedstock and it is weeks away from starting up the plant. Although time is still needed to optimize operations, this plant is set to contribute \$75 million to EBITDA in 2024. The anticipated success of this facility is the first step towards opening two more, one in France and a second one in the U.S. by 2026-2027.

In addition, these facilities open up another opportunity for Eastman as it is poised to become a leader in the circular economy space due to the lack of specialized competitors. Policy frameworks and increasing market demand for circular products place Eastman in a favorable position to capitalize on these emerging trends.

Finally, the end of destocking presents a positive outlook as it will allow the AM segment to recover from the past two years. This segment is Eastman's strongest segment and the one with the highest growth historically. Its recovery translates into promising trends in the automotive industry.

Risks

In terms of risks, we cannot ignore the persistent slow demand which is expected to continue. Additionally, the volatility of raw materials and energy costs adds to the risk and uncertainty as well as the potential for continued destocking in industries like agriculture and medical. Finally, high inflation remains a concern, with Eastman focusing on productivity gains to offset these inflationary pressures.

Recommendation and Conclusion

Our final rating for Eastman Chemical is a hold within a range of \$94 and \$114 based on our DCF and Relative Valuation models.

To conclude, we believe that Eastman is poised for a year of recovery, especially towards the second half, as destocking trends continue to subside. The company's strategic initiatives focus on operational efficiency, and expansion into new markets and technologies are expected to drive this recovery. However, it is important to continue monitoring closely the volatility of raw materials and inflation rates as this could result in weaker-than-anticipated growth.

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Eastman Chemical Co

Income Statement

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue	9,350	9,527	9,648	9,008	9,549	10,151	9,273	8,473	10,476	10,580	9,210	9,576	10,064	10,580	10,994	11,419	11,837	12,270
Cost of sales excluding D&A	6,141	6,856	6,497	6,078	6,508	7,068	6,428	5,924	7,438	7,966	6,651	6,779	7,124	7,489	7,782	8,083	8,379	8,686
Gross Profit	3,209	2,671	3,151	2,930	3,041	3,083	2,845	2,549	3,038	2,614	2,559	2,797	2,940	3,090	3,211	3,335	3,458	3,584
Depreciation and Amortization	433	450	571	580	587	604	611	574	538	477	498	525	539	546	566	586	607	628
Depreciation		355	408	414	423	440	451	446	430	390	412	439	458	477	497	517	538	559
Amortization		95	163	166	164	164	160	128	108	87	86	86	81	69	69	69	69	69
Selling, general and admin expenses	645	755	762	703	699	721	691	654	795	726	727	671	705	741	770	800	829	860
Research and development expenses	193	227	251	219	215	235	234	226	254	264	239	279	293	308	320	333	345	358
Asset impairments and restructuring charges/gains, net	76	77	183	45	8	45	126	227	47	52	37	-	-	-	-	-	-	-
Other components of post-employment	-	-	-	-	-	(21)	60	119	(412)	(101)	41	-	-	-	-	-	-	-
Other income (charges)	-	-	-	-	-	-	3	8	(17)	(6)	38	-	-	-	-	-	-	-
Loss on divested business	-	-	-	-	-	-	-	-	552	43	(323)	-	-	-	-	-	-	-
Earnings/loss before interest and taxes	1,862	1,162	1,384	1,383	1,532	1,552	1,120	741	1,281	1,159	1,302	1,323	1,403	1,495	1,555	1,617	1,677	1,739
Net interest expense	180	187	263	255	241	235	218	210	198	182	215	276	279	283	288	297	305	313
Early debt extinguishment costs	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Earnings/loss before income taxes	1,679	990	1,129	1,049	1,289	1,310	902	530	1,082	977	1,087	1,046	1,124	1,212	1,267	1,320	1,372	1,426
Provision for income taxes	507	235	275	190	(99)	226	140	41	215	181	191	161	173	187	195	203	211	219
Earnings/loss from continuing operations	1,172	755	854	859	1,388	1,084	762	489	867	796	896	885	951	1,026	1,072	1,117	1,161	1,207
Earnings/loss from discontinued operations, net of tax	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net earnings/loss	1,172	757	854	859	1,388	1,084	762	489	867	796	896	885	951	1,026	1,072	1,117	1,161	1,207
Net earnings attributable to noncontrolling interest	7	6	6	5	4	4	3	11	10	3	2	5	5	6	6	6	7	7
Net earnings/loss attributable to Eastman	1,165	751	848	854	1,384	1,080	759	478	857	793	894	880	946	1,020	1,066	1,111	1,155	1,200
Total shares outstanding	152.42	148.60	147.76	146.44	142.92	139.73	135.94	135.81	128.92	118.75	117.3	116.24	115.31	114.49	113.77	113.15	112.28	111.15
Weighted Average shares outstanding	154.00	149.50	148.60	147.30	144.80	141.20	137.40	135.50	134.90	123.50	118.6	116.77	115.78	114.90	114.13	113.46	112.72	111.72
Basic EPS	7.57	5.03	5.71	5.80	9.56	7.65	5.52	3.53	6.35	6.42	7.54	7.65	8.17	8.88	9.34	9.79	10.24	10.74
Dividends per share	1.25	1.45	1.66	1.89	2.09	2.30	2.52	2.67	2.83	3.07	3.18	3.28	3.40	3.52	3.64	3.76	3.88	4.00

Eastman Chemical Co

Balance Sheet

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Assets																		
Current Assets																		
Cash & cash equivalents	237	214	293	181	191	226	204	564	459	493	548	810	1,076	1,402	1,832	2,275	2,728	3,152
Trade receivables, net of allowance for credit loss	880	936	792	812	1,026	1,154	980	1,033	1,091	957	826	955	1,004	1,056	1,097	1,139	1,181	1,224
Miscellaneous receivables	208	264	246	399	360	329	395	482	489	320	328	350	368	387	402	417	432	448
Inventories	1,264	1,509	1,479	1,404	1,509	1,583	1,662	1,379	1,504	1,894	1,683	1,536	1,614	1,697	1,763	1,831	1,898	1,968
Assets held for sale	-	-	-	-	-	-	-	-	1,007	-	-	-	-	-	-	-	-	-
Other current assets	251	250	68	70	57	73	80	83	96	114	96	101	105	111	116	121	127	133
Non-current Assets																		
Net properties	4,290	5,087	5,130	5,276	5,607	5,600	5,571	5,549	4,996	5,160	5,548	5,788	6,032	6,282	6,537	6,798	7,067	7,342
Goodwill	2,637	4,486	4,518	4,461	4,527	4,467	4,431	4,465	3,641	3,664	3,646	3,646	3,646	3,646	3,646	3,646	3,646	3,646
Intangible assets, net	1,761	2,905	2,650	2,469	2,373	2,185	2,011	1,792	1,362	1,210	1,138	1,052	971	902	833	764	695	626
Other noncurrent assets	317	421	435	385	349	378	674	736	874	855	820	860	901	944	990	1,038	1,088	1,140
Total assets	11,845	16,072	15,611	15,457	15,999	15,995	16,008	16,083	15,519	14,667	14,633	15,097	15,717	16,425	17,216	18,030	18,862	19,680
Liabilities																		
Current Liabilities																		
Payables & other current liabilities	1,470	1,721	1,625	1,512	1,589	1,608	1,618	1,689	2,133	2,125	2,035	1,914	2,011	2,114	2,197	2,282	2,366	2,452
Borrowings due within one year	-	301	431	283	393	243	171	349	747	1,126	541	383	460	527	547	514	546	581
Liabilities held for sale	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	-	-
Long-term liabilities																		
Long-term borrowings	4,254	7,248	6,608	6,311	6,147	5,925	5,611	5,269	4,412	4,025	4,305	4,506	4,502	4,524	4,657	4,829	4,948	5,039
Deferred income tax liabilities	496	946	928	1,206	893	884	915	848	810	671	601	753	756	760	764	767	771	774
Post-employment obligations	1,297	1,498	1,297	1,018	963	925	1,016	1,143	811	628	667	600	534	467	400	334	267	200
Other long-term liabilities	453	768	701	519	534	532	645	677	727	856	954	1,000	1,048	1,099	1,152	1,207	1,265	1,326
Total liabilities	7,970	12,482	11,590	10,849	10,519	10,117	9,976	9,975	9,731	9,431	9,103	9,157	9,311	9,491	9,717	9,932	10,162	10,373
Stockholder's Equity																		
Common stock	1,780	1,819	1,865	1,917	1,985	2,050	2,107	2,176	2,189	2,317	2,370	2,430	2,491	2,551	2,612	2,672	2,704	2,704
Retained earnings	4,012	4,545	5,146	5,721	6,802	7,573	7,965	8,080	8,557	8,973	9,490	9,985	10,536	11,150	11,799	12,482	13,197	13,948
Accumulated other comprehensive income loss	171	(277)	(390)	(281)	(209)	(245)	(214)	(273)	(182)	(205)	(319)	(319)	(319)	(319)	(319)	(319)	(319)	(319)
Total stockholders' equity before treasury stock	5,963	6,087	6,621	7,357	8,578	9,378	9,858	9,983	10,564	11,085	11,541	12,097	12,707	13,382	14,092	14,835	15,582	16,333
Treasury stock at cost	2,167	2,577	2,680	2,825	3,175	3,575	3,900	3,960	4,860	5,932	6,083	6,234	6,385	6,536	6,687	6,838	6,989	7,140
Total Eastman Chemical Co. stockholders' equity	3,796	3,510	3,941	4,532	5,403	5,803	5,958	6,023	5,704	5,153	5,458	5,863	6,322	6,846	7,405	7,997	8,593	9,193
Noncontrolling interest	79	80	80	76	77	75	74	85	84	83	72	77	83	89	95	101	107	114
Total equity	3,875	3,590	4,021	4,608	5,480	5,878	6,032	6,108	5,788	5,236	5,530	5,940	6,405	6,934	7,499	8,098	8,700	9,307
Total liabilities and equity	11,845	16,072	15,611	15,457	15,999	15,995	16,008	16,083	15,519	14,667	14,633	15,097	15,717	16,425	17,216	18,030	18,862	19,680

Eastman Chemical Co

Historical Cash Flow Statement

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Operating Activities											
Net earnings/loss	1,172	757	854	859	1,388	1,084	762	489	867	796	896
Depreciation & amortization	433	450	571	580	587	604	611	574	538	477	498
Mark-to-market pension and other postretirement	-383	304	115	97	-21	99	143	240	-267	19	53
Asset impairment changes	28	52	107	9	1	39	72	146	16	-	-
Early debt extinguishment costs	-	-	-	85	-	-	-	1	1	-	-
Gain/loss on sale of assets	-	(5)	-	(17)	(3)	(4)	-	-	-	15	(15)
Loss on divested businesses	-	-	-	-	-	-	-	-	552	43	(323)
Provision/benefit for deferred income taxes	331	99	107	177	(394)	(51)	23	(111)	(38)	(136)	(102)
Increase/decrease in trade receivables	(38)	19	114	(29)	(53)	16	170	(31)	(281)	93	126
Increase/decrease in inventories	(6)	(61)	(26)	54	(71)	(224)	(80)	291	(389)	(430)	201
Increase/decrease in trade payables	(2)	(30)	(102)	7	123	90	(27)	(100)	554	60	(190)
Pension and other postretirement contributions	(149)	(165)	(259)	(329)	(115)	(152)	(119)	(136)	(185)	(149)	(66)
Other items, net	(171)	(39)	60	(125)	144	45	(89)	5	89	290	154
Net cash flows operating activities	1,297	1,408	1,612	1,385	1,657	1,543	1,504	1,455	1,619	975	1,374
Investing Activities											
Additions to properties & equipment	(483)	(593)	(652)	(626)	(649)	(528)	(425)	(383)	(555)	(611)	(828)
Proceeds from sale of business	-	-	-	-	-	-	-	-	667	998	456
Proceeds from property insurance	-	-	-	-	-	65	-	-	-	-	-
Proceeds from sale of assets & investments	31	13	4	41	14	5	-	-	-	-	-
Acquisitions, net of cash acquired	-	(3,509)	(45)	(26)	(4)	(3)	(48)	(1)	(114)	(1)	(77)
Additions to capitalized software	-5	-3	-	-	-	-	-	-	(23)	(13)	(5)
Other items, net	-	1	-	(44)	(4)	(2)	(7)	(10)	(4)	19	22
Net cash flows investing activities	(457)	(4,091)	(693)	(655)	(643)	(463)	(480)	(394)	(29)	392	432
Financing Activities											
Increase/decrease commercial paper & borrowings	-	-	-	-	-	(146)	(70)	(121)	(50)	326	(326)
Proceeds from borrowings	150	3,565	250	1,848	675	1,604	460	249	-	500	796
Repayment of borrowings	(1,105)	(125)	(950)	(2,126)	(1,025)	(1,774)	(760)	(435)	(300)	(750)	(808)
Dividends paid to stockholders	(140)	(210)	(238)	(272)	(296)	(318)	(343)	(358)	(375)	(381)	(376)
Treasury stock purchases	(238)	(410)	(103)	(145)	(350)	(400)	(325)	(60)	(1,000)	(1,002)	150
Other items, net	-	-	-	-	-	(2)	(5)	21	35	(14)	(24)
Net cash flows financing activities	(859)	2,664	(832)	(838)	(1,006)	(1,040)	(1,043)	(704)	(1,690)	(1,321)	(888)
Effect of exchg rate changes cash & cash equivalents	7	(4)	(8)	(4)	2	(5)	(3)	3	(5)	(12)	1
Net change in cash & cash equivalents	(12)	(23)	79	(112)	10	35	(22)	360	(105)	34	55
Cash & cash equivalents at beginning of period	249	237	214	293	181	191	226	204	564	459	493
Cash & cash equivalents at end of period	237	214	293	181	191	226	204	564	459	493	548

Eastman Chemical Co
Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Operating Activities							
Net earnings/loss	885	951	1,026	1,072	1,117	1,161	1,207
Depreciation & amortization	439	458	477	497	517	538	559
Trade receivables, net of allowance for credit loss	(129)	(49)	(51)	(41)	(42)	(42)	(43)
Miscellaneous receivables	(22)	(18)	(19)	(15)	(16)	(15)	(16)
Inventories	147	(78)	(83)	(66)	(68)	(67)	(70)
Other current assets	(5)	(5)	(5)	(5)	(6)	(6)	(6)
Payables & other current liabilities	(121)	98	103	83	85	84	87
Deferred income tax liabilities	152	4	4	4	4	4	4
Other LT liabilities	46	48	51	53	56	58	61
CF from operating activities	1,392	1,408	1,502	1,580	1,646	1,714	1,782
CF from investing activities							
Capex	(678)	(702)	(727)	(752)	(778)	(806)	(834)
Intangible assets	86	81	69	69	69	69	69
Other noncurrent assets	(40)	(41)	(43)	(46)	(48)	(50)	(52)
Assets held for sale	-	-	-	-	-	-	-
CF from investing activities	(632)	(663)	(701)	(729)	(757)	(787)	(817)
CF from financing activities							
Borrowings due within one year	(158)	77	67	20	(33)	32	35
LT borrowings	201	(4)	21	133	172	119	92
Post-employment obligations	(67)	(67)	(67)	(67)	(67)	(67)	(67)
Common stock	60	60	60	60	60	31	-
Treasury stock at cost	(151)	(151)	(151)	(151)	(151)	(151)	(151)
Dividends paid	(385)	(395)	(406)	(417)	(428)	(439)	(449)
CF from financing activities	(498)	(480)	(475)	(421)	(447)	(474)	(540)
Net Cash	262	266	326	431	443	453	425
Beginning cash	548	810	1,076	1,402	1,832	2,275	2,728
Ending cash	810	1,076	1,402	1,832	2,275	2,728	3,152

Eastman Chemical Co
Common Size Balance Sheet

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Assets																		
Current Assets																		
Cash & cash equivalents	2.53%	2.25%	3.04%	2.01%	2.00%	2.23%	2.20%	6.66%	4.38%	4.66%	5.95%	8.46%	10.69%	13.25%	16.67%	19.92%	23.05%	25.69%
Trade receivables, net of allowance for credit loss	9.41%	9.82%	8.21%	9.01%	10.74%	11.37%	10.57%	12.19%	10.41%	9.05%	8.97%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%	9.98%
Miscellaneous receivables	2.22%	2.77%	2.55%	4.43%	3.77%	3.24%	4.26%	5.69%	4.67%	3.02%	3.56%	3.65%	3.65%	3.65%	3.65%	3.65%	3.65%	3.65%
Inventories	13.52%	15.84%	15.33%	15.59%	15.80%	15.59%	17.92%	16.28%	14.36%	17.90%	18.27%	16.04%	16.04%	16.04%	16.04%	16.04%	16.04%	16.04%
Assets held for sale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.61%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other current assets	2.68%	2.62%	0.70%	0.78%	0.60%	0.72%	0.86%	0.98%	1.08%	1.04%	1.05%	1.05%	1.05%	1.05%	1.05%	1.06%	1.08%	1.09%
Non-current Assets																		
Net properties	45.88%	53.40%	53.17%	58.57%	58.72%	55.17%	60.08%	65.49%	47.69%	48.77%	60.24%	55.20%	56.04%	56.29%	56.57%	56.39%	56.17%	56.27%
Goodwill	28.20%	47.09%	46.83%	49.52%	47.41%	44.01%	47.78%	52.70%	34.76%	34.63%	39.59%	38.08%	36.23%	34.46%	33.16%	31.93%	30.80%	29.71%
Intangible assets, net	18.83%	30.49%	27.47%	27.41%	24.85%	21.52%	21.69%	21.15%	13.00%	11.44%	12.36%	10.99%	9.65%	8.53%	7.58%	6.69%	5.87%	5.10%
Other noncurrent assets	3.39%	4.42%	4.51%	4.27%	3.65%	3.72%	7.27%	8.69%	8.34%	8.08%	8.90%	8.98%	8.95%	8.93%	9.00%	9.09%	9.19%	9.29%
Total assets	126.68%	168.70%	161.81%	171.59%	167.55%	157.57%	172.63%	189.81%	148.14%	138.63%	138.31%	157.65%	156.17%	155.25%	156.60%	157.90%	159.35%	160.38%
Liabilities																		
Current Liabilities																		
Payables & other current liabilities	15.72%	18.06%	16.84%	16.79%	16.64%	15.84%	17.45%	19.93%	20.36%	20.09%	22.10%	19.98%	19.98%	19.98%	19.98%	19.98%	19.98%	19.98%
Borrowings due within one year	0.00%	3.16%	4.47%	3.14%	4.12%	2.39%	1.84%	4.12%	7.13%	10.64%	5.87%	4.00%	4.57%	4.98%	4.98%	4.50%	4.61%	4.73%
Liabilities held for sale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long-term liabilities																		
Long-term borrowings	45.50%	76.08%	68.49%	70.06%	64.37%	58.37%	60.51%	62.19%	42.12%	38.04%	46.74%	51.33%	50.15%	48.43%	46.14%	46.81%	48.27%	48.52%
Deferred income tax liabilities	5.30%	9.93%	9.62%	13.39%	9.35%	8.71%	9.87%	10.01%	7.73%	6.34%	6.53%	7.86%	7.52%	7.18%	6.95%	6.72%	6.51%	6.31%
Post-employment obligations	13.87%	15.72%	13.44%	11.30%	10.08%	9.11%	10.96%	13.49%	7.74%	5.94%	7.24%	6.27%	5.30%	4.41%	3.64%	2.92%	2.25%	1.63%
Other long-term liabilities	4.84%	8.06%	7.27%	5.76%	5.59%	5.24%	6.96%	7.99%	6.94%	8.09%	10.36%	10.44%	10.42%	10.39%	10.48%	10.57%	10.69%	10.81%
Total liabilities	85.24%	131.02%	120.13%	120.44%	110.16%	99.67%	107.58%	117.73%	92.89%	89.14%	98.84%	95.62%	92.53%	89.71%	88.38%	86.98%	85.85%	84.54%
Stockholder's Equity																		
Common stock	19.04%	19.09%	19.33%	21.28%	20.79%	20.20%	22.72%	25.68%	20.90%	21.90%	25.73%	25.38%	24.75%	24.12%	23.76%	23.40%	22.84%	22.03%
Retained earnings	42.91%	47.71%	53.34%	63.51%	71.23%	74.60%	85.89%	95.36%	81.68%	84.81%	103.04%	104.28%	104.69%	105.39%	107.32%	109.31%	111.50%	113.67%
Accumulated other comprehensive income loss	1.83%	-2.91%	-4.04%	-3.12%	-2.19%	-2.41%	-2.31%	-3.22%	-1.74%	-1.94%	-3.46%	-3.33%	-3.17%	-3.02%	-2.90%	-2.79%	-2.70%	-2.60%
Total stockholders' equity before treasury stock	63.78%	63.89%	68.63%	81.67%	89.83%	92.38%	106.31%	117.82%	100.84%	104.77%	125.31%	126.33%	126.27%	126.49%	128.18%	129.92%	131.64%	133.11%
Treasury stock at cost	23.18%	27.05%	27.78%	31.36%	33.25%	35.22%	42.06%	46.74%	46.39%	56.07%	66.05%	65.10%	63.45%	61.78%	60.83%	59.88%	59.05%	58.19%
Total Eastman Chemical Co. stockholders' equity	40.60%	36.84%	40.85%	50.31%	56.58%	57.17%	64.25%	71.08%	54.45%	48.71%	59.26%	61.22%	62.82%	64.71%	67.35%	70.03%	72.60%	74.92%
Noncontrolling interest	0.84%	0.84%	0.83%	0.84%	0.81%	0.74%	0.80%	1.00%	0.80%	0.78%	0.78%	0.81%	0.82%	0.84%	0.86%	0.88%	0.91%	0.93%
Total equity	41.44%	37.68%	41.68%	51.15%	57.39%	57.91%	65.05%	72.09%	55.25%	49.49%	60.04%	62.03%	63.65%	65.54%	68.21%	70.92%	73.50%	75.85%

Eastman Chemical Co
Common Size Income Statement

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cost of sales excluding D&A	65.68%	71.96%	67.34%	67.47%	68.15%	69.63%	69.32%	69.92%	71.00%	75.29%	72.21%	70.79%	70.79%	70.79%	70.79%	70.79%	70.79%	70.79%
Gross Profit	34.32%	28.04%	32.66%	32.53%	31.85%	30.37%	30.68%	30.08%	29.00%	24.71%	27.79%	29.21%	29.21%	29.21%	29.21%	29.21%	29.21%	29.21%
Selling, general and admin expenses	6.90%	7.92%	7.90%	7.80%	7.32%	7.10%	7.45%	7.72%	7.59%	6.86%	5.41%	7.01%	7.01%	7.01%	7.01%	7.01%	7.01%	7.01%
Research and development expenses	2.06%	2.38%	2.60%	2.43%	2.25%	2.32%	2.52%	2.67%	2.42%	2.50%	7.89%	2.91%	2.91%	2.91%	2.91%	2.91%	2.91%	2.91%
Asset impairments and restructuring charges/gains, net	0.81%	0.81%	1.90%	0.50%	0.08%	0.44%	1.36%	2.68%	0.45%	0.49%	2.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other components of post-employment	0.00%	0.00%	0.00%	0.00%	0.00%	-0.21%	0.65%	1.40%	-3.93%	-0.95%	0.40%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other (income) charges	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%	0.09%	-0.16%	-0.06%	0.45%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
Loss on divested business	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.27%	0.41%	0.41%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Earnings/loss before interest and taxes	19.91%	12.20%	14.34%	15.35%	16.04%	15.29%	12.08%	8.75%	12.23%	10.95%	14.14%	13.81%	13.94%	14.13%	14.15%	14.16%	14.17%	14.17%
Net interest expense	1.93%	1.96%	2.73%	2.83%	2.52%	2.32%	2.35%	2.48%	1.89%	1.72%	2.03%	2.88%	2.77%	2.67%	2.62%	2.60%	2.57%	2.55%
Early debt extinguishment costs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Earnings/loss before income taxes	17.96%	10.39%	11.70%	11.65%	13.50%	12.91%	9.73%	6.26%	10.33%	9.23%	11.80%	10.93%	11.17%	11.46%	11.53%	11.56%	11.59%	11.62%
Provision for income taxes	5.42%	2.47%	2.85%	2.11%	-1.04%	2.23%	1.51%	0.48%	2.05%	1.71%	2.07%	2.38%	2.43%	2.49%	2.51%	2.51%	2.52%	2.53%
Earnings/loss from continuing operations	12.53%	7.92%	8.85%	9.54%	14.54%	10.68%	8.22%	5.77%	8.28%	7.52%	9.73%	9.25%	9.45%	9.69%	9.75%	9.78%	9.81%	9.83%
Earnings/loss from discontinued operations, net of tax	0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net earnings/loss	12.53%	7.95%	8.85%	9.54%	14.54%	10.68%	8.22%	5.77%	8.28%	7.52%	9.73%	9.25%	9.45%	9.69%	9.75%	9.78%	9.81%	9.83%
Net earnings attributable to noncontrolling interest	0.07%	0.06%	0.06%	0.06%	0.04%	0.04%	0.03%	0.13%	0.10%	0.03%	0.02%	0.06%	0.05%	0.05%	0.06%	0.06%	0.06%	0.06%
Net earnings/loss attributable to Eastman	12.46%	7.88%	8.79%	9.48%	14.49%	10.64%	8.19%	5.64%	8.18%	7.50%	9.71%	9.19%	9.40%	9.64%	9.70%	9.73%	9.75%	9.78%

Eastman Chemical Co
Value Driver Estimation

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
NOPLAT:																		
Revenue	9,350	9,527	9,648	9,008	9,549	10,151	9,273	8,473	10,476	10,580	9,210	9,576	10,064	10,580	10,994	11,419	11,837	12,270
Less: Cost of goods sold	6,141	6,856	6,497	6,078	6,508	7,068	6,428	5,924	7,438	7,966	6,651	6,779	7,124	7,489	7,782	8,083	8,379	8,686
Less: Depreciation and Amortization	433	450	571	580	587	604	611	574	538	477	498	439	539	546	566	586	607	628
Less: Selling, general and admin expenses	645	755	762	703	699	721	691	654	795	726	727	671	705	741	770	800	829	860
Less: Research and development expenses	193	227	251	219	215	235	234	226	254	264	239	279	293	308	320	333	345	358
Add: implied interest on operating leases		9.8	14.4	12.8	12.5	13.0	11.9	10.6	9.4	11.8	11.5	8.3	8.7	9.0	9.4	9.8	10.2	10.6
EBITA	1,938	1,249	1,581	1,441	1,552	1,536	1,321	1,106	1,460	1,159	1,107	1,417	1,411	1,504	1,564	1,627	1,687	1,750
Adjusted Taxes																		
Marginal Tax Rate	33.5%	24.6%	26.3%	21.6%	23.0%	17.4%	17.4%	11.7%	17.8%	16.6%	11.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%
Provision for income taxes	507.0	235.0	275.0	190.0	(99.0)	226.0	140.0	41.0	215.0	181.0	191.0	161.0	173.0	186.5	195.0	203.2	211.2	219.5
Add: Tax shield on interest expense	60.3	46.1	69.2	55.2	55.3	40.9	37.9	24.6	35.3	30.2	24.5	42.5	42.9	43.5	44.3	45.6	46.9	48.2
Add: Asset impairments and restructuring charges	25.4	19.0	48.1	9.7	1.8	7.8	21.9	26.6	8.4	8.6	4.2	-	-	-	-	-	-	-
Add: Other components of post-employment	-	-	-	-	-	(3.7)	10.4	13.9	(73.5)	(16.7)	4.7	-	-	-	-	-	-	-
Add: Other expense (income)	-	-	-	-	-	-	0.5	0.9	(3.0)	(1.0)	4.3	-	-	-	-	-	-	-
Add: Loss on business held for sale	-	-	-	-	-	-	-	-	98.5	7.1	(36.8)	-	-	-	-	-	-	-
Add: Early debt extinguishment costs	-	-	-	-	-	-	-	0.1	0.2	-	-	-	-	-	-	-	-	-
Add: Tax on implied interest of operating leases	-	2.4	3.8	2.8	2.9	2.3	2.1	1.2	1.7	2.0	1.3	1.3	1.3	1.4	1.4	1.5	1.6	1.6
Adjusted Taxes	592.7	302.5	396.1	257.7	(39.0)	273.3	212.9	108.3	282.5	211.1	193.2	204.8	217.2	231.4	240.8	250.3	259.6	269.3
Deferred tax assets	1,438	1,556	1,573	1,040	903	893	898	1,025	977	1,215	1,587	1,642	1,764	1,902	1,988	2,072	2,153	2,238
Deferred tax liabilities	1,733	2,303	1,319	2,212	1,775	1,734	1,747	1,761	1,671	1,763	2,032	2,449	2,631	2,837	2,966	3,090	3,212	3,338
Change in deferred taxes		452	2,220	1,426	(300)	(31)	8	(113)	(42)	(146)	(103)	362	60	68	43	41	40	42
NOPLAT	1,398.3	3,405.3	2,609.1	1,291.4	1,231.6	1,116.0	884.3	1,135.9	801.7	810.3	1,574.2	1,254.1	1,340.4	1,366.2	1,417.2	1,467.6	1,522.2	
Invested Capital (IC):																		
Normal cash	187	191	193	180	191	203	185	169	210	212	184	192	201	212	220	228	237	245
Plus: Trade receivables, net of allow for doubt accts	880	936	792	812	1,026	1,154	980	1,033	1,091	957	826	955	1,004	1,056	1,097	1,139	1,181	1,224
Plus: Miscellaneous receivables	208	264	246	399	360	329	395	482	489	320	328	350	368	387	402	417	432	448
Plus: Inventories	1,264	1,509	1,479	1,404	1,509	1,583	1,662	1,379	1,504	1,894	1,683	1,536	1,614	1,697	1,763	1,831	1,898	1,968
Plus: Other current assets	251	250	68	70	57	73	80	83	96	114	96	101	105	111	116	121	127	133
Less: Payables & other current liabilities	1,470	1,721	1,625	1,512	1,589	1,608	1,618	1,689	2,133	2,125	2,035	1,914	2,011	2,114	2,197	2,282	2,366	2,452
NWC	1,320	1,429	1,153	1,353	1,554	1,734	1,684	1,457	1,257	1,372	1,082	1,219	1,281	1,347	1,400	1,456	1,510	1,567
Add: Net PPE	4,290	5,087	5,130	5,276	5,607	5,600	5,571	5,549	4,996	5,160	5,548	5,788	6,032	6,282	6,537	6,798	7,067	7,342
Add: Intangible assets, net	1,761	2,905	2,650	2,469	2,373	2,185	2,011	1,792	1,362	1,210	1,138	1,052	971	902	833	764	695	626
Add: Other noncurrent assets	317	421	435	385	349	378	674	736	874	855	820	860	901	944	990	1,038	1,088	1,140
IC	7,688	9,842	9,368	9,483	9,883	9,897	9,940	9,534	8,489	8,597	8,588	8,919	9,185	9,475	9,760	10,056	10,359	10,675
Free Cash Flow (FCF):																		
NOPLAT	-	1,398	3,405	2,609	1,291	1,232	1,116	884	1,136	802	810	1,574	1,254	1,340	1,366	1,417	1,468	1,522
Change in IC		2,154	(474)	115	400	14	43	(406)	(1,046)	108	(8)	330	267	289	286	295	304	315
FCF		(755)	3,879	2,494	892	1,218	1,073	1,290	2,182	694	819	1,244	987	1,051	1,081	1,122	1,164	1,207
Return on Invested Capital (ROIC):																		
NOPLAT	-	1,398	3,405	2,609	1,291	1,232	1,116	884	1,136	802	810	1,574	1,254	1,340	1,366	1,417	1,468	1,522
Beginning IC		7,688	9,842	9,368	9,483	9,883	9,897	9,940	9,534	8,489	8,597	8,588	8,919	9,185	9,475	9,760	10,056	10,359
ROIC		18.2%	34.6%	27.9%	13.6%	12.5%	11.3%	8.9%	11.9%	9.4%	9.4%	18.3%	14.1%	14.6%	14.4%	14.5%	14.6%	14.7%
Economic Profit (EP):																		
Beginning IC		7,688	9,842	9,368	9,483	9,883	9,897	9,940	9,534	8,489	8,597	8,588	8,919	9,185	9,475	9,760	10,056	10,359
x (ROIC - WACC)	-9.1%	9.1%	25.5%	18.8%	4.6%	3.4%	2.2%	-0.2%	2.9%	0.4%	0.4%	9.3%	5.0%	5.5%	5.4%	5.5%	5.5%	5.6%
EP		702	2,514	1,761	433	337	220	(16)	273	33	32	797	447	509	508	533	557	584

Eastman Chemical Co

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity:

Risk-Free Rate	4.30%
Beta	1.37
Equity Risk Premium	5.00%
Cost of Equity	11.15%

ASSUMPTIONS:

10-year Treasury bond as of 2/16/24
Average of 5-year weekly beta
Henry Fund consensus

Cost of Debt:

Risk-Free Rate	4.30%
Implied Default Premium	1.40%
Pre-Tax Cost of Debt	5.70%
Marginal Tax Rate	15.39%
After-Tax Cost of Debt	4.82%

YTM on company's 10-year corporate bond

Market Value of Common Equity:

Total Shares Outstanding	117.3
Current Stock Price	\$86.41
MV of Equity	10,135.89

MV Weights

66.89%

Market Value of Debt:

ST Debt and current portion of LTD	541
Long-Term Debt	4305
PV of Operating Leases	172
MV of Total Debt	5,018.00

33.11%

Market Value of the Firm

15,153.89

100.00%

Estimated WACC

9.05%

Eastman Chemical Co

Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

Key Inputs:

CV Growth of NOPLAT	2.50%
CV Year ROIC	14.69%
WACC	9.05%
Cost of Equity	11.15%

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E
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DCF Model:

Free Cash Flow (FCF)	1243.9	987.4	1051.0	1080.7	1121.8	1163.8	1206.9
Continuing Value (CV)							19270.9
PV of FCF	1140.6	830.3	810.4	764.0	727.3	691.8	11456.0

Value of Operating Assets:	16420.4
Non-Operating Adjustments	
Add: Excess cash	363.8
Less: NCI	-72.0
Less: ST Debt	-541.0
Less: LT Debt	-4305.0
Less: PV of operating leases	-172.0
Less: Post-employment obligations	-667.0
Less: ESOP	-61.7
Value of Equity	10965.5
Shares Outstanding	117.3
Intrinsic Value of Last FYE	\$ 93.48
Implied Price as of Today	\$ 94.53

EP Model:

Economic Profit (EP)	796.6	446.6	508.7	508.3	533.4	557.0	584.1
Continuing Value (CV)							8911.4
PV of EP	730.5	375.5	392.2	359.4	345.8	331.1	5297.6

Total PV of EP	7832.1
Invested Capital (last FYE)	8588.2
Value of Operating Assets:	16420.4
Non-Operating Adjustments	
Add: Excess cash	363.8
Less: NCI	-72.0
Less: ST Debt	-541.0
Less: LT Debt	-4305.0
Less: PV of operating leases	-172.0
Less: Post-employment obligations	-667.0
Less: ESOP	-61.7
Value of Equity	10965.5
Shares Outstanding	117.3
Intrinsic Value of Last FYE	\$ 93.48
Implied Price as of Today	\$ 94.53

Eastman Chemical Co

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

Fiscal Years Ending	2024E	2025E	2026E	2027E	2028E	2029E	2030E
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EPS	\$ 7.65	\$ 8.17	\$ 8.88	\$ 9.34	\$ 9.79	\$ 10.24	\$ 10.74
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Key Assumptions

CV growth of EPS	2.50%
CV Year ROE	15.91%
Cost of Equity	11.15%

Future Cash Flows

P/E Multiple (CV Year)							9.74
EPS (CV Year)							\$ 10.74
Future Stock Price							\$ 104.67
Dividends Per Share	3.28	3.40	3.52	3.64	3.76	3.88	
Discounted Cash Flows	2.95	2.75	2.56	2.38	2.22	2.06	55.51

Intrinsic Value as of Last FYE \$ 70.43

Implied Price as of Today \$ 71.22

Eastman Chemical Co

Relative Valuation Models

Ticker	Company	Price	EPS 2024E	EPS 2025E	P/E 24	P/E 25	EV 2024E	EBITDA 2024E	Multiples 2024E
DOW	Dow Inc	\$56.39	\$3.04	\$4.29	18.55	13.14	52,099	6,277	8.30
LYB	Lyondell Basell	\$99.27	\$8.43	\$9.99	11.78	9.94	41,949	5,310	7.90
CE	Celanese Corporation	\$149.38	\$11.56	\$14.02	12.92	10.65	29,211	2,730	10.70
OLN	Olin Corporation	\$52.59	\$3.80	\$6.13	13.84	8.58	9,627	1,301	7.40
			Average		14.27	10.58			8.58
EMN	Eastman Chemical Co	\$86.41	\$7.65	\$8.17	11.3	10.6	14,801	1,805	8.20

Implied Relative Value:

P/E (EPS24)	\$	109.18
P/E (EPS25)	\$	86.40
EV/EBITDA 2024	\$	131.92

Eastman Chemical Co
Key Management Ratios

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Liquidity Ratios:																		
Current Ratio (Current Assets / Current Liabilities)	1.93	1.57	1.40	1.60	1.59	1.82	1.86	1.74	1.56	1.16	1.35	1.63	1.69	1.76	1.90	2.07	2.19	2.28
Quick Ratio (Current Assets - Inventory/ Current Liabilities)	1.07	0.82	0.68	0.81	0.82	0.96	0.93	1.06	1.06	0.58	0.70	0.96	1.03	1.12	1.26	1.41	1.53	1.63
Cash Ratio (Cash & Cash Equivalents / Current Liabilities)	0.16	0.11	0.14	0.10	0.10	0.12	0.11	0.28	0.15	0.15	0.21	0.35	0.44	0.53	0.67	0.81	0.94	1.04
Asset-Management Ratios:																		
Current Assets Turnover (Sales / Avg Current Assets)		3.17	3.19	3.14	3.18	3.12	2.77	2.47	2.56	2.51	2.54	2.65	2.54	2.40	2.23	2.08	1.95	1.85
Inventory Turnover (COGS / Avg Inventory)		4.94	4.35	4.22	4.47	4.57	3.96	3.90	5.16	4.69	3.72	4.21	4.52	4.52	4.50	4.50	4.49	4.49
Total Assets Turnover (Sales / Avg Total Assets)		0.68	0.61	0.58	0.61	0.63	0.58	0.53	0.66	0.70	0.63	0.64	0.65	0.66	0.65	0.65	0.64	0.64
Financial Leverage Ratios:																		
Debt to Assets (Total Debt / Total Assets)	0.36	0.47	0.45	0.43	0.41	0.39	0.36	0.35	0.33	0.35	0.33	0.32	0.32	0.31	0.30	0.30	0.29	0.29
Debt to Equity (Total Debt / Total Equity)	1.10	2.10	1.75	1.43	1.19	1.05	0.96	0.92	0.89	0.98	0.88	0.82	0.77	0.73	0.69	0.66	0.63	0.60
Debt to Capital (Total Debt / (Total Debt + Total Equity))	0.52	0.68	0.64	0.59	0.54	0.51	0.49	0.48	0.47	0.50	0.47	0.45	0.44	0.42	0.41	0.40	0.39	0.38
Debt to EBITDA (Total Debt / EBITDA)	1.79	4.44	3.27	3.26	3.06	2.88	2.99	3.34	2.58	3.15	3.02	2.52	2.54	2.46	2.44	2.41	2.40	2.36
Profitability Ratios:																		
Return on Equity (NI/Beg TSE)		19.4%	23.6%	21.2%	30.0%	19.7%	12.9%	7.9%	14.0%	13.7%	17.1%	15.9%	15.9%	15.9%	15.4%	14.8%	14.3%	13.8%
Return on Assets (Net Income / Total Assets)		6.3%	5.3%	5.5%	9.0%	6.8%	4.7%	3.0%	5.3%	5.1%	6.1%	6.0%	6.3%	6.5%	6.5%	6.5%	6.4%	6.4%
Profit Margin (Net Income / Sales)	12.5%	7.9%	8.8%	9.5%	14.5%	10.6%	8.2%	5.6%	8.2%	7.5%	9.7%	9.2%	9.4%	9.6%	9.7%	9.7%	9.8%	9.8%
Payout Policy Ratios:																		
Dividend Payout Ratio (Dividend/EPS)	16.5%	28.8%	29.1%	32.6%	21.9%	30.1%	45.7%	75.6%	44.6%	47.8%	42.2%	42.9%	41.6%	39.7%	39.0%	38.4%	37.9%	37.2%
Total Payout Ratio ((Divs. + Repurchases)/NI)	32.4%	82.6%	40.2%	48.8%	46.7%	66.5%	88.0%	87.4%	160.4%	174.4%	25.3%	60.9%	57.8%	54.6%	53.3%	52.1%	51.1%	50.0%
Margins																		
Gross Margin	34%	28%	33%	33%	32%	30%	31%	30%	29%	25%	28%	29%	29%	29%	29%	29%	29%	29%
Operating Margin	20%	12%	14%	15%	16%	15%	12%	9%	12%	11%	14%	14%	14%	14%	14%	14%	14%	14%
EBITA Margin	21%	13%	16%	16%	16%	15%	14%	13%	14%	11%	12%	15%	14%	14%	14%	14%	14%	14%
Net Profit Margin	12%	8%	9%	9%	14%	11%	8%	6%	8%	7%	10%	9%	9%	10%	10%	10%	10%	10%
Interest Coverage Ratio	10.77	6.68	6.01	5.65	6.44	6.54	6.06	5.26	7.38	6.37	5.15	5.13	5.06	5.32	5.43	5.48	5.54	5.59

Eastman Chemical Co

Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding

Number of Options Outstanding (shares):	4
Average Time to Maturity (years):	5.52
Expected Annual Number of Options Exercised:	0.69

Current Average Strike Price:	\$ 87.29
Cost of Equity:	11.15%
Current Stock Price:	\$86.41

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Increase in Shares Outstanding:	1	1	1	1	1	0.4	0	0	0	0
Average Strike Price:	\$ 87.29	\$ 87.29	\$ 87.29	\$ 87.29	\$ 87.29	\$ 87.29	\$ 87.29	\$ 87.29	\$ 87.29	\$ 87.29
Increase in Common Stock Account:	60	60	60	60	60	31	-	-	-	-
Share Repurchases (\$)	151	151	151	151	151	151	151	151	151	151
Expected Price of Repurchased Shares:	\$ 86.41	\$ 92.80	\$ 99.67	\$ 107.05	\$ 114.97	\$ 123.48	\$ 132.61	\$ 142.43	\$ 152.97	\$ 164.29
Number of Shares Repurchased:	2	2	2	1	1	1	1	1	1	1
Shares Outstanding (beginning of the year)	117.3	116	115	114	114	113	112	111	110	109
Plus: Shares Issued Through ESOP	0.69	0.69	0.69	0.69	0.69	0.36	0.00	0.00	0.00	0.00
Less: Shares Repurchased in Treasury	2	2	2	1	1	1	1	1	1	1
Shares Outstanding (end of the year)	116	115	114	114	113	112	111	110	109	108

Eastman Chemical Co*Valuation of Options Granted under ESOP*

Current Stock Price	\$86.41
Risk Free Rate	4.30%
Current Dividend Yield	3.75%
Annualized St. Dev. of Stock Returns	22.00%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	1.002	65.00	4.30	\$ 23.73	\$ 24
Range 2	1.491	82.00	5.70	\$ 16.85	\$ 25
Range 3	0.530	104.00	4.20	\$ 8.73	\$ 5
Range 4	0.800	114.00	7.60	\$ 10.18	\$ 8
Total	4	\$ 87.29	5.52	\$ 24.87	\$ 62

Eastman Chemical Co
Sensitivity Tables

DCF		CV Growth of NOPLAT						
94.53		1.75%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%
Risk-Free Rate	3.55%	100.18	102.06	104.08	106.28	108.66	111.26	114.10
	3.80%	96.57	98.29	100.15	102.15	104.32	106.69	109.27
	4.05%	93.12	94.71	96.41	98.24	100.22	102.37	104.72
	4.30%	89.84	91.29	92.85	94.53	96.34	98.30	100.43
	4.55%	86.70	88.03	89.46	91.00	92.65	94.44	96.38
	4.80%	83.70	84.92	86.23	87.64	89.15	90.78	92.55
	5.05%	80.82	81.95	83.15	84.44	85.82	87.31	88.91

DCF		Equity Risk Premium						
94.53		4.55%	4.70%	4.85%	5.00%	5.15%	5.30%	5.45%
Pre-tax cost of Debt	4.80%	110.74	107.15	103.72	100.45	97.31	94.30	91.42
	5.10%	108.44	104.95	101.61	98.42	95.37	92.44	89.62
	5.40%	106.20	102.80	99.56	96.45	93.47	90.61	87.87
	5.70%	104.02	100.71	97.55	94.53	91.62	88.84	86.16
	6.00%	101.89	98.68	95.60	92.65	89.82	87.10	84.49
	6.30%	99.82	96.69	93.69	90.82	88.06	85.40	82.85
	6.60%	97.80	94.76	91.83	89.03	86.34	83.75	81.26

DCF		Current Dividend Yield						
94.53		3.00%	3.25%	3.50%	3.75%	4.00%	4.25%	4.50%
Cost of Equity	8.15%	94.15	94.14	94.13	94.11	94.10	94.08	94.06
	9.15%	94.29	94.28	94.27	94.25	94.24	94.22	94.20
	10.15%	94.43	94.42	94.40	94.39	94.37	94.36	94.34
	11.15%	94.57	94.56	94.54	94.53	94.51	94.50	94.48
	12.15%	94.70	94.69	94.68	94.66	94.65	94.63	94.62
	13.15%	94.84	94.83	94.81	94.80	94.79	94.77	94.75
	14.15%	94.97	94.96	94.95	94.93	94.92	94.90	94.89

DCF		R&D%						
94.53		1.41%	1.91%	2.41%	2.91%	3.41%	3.91%	4.41%
Depreciation Rate	7.53%	114.31	108.03	101.76	95.44	89.22	82.95	76.68
	7.68%	113.94	107.66	101.39	95.07	88.85	82.58	76.31
	7.83%	113.57	107.30	101.03	94.71	88.49	82.22	75.94
	7.91%	113.39	107.12	100.85	94.53	88.30	82.03	75.76
	8.13%	112.87	106.60	100.33	94.01	87.79	81.51	75.24
	8.28%	112.53	106.26	99.99	93.67	87.45	81.17	74.90
	8.43%	112.20	105.93	99.66	93.34	87.11	80.84	74.57

DCF		Marginal Tax Rate						
94.53		12.39%	13.39%	14.39%	15.39%	16.39%	17.39%	18.39%
Beta	0.77	155.95	156.25	156.55	156.86	157.16	157.48	157.79
	0.97	130.25	130.42	130.59	130.76	130.93	131.11	131.28
	1.17	110.33	110.41	110.50	110.59	110.68	110.77	110.86
	1.37	94.43	94.46	94.50	94.53	94.56	94.59	94.63
	1.57	81.45	81.45	81.44	81.44	81.43	81.43	81.42
	1.77	70.65	70.62	70.59	70.56	70.53	70.50	70.46
	1.97	61.53	61.48	61.43	61.38	61.33	61.28	61.23

DCF		SG&A%						
94.53		4.01%	5.01%	6.01%	7.01%	8.01%	9.01%	10.01%
COGS%	55.79%	320.24	307.70	295.16	282.67	270.07	257.53	244.98
	60.79%	257.53	244.98	232.44	219.95	207.36	194.81	182.27
	65.79%	194.81	182.27	169.73	157.24	144.64	132.10	119.55
	70.79%	132.10	119.56	107.02	94.53	81.93	69.39	56.84
	75.79%	69.38	56.84	44.29	31.81	19.21	6.66	(5.88)
	80.79%	6.66	(5.88)	(18.42)	(30.91)	(43.51)	(56.05)	(68.59)
	85.79%	(56.05)	(68.59)	(81.14)	(93.63)	(106.22)	(118.77)	(131.31)