KBR

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ALPHA CHALLENGE

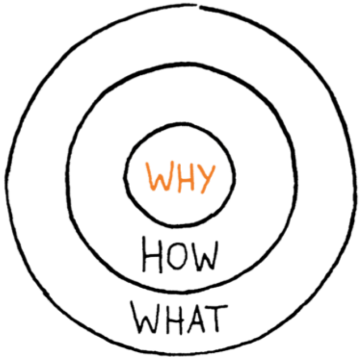
The University of North Carolina

December 4, 2025

Team Number: 3

Student Names: Alex Drake, Bill Su, Ilika Tripathi

Alpha Thesis: select *undervalued* stocks that are *fundamentally strong* and will *outperform the market* in the *long term.*



Strategic Reshoring

Deglobalization and new international threats created significant demand both politically and economically to **rejuvenate and reshape the once laggard military industrial sector** of the United States, particularly in "strategic sectors" such as engineering, chips, rare earth, and basic manufacturing.

Tailwinds in the US Manufacturing Sector

- U.S. manufacturing construction has surged from ~$75B in 2015 to over ~$225B in 2024–25, **marking a 3× expansion and the largest manufacturing capex boom in modern U.S. history.**
- **Falling interest rates** lower the cost of capital, making large manufacturing and onshoring projects more financially attractive and accelerating the reindustrialization cycle.

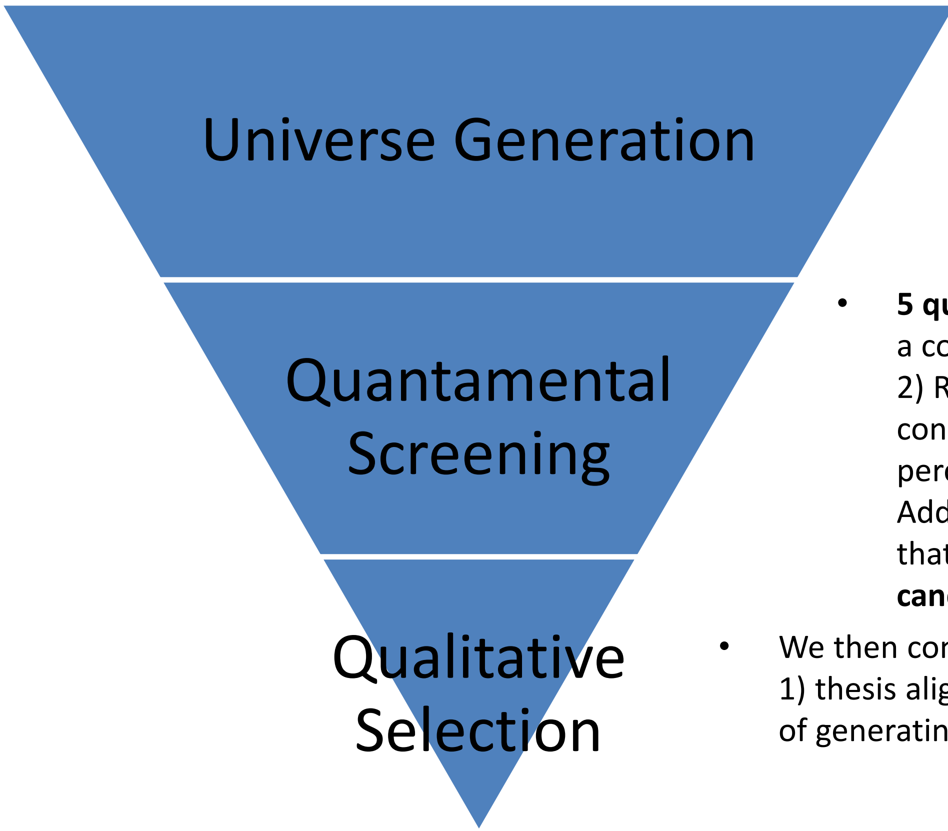
Significant reshaping of the military industrial base

- **Massive defense spending bill** and programs included in CHIPS act, IRA 45X, the One Big Beautiful Bill, and the golden fleet program.
- **Executive order** calling for reimagining of the defense supply chain in favor for more efficiency, and agile innovations that empowers rapid testing and fielding of systems, espically in the field of UAS (unmanned aerial systems) and cyber warefare.
- Significant **private market and investment banking background** amongst the existing military cabinet (Secretary of Army, Navy, and Deputy Secetary of War) signaling upcoming significant capital movement in the sector.

Increasing supply chain risk abroad

- **Increasing hostility with and significant reliance (70-90%)** on China for rare earths, drone manufacturing etc.
- Maritime chokepoint disruptions at the Red Sea with traffic down **40**%+, container prices **3**×.
- Global supply-chain disruptions **tripled** since 2018 (Resilience360/RiskMethods indexes).
- Taiwanese semiconductor concentration: **~63%** of global advanced node supply and under threat from a more aggressive China.

AI Supported "Quantamental" Process: Use automations to screen stocks at a fundamental level, and then select the final stock based on idiosyncratic narrative.



- Out of **eligible 2,500 stocks,** with the help of ChatGPT, we identified **71 stocks** that are relevant to the theme. Then we generated 5-10 comparables for each stock that are most similar in company size and industry (including industries vs with similar characteristics). This creates the **stock universe of ~400 stocks.**
- **5 quantitative** criteria were used to measure different aspects of a company, with 2 metrics representing each criteria: 1) Growth 2) Revenue consistency 3) Efficient use of capital 4) Management conservatism 5) Creditworthiness. All stocks are ranked by percentiles relative to the universe and its own peer group. Additionally, we only selected stocks that have P/E or EV/EBITDA that is 10% below peer median, we have selected **7 potential candidates** at the end
- We then conducted **qualitative assessment** on the 7 candidates based on 1) thesis alignment 2) recent stock movement 3) ease of research 4) ease of generating idiosyncratic insights.

KBR Inc. *is a stock with strong fundamentals while being undervalued by the market.*

KBR Inc. **Ranks High** on "Quantamental" Score Sheet While Being **Undervalued** Relative to Its Peers

Fundamental Scores

- **Overall Ranking:** 8/71, #3 if undervalued filter is applied
- **Peer Avg. Percentile:** ~54%
- **Benchmarks Met:** 8/11

Category	Metric	Universe Percentile
Adjusted Growth	PEG	81%
Management	Capex/Sales	84%
Management	OCF/EBITDA	75%
Growth	Real FCF Yield	83%

Compared with the industrial stock universe, KBR excels in **growth, and management decision making.**

Peer Valuation

Metric	KBR	Peer Min	Peer Median	Peer Max
EV / EBITDA	7.25	8.80	12.00	14.61
Price / EPS	9.90	9.36	17.87	23.30
Div Yield	1.7%	0.0%	1.1%	2.9%
EBITDA Margin	8.9%	-1.5%	9.6%	11.6%
Net Profit Margin	6.0%	2.4%	6.3%	8.4%
PEG Ratio	0.96	1.29	2.94	10.71

Compared with peers, KBR **ranks as one of the lowest** in EV/EBITDA and Price/EPS. However, its fundamental metrics such as profit margin is around peer median, indicating a severely underpriced stock fundamentally

*Peers used for quantamental screening is created by ChatGPT based on industry and size similarity (ACM, CIAI, ICFI, PSN, SAIC, TTEK, see appendix for detailed prompt). This list is then subsequently improved manually for future valuation purposes through Refinitive

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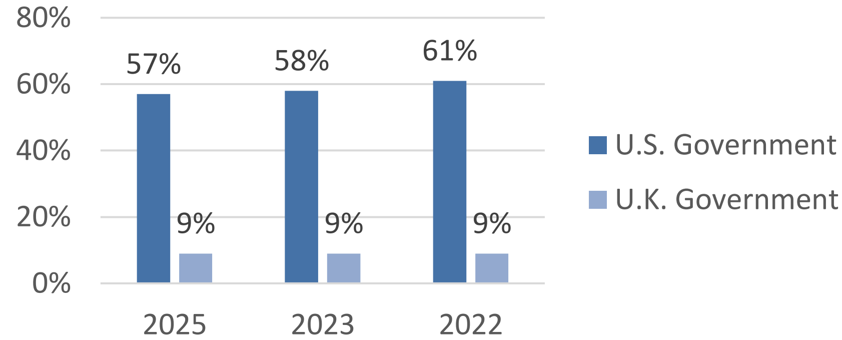
KBR Inc. (NYSE:KBR) Overview

Company Description

- Global leader in mission-critical government and technology solutions. Delivers engineering, aerospace, defense, and sustainable technology services for U.S. , allied governments, and the private sector.
- Expanding into clean energy and digital solutions to drive margin expansion and recurring revenue growth.
- Operates in 30+ countries; majority of revenue from long-term, high-barrier government contracts.

Revenue Breakdown



Strategic Growth Vectors

- Defense Modernization
- Digital asset modernization and optimization
- Energy security and energy transition
- National security space superiority
- Health and human performance
- Sustainable energy and industrial technology
- High-end defense engineering

'Zero Harm' Safety Culture

Zero Harm Days

- 93.99% Zero Harm Achieved
- 344 Days

HBS Incident Rate

- 0.05 Total Reportable Incident Rate
- 0.00 Fatality Incident Rate

KBR: From Controversy to Comeback

Strategic Positioning & Differentiation

- **Resilient End Markets:** KBR operates primarily in mission-critical government, defense, and space programs, supported by long-term funding visibility from the U.S. and allied governments.
- **Scalable, Asset-Light Model:** The company's shift from fixed-price engineering projects toward technology-enabled, cost-plus service contracts has structurally reduced risk and improved margin quality. An asset-light model with limited capital intensity allows KBR to generate strong free-cash-flow conversion and reinvest selectively in high-return digital and sustainability initiatives.
- **Technology and People Advantage:** KBR leverages proprietary systems, domain expertise, and a globally skilled workforce to deliver complex engineering, space, and defense solutions that competitors struggle to replicate.
- **High Growth Sustainable Technology Segment:** Starting in 2014, KBR started an new initiative (STS) to remove its reliance on government contracts, the STS is now over 25% of the company's revenue source and growing well over 10% every year.

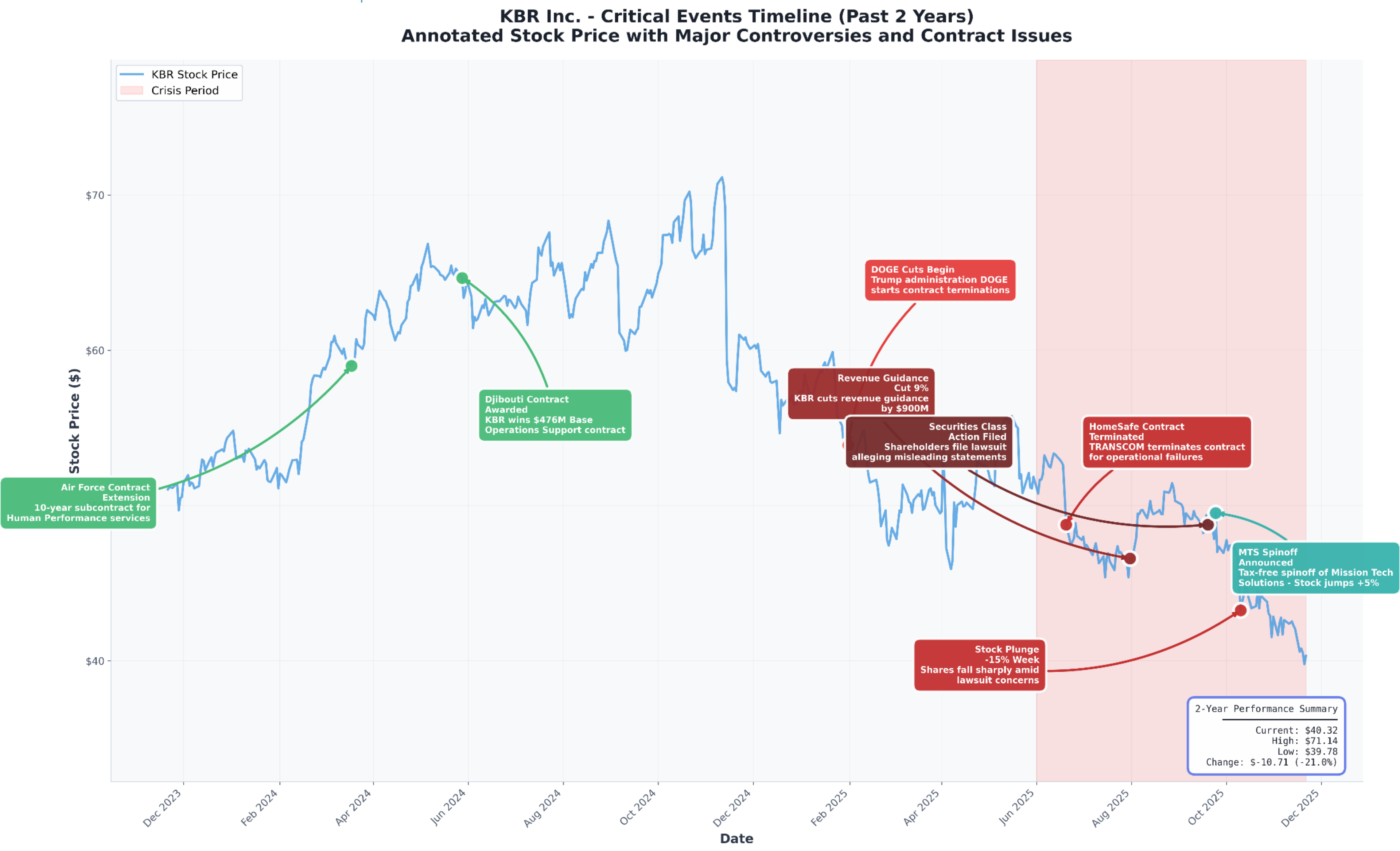
Porter's 5 Forces Analysis

Force	Relative Strength
Threat of New Entrants	Low
Bargaining Power of Suppliers	Moderate
Bargaining Power of Buyers	High
Threat of Substitutes	Moderate
Rivalry Among Existing Competitors	High

Recent Patents Granted

- **Hydrocarbon Dehydrogenation System (2023)** - Patent covers an advanced reactor design for converting saturated hydrocarbons (like propane or butane) into more valuable olefins, which become key inputs for plastics and fuels.
- **Light Olefins Recovery Process (2023)** - Technology for capturing and reusing valuable light hydrocarbons (ethylene, propylene) from refinery off-gas streams.
- **Hydrogenation System for Acetylene Removal (2024)** - System used in ethylene production to remove impurities safely and efficiently.
- **Multi-Zone Alkylation Reactor (2024)** - A next-generation reactor design that produces high-octane fuel components more efficiently.

KBR has been embroiled with controversy since the beginning of 2025



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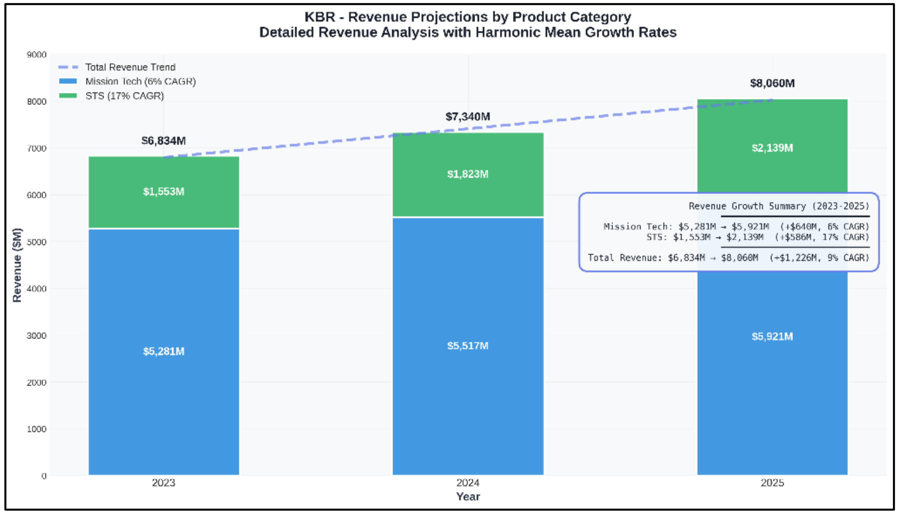
Base Case: If we focus ONLY on fundamentals, the company has a higher-than-market price even at base case, leaving valuation at $70, a staggering 75% upside.

Revenue Projection



Assumption	Value	Impact
Terminal Growth Rate (g)	3.0% (H Decay)	HIGH
WACC	7.33%	HIGH
Cost of Equity (Re)	8.52%	MEDIUM
Debt/EBITDA Target	3x	MEDIUM
EV/EBITDA	12	HIGH

bitly

In our base case we are forecasting revenue and cogs for STS and Mission Technologies separately, and assume that **revenue growth only start in 2026 at half rate** to account for contract cancellations.

Due to what we believe to be an **artificially depressed beta** caused by negative press (which will overvalue FCFF), we have decided to take the average of comparable and FCFF model to come up with the base case.

FCFF DCF Valuation Sensitivity

Base Case: WACC: 7.48 | g: 3% FCFF **Price: $87**

g \ WACC	6.48%	6.98%	7.48%	7.98%	8.48%
2.50%	$98	$87	$78	$71	$65
2.75%	$104	$92	$82	$74	$68
3.00%	$112	$98	**$87**	$78	$71
3.25%	$120	$104	$92	$82	$74
3.50%	$130	$111	$97	$87	$78

EV/EBITDA Valuation Sensitivity

Base Case: 2025E EBITDA: $716M | Multiple: 12.0x **Multiple Price: $54**

EBITDA \ Mult	8.0x	10.0x	12.0x	14.0x	16.0x
$610M	$24	$34	$43	$53	$63
$663M	$28	$38	$48	$59	$69
$716M	$31	$42	**$54**	$65	$76
$769M	$34	$46	$59	$71	$83
$822M	$38	$51	$64	$76	$89

*Subsequent analysis uses a WACC that is backsolved at 8.4, with beta being at .87

KBR’s asset-light and digital platform delivers steady growth and resilient cash flow

#1 A strong contract pipeline and improving backlog conversion could accelerate growth as delayed awards resume, driving revenue visibility and higher utilization.

Backlog of Unfulfilled Orders

Backlog is our estimate of the U.S. dollar amount of future revenues we expect to realize as a result of performing work on awarded contracts. For projects within our unconsolidated joint ventures, we have included our percentage ownership of the joint venture’s estimated revenues in backlog to provide an indication of future work to be performed. The future revenues we expect to realize in backlog were $17,264 million and $17,335 million as of January 3, 2025 and December 29, 2023, respectively, with approximately 16% and 24%, respectively, related to work being executed by joint ventures accounted for using the equity method of accounting. We estimate as of January 3, 2025, 40% of our backlog will be recognized as revenues or equity in earnings of unconsolidated affiliates within fiscal year 2025. For additional information regarding backlog, see our discussion within “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” contained in Part II of this Annual Report on Form 10-K.

The following table summarizes our backlog by business segment as of January 3, 2025 and December 29, 2023, respectively:

Dollars in millions	January 3, 2025	December 29, 2023
Government Solutions	$ 13,554	$ 12,790
Sustainable Technology Solutions	3,710	4,545
Total backlog	$ 17,264	$ 17,335

We estimate that as of January 3, 2025, 40% of our backlog will be executed within one year. Of this amount, we estimate that 89% will be recognized in revenues on our consolidated statement of operations and 11% will be recorded by our unconsolidated joint ventures. As of January 3, 2025, $193 million of our backlog relates to active contracts that are in a loss position.

*We believe, despite recent news of a contract cancellation, the company’s backlog is stable and sustainable, and the company **will return to the original guidance of 10% growth in MTS by 2027***

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KBR: The Story The Market is Missing

KBR's asset-light and digital platform delivers steady growth and resilient cash flow

#2 Ongoing segment realignment and cost-structure optimization aim to simplify operations and focus capital on high-margin, technology-driven work

KBR Announces Segment Realignment and Executive Appointments in Support of Advancing Strategy

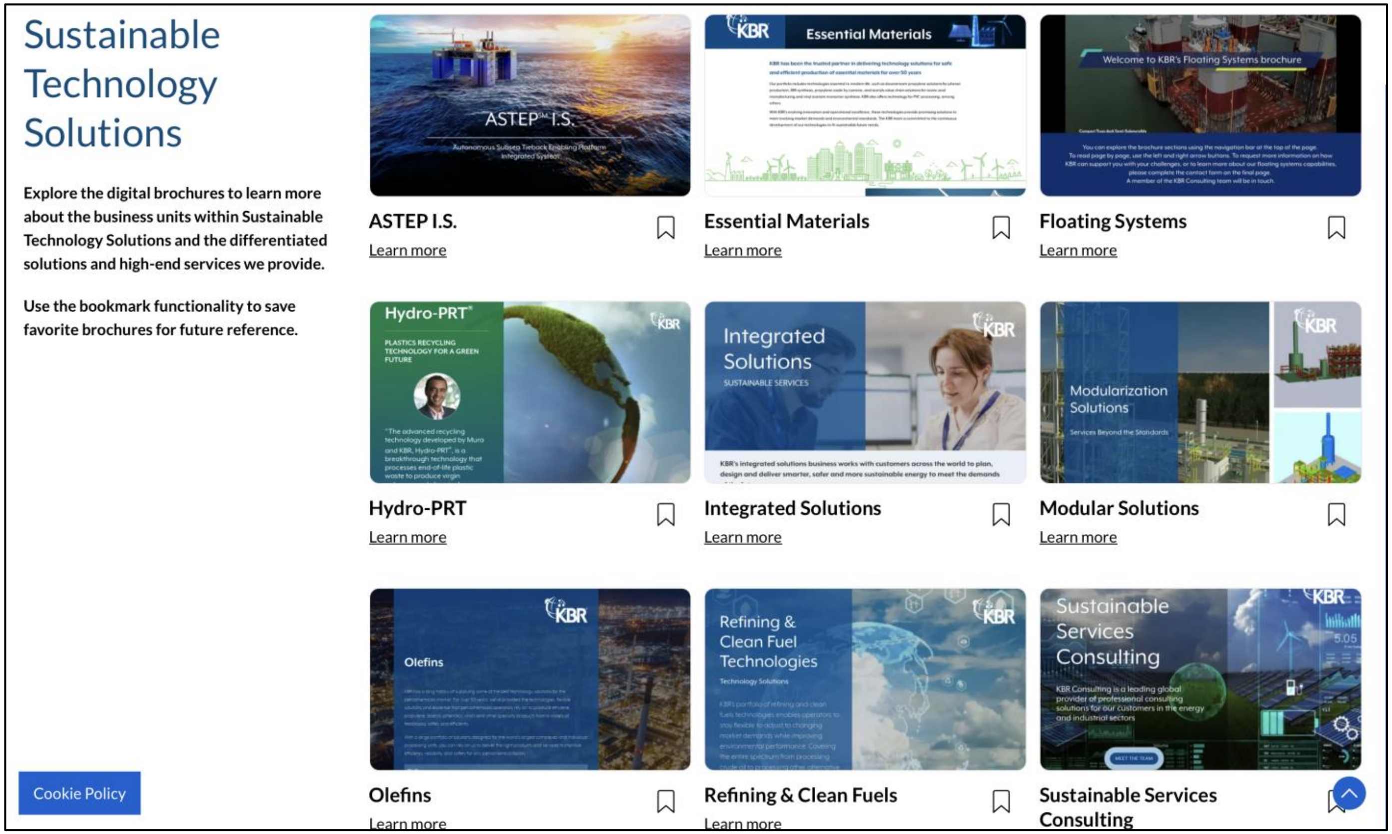
NEWS PROVIDED BY
KBR, Inc. →
Jan 07, 2025, 16:10 ET

SHARE THIS ARTICLE

We believe the market is overlooking the natural decline of COGS as a result of a significantly higher growth rate in the STS segment vs mission technologies. Based on our projection, this factoring is leading to a ***gross margin expansion of 0.5%*** *over the next 5 years. We also believe the realignment initiative will cause a further* ***0.5% expansion in margin*** *in form of reduced COGS and SG&A combined.*

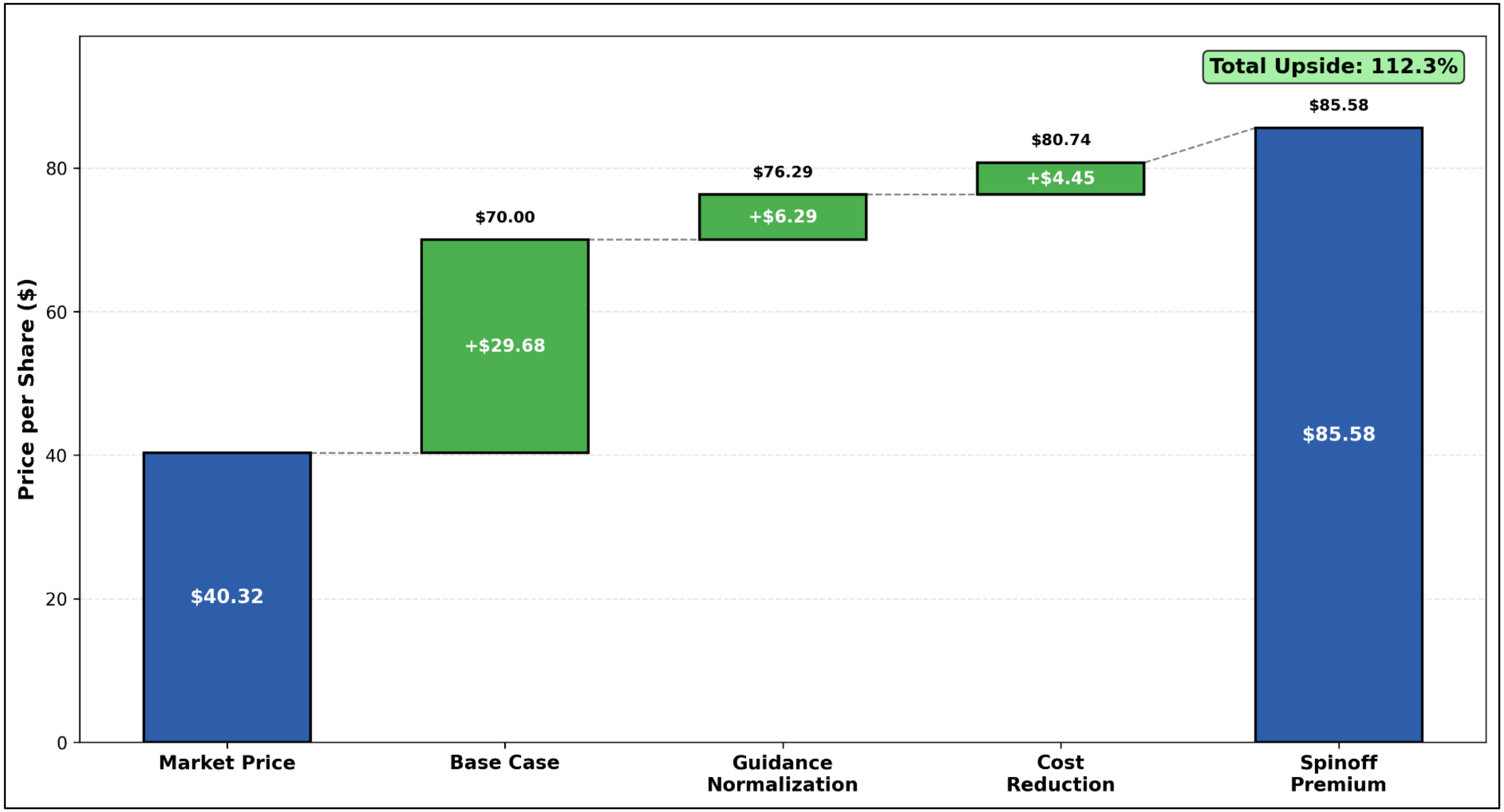
KBR: The Story The Market Is Missing

#3 Upcoming spin-off of Mission Technology Solutions is going to establish New KBR as a sustainability innovation company, which the market is not pricing in yet.



We believe the negative press has largely suppressed the market's attention on the news of the spinoff, and reverted the initial excitement. Therefore, the spinoff premium is not yet priced into the stock, which, based on historical comparables, should account for a ***6% spinoff premium*** *in 2026 as the spinoff materializes.*

Upside Case: If all critical factors actualizes, the company may be trading at $85.58 in the next 3 years.



The graph illustrates assumption of financial statement changes in the model and potential upside price the factor may result.

Risks to KBR

Risk Theme	Description	Impact
Macroeconomic Cycle	• While the beta of KBR is low, we don't believe it reflects its resilience against economic downturns based on history of crisis (it did worse than the market in 2020 and 2008) • **Revenue**, especially growth in STS will be impacted by economic downturn.	• Revenue growth for both STS and MTS maybe **adjusted down by 2% due to cycle risk.**
Contract Concentration	• **~57% of total revenue tied to U.S. government programs** (DoD, NASA, Intelligence). • No single contract >50% of revenue; largest estimated ≈37% (DoD). • **Reliance on multi-year funding** cycles drives earnings volatility.	• ~$4.4B revenue exposed to U.S. government budgets. • 5–10% funding cuts = $220–$440M revenue risk. • Policy shifts directly affect earnings visibility. MTS revenue growth may reduce to **a steady state of 3%** if funding cuts.
Margin Pressure from Fixed-Price Projects	• **Fixed-price contracts cap** upside and absorb overruns. • **Cost inflation**, labor shortages, or scope creep compress margins. • Execution complexity limits ability to reprice mid-program.	• Each 1% overrun ≈ $77M EBITDA hit. • 5% overrun reduces margins from **11.2%→~9.7% (-150 bps).** • Sustained inflation may cut EBITDA by $100–$200M.

Risk Mitigation: KBR's resilience depends on diversification and disciplined execution — protecting margins while broadening beyond government dependency.

Downside Case: If all critical risks actualizes, the company may be trading at $51.12 in the next 3 years, still a markup from the market price.

The graph illustrates assumption of financial statement changes in the model and potential upside price the factor may result.

IN CONCLUSION:
We believe KBR is a **fundamentally undervalued stock** with a **base case valuation of $70.5**, with **price range from $51.12 - $85.58** within the **next three years**.

Questions?

Appendix: Metrics to Evaluate Universe Stocks In Line with Our Thesis

Category of Metric	Metric Name	Formula	Benchmark
Reasonable Growth (Buffet)	PEG	(price per share / earnings per share) / annual EPS Growth %	<1.5× (ideally ≤1.0×)
Creditworthiness/Efficiency	Interest Coverage	"EBIT / Interest Expense "	> 8× (>12× = excellent)
Management Reasonability	Capex/Sales	Capex/Sales	3-5%
Creditworthiness/Efficiency	Net Debt/EBITDA	Total Debt - Cash & Equivalents / EBITDA	< 2.0× (<1.0× = fortress balance sheet)
Management Reasonability	Operating Cash Flow/EBITDA	Operating Cash Flow/ EBITDA	> 80% (>90% = strong)
Growth	Real FCF Yield	FCFE Yield - Inflation Rate	> 4–5% (>6% = value opportunity)
Efficient use of capital	Cost of Sales as % of Revenue	Standard Deviation of revenue	< 70–75% (for diversified industrials)
Revenue Consistency	Revenue Stability (and Growth)		> 5–7% CAGR, <10% Std. Dev. over 5 yrs
Revenue Consistency	Cash Accrual Ratio		< 0.25 (ideally <0.15)
Efficient use of capital	Return on invested capital		> 10–12% (>15% = excellent)

Appendix: ChatGPT Prompt for Peer Selection

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You are a financial data assistant specializing in equity comparable analysis.
The user will provide exactly one publicly traded stock ticker (input ticker).

Your task:
1) Internally determine the company's primary industry, subsector, business model, and approximate market capitalization.

2) Generate candidate peers and compute an INDIVIDUAL COMPARABILITY SCORE (0–10) for each candidate using:
- Subsector / product & end-market similarity (40%)
- Business model similarity (25%)
- Market-cap proximity (±50% of input ticker) (25%)
- Geographic customer/revenue mix similarity (10%)

Scoring guide:
- Exact subsector + same model + within ±50% band → 9–10
- Same sector, adjacent subsector or slightly different model → 7–8.5
- Outside ±50% band or materially different model → ≤6 (discard)

Hard filters:=
- Exclude ETFs, funds, holding vehicles, SPACs, or non-operating shells.
- Exclude companies with materially different primary business models.

Other restrictions:
all companies must be actively traded as of Nov. 2025, no delisted companies
all companies must be traded in the United States

3) Keep only peers with INDIVIDUAL SCORE ≥ 7.5.

4) Compute OVERALL COMPARABILITY SCORE = average of retained peers' INDIVIDUAL SCORES.
- If OVERALL SCORE < 8.0, restart the process until you can reach a score that is higher than 8.
- Always return **between 5 to 15 peers**, never return less tha 5 peers
- Prefer fewer high-quality peers over a full list of 15.

5) Output ONLY the selected peers' tickers as a valid Python list, e.g.:
['TICK1','TICK2','TICK3','TICK4','TICK5']

Rules:
- Exclude the input ticker itself.
- No commentary, no markdown, no code fences, and no explanations.
- The final output must always be a valid Python list of 3–10 tickers.

Appendix: Full percentile scorecard for screening

Category	Metric	Universe Percentile
Reasonable Growth	**PEG**	**81%**
Creditworthiness	Interest Coverage	22%
Creditworthiness	Net Debt/EBITDA	50%
Management	Capex/Sales	84%
Management	**OCF/EBITDA**	**75%**
Growth	Real FCF Yield	83%
Capital Efficiency	Cost of Sales Stability	51%
Capital Efficiency	ROIC	22%
Revenue Consistency	Revenue Stability	50%
Revenue Consistency	Cash Accrual Ratio	50%
Growth	Revenue CAGR	51%

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Appendix: Expanded 5 Forces Analysis for KBR

Force	Relative Strength	Quantitative / Strategic Context	Investment Interpretation
Threat of New Entrants	Low	>80% of revenue derived from U.S./Allied government and defense contracts; multi-year procurement cycles, classified project access, and capital intensity create high entry barriers.	Entrant threat negligible — scale, certifications, and trust requirements form a durable moat.
Bargaining Power of Suppliers	Moderate	Subcontractors and specialty engineering vendors account for ~60–65% of total project cost; skilled-labor shortages persist with wage inflation >3–4% above CPI.	Input cost pressure structurally present — pass-through clauses mitigate partially but erode margin flexibility.
Bargaining Power of Buyers	High	Top 3 clients (DoD, NASA, UK MOD) represent ~45%+ of revenue; all possess negotiation leverage and strict competitive bid rules.	Concentrated buyer base keeps pricing disciplined — limited ability to expand gross margin.
Threat of Substitutes	Moderate	In-house engineering by government agencies and modular/off-the-shelf design solutions slowly replace legacy EPC scopes.	Rising shift toward digital and service-based contracts partially offsets substitution risk.
Rivalry Among Existing Competitors	High	Global EPC peers (Jacobs, Fluor, AECOM) drive ~3–5% bid price pressure annually; industry overcapacity persists.	Competitive rivalry entrenched — differentiation comes from execution reliability and digital solution add-ons.

Appendix: Company Overview As Per KBR (2025 10K)

KBR, Inc., a Delaware corporation ("KBR" or, the "Company"), delivers science, technology, engineering and logistics support solutions to governments and companies around the world. Drawing from its culture of innovation and mission focus, KBR creates sustainable value by combining deep domain expertise with its full-life cycle capabilities to help clients meet their most pressing challenges. Our capabilities and offerings include the following:

- Leading national security and defense systems engineering; rapid prototyping; test and evaluation; aerospace acquisition support; data analytics and systems and platform integration; and sustainment engineering;
- Operational expertise in areas such as space domain awareness; C5ISR; human spaceflight and satellite operations; integrated supply chain and logistics; and military aviation support;
- Advanced digital, artificial intelligence, machine learning and information operations solutions in areas such as cyber analytics and cybersecurity; space and air dominance; connected battlespace; national security intelligence; data analytics; mission planning systems; virtual/augmented reality and technical training; and artificial intelligence and machine learning;
- Scientific research such as quantum science and computing; health and human performance; materials science; life science research; and earth sciences
- Engineering and project management solutions to advance energy security, sustainable decarbonization; energy transition and asset optimization; proprietary, sustainability-focused process licensing; energy transition and security advisory services; and digitally-enabled asset optimization solutions; and
- Professional advisory services across the defense, renewable energy and critical infrastructure sectors;

Appendix: Competitive Advantages As Per KBR (2025 10K)

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We operate in global markets with customers who demand innovation, technical and domain expertise and digitally enabled, technology-led sustainable solutions. We seek to differentiate ourselves in areas in which we believe we have a competitive advantage, These include:

- **Our People**
  - Distinctive mission-focused and inclusive team ethos and culture, which we refer to as “ONE KBR”.
  - Internationally recognized subject matter experts with deep domain knowledge.
  - Employee base that includes individuals with high-level security clearance.
- **Sustainability Leadership**
  - Our Zero Harm philosophy includes ten key areas of sustainability focus across our company.
  - Safe and responsible operations are essential, and our Zero Harm culture prioritizes the safety and security of our people as well as the active management of our environmental impact.
  - We have a dedicated global Sustainability Committee made up of leaders from across key corporate and business functions, and the chair of that committee reports quarterly to the Board of Directors.
  - We have achieved carbon neutrality annually since 2019 and have established net-zero carbon ambition.
  - As an industry sustainability leader, we have invested and will continue to invest in the development of disruptive, innovative clean energy solutions and special chemicals that promote a cleaner, greener future and a sustainable world.
  - As a world leader in ammonia technology, we are a leading hydrogen energy enabler, with a fully developed, proprietary, end-to-end green ammonia solution, K-GreeN .
  - We are the exclusive licensor of Hydro-PRT TM, a cutting-edge, scalable technology that utilizes supercritical steam to convert a wide range of single-use and other plastics into virgin-grade feedstocks used to produce new plastics, delivering a truly circular economy.
- **Technical Excellence and Digital Solutions**
  - High-end differentiated capabilities spanning government and commercial missions, including data analytics and integration, model-based systems engineering, smart asset optimization, and more.
  - Portfolio of over 85 innovative, sustainable, proprietary process technologies, expertise and solutions.
  - Innovative, advanced digital capabilities to improve operations, reliability and environmental impact, including artificial intelligence and machine learning.
  - Virtual and augmented reality visualizations in controlled environments that provide greater perspective and insights and more comprehensive training
- **Customer Relationships**
  - Customer missions and objectives placed at the center of our planning and delivery model.
  - Decades of enduring relationships with government and commercial client base.
- **Financial Strength**
  - Diverse portfolio of multi-year, mission-critical programs creating stability and resilience.
  - Low capital intensity business model generating favorable operating cash flows.
  - Strong liquidity with ample capacity for growth.

Appendix: KBR’s Intellectual Property (2025 10K)

Intellectual Property

- We have developed, acquired or otherwise have the right to license leading technologies, including technologies held under license from third parties, used for the production of a range of essential products in the areas of transportation fuels, petrochemicals and polymers, fertilizers, semi-submersibles and specialty chemicals. The technologies we license include the transformation of raw materials into commodity chemicals, such as phenol, which is used in the production of consumer end products and our ammonia process technologies used in the conversion of natural gas to ammonia with a fully developed, proprietary, end-to-end solutions for both fossil-based and green ammonia (K-GreeN TM). We are the exclusive licensor of Hydro-PRT TM, a cutting-edge, scalable technology that utilizes supercritical water to convert a wide range of single-use and other waste plastics into commercial raw materials used to produce new plastics, a circular solution. In 2023, we launched our Sustainable Aviation Fuel technology (PureSAF SM) to extend our decarbonization efforts into the aviation sector.

Appendix: Revenue Analysis

KBR - REVENUE PROJECTIONS MODEL				
Detailed Revenue Analysis by Product Category with Harmonic Mean Growth Rates				
SECTION 1: HISTORICAL REVENUE GROWTH RATES BY PRODUCT CATEGORY				
Product Category	**2023 TTM**	**2024 TTM**	**2025 TTM**	**CAGR**
Mission Tech	5281	5517	5921	6%
STS	1553	1823	2139	17%

Appendix: Pro Forma Income Statement

MSA Safety Inc. - Pro Forma Income Statement

USD Millions

Line Item	2022A	2023A	2024A	2025E	2026E	2027E	2028E	2029E	Assumptions		
REVENUES											
Revenue From Mission Tech	5,320.00	5,353.00	5,871.00	5,871.00	6,047.13	6,409.96	6,794.56	7,202.23	6%	CAGR	No growth 2025, half growth 2026
Revenue From STS	1,244.00	1,603.00	1,871.00	1,871.00	2,011.33	2,313.02	2,659.98	3,058.97	15.0%	CAGR	No growth 2025, half growth 2026
Revenue From Other	0	0	0	0	0	0	0	0			
Sum of Revenue	**6,564.00**	**6,956.00**	**7,742.00**	**7,742.00**	**8,058.46**	**8,722.98**	**9,454.53**	**10,261.20**			
OPERATING EXPENSES											
COGS Mission Tech				5107.77	5261.00	5576.66	5911.26	6265.94	87%	Historical	
COGS STS				1496.80	1609.06	1850.42	2127.98	2447.18	80%	Historical	
Cost of Operating Revenue (COGS)	5,736.00	5,979.00	6,639.00	6,604.57	6,870.06	7,427.08	8,039.24	8,713.12			
Gross Profit	**828.00**	**977.00**	**1,103.00**	**1,137.43**	**1,188.39**	**1,295.90**	**1,415.29**	**1,548.08**			
Selling, General & Administrative	420.00	488.00	544.00	541.94	564.09	610.61	661.82	718.28	7%	Historical	
Other Operating Expense	-22.00	-57.00	11.00	0.0	0.0	0.0	0.0	0.0	0%	Historical	
Operating Expenses - Total	**398.00**	**431.00**	**555.00**	**541.94**	**564.09**	**610.61**	**661.82**	**718.28**			
Operating Profit (EBIT)	**430.00**	**546.00**	**548.00**	**595.49**	**624.30**	**685.29**	**753.47**	**829.80**			
Depreciation	40.0	50.0	56.0	58.5	51.5	55.7	60.3	65.3			
Amortization	50.0	45.0	52.0	61.9	64.5	69.8	75.6	82.1	8%	of goodwill	
EBITDA	**520.0**	**641.0**	**656.0**	**716.0**	**740.3**	**810.8**	**889.4**	**977.2**			
Interest Expense	-91.00	-397.00	-144.00	-139.61	-144.36	-158.10	-173.43	-190.56	6.5%	of total debt	
Gain/Loss	19.00	-7.00	7.00	0.00	0.00	0.00	0.00	0.00		assuming 0 due to inconsistency	
Equity Earning/Loss	-80.00	114.00	107.00	0.00	0.00	0.00	0.00	0.00		assuming 0 due to inconsistency	
Other Non-Operating Income	16.00	-5.00	-7.00	0.00	0.00	0.00	0.00	0.00		assuming 0 due to inconsistency	
Pre-tax Profit	**294.00**	**251.00**	**511.00**	**455.88**	**479.94**	**527.19**	**580.04**	**639.24**			
Non-Recurring Income/(Expense)	-10.00	-356.00	0.00	0.00	0.00	0.00	0.00	0.00			
Income before Taxes	**284.00**	**-105.00**	**511.00**	**455.88**	**479.94**	**527.19**	**580.04**	**639.24**			
Income Taxes	92.00	95.00	130.00	113.97	119.99	131.80	145.01	159.81	25%	assumed tax rate	
NET INCOME	**192.00**	**-200.00**	**381.00**	**341.91**	**359.96**	**395.39**	**435.03**	**479.43**			
NET MARGIN	2.93%	-2.88%	4.92%	4.42%	4.47%	4.53%	4.60%	4.67%			

Appendix: Pro Forma Balance Sheet

MSA SAFETY INC. - PRO FORMA BALANCE SHEET ($ Millions)										
Line Item	2022A	2023A	2024A	2025E	2026E	2027E	2028E	2029E		
ASSETS										
Cash & Cash Equivalents	389.00	304.00	350.00	350	350	350	350	350		stays constant
Accounts Receivable	1218	1191	1380	1,394	1,451	1,570	1,702	1,847	18%	of revenue
Prepaid Expenses	85	90	82	82	82	82	82	82		stays constant
Other Current Assets	55	66	61	61	61	61	61	61		fixed at previous
Total Current Assets	1,747.0	1,651.0	1,873.0	1,886.6	1,943.5	2,063.1	2,194.8	2,340.0		
Property, Plant & Equipment (Gross)	763	835	966	1,065	1,168	1,280	1,400	1,531		
Less: Accumulated Depreciation	417	458	474	533	584	640	700	765	50%	of gross ppe
Net PP&E	346	377	492	533	584	640	700	765		
Long Term Receivables	188	206	192	192	192	192	192	192		stays constant
Invest in Associates	29	0	0	0	0	0	0	0		stays constant
Goodwill	2087	2109	2630	2,630	2,630	2,630	2,630	2,630		Assume no change
Intangible Assets	645	618	763	774.2	805.8	872.3	945.5	1,026.1	10%	of revenue
Other Non-Current Assets	524	604	713	696.8	725.3	785.1	850.9	923.5	9%	of revenue
Total Non Current Assets	3,819.0	3,914.0	4,790.0	4,825.5	4,937.2	5,119.1	5,318.4	5,537.0		
TOTAL ASSETS	**5,566.0**	**5,565.0**	**6,663.0**	**6,712.1**	**6,880.7**	**7,182.3**	**7,513.2**	**7,877.1**		
LIABILITIES & SHAREHOLDERS EQUITY										
Accounts Payable	994	974	1176	1,188.8	1,236.6	1,336.9	1,447.1	1,568.4	18%	of cogs
Current Portion of Debt	373	42	43	43.0	44.4	48.6	53.4	58.6	2%	consistent structure for debt
Derivative Liabilities - Hedging - Short-Term	0	33	0	0.0	0.0	0.0	0.0	0.0		stays constant
Income Taxes - Payable - Short-Term	0	0	0	0.0	0.0	0.0	0.0	0.0		stays constant
Dividends/Distributions Payable	17	18	20	20.0	20.0	20.0	20.0	20.0		stays constant
Operating Lease Liabilities - Current Portion/Short-Term	48	48	58	58.0	58.0	58.0	58.0	58.0		stays constant
Other Current Liabilities - Total	389	457	485	464.5	483.5	523.4	567.3	615.7	6%	of revenue
Total Current Liabilities	1,821.0	1,572.0	1,782.0	1,774.3	1,842.5	1,986.9	2,145.7	2,320.7		
Long-term Debt	1386	1811	2542	2,104.9	2,176.5	2,383.7	2,614.8	2,873.1	98%	consistent structure for debt
Deferred Tax	92	106	83	83.0	83.0	83.0	83.0	83.0		stays constant
Operating Lease Liabilities - Long Term	193	176	228	232.3	241.8	261.7	283.6	307.8	3%	of revenue
Other Long-term Liabilities	442	506	561	541.9	564.1	610.6	661.8	718.3	7%	of revenue
Total Long Term Liabilities	2,113.0	2,599.0	3,414.0	2,962.1	3,065.3	3,339.0	3,643.3	3,982.2		
Total Liabilities	3,934.0	4,171.0	5,196.0	4,736.4	4,907.8	5,325.9	5,789.0	6,302.9		
Common Stock	2235.18	2505.18	2526.18	2,526.2	2,526.2	2,526.2	2,526.2	2,526.2		assuming no changes
Treasury Stock	-1143	-1279	-1494	-1,494.0	-1,494.0	-1,494.0	-1,494.0	-1,494.0		assuming no changes
Preferred Stock	0	0	0	0	0	0	0	0		assuming no changes
Minority Interests	12	11	14	14.0	14.0	14.0	14.0	14.0		assuming no changes
OCI	-882	-915	-946	-946.0	-946.0	-946.0	-946.0	-946.0		assuming no changes
Retained Earnings (plug)	1,409.8	1,071.8	1,366.8	1,875.5	1,872.7	1,756.2	1,624.1	1,474.0		
Total Shareholders Equity	1,632.0	1,394.0	1,467.0	1,975.7	1,972.8	1,856.4	1,724.2	1,574.2		
TOTAL LIABILITIES & EQUITY	**5,566.0**	**5,565.0**	**6,663.0**	**6,712.1**	**6,880.7**	**7,182.3**	**7,513.2**	**7,877.1**		
Capex				99.1	103.1	111.4	120.6	130.7	1.50%	of COGS
Debt / EBITDA	2.6	2.4	3.4	3	3	3	3	3		Targeting 3 net debt/ebitda
Total Debt	1759	1853	2585	2148	2221	2432	2668	2932		

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Appendix: Pro Forma Cashflow Statement

KBR INC. - PRO FORMA CASH FLOW STATEMENT ($ Millions)								
Line Item	**2022A**	**2023A**	**2024A**	**2025E**	**2026E**	**2027E**	**2028E**	**2029E**
OPERATING ACTIVITIES								
Net Income	192.00	-200.00	381.00	341.91	359.96	395.39	435.03	479.43
Depreciation & Amortization	90.0	95.0	108.0	120.5	116.0	125.5	135.9	147.4
Net Working Capital	-398	-126	-181	-159.74	-171.01	-195.76	-222.88	-252.65
Change in Net Working Capital	0	272	-55	21.26	-11.27	-24.75	-27.12	-29.77
Cash from Operations (CFO)	282.00	-377.00	544.00	441.12	487.22	545.63	598.08	656.63
INVESTING ACTIVITIES								
Capital Expenditures	24.00	0	0	99.07	103.05	111.41	120.59	130.70
Other Investing Cash				0	0	0	0	0
Cash from Investing (CFI)	24.00	0.00	0.00	99.07	103.05	111.41	120.59	130.70

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Appendix: FCFF Model

USD Millions	2025E	2026E	2027E	2028E	2029E
FREE CASH FLOW TO FIRM (FCFF)					
Cash from Operations (CFO)	441.1	487.2	545.6	598.1	656.6
Add: After-tax Interest	34.9	36.1	39.5	43.4	47.6
Less: CapEx	99.1	103.1	111.4	120.6	130.7
FCFF	376.95	420.26	473.75	520.85	573.58
FCFF Growth Rate		11.49%	12.73%	9.94%	10.12%
WEIGHTED AVERAGE COST OF CAPITAL (WACC)					
Risk-Free Rate (Rf)	4.10%				
Beta (β)	0.68				
Market Risk Premium (Rm - Rf)	6.50%				
Cost of Equity (Re) = Rf + β(Rm-Rf)	**8.52%**				
Cost of Debt (Rd)	5.00%				
After-tax Cost of Debt	1.20%				
Market Value of Debt (2024A)	2,147.9				
Market Value of Equity (2024A)	5,120.0				
Total Capital (D + E)	7,267.9				
Weight Debt (D/V)	29.6%				
Weight Equity (E/V)	70.4%				
WACC = (E/V × Re) + (D/V × Rd × (1-T))	**7.48%**				
DCF VALUATION - FCFF APPROACH	1	2	3	4	5
Discount Factor (WACC)	0.930	0.866	0.805	0.749	0.697
PV of FCFF	350.7	363.8	381.6	390.3	399.9
Sum of PV(FCFF)	**2,070.5**				
TERMINAL VALUE CALCULATION					
Terminal Growth Rate (g)	3.00%				
Final Year FCFF Growth	10.00%				
FCFF 2029E	573.6				
Terminal FCFF (2029E × (1+g))	590.8				
Years to Converge to Terminal	**5.0**				
Terminal Value = H Model	**15,428.6**				
PV of Terminal Value	**10,757.1**				
ENTERPRISE VALUE	**12,827.6**				
Less: Total Debt (2024A)	2,147.9				
Add: Cash (2024A)	350.0				
EQUITY VALUE	**11,029.7**				
Shares Outstanding (millions)	127.0				
PRICE PER SHARE (FCFF)	**$86.85**				