

The Henry Fund

Henry B. Tippie College of Business
Sebastian Zuniga [sebastian-zuniga@uiowa.edu]



Howmet Aerospace (HWM)

Industrials – Aerospace & Defense

November 2, 2025

Stock Rating: No Action

Investment Thesis

Price Target: \$Round

We recommend a No Action rating for Howmet Aerospace with a target price of \$122. Even with above Street revenue growth and strong aerospace demand, the stock's 60x forward P/E vs 35x for peers already reflects aggressive optimism. Our DCF, using a 9.4% CAGR forecast (2025-2034), yields a value well below the current \$200 share price, indicating limited upside.

Drivers of Thesis

- Above Street Growth:** Even with long-term revenue growth above consensus, our DCF still supports only \$122, showing strong fundamentals are already priced in
- Premium vs. Risk:** Shares trade at 60x forward P/E vs 35x for peers despite higher exposure to commercial aerospace and a narrower production mix
- Momentum Priced In:** Shares have more than doubled this past year, reflecting that margin expansion, engine productivity, and supply-chain normalization are already embedded in the valuation

Risks to Thesis

- Higher Input Costs:** Rising titanium, aluminum, nickel, and energy costs could pressure margins under long-term supply contracts
- Aerospace Cycles:** Lower aircraft production or weaker passenger traffic could weaken component demand
- Supply Chain Constraints:** Bottlenecks in castings, forgings, machining, materials, OEM delays could restrain output

Henry Fund DCF	\$122
Henry Fund DDM	\$37
Relative Multiple P/E	\$120
HF % Downside	40%

Price Data

Current Price	\$205
Date of Price	11/02/2025
52wk Range	\$99 – \$211
Consensus Price Target	\$223
Consensus % Upside	8%

Key Statistics

Market Cap (M)	\$81,735
Diluted Shares Out. (M)	\$82,180
Institutional Ownership	1.007%
Beta	1.14
Dividend Yield	0.23%
LT Growth Rate	7.00%

[Ticker] vs. SPY & Industry ETF



Earnings / EBITDA Estimates

Year	2022	2023	2024	2025e	2026e	2027e
HF EPS	1.12	1.85	2.83	3.42	3.79	4.15
% Growth	87%	65%	53%	21%	11%	9.5%
Street EPS	1.40	1.84	2.69	3.69	4.43	5.19
% Growth	39%	31%	46%	37%	20%	17%
HF EBITDA	1,184	1,475	1,910	2,271	2,527	2,755
% Growth	16%	25%	29%	19%	11%	9%
Street EBITDA	1,352	1,508	1,914	2,386	2,752	3,121
% Growth	19%	12%	27%	25%	15%	13%

Price Performance



Balance Sheet / Cash Flow Snapshot

	2022	2023	2024	2025e	2026e	2027e
Net Debt	3,371	3,096	2,751	2,527	2,093	1,579
Debt/Equity	1.16	0.92	0.73	0.87	0.91	0.92
FCF	874	766	1,165	1,187	1,416	1,556
CFO	733	901	1,298	1,380	1,566	1,695

Profitability

	2022	2023	2024	2025e	2026e	2027e
HF EBITDA	1,184	1,475	1,910	2,271	2,527	2,755
Gross Margin	28%	28%	31%	33%	33%	33%
Net Margin	8%	12%	16%	17%	17%	16%
ROA	5%	7%	11%	12%	12%	12%
ROE	13%	20%	27%	30%	31%	31%
ROIC	19%	24%	30%	32%	33%	34%

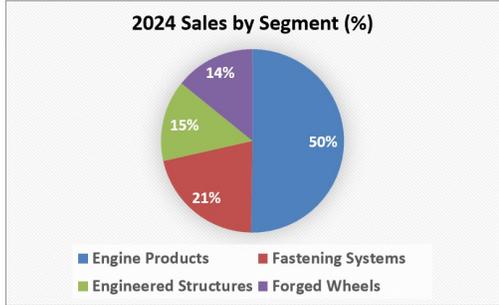
[Ticker] vs. Peer Group – Sales Growth

Year	2025e	2026e	2027e
HWM	12%	11%	11%
TDG	11%	12%	7.8%
HXL	-0.9%	11%	9.5%
PH	-0.4%	6.1%	7%
MOG	4.7%	6.1%	5.1%

Company Description

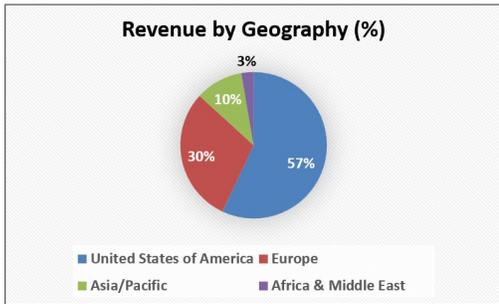
Howmet Aerospace Inc. originally came from Alcoa Inc, which was founded in 1888 and later expanded into engineered aerospace components through the acquisition of Howmet International. In 2016, Alcoa split into two public companies – Alcoa Corporation and Arconic Inc. Then in 2020, Arconic Inc further separated, and Howmet Aerospace rose as a standalone company focused on advanced engineered solutions for aerospace and transportation industries. Shown in Figure #1, the company now operates in four business segments - Engine Products, Fastening Systems, Engineered Structures, and Forged wheels. Based in Pittsburgh, Pennsylvania, Howmet operates in 19 countries, where the United States and Europe generated 87% of sales in 2024. Other regions include Asia/Pacific, Africa, and the Middle East, shown in Figure #2.¹

Figure #1: Revenue by Product Line (%)



Source: Howmet Aerospace 10-K

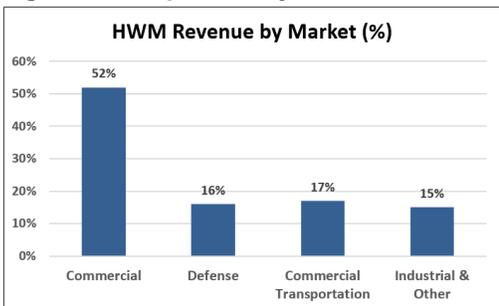
Figure #2: Revenue Geography



Source: Howmet Aerospace 10-K

Howmet's business model focuses on jet engine components, aerospace fastening systems, and airframe structural components for aerospace and defense applications that are critical for performance and efficiency. The company also focuses on forged aluminum wheels for its commercial transportation market, still comprising a relative amount of its portfolio. Howmet's market demographics comprise of Aerospace (Commercial and Defense), Industrial and Other Markets, and Commercial Transportation. Shown in Figure #3, Aerospace (Commercial and Defense) represents the largest portion around 68% of 2024 sales, Industrial and Other Markets at 15%, and Commercial Transportation at 17% conversely. All segments have remained within these amounts; however, Commercial Aerospace has made the largest uprise, coming from 46% (2022) to 52% (2024).¹

Figure #3: Exposure by Market



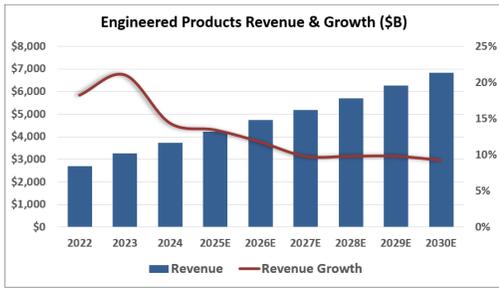
Source: Howmet Aerospace 10-K

The Commercial Aerospace market focuses on the manufacturing and sale of civilian and commercial aircraft, aircraft components, MRO services (Maintenance Repair Overhaul), and aerospace equipment support. On the other hand, Defense Aerospace manufactures products for military use; including manufacturing of military ships, aircraft, and military equipment. Industrial and Other Markets comprise of products and solutions for industrial gas turbines, oil and gas, and other industrials. Lastly, the Commercial Transportation market consists of producing products and applications to commercial trucks and mass transportation vehicles. All markets have been performing positively from amid recovery from the pandemic, whilst Commercial Transportation has been dragging down, due to rising material costs and commercial truck production, due to tariff implementation and economic uncertainty.¹

Engine Products

Figure #4: Analysis on Engine Products

Engine Products focuses on utilizing advanced techniques and designs to support next-generation engine programs and produces components primarily for aircraft engines and industrial gas turbines. Applications include investment castings, including airfoils and seamless rolled rings. This segment also produces rotating parts as well as structural parts, which are sold directly to



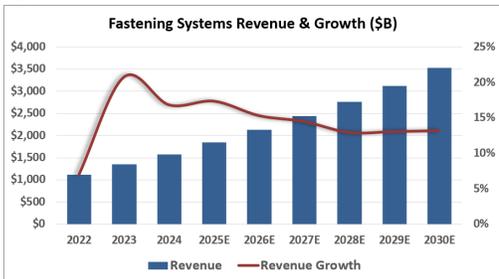
Source: Henry Fund Model

customers. Engine products grew roughly 14% YoY in 2024, supported by the recovery in commercial and defense aerospace markets and robust demand for military programs such as the F-35. Shown in Figure #4, we forecast 13% in 2025 and 11% in 2026, gradually tapering down to 7% by 2034 as production levels normalize. These projects reflect Howmet's recent expansion of their engine products line and sustained demand from key OEM customers (Original Equipment Manufacturers) such as Boeing, Airbus, GE Aerospace, and Pratt & Whitney.¹ These projections are generally in line with current Street expectations of 10-14%, with reflection of build rates from OEM customers.² We view our outlook as positive given the projected growth on key commercial and military programs, in addition to this segment's expansion for the future.

Although the segment's fundamentals remain strong, this strength appears fully reflected in the stock's valuation, limiting additional upside even with our growth assumptions that are consistent with consensus expectations.

Fastening Systems

Figure #5: Analysis on Fastening Systems



Source: Henry Fund Model

Fastening Systems produces aerospace and industrial fastening systems as well as commercial transportation fasteners and installation tools. This segment also supplies commercial transportation, renewable, and material handling industries. These applications are found in nose to tail on commercial and military aircraft, as well as on jet engines, industrial gas turbines, commercial transportation vehicles, wind turbines, solar power systems, and construction and industrial equipment.¹

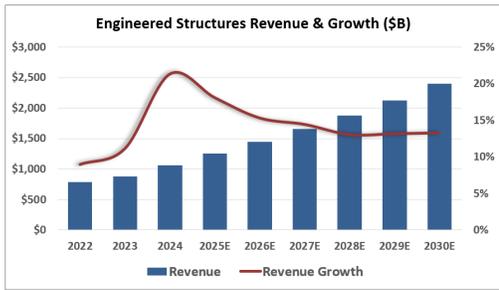
In 2024, fastening systems grew approximately 17% YoY, driven by higher commercial aircraft production rates, particularly on the A320neo, 737 MAX, and 787 platforms, as supply chains improved and OEM build schedules increased. Demand also remained strong across airframe and engine applications, supported by sustained global air travel activity and elevated production rates from Airbus and Boeing.¹ Shown in Figure #5, we forecast growth of 17% in 2025 and 15% in 2026, before moderating to 8% by 2034, as long term production stabilizes. These projections are above current consensus of 10% to 9% within these future years. Our higher rates reflect our view that elevated narrowbody build rates and sustained demand across engines and airframe platforms will support high volumes.

Although our growth rates are above consensus, our valuation remains well below the current share price of approximately \$200, reflecting the market having already priced in much of this strength. Therefore, this reinforces our No Action rating.

Engineered Structures

Figure #6: Analysis on Engineered Structures

Engineered Structures produces titanium ingots and mill products for aerospace and defense applications. These products are vertically integrated to produce titanium forgings, titanium extrusions, and machining services for airframe, wing, aero-engine, and landing gear components. Engineered Structures also produces aluminum/nickel forgings, aluminum machined



Source: Henry Fund Model

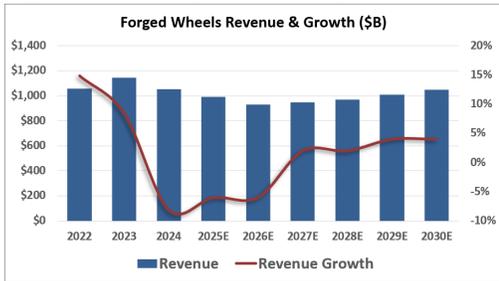
components, and assemblies for aerospace and defense applications.¹

Shown in Figure #6, revenue in 2024 increased roughly 21%, supported by improved commercial-aerospace deliveries and steady defense-aerospace activity. As commercial and defense build rates rise, titanium demand increases accordingly.¹ We forecast 18% growth and 15% in 2026 before moderating toward 9-10% long term afterward. Our above-consensus forecasts reflect the strong backlog for platforms such as the 737 MAX, A350, A320neo, and F-35, which all rely on titanium-intensive materials.

Similarly with Engine Products and Fastening Systems segments, given our rates are above consensus estimates (+6-8%), this still arrives us at our lower target price, justifying our No Action move.

Forged Wheels

Figure #7: Analysis on Forged Wheels

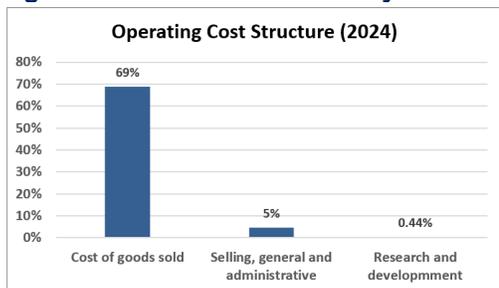


Source: Henry Fund Model

Forged Wheels manufactures lightweight, high-strength wheels used in trucks, buses, and trailers under the Alcoa Wheels brand. Shown in Figure #7, the segment declined about 8% in 2024 due to weaker commercial transportation activity and softer Class 8 truck builds.¹ We expect this pressure to continue through 2025–2026 as the freight market works through excess capacity, higher labor and operating costs, and uncertainty driven by tariffs and slower industrial production. As freight demand stabilizes and fleet utilization improves, we expect a gradual recovery beginning in 2027–2029 supported by replacement demand and improving Class 8 build rates.⁴

Cost Structure Analysis

Figure #8: Cost Structure Analysis



Source: Henry Fund Model

Howmet’s cost structure is driven primarily by raw materials, machining production, and labor. COGS has averaged 72% of revenue over the past five years, narrowing from 73% in 2019 to 69% in 2024 as aerospace mix improved and operational efficiencies increased, shown in Figure #8. Key inputs including titanium, aluminum, and nickel-based superalloys are highly sensitive to metal prices and long lead times, while machining and energy requirements elevate labor and utility costs.¹

SG&A expenses have remained stable at 5% of sales, and R&D has consistently represented less than 1% as Howmet’s component engineering work is typically performed with OEMs. Looking ahead, we project COGS to remain near 67% in the near term, supported by improved operational efficiency, before gradually normalizing toward 69% as production stabilizes. SG&A and R&D are modeled at approximately 5% and 0.4–0.5% of sales, in concurrent, consistent with historical patterns.¹

Figure #9: Margin Analysis

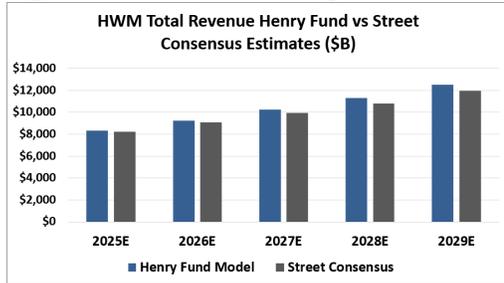


Source: Henry Fund Model

Shown in Figure #9, our revenue and cost structure assumptions generate gross margins of 32%, operating margins of 24%, and net profit margins of nearly 16% over the forecast period. Margin expansion is primarily supported by a shift toward higher-margin Engine Products and Engineered Structures products and improved utilization across manufacturing operations. Although Howmet has limited pricing flexibility under long-term OEM agreements, rising

aerospace production rates provide meaningful fixed-cost leverages, which can help offset cost pressures in labor, energy, and raw materials.¹ Therefore, we expect margins to remain elevated relative to pre-pandemic levels as mix improves, and operational efficiency strengthens across key aerospace programs.

Figure #10: Revenue Analysis



Source: Henry Fund Model, Factset

Our revenue forecast modestly exceeds Street estimates across the near- to mid-term period, reflected in Figure #10. We project stronger top-line growth in 2025–2029 driven by elevated aircraft build rates, sustained engine demand, and backlog conversion in Engineered Structures. While our estimates are 2–4% above consensus, the differences narrow over time as production normalizes. Importantly, even with our above-Street revenue outlook, the stock’s valuation remains difficult to justify in our DCF and relative models, reinforcing our view that the market has already priced in much of this strength.

Additional Company Analysis

How the Company Generates Profit

Howmet Aerospace generates most of its revenue by supplying mission-critical engines, fastening, and structural components under long-term agreements with major aerospace and defense OEMs, including Boeing, Airbus, GE Aerospace, Pratt & Whitney and key defense primes. Its four segments: Engine Products, Fastening Systems, Engineered Structures and Forged Wheels produced about \$7.4 billion of revenue in 2024, up 12% year over year, with growth led by aerospace engines and structural content. Volume growth tied to higher aircraft and engine build rates is the primary top-line driver, while pricing is more limited due to multi-year OEM contracts.¹

Target Market and Strategic Positioning

Howmet operates mainly in the global commercial aerospace, defense, and industrial/gas turbine markets, supplying content across narrowbody and widebody aircraft, military jets, rotorcraft, and land-based turbines.¹ The company is positioned as a Tier-1/Tier-2 engineered components supplier, providing high-performance airfoils, structural castings, fasteners, and titanium/aluminum forgings that are deeply integrated into customer platforms. With multi-year OEM backlogs for programs such as the 737 MAX, A320neo and various defense aircraft, Howmet benefits from long production cycles and relatively high visibility into future demand.⁶

Differentiation and Competitive Advantage

Relative to other aerospace suppliers, Howmet differentiates itself through materials science expertise, advanced manufacturing processes (including precision casting and forging) and a broad installed base of qualified parts across key engine and airframe platforms. The company highlights technology leadership and integration with OEM engineering teams as core strengths, supported by their global footprint comprising more than 20 countries and a long history under the former Alcoa/Arconic business structure.¹ Qualification requirements, strict certification

standards, and high switching costs for critical engine and structural components create substantive barriers to entry and help support Howmet's margin profile versus many traditional industrial suppliers.⁵

Company Viability and Sustainability

Howmet's business model is supported by several structural tailwinds: record commercial aerospace backlogs, ongoing recovery in global passenger traffic, and steady or rising defense budgets. As long as Boeing, Airbus and major engine manufacturers continue to increase production to work through backlogs, demand for Howmet's castings, fasteners and structural components should remain healthy. At the same time, risks remain around supply-chain bottlenecks, tariffs, and exposure to energy and metal prices, which the company has been managing through efficiency initiatives, selective hedging and efforts to pass on higher costs. Overall, the combination of long-cycle OEM relationships, high switching costs, and growing content per aircraft suggests that Howmet's competitive position is durable, though its financial performance will continue to be influenced by aerospace cycles and program-specific execution.⁶

Government and Defense Contract Exposure

Howmet generates roughly 15% of revenue from Defense Aerospace programs, primarily through titanium structures and engine components used on platforms such as the F-35, F-22, and various military crafts. This exposure is indirect, as Howmet sells components to engine OEMs and Tier-1 suppliers, such as GE Aerospace and Pratt & Whitney, who integrate these parts into systems delivered to prime contractors such as Lockheed Martin and Boeing Defense. As a result, Howmet participates in major DoD programs without contracting directly with the U.S. government at the scale of a prime contractor. The contract structures (fixed-price and cost-plus) exist at the OEM level, which supports long-cycle, stable demand but limits pricing flexibility for Howmet. Defense-related orders also contribute to the company's multi-year aerospace backlog, enhancing revenue visibility and reducing cyclicity relative to purely commercial aerospace markets.¹

Debt Maturity Analysis

Figure #11: Debt Maturity Analysis

Fiscal Year	Coupon (%)	Payment (\$m)
2025	6.875%	\$5
2026	-	\$323
2027	5.900%	\$625
2028	6.750%	\$300
2029	3.000%	\$700
Thereafter	4.950%	\$1,362
Total	27.475%	\$3,315

Source: Howmet 10-K

As Howmet has been upgraded from BBB to BBB+ by S&P Global in September 2025, the company maintains a strong credit outlook supported by consistent cash flows and manageable debt leverage.⁷ As shown in Figure #11, Howmet must repay a modest amount of \$5 million in 2025, followed by larger payments in future years. After accounting for our estimated share repurchases of \$150 million and capital expenditures of \$390 million on our estimated operating cash flow of approximately \$1.3B, this leaves Howmet with about \$760M in cash flow. This is more than enough to meet the 2025 maturity payment and indicates strong debt-financing capacity.

Beyond 2025, the larger maturities of \$323M in 2026 and \$625M in 2027 are still easily supported by projected operating cash flows. With strong debt scheduling and an improved credit rating, Howmet

should be able to meet these maturity obligations without taking additional debt.

Figure #12: Debt/Credit Peer Analysis

Company	D/E Ratio	S&P Rating
Howmet	0.76	BBB+
TransDigm	N/A	BB-
Hexcel	0.48	BB+
Parker	0.69	BBB+
Moog	0.56	BB+
Woodward	0.41	N/A
Curtis	0.50	N/A
Spirit	N/A	B

Source: Factset

According to Figure #12, Howmet’s balance sheet remains relatively stable compared to peers, with a D/E ratio of 0.76, generally in line with mid-cap aerospace suppliers such as Parker-Hannifin (0.69) and Moog (0.56). Its BBB+ credit rating places it at the higher end of the peer group and reflects stable cash flows, continued demand in key-end markets, and its ability to effectively pay off debt. In contrast, several peers including TransDigm and Spirit, carry speculative-grade ratings due to higher leverage and greater exposure to program-specific volatility. Overall, Howmet’s credit profile appears solid and supportive of its long-term outlook, although its leverage is higher than lighter-debt competitors such as Woodward and Hexcel.

ESG Analysis

Howmet’s primary ESG focus is to direct attention to climate change and supply chain decarbonization, as the company recognizes the need to act on greenhouse gas (GHG) levels to reduce the substantial climate change risk for society. To help Howmet navigate through challenges of achieving this focus – strengthening their Three-Lever ESG approach helps them to do so. The three levers of this approach are to advance customers’ sustainability goals, improve operations by reducing their environmental footprint, and to drive ESG into suppliers’ process and practices.⁸

Howmet’s 2024 Scope 1 and Scope 3 GHG emissions equaled 0.80 million metric tons, which is a 21.7% reduction from their 2019 baseline. This performance was due to energy efficiencies, including expanding on-site solar generation and the procurement of renewable energy. Water consumption was another key factor of ESG performance as well, as 2024 ended with a 16.5% improvement in their water withdrawal intensity, exceeding the target of an 8.6% deduction compared to their 2019 baseline. Additionally, Howmet launched a new data management system to improve the visibility of opportunities for material reuse and recycling, ultimately taking off with improved attention and date on diversion and reuse.⁸

Figure #13: ESG Analysis



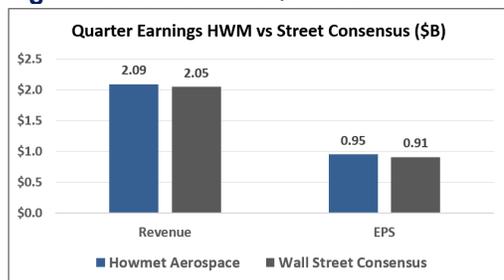
Source: Morningstar Sustainability

Under Morningstar Sustainability, lower ESG Risk Scores indicate lower exposure to ESG risks. As reflected in Figure #13, Howmet’s score of 23.7 places it in the Medium Risk category yet remains the lowest (best) among peers, reflecting relatively stronger management of environmental and supply-chain risks despite operating in an energy-intensive manufacturing space.⁹ From an investor standpoint, Howmet’s lower ESG risk is a modest positive score, as strong environmental and supply-chain practices are increasingly important to major aerospace customers and help reduce operational disruptions. Therefore, Howmet’s ESG risk suggests it is well-managed and unlikely to pressure near-term financial results.

Recent Developments

Recent Earnings Announcement

Figure #14: Howmet Q3 vs Consensus



Source: Howmet Q3 Earnings

On October 30, 2025, Howmet reported strong third-quarter results, posting 14% year-over-year revenue growth. Shown in Figure #14, the company delivered record revenue of \$2.09 billion, driven by solid performance in commercial aerospace (+15%), defense aerospace (+24%), and the industrial and other markets (+18%). Net income rose to \$385 million (\$0.95 per share), compared to \$332 million (\$0.81 per share) in the third quarter of 2024. Additional highlights include a 50% year-over-year dividend increase to \$0.12 per share, \$600 million in share repurchases year-to-date through October, and a credit rating upgrade from BBB to BBB+ by S&P.¹ CEO John Plant expressed optimism for the company's outlook, noting that most major end markets remain solid. He emphasized that continued air traffic growth will drive demand for engine spares and commercial aerospace equipment, while defense aerospace remains supported by strong F-35 and legacy fighter demand. Management also cited rising global power demand tied to data center expansion as a growth opportunity within the industrial gas turbine and aeroderivative markets. In addition, the Forged Wheels segment saw the weakest performance at +1% YoY, and management expects this area to remain soft due to lower volumes in the commercial transportation market.¹

Looking ahead, management projects 2026 revenue growth of roughly 10% YoY, closely aligned with our forecast of 12% YoY and projected EPS of \$3.79. These expectations reflect our continued optimism regarding sustained strength across the commercial and defense aerospace markets.

S&P Credit Rating Increase

On September 8, 2025, S&P Global Ratings raised Howmet's long-term issuer credit rating to BBB+ from BBB. The upgrade reflects Howmet's credit metrics exceeding S&P's prior expectations, supported by strong demand for commercial aerospace components, margin expansion, and continued debt reduction. S&P also highlighted that Howmet has effectively navigated production-level uncertainty, cost inflation, and tariff volatility - factors that have historically pressured the aerospace supply chain. These improvements underscore the company's robust financial performance and above-average margins, which S&P views as sustainable over the medium term.⁷

Engine Products Expansion

On June 17, 2025, during the Paris Air Show, Howmet announced plans to expand its operations in Morristown, Tennessee, marking the company's second expansion in less than a year. The project is expected to create over 200 new jobs and supports Howmet's goal of expanding its engine products line to enable the next generation of quieter, cleaner, and more efficient engines and power systems. The expansion is driven by sustained demand in both commercial and defense aerospace, particularly from growth in narrowbody aircraft production and components for the F-35 jet.¹⁰ This investment also aligns with Howmet's broader capital expenditure plan, with management projecting \$390 million in capex for 2026,

up from \$320 million in 2024, reflecting continued investment in capacity and advanced manufacturing capabilities.

Industry Trends

Sustained Defense Budget Growth

The defense aerospace market is expected to continue growing, driven by rising geopolitical tensions, technological modernization, and increasing demand for advanced military capabilities. The U.S. Department of Defense (DoD) budget for 2025 was estimated at \$850 billion, up 0.9% from \$842 billion in 2024. Defense spending on space systems, missile programs, R&D, and nuclear deterrence has remained elevated and is projected to rise further into 2026. The 2025 budget includes significant funding for major aircraft programs such as the F-22, F-35, F-15EX, and B-21 bomber, as well as investments in sea power (Virginia-class and Columbia-class submarines) and land power modernization.¹¹

The administration's proposed 2026 budget calls for total defense spending of \$1.01 trillion, a 13% increase from 2025 levels.¹³ This includes \$848.3 billion for the DoD and an additional \$113.3 billion in mandatory funding under the administration's "skinny budget" proposal. The supplemental funding focuses on strengthening the U.S. defense industrial base, with added investment in shipbuilding, missile defense, and munitions production. Another initiative, the "Golden Dome for America", aims to enhance U.S. protection against global missile threats, with full implementation targeted by 2029.¹² Shown in Figure #15, we can see how substantial this funding amount is, as it will be the highest it has ever been.²²

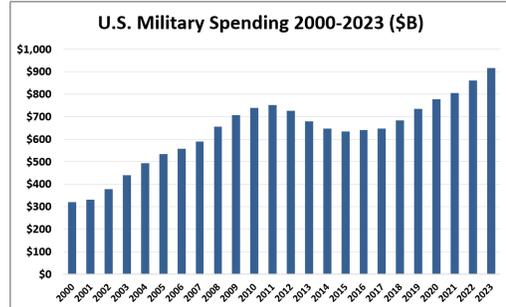
As global geopolitical tensions remain elevated, ongoing modernization programs and increase defense prioritization support stable long-term demand across the A&D industry.¹¹ This growth directly supports Howmet's Defense customers, which the company benefits from long-term contracts tied to F-35, F-15EX, and next-gen propulsion systems.

Commercial Aerospace Rebound

Commercial aerospace demand has fully recovered above pre-pandemic levels in 2025, shown in Figure #16.²² TSA traffic now averages 2.5–3.0 million passengers per day - consistent with early 2020.¹⁴ Airbus and Boeing's 20-year outlooks call for 43,500 new aircraft deliveries through 2044.¹⁵ This growth is supported by rising global passenger volumes, a projected 1.5 billion new middle-class entrants, and long-term passenger traffic growth of 3.7–4.2% annually. The global commercial fleet is expected to nearly double to over 49,000 aircraft by 2044 due to replacement cycles and structural demand.¹⁶

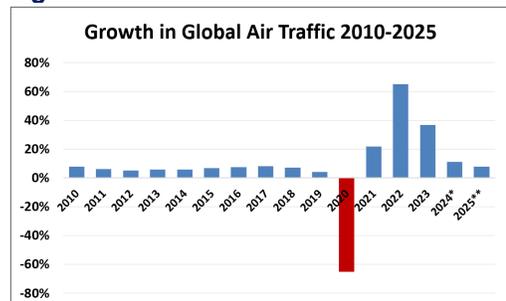
However, capturing this growth is not guaranteed. Supply chain constraints remain a key opposing factor, particularly in areas

Figure #15: Military Spending Amount



Source: Statista

Figure #16: Global Air Traffic



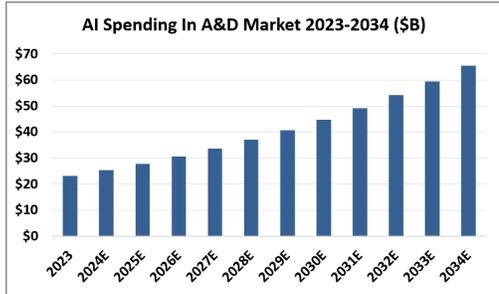
Source: Statista

relevant to Howmet. Shortages of titanium and nickel alloys, ongoing labor tightness in precision manufacturing, and bottlenecks production across engine and airframe supply chain propose issues around efficiency and full recovery.¹⁷ These constraints could cap OEM building rates below forecast levels, limiting Howmet’s ability to fully benefit from the commercial rebound despite strong underlying demand.

Technological Innovations

AI adoption is accelerating across the aerospace and defense industry, with global AI spending expected to grow at a 9.9% CAGR and reach \$65.4B by 2034 reflecting in Figure #17.¹⁸ Within aerospace, AI and machine learning are increasingly embedded in maintenance, repair, and overhaul (MRO) operations to reduce downtime, improve flight scheduling, enable predictive maintenance, and optimize inventory levels. For Howmet specifically, AI/ML provides direct operational and financial benefits. Increased automation and advanced analytics in casting, machining, and material optimization can reduce scrap rates, shorten production cycle times, and improve yields on its titanium and nickel components.¹⁹ These efficiencies transition into lower manufacturing costs and stronger margins, which benefit all of Howmet’s segments, especially within their Engine Products and Fastening Systems segments, where precision tolerances drive scrap sensitivity. Additionally, AI-enhanced workforce training can help offset labor gaps in manufacturing where specialized skills are required.¹⁹

Figure #17: AI Spending Amount



Source: U.S. Global Investors

Markets and Competition

HWM’s Peer Group

The global aerospace and defense industry generated approximately \$955 billion in total economic activity in 2024, with the market projected to reach \$1.05 trillion by 2026, reflecting a robust 8.5% CAGR driven by commercial air traffic recovery, strong defense spending, and sustained OEM production needs.¹¹ Our peer group was selected based on business model comparable to Howmet’s engineered components portfolio, focusing on Tier-1 and Tier-2 aerospace suppliers with heavy exposure to commercial aircraft, military platforms, and propulsion systems. Shown in Figure #18, companies such as TransDigm, Parker Hannifin, Hexcel Corporation, Woodward, Moog Inc., and Curtiss-Wright share similar characteristics with Howmet, including the manufacturing of precision aircraft components, major engine programs, and global exposure to OEM and aftermarket demand. These peers were also chosen due to their comparable market capitalizations, margin structures, and end-market overlap in commercial aerospace, defense systems, and industrial applications. Competition across this supplier group is driven by technological capability, manufacturing expertise, cost efficiency, and long-term relationships with major OEMs such as GE Aerospace, Pratt & Whitney, Safran, Airbus, and Boeing. The sector benefits from multi-year OEM backlogs and strong aftermarket demand, though key risks include supply chain constraints, labor shortages, commodity price volatility, and production delays.¹¹

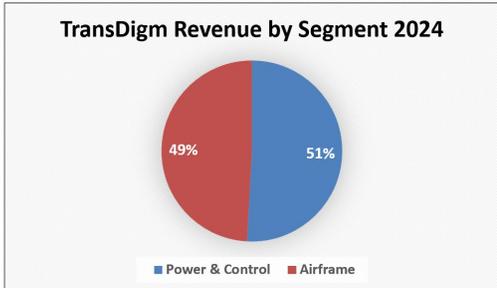
Figure #18: Peer Comparison

Company	Mkt Cap	Revenue
Howmet	81,735	7,430
TransDigm	75,500	8,831
Hexcel	5,499	1,902
Parker	104.99	19.850
Moog	6,394	3,609
Woodward	15,617	3,324
Curtis	20,338	3,121

Source: Factset (\$Billions)

TransDigm Group

Figure #19: TransDigm Revenue

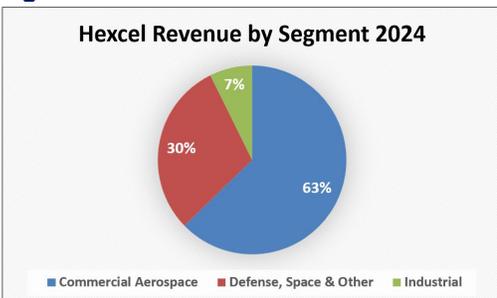


Source: Factset

TransDigm Group Incorporated is a leading global designer, producer, and supplier of highly engineered aircraft components used in nearly all commercial and military aircraft worldwide. The company operates through three main segments: Power & Control, Airframe, and Non-aviation. The Power & Control segment produces systems that manage, monitor, or convert power, including pumps, valves, and motors. The Airframe segment provides mechanical and electromechanical motion control systems, cockpit security components, and interior hardware used throughout aircraft structures. The non-aviation segment serves industrial, medical, and space markets with specialized engineered products. This is reflected in Figure #19.

Hexcel Corporation

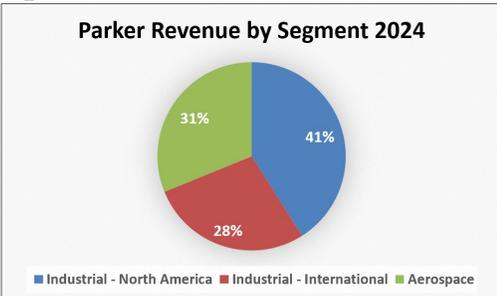
Figure #20: Hexcel Revenue



Source: Factset

Hexcel Corporation is a leading advanced composites manufacturer serving the commercial aerospace, defense, space, and industrial markets. As shown in Figure #20, the company generates most of its revenue from the Commercial Aerospace market, supported by strong demand for lightweight composite materials used in aircraft structures, engines, and interiors across major Boeing and Airbus platforms. The Defense & Space market also represents a meaningful portion of Hexcel's business, benefiting from long-term military and space programs requiring high-performance carbon fiber and honeycomb technologies. The Industrial market provides additional diversification through applications in wind energy, automotive, marine, and other performance-critical composite uses.

Figure #21: Parker Revenue

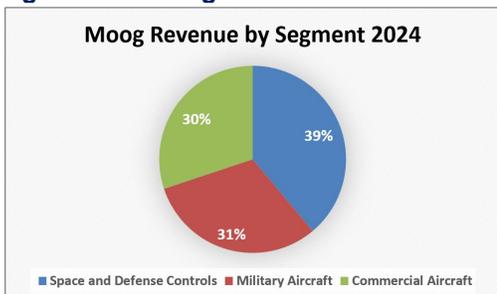


Source: Factset

Parker-Hannifin

Parker-Hannifin Corporation is a global leader in motion and control technologies serving industrial, transportation, and aerospace markets. As illustrated in Figure #21, the company's revenue mix is balanced across Industrial North America, Industrial International, and Aerospace. The industrial businesses supply a wide range of motion and control components used in manufacturing, automation, transportation, and process industries across both domestic and international markets. The Aerospace segment provides hydraulic, fuel, pneumatic, and flight control systems used in commercial and military aircraft, supporting long-term production cycles and aftermarket demand.

Figure #22: Moog Revenue

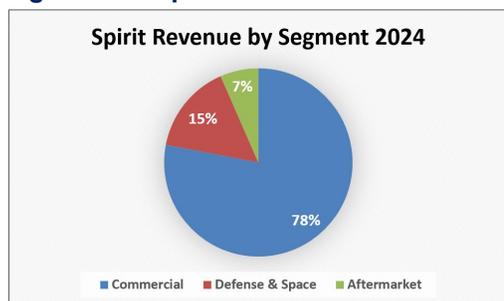


Source: Factset

Moog Inc.

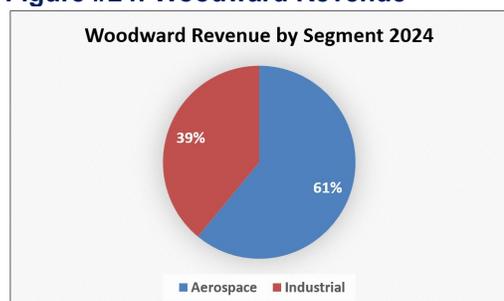
Moog Inc. is a global designer and manufacturer of advanced motion control products used in commercial aircraft, military aircraft, space, and defense applications. As shown in Figure #22, Moog's revenue is primarily derived from its Commercial Aircraft operations, which supply high-reliability flight control systems and actuation technologies to major OEM platforms. The Military Aircraft market contributes additional stability through defense programs spanning fighters, rotorcraft, and transport aircraft. The Space & Defense business further broadens Moog's portfolio with components and systems used in satellites, launch vehicles, missile systems, and other high-performance defense applications.

Figure #23: Spirit Revenue



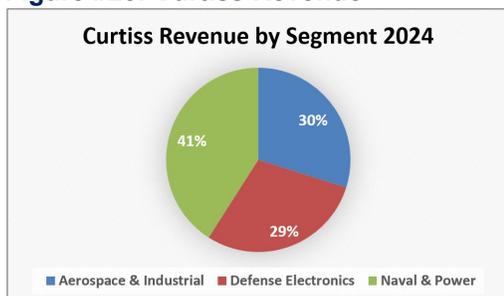
Source: Factset

Figure #24: Woodward Revenue



Source: Factset

Figure #25: Curtiss Revenue



Source: Factset

Figure #26: Valuation Metrics

Company	P/E (2025E)	P/E (2026E)	EV/EBITDA (2025E)
HWM	55.2	45.9	35.7
TGD	35.3	34.3	21.8
HXL	40.2	29.3	18.8
PH	25.6	27.1	19.1
MOG.A	25.1	20.3	14.6
WWD	38.1	33.1	24.5
CW	41.5	37.2	28.0

Source: Factset

Spirit Aerosystems

Spirit AeroSystems is a leading manufacturer of large, complex aerostructures for commercial, defense, and business aviation platforms. As we see from Figure #23, the company operates through three primary segments: Commercial, Defense & Space, and Aftermarket. The Commercial segment produces major aircraft components such as fuselages, wing structures, and propulsion nacelles for programs including the Boeing 737 and 787 and the Airbus A220. The Defense & Space segment supplies composite and metallic structures for military aircraft and rotorcraft. The Aftermarket segment provides spare parts, repairs, and maintenance solutions for global fleets.

Woodward Inc.

Woodward, Inc. is a global designer and manufacturer of control systems and components used in aerospace and industrial applications. The company operates through two main segments: Aerospace and Industrial, reflected in Figure #24. The Aerospace segment provides fuel systems, actuators, valves, and electronic controls for commercial and military aircraft engines and airframes. The Industrial segment supplies control solutions for energy, power generation, and transportation markets, including fuel injection systems, combustion components, and motion controls for turbines and engines.

Curtiss-Wright

Curtiss-Wright Corporation is a diversified engineering company that provides highly engineered products and services to the aerospace, defense, and industrial markets. The company operates through three main segments: Aerospace & Industrial, Defense Electronics, and Naval & Power, as shown in Figure #25. The Aerospace & Industrial segment supplies actuators, sensors, and motion control systems for commercial and general aviation. The Defense Electronics segment provides embedded computing, flight test instrumentation, and avionics systems for military platforms. The Naval & Power segment delivers valves, pumps, and control systems for nuclear submarines, aircraft carriers, and critical energy applications.

Valuation Metrics

Shown in figure #26, across our peer set of engineered aerospace suppliers, valuation multiples remain elevated compared to historical averages, reflecting strong commercial aerospace demand and multi-year OEM backlogs. The group trades at an average 35–40x 2025E P/E and ~21–25x 2025E EV/EBITDA, supported by solid margin profiles and continued recovery in narrowbody and widebody production rates. Howmet trades at a premium to peers on both forward earnings and EBITDA, driven by its superior margin profile, content growth on major engine platforms, and favorable long-term demand visibility. However, we believe this premium is largely priced in, and current multiples leave limited room for upside relative to peers.

Operating Metrics

Figure #27: Operating Metrics

Company	EBITDA Margin	Revenue Growth (24-25)
Howmet	28.75	12%
TransDigm	51.68	11%
Hexcel	16.35	6.10%
Parker	25.67	6.10%
Moog	13.34	5.44%
Woodward	17.20	10%
Curtis	21.85	12%

Source: Factset

As shown in Figure #27, TransDigm’s EBITDA margin of over 50% stands out in the peer group and is unusually high for the aerospace supplier space. This mainly comes from its business model, which is heavily focused on proprietary and sole-source parts that carry premium aftermarket pricing and recurring service revenue. Because of this mix, TransDigm consistently runs margins far above normal industry levels.

Howmet’s EBITDA margin of roughly 29% is still very strong compared to most suppliers, especially given that it has more exposure to original equipment (OE) production, which generally carries lower margins than aftermarket work. Its manufacturing processes are also more metal-intensive, so the margin profile is naturally different from TransDigm’s. Other suppliers like Parker-Hannifin, Hexcel, Woodward, and Curtiss-Wright fall in the mid-teens to mid-20s range, which is more typical for diversified aerospace suppliers.

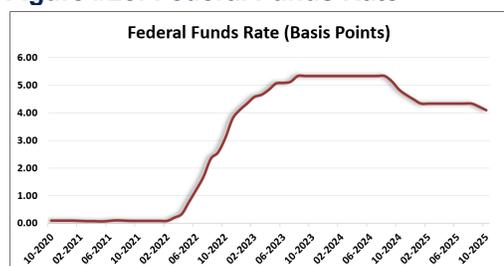
On revenue growth, Howmet is positioned toward the higher end of the peer set at around 12%, which reflects its strong exposure to commercial aerospace recovery and engine program demand. TransDigm and Curtiss-Wright are also growing quickly, but most other peers are growing in the mid-single-digit range. Overall, the operating metrics show that Howmet is one of the stronger performers in its category, but it naturally won’t match TransDigm’s extreme margins because the business models are completely different.

Economic Outlook

Interest & Foreign Exchange Rates

The federal funds rate remained in the 4–4.5% range for nearly three years, before being cut to 3.75–4.00% on October 29, 2025, illustrated in Figure #28.²⁰ Lower rates reduce borrowing costs across aerospace supply chains, potentially easing financing conditions for OEMs and encouraging continued investment in production capacity. For suppliers, declining rates can also support lower capital investment costs. Conversely, prolonged higher rates could still pressure airline financing and narrowbody purchase decisions, although strong traffic trends have kept demand resilient.²¹ For Howmet, interest rate has had limited direct impact due to the company’s strong demand profile and relatively modest debt portions. However, lower rates would slightly reduce future interest expense and support OEM production rates, which are both beneficial to the company’s profitability.

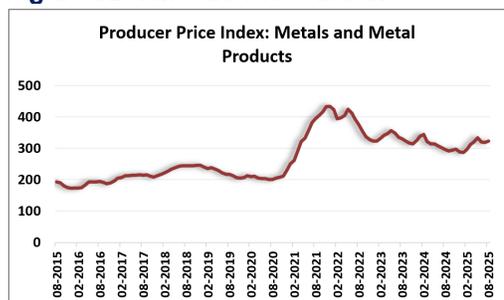
Figure #28: Federal Funds Rate



Source: St Louis FRED

Foreign exchange rates also play a role given Howmet’s 27 overseas facilities and global sales. A stronger U.S. dollar typically reduces translated revenue but lowers imported material costs, while a weaker dollar has the opposite effect. Our long-term forecast of \$1.16 USD/EUR and 152 JPY/USD represent a slightly net-positive margin impact: a firmer dollar against the yen reduces the cost of Japanese-sourced inputs, while the EUR/USD effect remains modest. Howmet also mitigates FX volatility through selective forward contracts and natural hedges, limiting downside currency risk.¹

Figure #29: Metals Price Index



Source: St Louis FRED

Energy & Commodity Prices

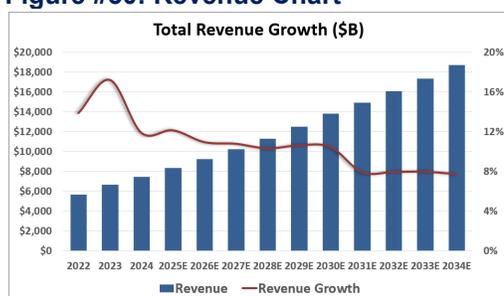
Howmet is exposed to fluctuations in energy prices and key metals such as titanium, nickel, aluminum, cobalt, and superalloys - all essential inputs for its segments. Higher energy and commodity costs can raise operating expenses, shipping costs, and material inputs, pressuring gross margins across manufacturing facilities. For Howmet, commodity volatility is partially mitigated through long-term supply agreements, forward purchase commitments, and selective hedging strategies. A large portion of titanium and nickel inputs are contracted under multi-year contracts, which stabilizes pricing and reduces exposure to short-term market spikes. As a result, while commodity inflation remains a risk to margins, Howmet's well-established structure provides material stabilization, helping maintain cost stability even in periods of elevated raw material prices.¹ The metals and metals products price fluctuations are shown in Figure #29.²⁰

Valuation

Revenue Assumptions

Our revenue forecasts in Figure #30 reflect a very optimistic view of aerospace demand across both engine and structural content, while still aligning with long-term normalization trends. For Engine Products, we assume 13% and 11% growth in 2025–2026, driven by continued increases in commercial and military engine production, before tapering toward 7% long-term, consistent with steady build-rate expansion from major OEMs. For Fastening Systems, which is heavily tied to commercial aerospace platforms, we model 17% and 15% growth in 2025–2026 and an 8% terminal rate, reflecting strong Airbus and Boeing narrowbody activity.

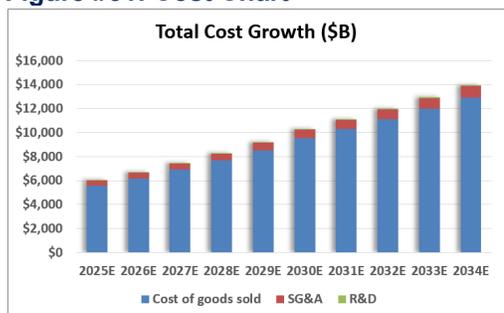
Figure #30: Revenue Chart



Source: Henry Fund Model

Engineered Structures is modeled with above-Street growth (18% in 2025, stabilizing near 9% thereafter), supported by rising titanium-intensive content on key programs including the A320neo, A350, and F-35. Forged Wheels reflects the opposite dynamic, with continued declines of ~6% in 2025–2026 due to ongoing weakness in North American freight and heavy-duty trucking markets. Overall, these revenue assumptions are generally above current Street expectations, which ultimately strengthens our conclusion that even optimistic top-line scenarios fail to justify the current ~\$200 share price.

Figure #31: Cost Chart

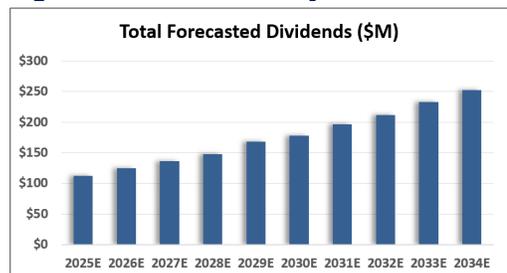


Cost Assumptions

Our cost assumptions are consistent with Howmet's historical margin profile and recent efficiency gains, reflected in Figure #31. We forecast COGS at 67% of sales through 2027, reflecting continued operating leverage and improved productivity in manufacturing operations. As volumes normalize in later years, we model COGS gradually rising back toward 69%, consistent with long-term industry averages. SG&A and R&D remain stable at 5.1% and 0.45% of sales, which aligns with the company's historical operating structure and limited need for incremental investment

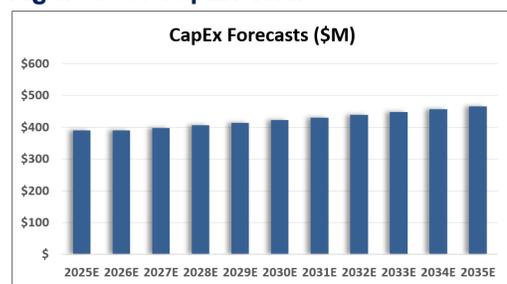
Source: Henry Fund Model

Figure #32: Dividend Payouts



Source: Henry Fund Model

Figure #33: CapEx Chart



Source: Henry Fund Model

costs towards operations. Restructuring and other one-time costs, which have trended downward for several years, are assumed to decline to 0% by 2029. Under these assumptions, gross margin averages 32% and operating margin 24%, consistent with the company's scale benefits. These assumptions support our valuation output and reinforce our view that the stock's current price already reflects a best-case operating scenario.

Share Repurchases

For our total share repurchases, we have forecasted this by using the difference between years 2024 and 2023, resulting in an amount of \$150M, which was used for our future years as well. For our total dividend payouts, we have calculated this by multiplying the total shares outstanding by the forecasted dividends for that year. Our forecasted dividends were calculated using an average historical payout ratio of roughly 8%, which was then multiplied by the forecasted EPS each year. This is shown in Figure #32

CapEx Assumptions

Our capital expenditure assumptions were made from Howmet's most recent 10k filing from February of 2025. The company estimated capital expenditures to up to around \$390 million for 2025 and 2026 due to investing to expand turbine blade capacity and the expansion of their engine products segment. Management has not touched upon future years; however, we estimated a continuing growth rate of 2% going forward to reflect future expansions to meet the demand for their engine products/applications and for rising costs due to inflation, reflected in Figure #33.

WACC Calculation

Our calculated weighted average cost of capital (WACC) for Howmet is roughly 9.84%. We have made the following assumptions in our calculation:

Risk-Free Rate: We used the 10-Year Treasury bond yield as of 10/19/2025.

Beta: We obtained a beta of 1.22 using the 2 year weekly raw beta from the Bloomberg Terminal.

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

Pre-Cost of Debt: We obtained 4.82% from the yield to maturity for the Howmet 10-year corporate bond from the Bloomberg Terminal.

DCF/EP

Our DCF and Economic Profit models produce an intrinsic value of \$122 per share. Importantly, this estimate is based on assumptions that are already highly optimistic, including above-Street revenue growth and a 7% terminal NOPLAT growth rate. A 7% long-term growth rate is well above what a well-established aerospace supplier can realistically sustain; however, we used it to reflect the current strength of aerospace demand and to test what level of long-

term growth would be required to support higher valuations. Even under these aggressive assumptions, the DCF value remains far below the current \$200 share price. With a more realistic terminal growth rate of 3%, intrinsic value would fall closer to \$60. All free cash flows were discounted using our 9.84% WACC, which incorporates higher rates across the aerospace supply chain and Howmet's low amount of debt. Overall, the DCF suggests that the market is embedding extremely long-term growth expectations that may be difficult to achieve in practice.

Dividend Discount Model

Our Dividend Discount Model results in an intrinsic value of approximately \$37 per share, based on a CV growth of EPS of 2.50% and very minimal dividend growth, from our average payout ratio of 8% from historical averages. As Howmet maintains a very low dividend payout ratio and reinvests most of its cash flow back into operations, the DDM is not the most representative valuation method for this company. However, it serves as a useful cross-check, and its lower valuation reinforces our broader conclusion that the current \$200 share price embeds long-term growth expectations far above what can be supported by actual shareholder distributions.

Relative Multiple

Our relative valuation approach utilizes forward P/E ratios for 2025 and 2026, along with the EV/EBITDA multiple. Our analysis showed a forward P/E ratios of **60.5x** and **54.5x** for Howmet, compared to the industry peer average of **35.33x** and **30.44x**. Whilst a higher-than-average P/E ratio may be justifiable in some instances, given that it may be a premium one is willing to pay for the potential of the company's stock price to rise in the future, we do not believe this applies to Howmet at its current levels.

Although the company has been performing well YTD, its peers have also been performing very well across the aerospace and defense industry, respectively. Given that Howmet's share price has more than doubled over the past year, with its valuation multiples already nearly twice the industry average, we believe the stock is already priced to perfection, leaving limited upside potential

Implied Relative Values:

P/E (EPS25): \$120.67

P/E (EPS26): \$115.42

EV/EBITDA: \$122.57

Henry Fund vs. The Street

Figure #35: Henry Fund vs. The Street

Estimates			
	Rev	2025e EPS	EBITDA
HF	8,334	3.42	2,271
Street	8,188	3.67	2,386
% Diff.	1.8%	7.3%	5.1%

Reflected in Figure #35, our revenue forecasts are generally slightly above Street consensus for 2025–2027, driven by expectations for stronger aerospace build rates and continued recovery in commercial and defense engine programs. However, our EPS estimates remain below Street consensus, indicating that the market anticipates greater operating leverage and margin expansion than we believe is achievable over the forecast period. This difference is primarily driven by our assumptions on

Estimates			
	Rev	2026e EPS	EBITDA
HF	9,247	3.79	2,527
Street	9,036	4.39	2,752
% Diff.	2.3%	15.8%	8.9%

Estimates			
	Rev	2027e EPS	EBITDA
HF	10,246	4.15	2,755
Street	9,884	5.15	3,121
% Diff.	3.7%	24.1%	13.3%

productivity gains and long-term cost efficiencies across its operating expenses.

Despite our above-Street revenue outlook, our EBITDA estimates also remain below consensus, suggesting that the Street expects a steeper margin recovery profile than we view as realistic given Howmet's current cost structure.

Overall, even with our more optimistic revenue assumptions compared to consensus, our fundamental valuation (DCF, DDM, and relative multiples) supports only \$120 per share. This reinforces our view that current market expectations embed long-term margin and earnings assumptions that we believe are difficult to justify, supporting our No Action rating.

References

1. [Howmet SEC Filings](#)
2. [Factset](#)
3. [Yahoo Finance](#)
4. [Freight Waves](#)
5. [Portersfiveforces](#)
6. [Reuters](#)
7. [S&P Global](#)
8. [Howmet ESG Report](#)
9. [Morningstar Sustainalytics](#)
10. [TN Department of Economic & Community Development](#)
11. [NetAdvantage](#)
12. [US Department of War](#)
13. [US Department of War](#)
14. [Transportation Security Administration](#)
15. [Airbus](#)
16. [Boeing](#)
17. [PwC](#)
18. [U.S. Global Investors](#)
19. [Deloitte](#)
20. [St. Louis FRED](#)
21. [FLYING](#)
22. [Statista](#)

Howmet Aerospace
Revenue Decomposition

Fiscal Years Ending Dec. 31	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Revenue by Operating Segment																	
Engine Products	3,092	3,320	2,406	2,282	2,698	3,266	3,735	4,236	4,734	5,196	5,703	6,261	6,837	7,356	7,913	8,514	9,111
% Growth		7.37%	-27.53%	-5.15%	18.23%	21.05%	14.36%	13.41%	11.75%	9.76%	9.77%	9.78%	9.21%	7.58%	7.58%	7.59%	7.02%
Fastening Systems	1,531	1,561	1,245	1,044	1,117	1,349	1,576	1,849	2,132	2,441	2,757	3,117	3,527	3,824	4,146	4,496	4,876
% Growth		1.96%	-20.24%	-16.14%	6.99%	20.77%	16.83%	17.35%	15.30%	14.48%	12.92%	13.06%	13.18%	8.41%	8.42%	8.44%	8.45%
Engineered Structures	1,209	1,255	927	725	790	878	1,065	1,257	1,450	1,659	1,875	2,122	2,403	2,632	2,883	3,160	3,465
% Growth		3.80%	-26.14%	-21.79%	8.97%	11.14%	21.30%	18.07%	15.30%	14.42%	13.03%	13.15%	13.28%	9.50%	9.55%	9.60%	9.66%
Forged Wheels	966	969	679	921	1,058	1,147	1,054	991	931	950	969	1,008	1,048	1,100	1,155	1,213	1,274
% Growth		0.31%	-29.93%	35.64%	14.88%	8.41%	-8.11%	-6.00%	-6.00%	2.00%	2.00%	4.00%	4.00%	5.00%	5.00%	5.00%	5.00%
Total	6,798	7,105	5,257	4,972	5,663	6,640	7,430	8,334	9,247	10,246	11,304	12,507	13,816	14,912	16,098	17,383	18,726
% Growth		4.52%	-26.01%	-5.42%	13.90%	17.25%	11.90%	12.16%	10.96%	10.80%	10.33%	10.64%	10.47%	7.93%	7.96%	7.98%	7.73%
Revenue by End-Market																	
Engineered Products																	
Aerospace - Commerical	2,056	2,229	1,247	1,105	1,495	1,798	2,091	2,405	2,693	2,963	3,259	3,585	3,907	4,220	4,557	4,922	5,267
% Growth		8.41%	-44.06%	-11.39%	35.29%	20.27%	16.30%	15%	12%	10%	10%	10%	9%	8%	8%	8%	7%
Aerospace - Defense	373	475	557	523	526	670	766	866	978	1,086	1,205	1,338	1,485	1,604	1,732	1,870	2,020
% Growth		27.35%	17.26%	-6.10%	0.57%	27.38%	14.33%	13%	13%	11%	11%	11%	11%	8%	8%	8%	8%
Commerical Transportation	48	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Growth		-58.33%	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%
Industrial and Other	615	596	602	654	677	798	878	966	1,062	1,147	1,239	1,338	1,445	1,532	1,624	1,721	1,825
% Growth		-3.09%	1.01%	8.64%	3.52%	17.87%	10.03%	10%	10%	8%	8%	8%	8%	6%	6%	6%	6%
Total Engine Products	3,092	3,320	2,406	2,282	2,698	3,266	3,735	4,236	4,734	5,196	5,703	6,261	6,837	7,356	7,913	8,514	9,111
% Growth		7.37%	-27.53%	-5.15%	18.23%	21.05%	14.36%	13.41%	11.75%	9.76%	9.77%	9.78%	9.21%	7.58%	7.58%	7.59%	7.02%
Fastening Systems																	
Aerospace - Commerical	1,069	1,060	808	537	616	790	1,006	1,258	1,509	1,773	2,039	2,345	2,697	2,939	3,204	3,492	3,807
% Growth		-0.84%	-23.77%	-33.54%	14.71%	28.25%	27.34%	25%	20%	18%	15%	15%	15%	9%	9%	9%	9%
Aerospace - Defense	120	158	156	158	158	173	162	177	192	210	224	240	257	272	289	306	324
% Growth		31.67%	-1.27%	1.28%	0.00%	9.49%	-6.36%	9%	9%	9%	7%	7%	7%	6%	6%	6%	6%
Commerical Transportation	229	227	155	208	225	255	254	234	222	224	231	238	245	257	270	284	298
% Growth		-0.87%	-31.72%	34.19%	8.17%	13.33%	-0.39%	-8%	-5%	1%	3%	3%	3%	5%	5%	5%	5%
Industrial and Other	113	116	126	141	118	131	154	182	209	234	262	294	329	355	384	414	447
% Growth		2.65%	8.62%	11.90%	-16.31%	11.02%	17.56%	18%	15%	12%	12%	12%	12%	8%	8%	8%	8%
Total Fastening Systems	1,531	1,561	1,245	1,044	1,117	1,349	1,576	1,849	2,132	2,441	2,757	3,117	3,527	3,824	4,146	4,496	4,876
% Growth		1.96%	-20.24%	-16.14%	6.99%	20.77%	16.83%	17.35%	15.30%	14.48%	12.92%	13.06%	13.18%	8.41%	8.42%	8.44%	8.45%
Engineered Structures																	
Aerospace - Commerical	871	897	542	387	495	641	774	890	1,006	1,137	1,262	1,400	1,554	1,679	1,813	1,958	2,115
% Growth		2.99%	-39.58%	-28.60%	27.91%	29.49%	20.75%	15%	13%	13%	11%	11%	11%	8%	8%	8%	8%
Aerospace - Defense	233	256	303	270	239	172	236	307	377	449	534	636	757	855	966	1,092	1,234
% Growth		9.87%	18.36%	-10.89%	-11.48%	-28.03%	37.21%	30%	23%	19%	19%	19%	19%	13%	13%	13%	13%
Industrial and Other	105	102	82	68	56	65	55	61	67	73	79	85	92	98	104	110	116
% Growth		-2.86%	-19.61%	-17.07%	-17.65%	16.07%	-15.38%	10%	10%	10%	8%	8%	8%	6%	6%	6%	6%
Total Engineered Structures	1,209	1,255	927	725	790	878	1,065	1,257	1,450	1,659	1,875	2,122	2,403	2,632	2,883	3,160	3,465
% Growth		3.80%	-26.14%	-21.79%	8.97%	11.14%	21.30%	18.07%	15.30%	14.42%	13.03%	13.15%	13.28%	9.50%	9.55%	9.60%	9.66%
Forged Wheels																	
Commerical Transportation	969	970	679	921	1,058	1,147	1,054	991	931	950	969	1,008	1,048	1,100	1,155	1,213	1,274
% Growth		0.10%	-30.00%	35.64%	14.88%	8.41%	-8.11%	-6%	-6%	2%	2%	4%	4%	5%	5%	5%	5%
Industrial and Other	(3)	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Growth		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Forged Wheels	966	969	679	921	1,058	1,147	1,054	991	931	950	969	1,008	1,048	1,100	1,155	1,213	1,274
% Growth		0.31%	-29.93%	35.64%	14.88%	8.41%	-8.11%	-6.00%	-6.00%	2.00%	2.00%	4.00%	4.00%	5.00%	5.00%	5.00%	5.00%

Howmet Aerospace

Income Statement

Fiscal Years Ending Dec. 31	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Sales	7,098	5,259	4,972	5,663	6,640	7,430	8,334	9,247	10,246	11,304	12,507	13,816	14,912	16,098	17,383	18,726
Cost of goods sold (exclusive of expenses)	5,214	3,878	3,596	4,103	4,773	5,119	5,584	6,196	6,916	7,686	8,504	9,533	10,289	11,108	11,994	12,921
Selling, general administrative, and other expenses	400	277	251	288	333	347	427	473	525	579	640	707	764	824	890	959
Research and development expenses	28	17	17	32	36	33	36	40	44	48	53	58	64	71	78	86
Provision for depreciation, depletion, and amortization	295	279	270	265	272	277	259	276	292	306	321	333	345	357	368	379
Depreciation	237	239	234	229	237	244	229	245	259	272	285	297	309	321	332	343
Amortization	58	40	36	36	35	33	30	31	33	34	36	36	36	36	36	36
Restructuring and other charges	582	182	90	56	23	21	16	11	6	1	-	-	-	-	-	-
Operating income	579	626	748	919	1,203	1,633	2,012	2,251	2,464	2,683	2,988	3,184	3,450	3,738	4,053	4,381
Loss on debt redemption	-	64	146	2	2	6	-	-	-	-	-	-	-	-	-	-
Interest expense, net excluding loss on debt redemption	338	317	259	229	218	182	193	243	273	303	297	335	309	351	336	351
Other expenses / income, net	31	74	19	82	8	62	46	46	46	46	46	46	46	46	46	46
Income / loss from continuing operations before income taxes	210	171	324	606	975	1,383	1,773	1,963	2,145	2,334	2,645	2,803	3,095	3,341	3,671	3,985
Provision for income taxes	84	(40)	(66)	137	210	228	390	432	472	513	582	617	681	735	808	877
Income / loss from continuing operations after income taxes	126	211	258	469	765	1,155	1,383	1,531	1,673	1,821	2,063	2,187	2,414	2,606	2,863	3,108
Income / loss from discontinued operations after income taxes	344	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net income	470	261	258	469	765	1,155	1,383	1,531	1,673	1,821	2,063	2,187	2,414	2,606	2,863	3,108
Total Shares Outstanding	433.00	432.91	421.69	412.16	409.91	405.43	404.21	403.11	402.16	401.30	400.44	399.65	398.93	398.28	397.69	397.15
Weighted Average Shares Outstanding	446.00	435.00	430.00	416.00	412.00	408.00	404.82	403.66	402.63	401.73	400.87	400.04	399.29	398.60	397.98	397.42
Basic EPS	1.05	0.59	0.60	1.12	1.85	2.83	3.42	3.79	4.15	4.53	5.15	5.47	6.05	6.54	7.19	7.82
Dividends per Share	0.12	0.02	0.04	0.10	0.17	0.26	0.28	0.31	0.34	0.37	0.42	0.44	0.49	0.53	0.58	0.64

Howmet Aerospace

Balance Sheet

<i>Fiscal Years Ending Dec. 31</i>	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Assets																
Current assets:																
Cash and cash equivalents	1,577	1,610	720	791	610	564	2,547	4,389	6,329	7,777	10,144	11,551	14,339	16,347	19,048	21,994
Receivables from customers, less allowances	583	328	367	506	675	689	697	774	857	946	1,047	1,156	1,248	1,347	1,455	1,567
Other receivables	349	29	53	31	17	20	45	50	55	61	67	74	80	87	94	101
Inventories	1,607	1,488	1,402	1,609	1,765	1,840	2,207	2,449	2,713	2,993	3,312	3,659	3,949	4,263	4,603	4,959
Prepaid expenses and other current assets	285	217	195	206	249	249	317	351	389	430	475	525	567	612	661	712
Current assets of discontinued operations	1,442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total current assets	5,843	3,672	2,737	3,143	3,316	3,362	5,813	8,012	10,344	12,207	15,045	16,965	20,183	22,656	25,860	29,333
Properties, plants, and equipment, net	2,629	2,592	2,467	2,332	2,328	2,386	2,547	2,692	2,831	2,965	3,094	3,219	3,340	3,458	3,574	3,687
Goodwill	4,067	4,102	4,067	4,013	4,035	4,010	4,010	4,010	4,010	4,010	4,010	4,010	4,010	4,010	4,010	4,010
Deferred income taxes	209	272	184	54	46	35	66	105	149	198	246	300	350	406	460	517
Intangibles, net	599	571	549	521	505	475	445	414	381	347	311	275	239	203	167	131
Other noncurrent assets	316	234	215	192	198	251	256	261	266	272	277	283	288	294	300	306
Noncurrent assets of discontinued operations	3,899	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total assets	17,562	11,443	10,219	10,255	10,428	10,519	13,137	15,495	17,982	19,998	22,983	25,052	28,410	31,027	34,372	37,984
Liabilities																
Current Liabilities:																
Accounts payable, trade	976	599	732	962	982	948	1,172	1,301	1,441	1,590	1,759	1,943	2,098	2,264	2,445	2,634
Accrued compensation and retirement costs	285	205	198	195	263	305	325	361	400	441	488	539	582	628	678	730
Taxes, including income taxes	65	102	61	48	68	60	83	104	117	130	127	143	132	150	144	150
Accrued interest payable	112	89	74	75	65	59	59	75	84	93	92	103	95	108	103	108
Other current liabilities	229	289	183	202	200	171	174	178	181	185	189	193	196	200	204	208
Short-term debt	1,034	376	5	-	206	6	5	323	625	300	700	-	500	-	-	-
Current liabilities of discontinued operations	1,424	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total current liabilities	4,125	1,660	1,253	1,482	1,784	1,549	1,819	2,341	2,848	2,739	3,354	2,921	3,603	3,351	3,575	3,831
Long-term debt, less amount due within one year	4,906	4,699	4,227	4,162	3,500	3,309	4,163	4,366	4,580	4,804	5,047	5,307	5,531	5,770	6,023	6,285
Accrued pension benefits	1,030	985	771	633	664	625	594	564	536	509	484	459	436	415	394	374
Accrued other postretirement benefits	200	198	153	109	92	54	51	49	46	44	42	40	38	36	34	32
Other noncurrent liabilities and deferred credits	438	324	307	268	351	428	437	445	454	463	473	482	492	501	511	522
Noncurrent liabilities of discontinued operations	2,258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total liabilities	12,957	7,866	6,711	6,654	6,391	5,965	7,063	7,764	8,465	8,559	9,399	9,209	10,100	10,073	10,537	11,045
Equity																
Howmet Aerospace Inc. shareholders' equity:																
Preferred stock	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Common stock	7,752	5,101	4,713	4,359	4,092	3,611	3,861	4,111	4,361	4,611	4,861	5,111	5,361	5,611	5,861	6,111
Retained earnings	113	364	603	1,028	1,720	2,766	4,036	5,442	6,979	8,651	10,546	12,555	14,772	17,166	19,796	22,651
Accumulated other comprehensive loss	(3,329)	(1,943)	(1,863)	(1,841)	(1,830)	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)
Total Howmet Aerospace shareholders' equity	4,591	3,577	3,508	3,601	4,037	4,554	6,074	7,730	9,517	11,439	13,584	15,843	18,310	20,954	23,834	26,939
Noncontrolling interests	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total equity	4,605	3,577	3,508	3,601	4,037	4,554	6,074	7,730	9,517	11,439	13,584	15,843	18,310	20,954	23,834	26,939
Total liabilities and equity	17,562	11,443	10,219	10,255	10,428	10,519	13,137	15,495	17,982	19,998	22,983	25,052	28,410	31,027	34,372	37,984

Howmet Aerospace

Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Operating Activities										
Net Income	1,383	1,531	1,673	1,821	2,063	2,187	2,414	2,606	2,863	3,108
Depreciation and amortization	229	245	259	272	285	297	309	321	332	343
Receivables from customers	(8)	(76)	(84)	(89)	(101)	(110)	(92)	(99)	(108)	(112)
Other receivables	(25)	(5)	(5)	(6)	(6)	(7)	(6)	(6)	(7)	(7)
Inventories	(367)	(242)	(264)	(280)	(319)	(347)	(290)	(314)	(340)	(356)
Prepaid expenses and other current assets	(68)	(35)	(38)	(40)	(46)	(50)	(42)	(45)	(49)	(51)
Deferred income taxes	(31)	(39)	(44)	(49)	(48)	(54)	(50)	(57)	(54)	(57)
Accounts payable, trade	224	128	140	149	169	184	154	167	181	189
Accrued interest payable	0	15	9	9	(2)	12	(8)	13	(5)	5
Accrued compensation & retirement costs	20	36	39	41	47	51	43	46	50	52
Taxes, including income taxes	23	21	13	13	(3)	16	(11)	18	(6)	6
Other current liabilities	3	3	4	4	4	4	4	4	4	4
Accrued pension benefits	(31)	(30)	(28)	(27)	(25)	(24)	(23)	(22)	(21)	(20)
Accrued other postretirement benefits	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Cash provided from operations	1,350	1,551	1,671	1,816	2,016	2,157	2,401	2,630	2,839	3,103
Financing Activities										
Short-term debt	(1)	318	302	(325)	400	(700)	500	(500)	-	-
Long-term debt, less amount due within one year	854	203	215	223	243	260	224	240	253	262
Common stock	250	250	250	250	250	250	250	250	250	250
Dividends paid	(113)	(125)	(136)	(148)	(168)	(178)	(196)	(212)	(233)	(253)
Cash provided from financing	990	646	631	0	725	(368)	778	(223)	270	259
Investing Activities										
Properties, plants, and equipment, net	(390)	(390)	(398)	(406)	(414)	(422)	(431)	(439)	(448)	(457)
Intangibles, net	30	31	33	34	36	36	36	36	36	36
Other noncurrent assets	(5)	(5)	(5)	(5)	(5)	(6)	(6)	(6)	(6)	(6)
Other noncurrent liabilities and deferred credits	9	9	9	9	9	9	10	10	10	10
Cash provided from investing	(356)	(355)	(361)	(368)	(374)	(382)	(391)	(399)	(408)	(417)
Net Cash	1,983	1,841	1,940	1,448	2,367	1,407	2,788	2,008	2,701	2,946
Beginning Cash	564	2,547	4,389	6,329	7,777	10,144	11,551	14,339	16,347	19,048
Ending Cash	2,547	4,389	6,329	7,777	10,144	11,551	14,339	16,347	19,048	21,994

Howmet Aerospace
Historical Cash Flow Statement

Fiscal Years Ending Dec. 31	2018	2019	2020	2021	2022	2023	2024
Operating activities							
Net income / loss	642	470	261	258	469	765	1,155
Depreciation, depletion and amortization	576	536	338	270	265	272	277
Deferred income taxes	31	(19)	2	38	79	108	55
Restructuring and other charges	9	620	164	90	56	23	21
Net realized and unrealized losses	10	7	8	9	18	22	25
Net periodic pension benefit cost	130	115	51	18	24	37	40
Stock-based compensation	50	60	45	41	54	50	63
Loss on debt redemption	-	-	64	146	2	2	6
Other	-	13	(5)	20	12	3	1
Changes in assets and liabilities, excluding acquisitions, divest, and foreign currency adjustments							
Increase / decrease in receivables	(1,142)	(977)	(238)	(337)	(161)	(164)	(57)
Increase / decrease in inventories	(74)	(3)	74	60	(234)	(142)	(106)
Decrease / increase in prepaid expenses and other current assets	(1)	4	(2)	11	(6)	(24)	(14)
Increase / decrease in accounts payable, trade	339	(1)	(381)	144	246	(7)	(49)
Decrease in accrued expenses	(190)	(42)	(217)	(146)	23	37	5
Increase / decrease in taxes, including income taxes	104	(2)	98	(41)	(12)	(7)	(14)
Pension contributions	(298)	(268)	(257)	(96)	(43)	(36)	(79)
Increase / decrease in noncurrent assets	(20)	(7)	39	(13)	1	(4)	(3)
Increase / decrease in noncurrent liabilities	(24)	(45)	(35)	(23)	(60)	(34)	(28)
Cash provided from operations	217	461	9	449	733	901	1,298
Financing Activities							
Net cash transferred from Alcoa corporation at separation	(7)	2	(576)	(20)	(5)	(2)	(5)
Net change in short-term borrowings (original maturities of three months or less)	(7)	2	(15)	(9)	(5)	-	-
Additions to debt (original maturities greater than three months)	600	400	2,400	700	-	400	500
Repurchases and payments on debt	(1,103)	(806)	(2,043)	(1,538)	(69)	(876)	(865)
Premiums paid on early redemption of debt	(17)	-	(59)	(138)	(2)	(1)	(5)
Debt issuance costs	-	-	(61)	(11)	-	(2)	(5)
Repurchases of common stock	-	(1,150)	(73)	(430)	(400)	(250)	(500)
Proceeds from exercise of employee stock options	16	56	33	22	16	11	8
Dividends paid to shareholders	(119)	(57)	(11)	(19)	(44)	(73)	(109)
Taxes paid for net share settlement of equity awards	-	-	-	(21)	(22)	(77)	(49)
Net cash transferred to Arconic Corporation at separation	-	-	(500)	-	-	-	-
Other	(19)	(13)	(40)	-	-	-	(1)
Cash used for financing activities	(649)	(1,568)	(369)	(1,444)	(526)	(868)	(1,026)
Investing Activities							
Capital expenditures	(768)	(641)	(267)	(199)	(193)	(219)	(321)
Acquisitions, net of cash acquired	-	-	-	-	-	-	(5)
Proceeds from asset and investment sales	318	176	114	32	58	2	9
Proceeds from the sale of assets and businesses	309	103	114	32	58	2	9
Sales of investments	9	73	-	-	-	-	-
Proceeds from the sale of securities	-	-	-	6	-	-	-
Cash receipts from sold receivables	1,016	995	422	267	-	-	-
Other	(1)	(2)	2	1	-	2	1
Cash used for investing activities	565	528	271	107	(135)	(215)	(316)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(4)	-	(3)	(1)	(2)	-	(1)
Net change in cash and cash equivalents and restricted cash	129	(579)	(92)	(889)	70	(182)	(45)
Cash, cash equivalents and restricted cash at beginning of period	2,153	2,282	1,703	1,611	722	792	610
Cash, cash equivalents and restricted cash at end of period	2,282	1,703	1,611	722	792	610	565

Howmet Aerospace
Common Size Income Statement

Fiscal Years Ending Dec. 31	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Sales	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of goods sold (exclusive of expenses)	73.46%	73.74%	72.33%	72.45%	71.88%	68.90%	67.00%	67.00%	67.50%	68.00%	68.00%	69.00%	69.00%	69.00%	69.00%	69.00%
Selling, general administrative, and other expenses	5.64%	5.27%	5.05%	5.09%	5.02%	4.67%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%
Research and development expenses	0.39%	0.32%	0.34%	0.57%	0.54%	0.44%	0.44%	0.43%	0.43%	0.43%	0.42%	0.42%	0.43%	0.44%	0.45%	0.46%
Provision for depreciation, depletion, and amortization	4.16%	5.31%	5.43%	4.68%	4.10%	3.73%	3.11%	2.98%	2.85%	2.71%	2.57%	2.41%	2.32%	2.22%	2.12%	2.03%
Depreciation	3.34%	4.54%	4.71%	4.04%	3.57%	3.28%	2.75%	2.65%	2.52%	2.41%	2.28%	2.15%	2.07%	1.99%	1.91%	1.83%
Amortization	0.82%	0.76%	0.72%	0.64%	0.53%	0.44%	0.36%	0.34%	0.32%	0.30%	0.29%	0.26%	0.24%	0.22%	0.21%	0.19%
Restructuring and other charges	8.20%	3.46%	1.81%	0.99%	0.35%	0.28%	0.19%	0.12%	0.06%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operating income	8.16%	11.90%	15.04%	16.23%	18.12%	21.98%	24.14%	24.35%	24.05%	23.74%	23.89%	23.04%	23.13%	23.22%	23.31%	23.40%
Loss on debt redemption	0.00%	1.22%	2.94%	0.04%	0.03%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interest expense, net excluding loss on debt redemption	4.76%	6.03%	5.21%	4.04%	3.28%	2.45%	2.32%	2.62%	2.66%	2.68%	2.38%	2.42%	2.07%	2.18%	1.93%	1.87%
Other expenses / income, net	0.44%	1.41%	0.38%	1.45%	0.12%	0.83%	0.55%	0.50%	0.45%	0.41%	0.37%	0.33%	0.31%	0.29%	0.26%	0.25%
Income / loss from continuing operations before income taxes	2.96%	3.25%	6.52%	10.70%	14.68%	18.61%	21.27%	21.23%	20.93%	20.65%	21.15%	20.29%	20.75%	20.76%	21.12%	21.28%
Provision for income taxes	1.18%	-0.76%	-1.33%	2.42%	3.16%	3.07%	4.68%	4.67%	4.61%	4.54%	4.65%	4.46%	4.57%	4.57%	4.65%	4.68%
Income / loss from continuing operations after income taxes	1.78%	4.01%	5.19%	8.28%	11.52%	15.55%	16.59%	16.56%	16.33%	16.11%	16.49%	15.83%	16.19%	16.19%	16.47%	16.60%
Income / loss from discontinued operations after income taxes	4.85%	0.95%	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 income	6.62%	4.96%	5.19%	8.28%	11.52%	15.55%	16.59%	16.56%	16.33%	16.11%	16.49%	15.83%	16.19%	16.19%	16.47%	16.60%

Howmet Aerospace

Common Size Balance Sheet

Fiscal Years Ending Dec. 31	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Assets																
Current assets:																
Cash and cash equivalents	22.22%	30.61%	14.48%	13.97%	9.19%	7.59%	30.57%	47.46%	61.77%	68.80%	81.11%	83.61%	96.16%	101.55%	109.58%	117.45%
Receivables from customers, less allowances	8.21%	6.24%	7.38%	8.94%	10.17%	9.27%	8.37%	8.37%	8.37%	8.37%	8.37%	8.37%	8.37%	8.37%	8.37%	8.37%
Other receivables	4.92%	0.55%	1.07%	0.55%	0.26%	0.27%	0.54%	0.54%	0.54%	0.54%	0.54%	0.54%	0.54%	0.54%	0.54%	0.54%
Inventories	22.64%	28.29%	28.20%	28.41%	26.58%	24.76%	26.48%	26.48%	26.48%	26.48%	26.48%	26.48%	26.48%	26.48%	26.48%	26.48%
Prepaid expenses and other current assets	4.02%	4.13%	3.92%	3.64%	3.75%	3.35%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%
Current assets of discontinued operations	20.32%	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%
Total current assets	82.32%	69.82%	55.05%	55.50%	49.94%	45.25%	69.76%	86.65%	100.96%	107.99%	120.30%	122.79%	135.35%	140.74%	148.77%	156.64%
Properties, plants, and equipment, net	37.04%	49.29%	49.62%	41.18%	35.06%	32.11%	30.56%	29.11%	27.63%	26.23%	24.74%	23.30%	22.40%	21.48%	20.56%	19.69%
Goodwill	57.30%	78.00%	81.80%	70.86%	60.77%	53.97%	48.12%	43.36%	39.14%	35.48%	32.06%	29.02%	26.89%	24.91%	23.07%	21.41%
Deferred income taxes	2.94%	5.17%	3.70%	0.95%	0.69%	0.47%	0.79%	1.14%	1.46%	1.75%	1.97%	2.17%	2.34%	2.52%	2.65%	2.76%
Intangibles, net	8.44%	10.86%	11.04%	9.20%	7.61%	6.39%	5.34%	4.48%	3.72%	3.07%	2.49%	1.99%	1.60%	1.26%	0.96%	0.70%
Other noncurrent assets	4.45%	4.45%	4.32%	3.39%	2.98%	3.38%	3.07%	2.82%	2.60%	2.40%	2.22%	2.05%	1.93%	1.83%	1.73%	1.63%
Noncurrent assets of discontinued operations	54.93%	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%
Total assets	247.42%	217.59%	205.53%	181.09%	157.05%	141.57%	157.64%	167.56%	175.51%	176.92%	183.77%	181.32%	190.52%	192.74%	197.73%	202.84%
Liabilities																
Current Liabilities:																
Accounts payable, trade	13.75%	11.39%	14.72%	16.99%	14.79%	12.76%	14.07%	14.07%	14.07%	14.07%	14.07%	14.07%	14.07%	14.07%	14.07%	14.07%
Accrued compensation and retirement costs	4.02%	3.90%	3.98%	3.44%	3.96%	4.10%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%
Taxes, including income taxes	0.92%	1.94%	1.23%	0.85%	1.02%	0.81%	0.99%	1.12%	1.14%	1.15%	1.02%	1.04%	0.89%	0.93%	0.83%	0.80%
Accrued interest payable	1.58%	1.69%	1.49%	1.32%	0.98%	0.79%	0.71%	0.81%	0.82%	0.83%	0.73%	0.75%	0.64%	0.67%	0.60%	0.58%
Other current liabilities	3.23%	5.50%	3.68%	3.57%	3.01%	2.30%	2.09%	1.92%	1.77%	1.64%	1.51%	1.39%	1.32%	1.24%	1.18%	1.11%
Short-term debt	14.57%	7.15%	0.10%	0.00%	3.10%	0.08%	0.06%	3.49%	6.10%	2.65%	5.60%	0.00%	3.35%	0.00%	0.00%	0.00%
Current liabilities of discontinued operations	20.06%	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%
Total current liabilities	58.11%	31.56%	25.20%	26.17%	26.87%	20.85%	21.82%	25.31%	27.80%	24.23%	26.82%	21.14%	24.16%	20.82%	20.56%	20.46%
Long-term debt, less amount due within one year	69.12%	89.35%	85.02%	73.49%	52.71%	44.54%	49.95%	47.21%	44.71%	42.50%	40.35%	38.41%	37.09%	35.85%	34.65%	33.56%
Accrued pension benefits	14.51%	18.73%	15.51%	11.18%	10.00%	8.41%	7.12%	6.10%	5.23%	4.50%	3.87%	3.33%	2.93%	2.58%	2.27%	2.00%
Accrued other postretirement benefits	2.82%	3.76%	3.08%	1.92%	1.39%	0.73%	0.62%	0.53%	0.45%	0.39%	0.33%	0.29%	0.25%	0.22%	0.20%	0.17%
Other noncurrent liabilities and deferred credits	6.17%	6.16%	6.17%	4.73%	5.29%	5.76%	5.24%	4.82%	4.43%	4.10%	3.78%	3.49%	3.30%	3.12%	2.94%	2.79%
Noncurrent liabilities of discontinued operations	31.81%	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%
Total liabilities	182.54%	149.57%	134.98%	117.50%	96.25%	80.28%	84.75%	83.97%	82.62%	75.72%	75.15%	66.65%	67.73%	62.57%	60.62%	58.98%
Equity																
Howmet Aerospace Inc. shareholders' equity:																
Preferred stock	0.77%	1.05%	1.11%	0.97%	0.83%	0.74%	0.66%	0.59%	0.54%	0.49%	0.44%	0.40%	0.37%	0.34%	0.32%	0.29%
Common stock	109.21%	97.00%	94.79%	76.97%	61.63%	48.60%	46.33%	44.46%	42.56%	40.79%	38.87%	36.99%	35.95%	34.86%	33.72%	32.63%
Retained earnings	1.59%	6.92%	12.13%	18.15%	25.90%	37.23%	48.43%	58.85%	68.12%	76.54%	84.32%	90.87%	99.06%	106.63%	113.88%	120.96%
Accumulated other comprehensive loss	-46.90%	-36.95%	-37.47%	-32.51%	-27.56%	-25.28%	-22.54%	-20.31%	-18.33%	-16.61%	-15.02%	-13.59%	-12.59%	-11.67%	-10.80%	-10.03%
Total Howmet Aerospace shareholders' equity	64.68%	68.02%	70.56%	63.59%	60.80%	61.29%	72.89%	83.60%	92.89%	101.20%	108.62%	114.67%	122.79%	130.17%	137.11%	143.86%
Noncontrolling interests	0.20%	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%
Total equity	64.88%	68.02%	70.56%	63.59%	60.80%	61.29%	72.89%	83.60%	92.89%	101.20%	108.62%	114.67%	122.79%	130.17%	137.11%	143.86%
Total liabilities and equity	247.42%	217.59%	205.53%	181.09%	157.05%	141.57%	157.64%	167.56%	175.51%	176.92%	183.77%	181.32%	190.52%	192.74%	197.73%	202.84%

Howmet Aerospace
Value Driver Estimation

Fiscal Years Ending Dec. 31	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
NOPLAT:																
Revenue	7,098	5,259	4,972	5,663	6,640	7,430	8,334	9,247	10,246	11,304	12,507	13,816	14,912	16,098	17,383	18,726
Less: Cost of goods sold	5,214	3,878	3,596	4,103	4,773	5,119	5,584	6,196	6,916	7,686	8,504	9,533	10,289	11,108	11,994	12,921
Less: Selling, general admin expenses	400	277	251	288	333	347	427	473	525	579	640	707	764	824	890	959
Less: Research and development expenses	28	17	17	32	36	33	36	40	44	48	53	58	64	71	78	86
Less: Provision for depreciation, depletion, and amortization	295	279	270	265	272	277	259	276	292	306	321	333	345	357	368	379
Add: Implied interest on operating leases		13.1	6.8	5.6	5.6	6.6	11.5	15.8	20.4	24.1	29.6	33.4	39.8	44.6	51.0	57.8
EBITA	1,161	821	845	981	1,232	1,661	2,039	2,278	2,490	2,708	3,017	3,217	3,489	3,783	4,104	4,439
Adjusted Taxes																
Marginal Tax Rate	21.80%	23.20%	22.00%	21.50%	21.70%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%
Provision for income taxes	84	(40)	(66)	137	210	228	390	432	472	513	582	617	681	735	808	877
Add: Restructing and other expenses	126.9	42.2	19.8	12.0	5.0	4.6	3.5	2.4	1.3	0.2	-	-	-	-	-	-
Add: Loss on debt redemption	-	14.8	32.1	0.4	0.4	1.3	-	-	-	-	-	-	-	-	-	-
Add: Interest expense	73.7	73.5	57.0	49.2	47.3	40.0	42.5	53.4	60.1	66.7	65.4	73.6	68.0	77.2	73.9	77.1
Add: Other expenses	6.8	17.2	4.2	17.6	1.7	13.6	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Add: Tax on implied interest of operating leases		3.0	1.5	1.2	1.2	1.5	2.5	3.5	4.5	5.3	6.5	7.4	8.7	9.8	11.2	12.7
Adjusted Taxes	291	111	49	218	266	289	449	501	548	596	664	708	768	832	903	977
Deferred Tax Assets	209	272	184	54	46	35	66	105	149	198	246	300	350	406	460	517
Deferred Tax Liabilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Change in Deferred Taxes	(19)	2	38	79	108	55	-	-	-	-	-	-	-	-	-	-
NOPLAT	851	712	834	842	1,074	1,427	1,591	1,777	1,942	2,112	2,354	2,509	2,722	2,951	3,201	3,463
Invested Capital (IC):																
Normal Cash	538.80	399.20	377.42	429.87	504.03	564.00	632.60	701.94	777.72	858.04	949.35	1,048.78	1,131.93	1,221.98	1,319.53	1,421.50
Plus: Receivables from customers	583	328	367	506	675	689	697	774	857	946	1,047	1,156	1,248	1,347	1,455	1,567
Plus: Other receivables	349	29	53	31	17	20	45	50	55	61	67	74	80	87	94	101
Plus: Inventories	1,607	1,488	1,402	1,609	1,765	1,840	2,207	2,449	2,713	2,993	3,312	3,659	3,949	4,263	4,603	4,959
Plus: Prepaid expenses and other current assets	285	217	195	206	249	249	317	351	389	430	475	525	567	612	661	712
Less: Accounts payable, trade	976	599	732	962	982	948	1,172	1,301	1,441	1,590	1,759	1,943	2,098	2,264	2,445	2,634
Less: Accrued compensation & retirement costs	285	205	198	195	263	305	325	361	400	441	488	539	582	628	678	730
Less: Taxes, including income taxes	65	102	61	48	68	60	83	104	117	130	127	143	132	150	144	150
Less: Other current liabilities	229	289	183	202	200	171	174	178	181	185	189	193	196	200	204	208
Net Working Capital	1,808	1,266	1,220	1,375	1,697	1,878	2,144	2,383	2,654	2,942	3,287	3,645	3,968	4,288	4,660	5,037
Add: Properties, plants, and equipment, net	2,629	2,592	2,467	2,332	2,328	2,386	2,547	2,692	2,831	2,965	3,094	3,219	3,340	3,458	3,574	3,687
Add: Intangibles, net	599	571	549	521	505	475	445	414	381	347	311	275	239	203	167	131
Add: Other noncurrent assets	316	234	215	192	198	251	256	261	266	272	277	283	288	294	300	306
Invested Capital	5,352	4,663	4,451	4,420	4,728	4,990	5,392	5,750	6,132	6,526	6,969	7,421	7,835	8,243	8,701	9,161
Free Cash Flow (FCF):																
NOPLAT		712	834	842	1,074	1,427	1,591	1,777	1,942	2,112	2,354	2,509	2,722	2,951	3,201	3,463
Change in IC		(689)	(212)	(32)	308	262	402	358	382	393	444	452	414	408	458	460
FCF		1401	1046	874	766	1165	1189	1419	1560	1719	1910	2058	2308	2543	2742	3002
Return on Invested Capital (ROIC):																
NOPLAT		712	834	842	1,074	1,427	1,591	1,777	1,942	2,112	2,354	2,509	2,722	2,951	3,201	3,463
Beginning IC		5,352	4,663	4,451	4,420	4,728	4,990	5,392	5,750	6,132	6,526	6,969	7,421	7,835	8,243	8,701
ROIC		13.31%	17.89%	18.92%	24.30%	30.17%	31.88%	32.96%	33.78%	34.45%	36.07%	36.01%	36.67%	37.66%	38.83%	39.79%
Economic Profit (EP):																
Beginning IC		5,352	4,663	4,451	4,420	4,728	4,990	5,392	5,750	6,132	6,526	6,969	7,421	7,835	8,243	8,701
x (ROIC - WACC)	-9.83%	3.47%	8.05%	9.08%	14.46%	20.34%	22.04%	23.12%	23.94%	24.61%	26.23%	26.17%	26.84%	27.83%	29.00%	29.96%
EP	0	186	376	404	639	962	1100	1247	1377	1509	1712	1824	1992	2180	2390	2607

Howmet Aerospace

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity:

Risk-Free Rate	4.00%
Beta	1.22
Equity Risk Premium	5.00%
Cost of Equity	10.10%

ASSUMPTIONS:

10 Year Treasury Yield as of 10/19/2025

2 Year Weekly Beta

Henry Fund Concensus

Cost of Debt:

Risk-Free Rate	4.00%
Implied Default Premium	0.82%
Pre-Tax Cost of Debt	4.82%
Marginal Tax Rate	22%
After-Tax Cost of Debt	3.76%

10 Year Treasury Yield as of 10/19/2025

YTM on Company's 10 Year Corporate Bond

Cost of Preferred Stock:

Annual Pfd. Dividend	3.75
Price of Pfd. Shares	63.5
Cost of Preferred:	5.91%

Market Value of Common Equity:

Total Shares Outstanding	405.43
Current Stock Price	\$197.24
MV of Equity	79,967.01

MV Weights

95.79%

Market Value of Debt:

ST Debt & Current Portion of LTD	6
Long-Term Debt	3,309
PV of Operating Leases	162
MV of Total Debt	3,477.14

4.17%

Market Value of Preferred Stock:

Total Shares Outstanding	546024
Price of Pfd. Shares	63.5
MV of Preferred	34.67

0.04%

Market Value of the Firm

83,478.83

100.00%

Estimated WACC

9.83%

Howmet Aerospace

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

Key Inputs:

CV Growth of NOPLAT	7.00%
CV Year ROIC	40%
WACC	9.83%
Cost of Equity	10.10%

Fiscal Years Ending Dec. 31	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
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DCF Model:

Free Cash Flow (FCF)	1188.8	1419.1	1559.7	1718.9	1909.7	2057.5	2308.0	2543.0	2742.5	3002.4
Continuing Value (CV)										100680.4
PV of FCF	1082.4	1176.4	1177.2	1181.1	1194.8	1172.0	1196.9	1200.7	1179.0	43282.1

Value of Operating Assets:	53842.5
Non-Operating Adjustments	
Add: Excess Cash	0.0
Less: ST Debt	-6.0
Less: LT Debt	-3309.0
Less: PV Operating Leases	-162.1
Less: Accrued pensions benefits	-625.0
Less: Accrued other postretirement benefits	-54.0
Less: Preferred Shares	-34.7
Less: ESOP	-17.7
Value of Equity	49633.9
Shares Outstanding	405.4
Intrinsic Value of Last FYE	\$ 122.42
Implied Price as of Today	\$ 124.35

EP Model:

Economic Profit (EP)	1099.9	1246.8	1376.7	1509.3	1711.8	1824.1	1991.8	2180.3	2390.2	2606.8
Continuing Value (CV)										91979.2
PV of EP	1001.4	1033.5	1039.1	1037.1	1070.9	1039.0	1033.0	1029.5	1027.5	39541.5

Total PV of EP	48852.5
Invested Capital (last FYE)	4990.0
Value of Operating Assets:	53842.5
Non-Operating Adjustments	
Add: Excess Cash	0.0
Less: ST Debt	-6.0
Less: LT Debt	-3309.0
Less: PV Operating Leases	-162.1
Less: Accrued pensions benefits	-625.0
Less: Accrued other postretirement benefits	-54.0
Less: Preferred Shares	-34.7
Less: ESOP	-17.7
Value of Equity	49633.9
Shares Outstanding	405.4
Intrinsic Value of Last FYE	\$ 122.42
Implied Price as of Today	\$ 124.35

Howmet Aerospace

Relative Valuation Models

Ticker	Company	Price	EPS		P/E		EV	EBITDA	EV/EBITDA
			2025E	2026E	25	26	2025E	2025E	2025E
SPR	Spirit Aerosystems	\$34.83	(\$6.80)	\$0.94	(5.12)	37.05	8614.0	(255.00)	(33.78)
TDG	TransDigm Group	\$1,347.49	\$36.63	\$40.23	36.79	33.49	100339.0	4,708.00	21.31
HXL	Hexcel Corp.	\$72.53	\$1.84	\$2.49	39.42	29.13	5944.0	337.00	17.64
PH	Parker-Hannifin	\$839.74	\$29.20	\$31.92	28.76	26.31	106493.0	5,231.00	20.36
MOG.A	Moog	\$214.77	\$8.28	\$9.64	25.94	22.28	7797.0	538.00	14.49
WWD	Woodward	\$262.70	\$6.61	\$7.80	39.74	33.68	16167.0	656.00	24.64
CW	Curtiss-Wright	\$535.89	\$12.99	\$14.26	41.25	37.58	21615.0	760.00	28.44
Average					35.32	30.41		2,038.33	21.15

XYZ	Howmet Aerospace	\$197.24	\$3.42	\$3.79	57.7	52.0	83,832.0	2,343.0	35.8
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Implied Relative Value:

P/E (EPS25)	\$	120.63
P/E (EPS26)	\$	115.34
EV/EBITDA	\$	122.58

Howmet Aerospace
Key Management Ratios

Fiscal Years Ending Dec. 31	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Liquidity Ratios:																
Current Ratio (Current Assets / Current Liabilities)	1.42	2.21	2.18	2.12	1.86	2.17	3.20	3.42	3.63	4.46	4.49	5.81	5.60	6.76	7.23	7.66
Quick Ratio (Current Assets - Inventory / Current Liabilities)	1.03	1.32	1.07	1.04	0.87	0.98	1.98	2.38	2.68	3.36	3.50	4.56	4.51	5.49	5.95	6.36
Cash Ratio (Cash + Cash Equivalents / Current Liabilities)	0.38	0.97	0.57	0.53	0.34	0.36	1.40	1.87	2.22	2.84	3.02	3.95	3.98	4.88	5.33	5.74
Asset-Management Ratios:																
Asset Turnover (Sales / Average Total Assets)		0.23	0.30	0.37	0.43	0.47	0.49	0.44	0.42	0.40	0.40	0.39	0.38	0.37	0.36	0.35
Inventory Turnover (COGS / Avg. Inventory)		1.69	1.68	1.78	1.86	1.88	1.79	1.74	1.76	1.77	1.77	1.79	1.78	1.78	1.78	1.78
Receivables Turnover (Revenue / Avg. Accounts Receivable)		7.04	9.72	9.13	7.87	7.29	8.03	8.53	8.52	8.50	8.51	8.50	8.38	8.38	8.38	8.37
Financial Leverage Ratios:																
Debt-to-Equity (Total Debt / Total Equity)	1.29	1.42	1.21	1.16	0.92	0.73	0.69	0.61	0.55	0.45	0.42	0.33	0.33	0.28	0.25	0.23
Debt-to-EBITDA (Total Debt / EBITDA)	6.80	5.61	4.16	3.52	2.51	1.74	1.84	1.86	1.89	1.71	1.74	1.51	1.59	1.41	1.36	1.32
Interest Coverage (EBIT / Interest Expense)	1.71	1.97	2.89	4.01	5.52	8.97	10.42	9.28	9.03	8.85	10.05	9.52	11.17	10.65	12.06	12.49
Profitability Ratios:																
Gross Margin (Gross Profit / Revenue)	27%	26%	28%	28%	28%	31%	33%	33%	33%	32%	32%	31%	31%	31%	31%	31%
Operating Margin (EBIT / Revenue)	8%	12%	15%	16%	18%	22%	24%	24%	24%	24%	24%	23%	23%	23%	23%	23%
Net Profit Margin (Net Income / Revenue)	7%	5%	5%	8%	12%	16%	17%	17%	16%	16%	16%	16%	16%	16%	16%	17%
Payout Policy Ratios:																
Dividend Payout Ratio (Dividends/Net Income)	12.13%	4.21%	7.36%	9.38%	9.54%	9.44%	8.14%	8.16%	8.14%	8.14%	8.14%	8.14%	8.14%	8.14%	8.14%	8.14%
Total Payout Ratio ((Divs. + Repurchases)/NI)	25.32%	462.45%	32.56%	95.74%	58.04%	27.97%	26.22%	24.48%	23.09%	21.87%	20.26%	19.57%	18.50%	17.73%	16.87%	16.18%

Howmet Aerospace*Present Value of Operating Lease Obligations*

Fiscal Years Ending Dec. 31	2019	2020	2021	2022	2023	2024
Year 1	81.0	44.0	38	39	39	46
Year 2	62.0	34.0	28	29	30	39
Year 3	46.0	25.0	19	18	23	29
Year 4	34.0	17.0	12	14	18	21
Year 5	24.0	11.0	10	10	12	15
Thereafter	70.0	32.0	27	24	40	39
Total Minimum Payments	317.0	163.0	134.0	134.0	162.0	189.0
Less: Cumulative Interest	45.7	22.5	18.4	17.8	24.6	26.9
PV of Minimum Payments	271.3	140.5	115.6	116.2	137.4	162.1
Implied Interest in Year 1 Payment	15.6	13.1	6.8	5.6	5.6	6.6
Pre-Tax Cost of Debt	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%
Years Implied by Year 6 Payment	2.9	2.9	2.7	2.4	3.3	2.6
Expected Obligation in Year 6 & Beyond	24	11	10	10	12	15
Present Value of Lease Payments						
PV of Year 1	77.3	42.0	36.3	37.2	37.2	43.9
PV of Year 2	56.4	30.9	25.5	26.4	27.3	35.5
PV of Year 3	39.9	21.7	16.5	15.6	20.0	25.2
PV of Year 4	28.2	14.1	9.9	11.6	14.9	17.4
PV of Year 5	19.0	8.7	7.9	7.9	9.5	11.9
PV of 6 & beyond	50.5	23.1	19.6	17.5	28.6	28.3
Capitalized PV of Payments	271.3	140.5	115.6	116.2	137.4	162.1

Howmet Aerospace

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

Number of Options Outstanding (shares):	0.10
Average Time to Maturity (years):	2.10
Expected Annual Number of Options Exercised:	0.05

Current Average Strike Price:	\$ 20.98
Cost of Equity:	10.10%
Current Stock Price:	\$197.24

Fiscal Years Ending Dec. 31	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Increase in Shares Outstanding:	0.05	0.05	0.10	0.10						
Average Strike Price:	\$ 20.98	\$ 20.98	\$ 20.98	\$ 20.98	\$ 20.98	\$ 20.98	\$ 20.98	\$ 20.98	\$ 20.98	\$ 20.98
Increase in Common Stock Account:	1	1	2	2	-	-	-	-	-	-
Share Repurchases (\$)	250	250	250	250	250	250	250	250	250	250
Expected Price of Repurchased Shares:	\$ 197.24	\$ 216.88	\$ 238.48	\$ 262.23	\$ 288.35	\$ 317.07	\$ 348.65	\$ 383.37	\$ 421.55	\$ 463.53
Number of Shares Repurchased:	1									
Shares Outstanding (beginning of the year)	405	404	403	402	401	400	400	399	398	398
Plus: Shares Issued Through ESOP	0	0	0	0	0	0	0	0	0	0
Less: Shares Repurchased in Treasury	1	1	1	1	1	1	1	1	1	1
Shares Outstanding (end of the year)	404	403	402	401	400	400	399	398	398	397

Howmet Aerospace

Valuation of Options Granted under ESOP

Current Stock Price	\$197.24
Risk Free Rate	4.00%
Current Dividend Yield	0.14%
Annualized St. Dev. of Stock Returns	41.13%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	0.1	20.98	2.10	\$ 177.37	\$ 18
Total	0.1	20.98	2.10	\$ 177.95	\$ 18