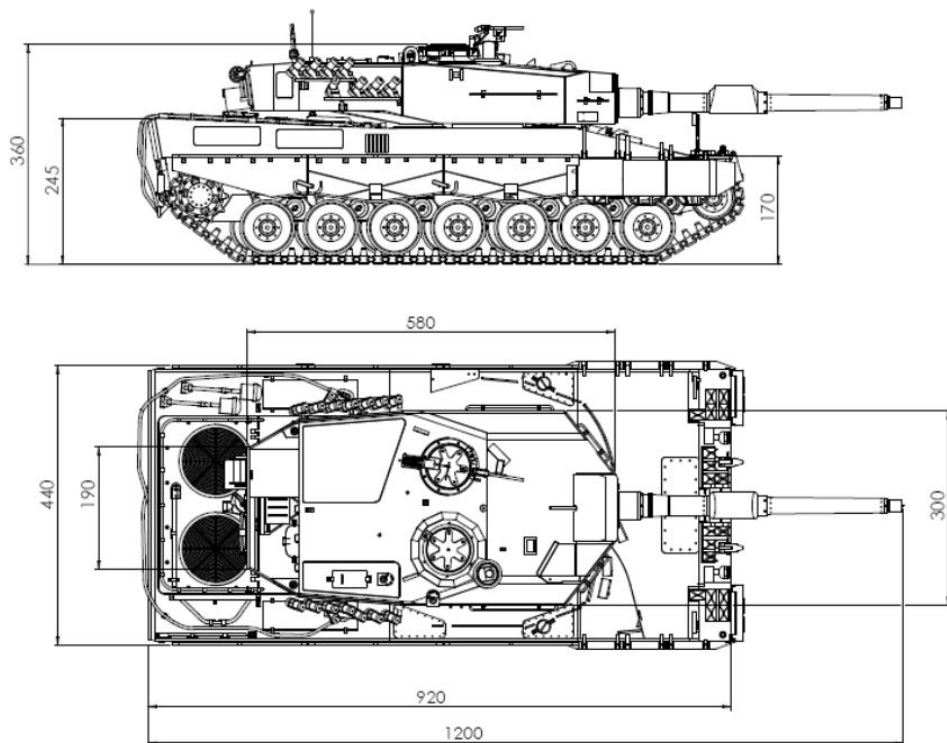


# FIRM VALUATION

## GROUP PROJECT



GROUP 32  
CHRISTIAN JOLI N°800536063  
DUARTE QUARESMA N°800537905  
EMIL OEHME N°800535838  
INÊS FERREIRA N°800527852  
URBAN EKORNESS N°800536350

**Rheinmetall AG**
**Share Price (as of 31/12/2024): 614,19 €**

Long Term: 6-12 Months | Team Recommendation: Strong Buy

**Price Target (12 Months): 851.2€\***
**Current Share Price (as of 05/12/2025): 1529.5 €**

\*Based On Data From 31/12/2024

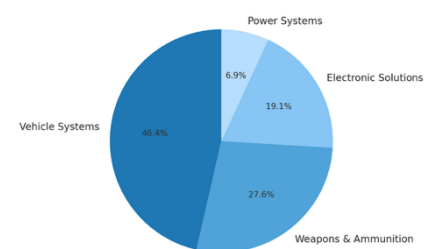
**Rheinmetall AG – Company Overview:**

Rheinmetall AG, founded in 1889, has become one of the major defence and industrial technology companies in Europe by consistently expanding its capabilities and responding to global security demands. The company headquarters in Düsseldorf, Germany, and operates in two main segments: Defence and Automotive/Industrial (Power Systems). Its core activities are covering military vehicle systems, weapons & ammunition, electronic solutions, propulsion technologies, and energy-efficient automotive components and they have positioned Rheinmetall as a key strategic supplier for NATO members and international defence markets (LSEG Workspace, 2025).

Rheinmetall's strong market presence is one of the reasons for its very good financial results. Revenues were up from €7.18 billion in FY 2023 to €9.75 billion in FY 2024, showing a large expansion that was mainly driven by the increased demand of defence equipment. Profitability also increased substantially, being enhanced by major contracts in the Vehicle Systems and Weapons & Ammunition divisions. This expansion demonstrates a clear indication of the firm's potential to scale production and provide advanced solutions in a volatile geopolitically environment.

A major strength of the Group is its record-breaking order backlog, which went over €36 billion in 2024, thus guaranteeing long-term revenue visibility and operational stability. The backlog is composed of €16.8 billion in Vehicle Systems, €10 billion in Weapons & Ammunition, and €6.9 billion in Electronic Solutions, highlighting the company's capabilities to secure multi-year agreements for the supply of armoured vehicles, artillery systems, and integrated electronic warfare technologies. Besides that, The Power Systems division had contributed with €2.5 billion in revenue by supplying propulsion components and energy-efficient solutions for the global automotive sector, mainly as the uptake of hybrid and new-energy vehicles continues to rise (LSEG Workspace, 2025), (MarketLine, 2025).

Rheinmetall Order Backlog by Division (2024)


**STRENGTHS**

- Strong, diversified defense portfolio (vehicles, ammunition, air defense, electronics).
- Large and growing order backlog driven by NATO and EU rearmament.
- High technological capabilities supported by sustained R&D investment.
- Strong political positioning within Germany and NATO procurement networks.
- Integrated production capabilities enabling scale advantages in ammunition and vehicles.

**OPPORTUNITIES**

- Structural rise in defense spending across NATO (2%+ GDP targets).
- Surge in demand for ammunition, armored vehicles, and air defense systems.
- Strategic expansion into the US through partnerships or acquisitions.
- Growth in unmanned systems, counter-drone tech, and digital battlefield solutions.
- Increased demand for local EU production capacity (reshoring trend).


**WEAKNESSES**

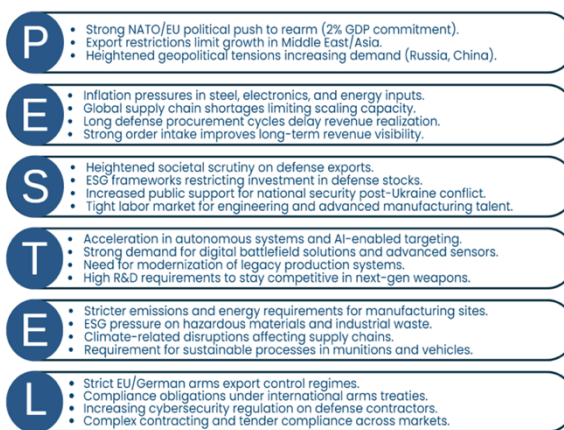
- High capital intensity and long payback periods.
- Dependence on government export approvals, especially in Germany.
- Limited presence in the US market compared to global peers.
- Supply chain bottlenecks (propellants, electronics) affecting delivery reliability.
- Rising debt tied to expansion and capacity increases.

**THREATS**

- Intense competition from peers (Leonardo, Safran, Thales, BAE Systems, SAAB).
- Regulatory and political constraints on exports to non-NATO regions.
- Cybersecurity risks in increasingly digital defense systems.
- Volatility in raw material and energy prices affecting margins.
- Potential substitution in some land systems from drone-based warfare.

## Industry Analysis

Rheinmetall AG operates in the aerospace and defence sector, focusing on European land systems, ammunition and defence electronics. The industry is characterised by long procurement cycles, high technological and certification requirements, strict export regulations and a small number of government customers (LSEG Workspace, 2025), (MarketLine, 2025). In 2024, global military spending reached around \$2.72 trillion (+9.4% year-on-year), marking the tenth consecutive year of growth and the strongest increase since the Cold War (CBS News, 2025). Driven by the ongoing war between Russia and Ukraine and Europe's desire for greater military autonomy, the European Union has emerged as an important growth region. Defence spending in the EU rose by 19% in 2024 and are expected to continue to rise in 2025 (Council of the European Union, 2025). Germany increased its defence budget to \$88.5 billion, supported by the €100 billion so called “Sondervermögen” (SIPRI, 2025). In the medium term, the European defence market is expected to grow by at least 10% annually (Council of the European Union, 2025), with Rheinmetall aiming for sales of €50 billion by 2030 (Bloomberg News, 2025). Rheinmetall faces strong competition from established players such as Leonardo, Safran, Thales, BAE Systems and SAAB (LSEG Workspace, 2025). Despite its strong position, the company remains exposed to significant risks. Its heavy dependence on geopolitical developments and national defence budgets makes its revenues vulnerable to political changes, fiscal tightening or de-escalations that could lead to a decline in procurement. Regulatory challenges, export controls, end-use restrictions and ESG screening can also restrict market access or delay large orders. Furthermore, rapid technological changes in areas such as drones, AI-assisted targeting, cyber warfare and long-range precision systems could shift defence priorities away from traditional land platforms and ammunition, potentially impacting Rheinmetall’s business (MarketLine, 2025). Nevertheless, Rheinmetall's diversified portfolio, growing order backlog and central role in Europe's rearmament efforts help mitigate these risks.



## Forecasting

Rheinmetall's revenue forecast is grounded in the company's exceptional growth in recent years and the structural shift in European defence spending. With governments rebuilding ammunition stockpiles, expanding vehicle fleets and committing to long-term procurement schedules, Rheinmetall's demand outlook remains strong. Our projection combines three approaches - historical averages, segment-specific growth rates, and Rheinmetall's strategic target of €50 billion in revenues by 2030, to produce a balanced and realistic estimate (CNBC, 2025). By averaging these methods, we derive a forward-looking revenue path that captures both recent momentum and long-term industry fundamentals.

On the cost side, we apply a top-down forecasting approach rooted in historical cost fractions and expected operational scaling. Cost of sales is projected using the multi-year average share of revenue, gradually adjusting downward as production volumes increase and economies of scale materialise within Rheinmetall's ammunition and vehicle manufacturing operations. SG&A expenses follow a similar structure, with historically stable ratios used as a basis and adjusted modestly to reflect efficiency improvements and digitalisation initiatives. This top-down method ensures internal consistency while avoiding overly granular assumptions that may not be supported by publicly available data.

EBIT is then projected by applying expected margin development to the revenue forecast. Rheinmetall has demonstrated strong operational leverage, with margins improving as capacity utilisation rises. Our EBIT forecast reflects this trend, with gradual margin expansion driven by higher throughput in ammunition plants, improving mix in defence systems, and the diminishing relative impact of the company's smaller automotive segment (LSEG Workspace, 2025). These EBIT projections feed directly into our free cash flow model and support the long-term valuation.

Finally, Net Income is forecasted by applying the company's effective tax rate and expected financing costs. As Rheinmetall continues to expand production, interest expenses remain manageable relative to operating profits, supporting stable earnings growth (LSEG Workspace, 2025). The resulting trajectory for Net Income aligns with both EBIT momentum and the company's high visibility on future defence-related cash flows.

## Discounting Factors

Rheinmetall's discount rate was determined using its Weighted Average Cost of Capital (WACC), reflecting the required returns of equity and debt holders based on the firm's current market-value capital structure.

**Cost of Equity:** We applied multiple models, CAPM, APM, a multifactor model, and a proxy model, to avoid dependence on a single specification. The risk-free rate is the 10-year German Bund yield, and the equity risk premium (ERP) is the average of three estimates:

Damodaran's implied ERP (Damodaran, n.d.), Credit Suisse's historical ERP (Dimson, Marsh & Staunton, 2023), and a market-implied ERP from the STOXX Europe 600 (Curvo, n.d.).

Beta was estimated using four complementary methods: peer-group unlevered/relevered beta, a covariance beta, a regression beta, and Damodaran's industry beta. Their convergence supports reliability. Averaging the model results gives a final cost of equity of 7.72%.

**Cost of Debt:** We used four independent approaches: (1) YTM of Rheinmetall's 2030 convertible bond, (2) Moody's BAA1 rating and its associated default spread, (3) a synthetic rating from the interest-coverage ratio (12.13), and (4) benchmarking against comparable European defense peers (LSEG Workspace, 2025). The average yields a pre-tax cost of debt of 3.49%, which after applying the 26.53% marginal tax rate results in the after-tax figure used in WACC.

**Capital Structure:** The debt ratio is sourced from LSEG Workspace, and the marginal tax rate is based on a weighted average of statutory rates aligned with the firm's geographic sales. We assume a constant D/E ratio, based on Rheinmetall's five-year average with higher weight on recent data, to ensure valuation changes reflect operations rather than leverage shifts (LSEG Workspace, 2025). Combining these inputs results in a final WACC of 6.09%, used as Rheinmetall's discount rate for valuing future cash flows and enterprise value.

## Valuation: FCF MODEL

The valuation is based on a standard Discounted Free Cash Flow (DCF) model, where the intrinsic value of Rheinmetall is derived from the present value of future free cash flows available to all capital providers. The model captures the company's operating performance, reinvestment needs, and long-term growth potential through explicit forecasted FCFF and a terminal value reflecting steady-state conditions.

Discounted Free Cash Flows	FY2025	FY2026	FY2027	FY2028	FY2029	Total Value 2029
<b>DFCF</b>	1 257	1 103	1 332	1 580	1 826	56 884
<b>DFFE</b>	1 206	1 040	1 247	1 464	1 673	34 847

When discounting Rheinmetall's projected free cash flows, the present value of the cash flows over the explicit forecast horizon amounts to 7 097, while the discounted terminal value contributes 56 884. Together, these components yield an enterprise value of 63 982, implying that nearly 90 % of the firm's intrinsic value stems from the terminal value.

Such a distribution is not unusual in DCF valuations of mature industrial and defence companies, where long-term structural demand, multi-year procurement contracts, and relatively stable margins contribute to substantial cash generation well beyond the forecast horizon. For Rheinmetall, the dominance of terminal value reflects the expectation that Europe's rearmament is not a short-lived response to recent geopolitical tensions, but a multi-decade structural shift driven by NATO capability gaps, deteriorating stockpiles, and years of underinvestment in defence procurement.

The assumptions used in the free cash flow forecast reflect this environment. CAPEX increases 10% every year, consistent with Rheinmetall's aggressive expansion of ammunition production, vehicle assembly lines, and air-defence capacity. Depreciation, at 7.92 %, mirrors the company's growing

fixed-asset base and investment in specialised defence manufacturing

Free Cash Flow Forecast ( Millions)	Assumptions:	FY2025	FY2026	FY2027	FY2028	FY2029	
EBIT		1 719	2 099	2 564	3 132	3 825	
Average Tax Rate		26,53 %	26,53 %	26,53 %	26,53 %	26,53 %	
EBIT (1- tax rate)		1 263	1 542	1 884	2 301	2 810	
Depreciation	7,92 %	435	469	506	547	590	
CAPEX	10 %	805	886	975	1 072	1 180	
Δ OWC		-441	-115	-175	-227	-233	Terminal Value
FCFF		1 333	1 241	1 590	2 002	2 453	56 884
Int expense aft-tax		107	115	124	134	144	
Change in Debt	13 %	72	82	92	104	117	
FCFE		1 299	1 207	1 558	1 972	2 426	

equipment, based on geometric average over the previous years. Changes in operating working capital remain positive, reflecting higher inventories, milestone-based payment schedules, and increased receivables associated with long-duration government contracts. These assumptions align with Rheinmetall's current operational scaling and the capital-intensive nature of its business model.

The valuation further incorporates the market-based cost of debt through after-tax interest expense and projected changes in net borrowing, here estimated at 13 %, capturing the firm's evolving financing structure as it expands capacity.

Adjusting the enterprise value of 63 982 for cash, debt, and relevant financial positions yields an equity value of 41 476. Based on the current share price of

<b>Value of Firm 31.12.2024</b>	<b>63 982</b>
<b>Value of Equity</b>	<b>41 476</b>
<b>Target price 31/12/2025</b>	<b>954,8</b>
<b>Share price 31/12/2024</b>	<b>614,6</b>
<b>Return potensial/Undervalued</b>	<b>55,35 %</b>

€614.6, the model implies a target price of €954.8 one year ahead, corresponding to an upside potential of 55.35%. This suggests that Rheinmetall is significantly undervalued relative to its long-term cash-generating capacity and the structural strength of its defence end-markets.

## Sensitive Analysis

Sensitivity analysis is a central tool for evaluating the robustness of our valuation by examining how sensitive the estimated firm value is to changes in key assumptions. In our DCF model, a substantial share of the base-case value originates from the terminal value, which means that relatively small adjustments to long-term assumptions can materially affect the final valuation.

Firm Value	64085,6488	Discount rate									
		5,00 %	5,20 %	5,40 %	5,60 %	5,80 %	6,00 %	6,20 %	6,40 %	6,60 %	6,80 %
1 %	52366,2793	48086,0462	44460,9732	41351,1809	38653,96723	36292,2252	34206,9374	32352,1647	30691,6141	29196,2328	
1,23 %	53330,1953	48962,2224	45262,9514	42089,61	39337,37207	36927,536	34799,8637	32907,4664	31213,3001	29687,7114	
1,46 %	54311,117	49853,8017	46078,9784	42840,929	40032,66407	37573,8582	35403,0306	33472,3246	31743,9324	30187,5884	
1,69 %	55309,3114	50761,0256	46909,2743	43605,3393	40740,02866	38231,3634	36016,597	34046,8878	32283,6494	30695,9936	
1,92 %	56325,0494	51684,139	47754,0618	44383,045	41459,65377	38900,2254	36640,7244	34631,3061	32832,5918	31213,0586	
Growth Rate	2,15 %	57358,6053	52623,39	48613,5669	45174,253	42191,72988	39580,6202	37275,5763	35225,732	33390,9017	31738,9168
2,38 %	58410,2573	53579,03	49488,0186	45979,1731	42936,45	40272,7263	37921,3182	35830,3197	33958,7235	32273,7033	
2,61 %	59480,2873	54551,3139	50377,6488	46798,0177	43694,00975	40976,7246	38578,1182	36445,2257	34536,2033	32817,555	
2,84 %	60568,9808	55540,4999	51282,6927	47631,0022	44464,60735	41692,7984	39246,1464	37070,6084	35123,489	33370,6107	
3,07 %	61676,6275	56546,8498	52203,3886	48478,3447	45248,44366	42421,1334	39925,5752	37706,6285	35720,731	33933,011	

To assess uncertainty, we construct a two-way sensitivity table in which the perpetual growth rate is varied from 1.0 % to 3.0 % and the discount rate (WACC) is varied from 5.0 % to 6.8 %. These ranges are centered around our base assumptions of a long-term growth rate of 2.79 % and a WACC of 5.78 %. As expected, lower perpetual growth combined with higher discount rates results in substantially lower firm values, while the opposite combination increases the implied valuation.

In the worst-case corner, at a perpetual growth rate of 1.0 % and a discount rate of 6.8 %, the firm value declines to 29 196,23, representing a downside of approximately 54 % relative to the updated base-case value of 63 982. Conversely, in the best-case corner, at a growth rate of 3.0 % and a discount rate of 5.0 %, the implied firm value increases to 61 676,63, showing how much firm value can vary based on different discount rates and growth rates.

## Relative Valuation

The relative valuation for Rheinmetall AG was built by selecting a group of five European defense and aerospace companies: Thales, Safran, BAE Systems, Leonardo, and Saab. The Price-to-Earnings [P/E] ratio is widely used to compare companies based on their earnings power. The average peer P/E multiple was 38.12. Applying this to Rheinmetall's expected

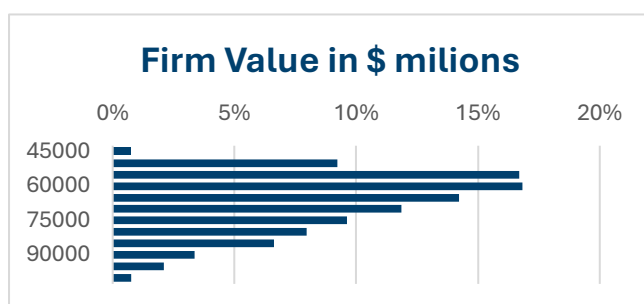
earnings per share gives an estimated value of €869.83 per share. This method highlights how strongly the market rewards profitability and earnings growth among defense contractors. The Enterprise Value-to-EBITDA [EV/EBITDA] ratio assesses operational performance while smoothing out differences in capital structure and non-cash expenses. The peer average EV/EBITDA multiple was 19.44. When applied to Rheinmetall's projected EBITDA, this approach yields a valuation of €878.70 per share, reinforcing the strength of Rheinmetall's core operating performance.

When combining the results of these two methods, the average valuation converges to approximately €874.27 per share. This value sits well below Rheinmetall's current trading price of roughly €1,529, suggesting that the market is pricing in additional factors not fully captured by standard multiples, such as growth expectations driven by geopolitical tensions, expanding defense budgets, and Rheinmetall's central role in supplying key NATO markets.

€	P/E	EV/EBITDA
Average multiple	38.12	19.44
Price with multiple	869.83	878.70
Average multiple price	874.27	

Overall, the relative valuation shows that Rheinmetall trades at a substantial premium to its peers, indicating strong investor confidence in its strategic position and long-term prospects.

### Monte Carlo Simulation



To strengthen the overall valuation analysis, a Monte Carlo simulation was performed to see how Rheinmetall's value might change under different assumptions for debt-to-equity ratio, beta, free cash flow to the firm, and growth rate. The

model generated 10,000 scenarios, each created by adjusting key inputs to reflect the uncertainty surrounding the company.

The outcomes consistently gravitate toward the expected valuation, suggesting that the company's estimated worth is relatively robust across a range of assumptions.

### Scenario Analysis

We conducted a scenario analysis on the FCF forecast, adding one bull and one bear case to benchmark outcomes against the base case and capture macro uncertainty driven by wars and

geopolitical tensions. In the bull case, we assume persistently elevated European defence spending and ongoing geopolitical instability, supporting strong demand, high utilisation, and sustained pricing power; EBIT grows 30% annually, CAPEX increases to 12%, and WACC falls to 5.09%, resulting in a firm value of €129.4bn, equity value of €55.3bn, and a target price of €1,272 (107% upside). In the bear case, we assume easing tensions and normalised defence budgets, leading to weaker order intake and reduced operating leverage; CAPEX decreases to 8% and WACC rises to 6.59%, producing a firm value of €30.6bn, equity value of €22.4bn, and a target price of €538 (12.5% downside).

### ESG consideration

Rheinmetall holds a strong ESG score of 84 (A-rating), supported by solid performance across social and governance pillars. The company demonstrates robust workforce policies, transparent governance structures and fully audited sustainability reporting. Environmental performance is also positive, though slightly constrained by the inherent challenges of operating within the defence sector. A C+ controversies score reflects the heightened scrutiny applied to weapons manufacturers, but these risks are largely sector-driven rather than company-specific. As ESG considerations continue to grow in importance for investors and regulators, Rheinmetall's strong internal ESG practices position the company well to meet rising expectations despite its structurally sensitive industry (LSEG Workspace, 2025).



### Recommendation

Based on our combined valuation framework, which incorporates the Free Cash Flow model (target price €954.8), a relative valuation (€874.27) and a dividend discount approach (€724.64), we obtain (based on the Data of 31/12/2024) an average target price of €851.2. Compared to the market price of €614.6 (as of 31/12/2024), this represents a potential upside of 38.5 %. This suggests that Rheinmetall's current share price does not fully reflect its long-term cash-generation potential or the profound structural shift in European defence spending.

Given the substantial implied upside, the alignment across valuation methodologies, and the durable nature of demand for Rheinmetall's core defence systems, we assign a Strong Buy recommendation. While acknowledging the inherent geopolitical volatility of the stock, we believe that the market continues to underestimate both the duration and scale of Europe's rearmament cycle. In our view, the risk-return profile is highly attractive, and the long-term rewards more than justify the exposure to macro-driven fluctuations. At the same time, Rheinmetall's strong ESG profile provides additional support for long-term investor confidence, particularly as ESG considerations become increasingly important in capital allocation decisions.

### Comparative valuation table

Valuation Method	FCFF (Base Scenario)	FCF (Bull scenario)	FCFF (Bear scenario)	Implied Enterprise Value (EV/EBITDA Method)
Company Value in € millions	63981.70	129368.12	30570.11	36408.89

### References list

- Bloomberg News. (2025, November 18). *Rheinmetall targets annual sales of €50 billion in 2030*. Bloomberg.  
<https://www.bloomberg.com/news/articles/2025-11-18/rheinmetall-targets-annual-sales-of-50-billion-in-2030>
- CBS News. (2025, April 30). *Global military spending 2024 highest since Cold War; SIPRI data*. CBS News.  
<https://www.cbsnews.com/news/global-military-spending-2024-highest-since-cold-war-sipri-data/>
- CNBC. (2025, November 18). *Rheinmetall shares rise as defense giant sees sales surging fivefold by 2030*.  
<https://www.cnbc.com/2025/11/18/rheinmetall-german-defense-giant-sees-sales-surging-fivefold-by-2030.html>
- Council of the European Union. (2025, November 26). *European defence readiness*. Consilium.europa.eu.  
<https://www.consilium.europa.eu/en/policies/european-defence-readiness/>
- Curvo. (n.d.). *STOXX Europe 600 – Markt-Index (EUR)*. Retrieved December 7, 2025, from <https://curvo.eu/backtest/de/markt-index/stoxx-europe-600?currency=eur>
- Damodaran, A. (n.d.). *Country risk premiums*. NYU Stern. Retrieved December 7, 2025, from [https://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/ctryprem.html](https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html)
- Dimson, E., Marsh, P., & Staunton, M. (2023). *Credit Suisse global investment returns yearbook 2023: Summary edition*. Credit Suisse Research Institute.
- International Monetary Fund. (2025, October 14). *World Economic Outlook: Global economy in flux, prospects remain dim*. IMF.  
<https://www.imf.org>
- LSEG Workspace. (2025, December 7). *Rheinmetall AG (RHM.G.DE)* —. London Stock Exchange Group. Retrieved December 7, 2025, from LSEG Workspace platform.
- MarketLine. (2025, November 2). *Rheinmetall AG – SWOT analysis*. MarketLine. Extracted November 18, 2025, from MarketLine database.
- Rheinmetall AG. (2017). *Rheinmetall annual report 2016*. Rheinmetall AG.  
<https://www.annualreports.com/Company/rheinmetall-ag>
- Rheinmetall AG. (2019). *Rheinmetall annual report 2018*. Rheinmetall AG.  
[https://www.annualreports.com/HostedData/AnnualReportArchive/r/rheinmetall\\_2018.pdf](https://www.annualreports.com/HostedData/AnnualReportArchive/r/rheinmetall_2018.pdf)
- Rheinmetall AG. (2021). *Rheinmetall annual report 2020*. Rheinmetall AG.  
[https://www.annualreports.com/HostedData/AnnualReportArchive/r/rheinmetall-ag\\_2020.pdf](https://www.annualreports.com/HostedData/AnnualReportArchive/r/rheinmetall-ag_2020.pdf)
- Rheinmetall AG. (2023). *Rheinmetall annual report 2022*. Rheinmetall AG.  
[https://www.annualreports.co.uk/HostedData/AnnualReportArchive/r/rheinmetall-ag\\_2022.pdf](https://www.annualreports.co.uk/HostedData/AnnualReportArchive/r/rheinmetall-ag_2022.pdf)
- Rheinmetall AG. (2025). *Rheinmetall annual report 2024*. Rheinmetall AG.  
<https://www.rheinmetall.com/Rheinmetall%20Group/Investor%20Relations/Ver%C3%B6ffentlichungen/Pr%C3%A4sentationen%20und%20Berichte/2025/GB/Rheinmetall-2024-GB-Annual%20Report.pdf>
- SIPRI. (2025, April 28). *Unprecedented rise in global military expenditure as European and Middle East spending surges* [Press release].  
<https://www.sipri.org/media/press-release/2025/unprecedented-rise-global-military-expenditure-european-and-middle-east-spending-surges>