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S&P Global
China Ratings

Credit Rating Report

BMW AG

Issuer Credit Rating*：AAA_{spc}；Outlook: Stable

Rating Date：July 2, 2025

Date of Expiry：July 1, 2026

Primary Analyst：

Kexin Wang，CFA，CPA：+86-10-6516-6033；Kexin.Wang@spgchinaratings.cn

Secondary Analyst：

Huang Wang，CPA：+86-10-6516-6029；Huang.Wang@spgchinaratings.cn

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* This rating is an Issuer Credit Rating (ICR). An ICR typically reflects our view of the senior unsecured credit rating of an issuer and is not specific to an individual issuance that it may issue.

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The above "Date of Expiry" refers to the validity period of this report. The rating presented in this report is effective from the rating date until the date of expiry.

Rating Summary

Company Name	Rating Type	Current Rating	Rating Date	Outlook/Credit Watch
BMW AG	Issuer Credit Rating	AAA_{spc}	July 2, 2025	Stable

S&P Global Ratings Issuer Credit Rating and Outlook	Notches Applied According to Panda Bond Methodology of S&P Global (China) Ratings		S&P Global (China) Ratings Issuer Credit Rating and Outlook
A / Stable	Broad Relationship between Credit Opinions of S&P Global Ratings and S&P Global (China) Ratings	+5	AAA_{spc} / Stable

Credit Highlights

The following are strengths and weaknesses of BMW AG as identified by S&P Global Ratings:

Key strengths	Key risk
— A global premium automotive manufacturer with market share of about 20% in the premium segment, highly recognized brands, and geographically well-diversified sales.	— Large exposure to China (approximately 33% of cars sold in the first nine months of 2023), a region where dynamics will challenge volume growth and pricing over 2024-2025, in our view.
— Leading share of battery electric vehicle sales globally, rapidly rising to 15% in 2023.	— High and relatively inflexible research and development and capital expenditure of 10.0%-12.0% of sales in 2013–2025 for electrification and digital vehicle technology, even in times of weaker demand, which could result in volatile earnings and free operating cash flow.
— Very strong balance sheet, which will be maintained in 2023-2025 (€8.2 billion in adjusted net cash on June 30, 2023), supported by a conservative financial policy and strong liquidity.	— Some regional mismatch between production and sales regions causing exposure to trade turbulence, but the gap is declining following the localization of some market hitters in China.
— Well-established captive finance operations support vehicle sales and leasing, particularly in the U.S. and Europe, characterized by strong asset quality and conservative residual value exposure management.	

Note: This key strengths and risks analysis is an excerpt from the credit report on BMW AG from S&P Global Ratings, and it should be used and interpreted in the context of the rating criteria of S&P Global Ratings. See the appendix for the full report from S&P Global Ratings.

Overview

We have assigned our AAA_{spc} issuer credit rating to BMW AG (BMW), based on the 'A' issuer credit rating with stable outlook assigned by S&P Global Ratings, and a five-notch uplift through the application of the S&P Global (China) Ratings Panda Bond Methodology. The outlook is stable. BMW's Global Ratings assigned by S&P Global Ratings has been A/stable since August 2021.

According to our Panda Bond Methodology, for analyzing Foreign Issuers, we typically consider the credit opinion of S&P Global Ratings on that issuer and use such credit opinion as the starting point for S&P Global (China) Ratings' rating determination. Where the Foreign Issuer has a credit quality that's equivalent to or higher than BBB category credit quality as determined by S&P Global Ratings, S&P Global (China) Ratings may assign an issuer credit rating of AAA_{spc}. When the Foreign Issuer's credit quality declines, S&P Global (China) Ratings' issuer credit rating will be adjusted down accordingly. Where the Foreign Issuer has a credit quality that's equivalent to B category credit quality as determined by S&P Global Ratings, S&P Global (China) Ratings may assign a similar view of credit quality that falls within B_{spc} category.

S&P Global Ratings assigned a stand-alone credit profile of "a" to BMW, and based on the approximate relationship between S&P Global and S&P Global (China) Ratings' credit quality opinions, we consider BMW's stand-alone credit quality to be extremely high in S&P Global (China) Ratings' national scale, equivalent to "aaa_{spc}"

Rating Outlook

The stable outlook considers the ratings which S&P Global Ratings has assigned to BMW and the notching uplift we have applied.

Upside Scenario: Not applicable.

Downside Scenario: We may consider the possibility of lowering our ratings on BMW if S&P Global Ratings downgrades the issuer to BB category, which we believe is highly unlikely to occur in the next two years.

Related Methodologies, Models & Research

Methodology:

- S&P Global (China) Ratings -Panda Bond Methodology, April 23, 2025.
- S&P Global (China) Ratings General Considerations on Rating Modifiers and Relative Ranking, May 21, 2019.

Research: None.

Models: None.

Attachment: Full Analysis of BMW AG by S&P Global Ratings on November 2023

S&P Global Ratings

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BMW AG

Primary Credit Analyst:

Vittoria Ferraris, Milan + 390272111207; vittoria.ferraris@spglobal.com

Secondary Contact:

Lukas Paul, Frankfurt + 49 693 399 9132; lukas.paul@spglobal.com

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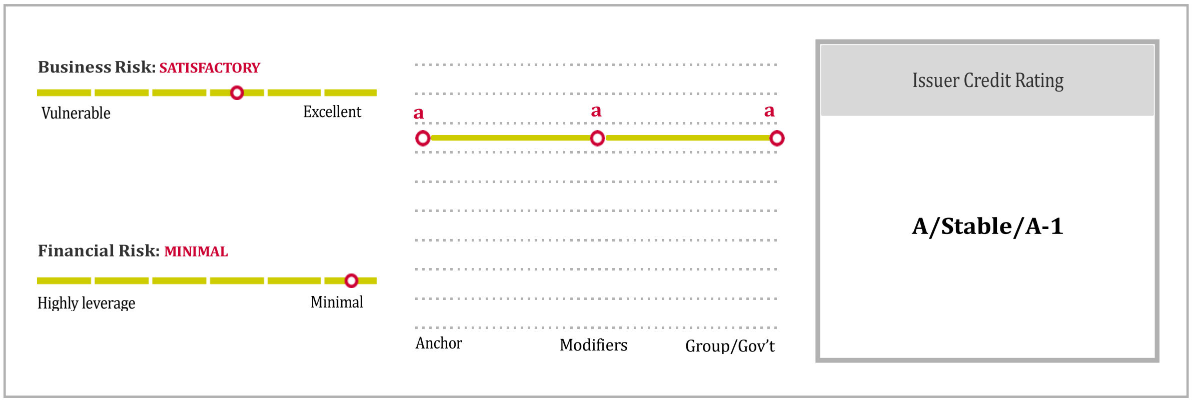

Credit Highlights

Overview

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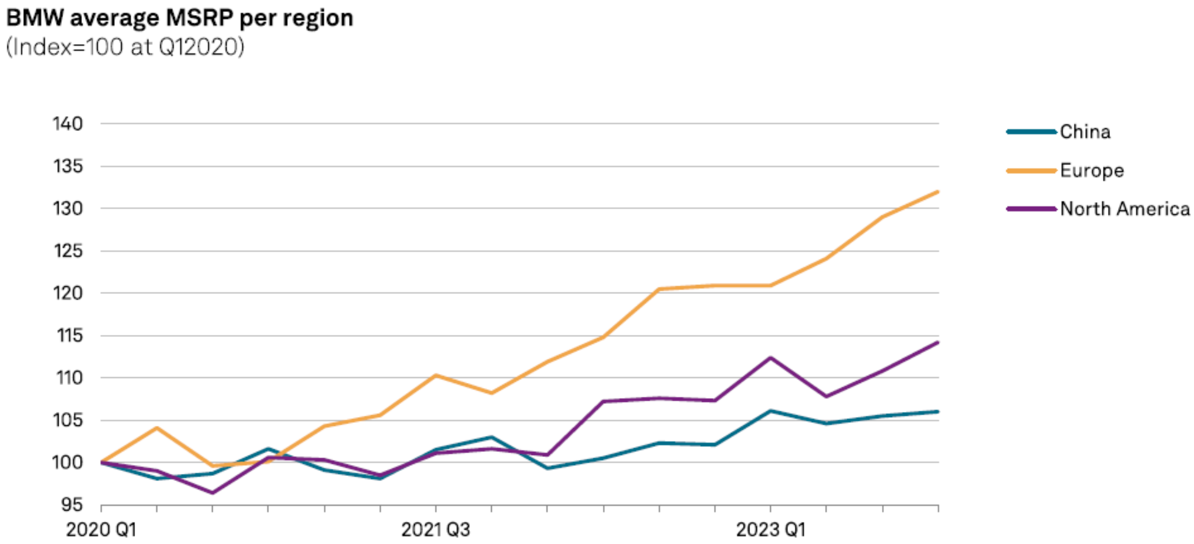
Leading share of battery electric vehicle sales globally, rapidly rising to 15% in 2023.	High and relatively inflexible research and development and capital expenditure of 10.0%-12.0% of sales in 2013–2025 for electrification and digital vehicle technology, even in times of weaker demand, which could result in volatile earnings and free operating cash flow.
Very strong balance sheet, which will be maintained in 2023-2025 (€8.2 billion in adjusted net cash on June 30, 2023), supported by a conservative financial policy and strong liquidity.	Some regional mismatch between production and sales regions causing exposure to trade turbulence, but the gap is declining following the localization of some market hitters in China.
Well-established captive finance operations support vehicle sales and leasing, particularly in the U.S. and Europe, characterized by strong asset quality and conservative residual value exposure management.	

BMW has strong exposure to China where we expect the market will contain fierce competition in the next two years. Passenger car sales in China accounted for about 33% of total units sold in the first nine months of 2023. In our revised global auto sector forecast, we anticipate only slow sales growth in the region, in addition to ongoing pricing pressure over 2024 and 2025 as a result of intense competition, particularly in the battery electric vehicle (BEV) segment. Unlike in Europe and the U.S., we think BMW's premium positioning in China is less effective in protecting it against aggressive price competition for vehicles at the low end of the portfolio.

Chart 1



MSRP--Manufacturer's suggested retail price. Source: S&P Global Mobility.

China is a critical market for BMW, both for its internal combustion engine cars and its electric offering. In China, its electric offering includes the iX, iX2, iX3, i3, i4, the upcoming i5, the Mini models, the RR Spectre, and the recently introduced all-electric i7 manufactured in Dingolfing, Germany. More than 80% of vehicles sold in China are produced and assembled locally.

We expect the group will manage the increasing geopolitical tensions between Europe and China. This is mainly due to its local-for-local strategic approach for its own production and supply chains, which mitigates its exposure to geopolitical pressure. A rising negative sentiment in China toward international auto manufacturers--as consequence of retaliation against potential trade restrictions on Chinese electric vehicle (EV) imports in the EU--is a risk for BMW and peers. But BMW depends the most on imports in North America, where it produces and assembles the series 2 and 3 X SUVs (starting from the X3). All other models are imported, including electric vehicles. As the U.S. inflation reduction act imposes rules for products to be produced locally, BMW could consider relocating a share of its EVs to North America. This is reflected our assumption of the increasing capital expenditure (capex) trend.

BMW leads the race to electrification among German peers. BMW's share of EVs (PHEVs and BEVs) in total light vehicle (LV) sales increased to 21.5% in the last 12 months to third-quarter 2023 (from 16.3% a year earlier). BEVs make up almost 15.0% of BMW's total LV sales (7.4% a year earlier). This is ahead of Mercedes-Benz (EVs: 19.3%, BEVs: 11.5%) and Volkswagen (EVs: 13.3%, BEVs: 9.8%). Important model launches include the iX2 and i5 in 2023, and the Mini Countryman and Cooper from 2024. Starting from the end of 2023, BMW offers at least one fully electric model in all major segments. We anticipate BMW is on track to achieve its 15% share of BEVs over global sales in 2023. This will help it to fortify its BEV market position, in addition to shielding it from the risk of noncompliance with

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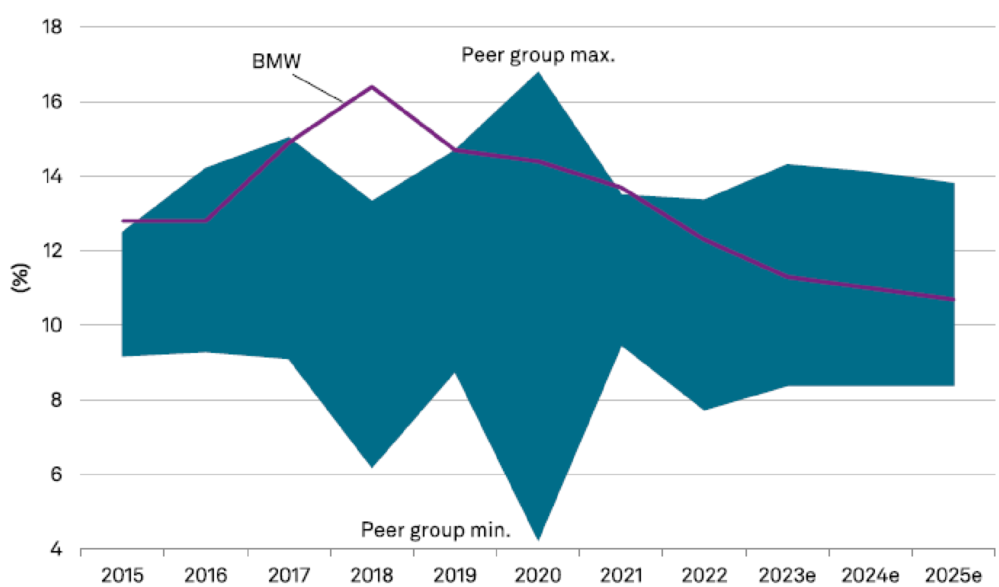
local environment regulations, particularly in Europe.

We think 2023 will be another strong year for BMW, but visibility on the following two years remains limited. BMW is heading toward a very good 2023. This is driven by strong pricing power, solid mix effects, and good visibility from its order bank, which led it to raise its EBIT guidance for this year. Hopes of recovery of the Chinese market in the second half of the year have not materialized, although this does not overly affect our forecast of a better group performance in 2023 compared with 2022. We expect profitability, measured in S&P Global Ratings-adjusted EBITDA margin, will exceed 14% (up from 13.2% in 2022) this year before it comes under pressure from both weaker demand and a weaker pricing environment in its main markets, and stronger competition in particular for its lower segment products over 2024 and 2025. Despite our expectation of higher capex over the next years (above 6% in 2023-2024 from 4.7% of adjusted revenues in 2022), driven by localization investments and the preparation for the Neue Klasse BEV platform, we expect the automotive business to generate solid cash flow after capex exceeding €6 billion in 2023. We currently have limited visibility on 2024 and 2025 due to sluggish volume growth and softening demand amid increasing geopolitical tensions. Nonetheless, we expect profitability (adjusted EBITDA margin of 13.5%-14.5%) and free operating cash flow (FOCF) generation to be resilient.

Chart 2

BMW's investments are set to remain high

Research and development costs and capital expenditure to sales



Note: Investments include adjusted capital expenditure, research and development expenses and capitalized development costs. Peers include Mercedes, VW, Stellantis, Renault, Volvo Car, Ford, GM, Toyota, Honda. e--Estimate. Source: S&P Global Ratings.

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Outlook: Stable

The stable outlook reflects our view that BMW will continue to expand its competitive BEV line to build its BEV market share under its main brand, such that it converges to its current passenger car market share across its key regional markets. We forecast that the group will be able to maintain adjusted EBITDA margins well above 11% and sustain adjusted FOCF to sales of at least 3%, supported by measures to optimize pricing and mix, and increase cost efficiency.

Downside scenario

We could lower the rating if intense competition in one of BMW's key regional markets in Europe, China, or the U.S. weakened its market share in key segments, including for BEVs, or resulted in pressure to materially increase investments to keep pace with competing products. We could also lower the rating if a combination of weaker economic conditions, geopolitical risks, and softening demand, compounded by fierce BEV competition, causes BMW's adjusted EBITDA margin to decrease below 11% and FOCF to sales to fall below 3% on a prolonged basis.

Upside scenario

We could raise the rating if BMW significantly strengthens its competitive position by further enhancing its BEV line and supply chain, as well as making significant further progress in cutting-edge digital vehicle technology. We would expect this to translate into a materially higher and durable BEV market share than the current passenger car market share, particularly under its core brand in Europe, China, and the U.S. At the same time, an upgrade would depend on BMW maintaining high profitability, with an adjusted EBITDA margin of at least 13% and stronger than expected cash conversion on a sustainable basis.

Our Base-Case Scenario

Assumption

- Eurozone real GDP growth of 0.6% in 2023, down from 3.3% in 2022 and 5.0% in 2021, before recovering to 0.9% in 2024 and 1.5% in 2025. In China, we expect real GDP growth of 4.8% in 2023, after 3.2% in 2022 and 8.1% in 2021, followed by 4.5% growth in 2024 and 5.0% in 2025.In the U.S., we expect real GDP growth of 2.3% in 2023, after growth of 1.8% in 2022 and 5.7% in 2021, slowing to 1.3% growth in 2024 and 1.4% in 2025.
- Annual growth in global light vehicle sales of 5%-7% in 2023, slowing to 1%-3% in 2024 and 2%-4% in 2025, after a decline of about 2% in 2022 and 4% growth in 2021 (see "Global Auto Sales Forecasts: The Pricing Party Is Coming To An End," published Oct. 9, 2023).
- Our forecast for 7.2% revenue growth in BMW's automotive segment in 2023 is based on about 5% volume growth, further tailwinds from net pricing and mix, and the remaining effects of the consolidation of BMW Brilliance Automotive Ltd. (BBA), BMW's joint venture in China (included for 12 months in 2023 compared with 10.5 months in 2022). We expect only flattish automotive revenue in 2024 as modest volume growth is offset by net pricing turning into a headwind, and about 3% growth in 2025, mostly thanks to volume.
- Mix and pricing and volumes support a step-up in our adjusted EBITDA margin in 2023, compared with 13.2% in 2022 (recalculated as described below), followed by a moderate decrease from 2024 because of softer net pricing and a rising share of BEVs in the mix.
- Cash outflows for working capital between €0.5 billion-€1.0 billion annually, resulting from a combination of volume growth, cost inflation, and the incipient shift to the direct sales model.
- The sizable increase in our adjusted capex to €8 billion-€9 billion in 2023 and 2024, compared with €6.0 billion in 2022 (as recalculated), is linked to BMW's spending on repurposing its plant footprint for the increased production of alternative powertrains and battery packs, and selected footprint adjustments including a new plant in Hungary that will house the production of vehicles on BMW's Neue Klasse platform from 2025.
- Our forecast for common and preferred dividend payments reflects BMW's targeted pay-out ratio of 30%-40% of net income.
- We assume BMW will continue to buy back own shares worth up to €1.5 billion in 2023 and about €2 billion annually in 2024–2025 under its current and possible future share buy-back programs.

Key metrics

BMW AG--Key metrics*

	--Fiscal year ended Dec. 31--					
(Bil. EUR)	**2020a**	**2021a**	**2022a**	**2023e**	**2024e**	**2025e**
LV sales growth (%)	(8.4)	8.4	(4.8)	4.2	1.8	2.4
Share of BEVs in LV sales (%)	About 2	About 4	About 9	About 15	About 21	About 26
Battery cell volume sourced (GWh)	About 4	About 9	About 19	About 33	About 46	About 61
Revenue§	83.1	98.2	126.8	136.3	137.7	142.0
Revenue†	70.4	79.9	109.0	N/A	N/A	N/A
Revenue growth (%) §	(11.6)	18.1	29.1	7.5	1.0	3.1
EBITDA§	7.1	13.6	16.7	19.8	19.3	19.6
EBITDA margin (%) §	8.6	13.9	13.2	14.5	14.0	13.8

BMW AG--Key metrics* (cont.)

	--Fiscal year ended Dec. 31--					
(Bil. EUR)	2020a	2021a	2022a	2023e	2024e	2025e
EBITDA margin (%) †	11.3	16.5	15.2	N/A	N/A	N/A
Cash flow from working capital†	(1.6)	(1.0)	(4.1)	(0.5)	(0.5)	(0.9)
Funds from operations (FFO)†	7.6	11.2	12.3	15.8	15.5	15.8
Capital expenditure†	3.8	4.1	6.2	9.0	8.6	7.9
Free operating cash flow (FOCF)§	2.8	5.8	5.4	6.6	6.3	6.7
Debt	Net cash	Net cash	Net cash	Net cash	Net cash	Net cash
Debt to EBITDA (x)	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.
FOCF to sales (%) §	3.3	5.9	4.3	4.9	4.6	4.7
FOCF to sales (%) †	5.1	6.9	5.1	N/A	N/A	N/A
Dividends to common and preferred shareholders	1.7	1.3	3.8	5.4	4.1	3.7
Captive debt/equity (x)	6.6	5.8	5.1	4.5-6.0	4.5-6.0	4.5 - 6.5
Debt to capital (%)	61.2	53.9	46.7	43-47	43-47	43-47

*All figures adjusted by S&P Global Ratings. §As recalculated under the new criteria. Historicals will not be restated. †As per the old criteria for 2020-2022. BEV--Battery electric vehicle. a--Actual. e--Estimate. N.M.--Not meaningful. N/A--Not applicable.

Company Description

Germany-based BMW is a leading global automotive manufacturer focused on the premium segment. The group's automotive operations comprise three brands: BMW (88.3% of car deliveries in the first nine months of 2023); Mini (11.5%); and Rolls-Royce (0.2%).

The group also manufactures motorcycles and operates a captive finance business to support sales operations. In the first nine months of 2023, BMW reported consolidated revenue of €112.5 billion (of which €95 billion was from the automotive segment, €2.6 billion from the motorcycle segment, €26.7 billion from financial services, minus €11.8 billion of eliminations). BMW is owned by the Quandt family (48.5%) and about 51.4% of its shares are free float.

Peer Comparison

Table 1

BMW AG--Peer Comparison

Industry sector: Automotive - Oem'S					
	BMW AG	Mercedes-Benz Group AG	Volkswagen AG	Toyota Motor Corp.	Honda Motor Co. Ltd.
Ratings as of Nov. 13, 2023	A/Stable/A-1	A/Stable/A-1	BBB+/Stable/A-2	A+/Stable/A-1+	A-/Stable/A-2
	--Fiscal year ended--				
	Dec. 31, 2022	Dec. 31, 2022	Dec. 31, 2022	March 31, 2023	March 31, 2023
(Mil. €)					
Revenue	109,029.0	123,063.0	235,375.0	237,802.4	96,600.7

Table 1

BMW AG--Peer Comparison (cont.)

EBITDA	16,586.0	19,954.0	25,532.0	26,864.3	8,400.0
Funds from operations (FFO)	12,348.0	15,817.0	21,340.3	17,870.6	5,371.1
Interest expense	219.0	400.0	2,108.0	396.7	264.5
Cash interest paid	213.0	0.0	630.7	128.6	250.0
Cash flow from operations	11,788.0	11,916.0	19,685.5	25,554.7	7,041.9
Capital expenditure	6,219.0	3,855.0	12,553.0	13,403.5	3,543.2
Free operating cash flow (FOCF)	5,569.0	8,061.0	7,132.5	12,151.2	3,498.7
Discretionary cash flow (DCF)	(991.0)	2,392.0	2,814.0	3,537.3	580.4
Cash and short-term investments	20,308.0	23,916.0	66,378.0	52,047.5	26,332.1
Debt	0.0	0.0	1,277.5	0.0	0.0
Equity	67,234.0	72,964.0	128,875.5	170,786.9	60,070.2
Adjusted ratios					
EBITDA margin (%)	15.2	16.2	10.8	11.3	8.7
Return on capital (%)	18.3	24.6	10.7	13.3	8.4
EBITDA interest coverage (x)	75.7	49.9	12.1	67.7	31.8
FFO cash interest coverage (x)	59.0	N.M.	34.8	140.0	22.5
Debt/EBITDA (x)	0.0	0.0	0.1	0.0	0.0
FFO/debt (%)	N.M.	N.M.	1,670.5	N.M.	N.M.
Cash flow from operations/debt (%)	N.M.	N.M.	1,540.9	N.M.	N.M.
FOCF/debt (%)	N.M.	N.M.	558.3	N.M.	N.M.
DCF/debt (%)	N.M.	N.M.	220.3	N.M.	N.M.

N.M.--Not meaningful. 2022 figures are not restated following the introduction of new captive criteria.

Following the spinoff of its truck business, Mercedes-Benz Group AG is BMW's closest peer, given the companies' similar scale and positions in the premium and luxury segments of the global car market. Both Mercedes and BMW are well advanced compared with other traditional automakers with respect to electrifying their product portfolios, and their favorable profitability and cash conversion reflects strong positions in the premium car market. BMW's EV sales share has recently expanded somewhat faster than Mercedes', whereas Mercedes enjoys somewhat better cash conversion.

After increasing its shareholding to 75% in February 2022, BMW consolidates its joint venture operations in China, which we view positively due to the greater control over its local operations in the world's most competitive auto market.

BMW trails Toyota Motor Corp. and Volkswagen in scale, which may restrict its ability to make large investments in proprietary technology, for example in software and autonomous driving platforms, or in dedicated battery cell supply. It also lacks diversification beyond the premium car and motorcycle segments that these groups have. Compared with peers in the 'BBB' category, our rating on BMW also benefits from its adjusted net cash position and better FOCF conversion.

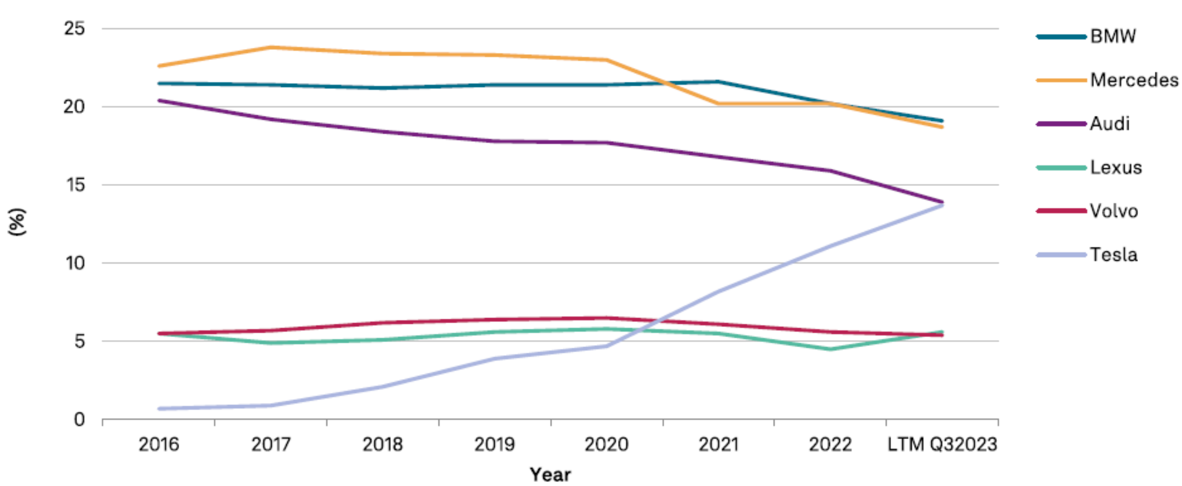
Business Risk: Satisfactory

BMW enjoys a strong market position as a premium carmaker. Our view of BMW's business is supported by its position as one of the leading global premium car original equipment manufacturers (OEMs), with total passenger car volumes of about 2.4 million in 2022, ahead of Mercedes-Benz (2.0 million) and Audi (1.6 million). In third quarter 2023, BMW, including BMW, Mini, and Rolls-Royce brands, held a global premium car segment market share of about 18.4%, based on data from S&P Global Mobility. This compares well with Mercedes-Benz (18.2%) with its Mercedes, EQ, AMG, and Maybach sub-brands, and 17.1% for Volkswagen, whose main premium brands are Audi and Porsche, plus small volumes of premium car sales under the VW, Bentley, and Lamborghini brands. By brand, BMW has been at par with Mercedes-Benz since 2022, with a share of approximately 19%, both slightly below their 2016 levels (see chart 3). We view BMW's exposure to the premium segment as favorable, thanks to modestly better long-term growth prospects and lower price elasticity. At the same time, however, we believe this advantage is less evident for the lower end of its portfolio in China, where the group faces the competition from Tesla and other Chinese OEMs. The premium segment constituted little less than 12 of total global passenger car sales in 2022 according to S&P Global Mobility. The Chinese market's BEV luxury segment is underdeveloped when compared to Europe and the U.S., so models like the fully electric BMW i7 might take some time to take off.

Chart 3

BMW's premium market position has slightly deteriorated since 2016

Global premium* passenger car market share by brand



*As defined by S&P Global Mobility. LTM--Last 12 months. Sources: S&P Global Mobility and S&P Global Ratings.

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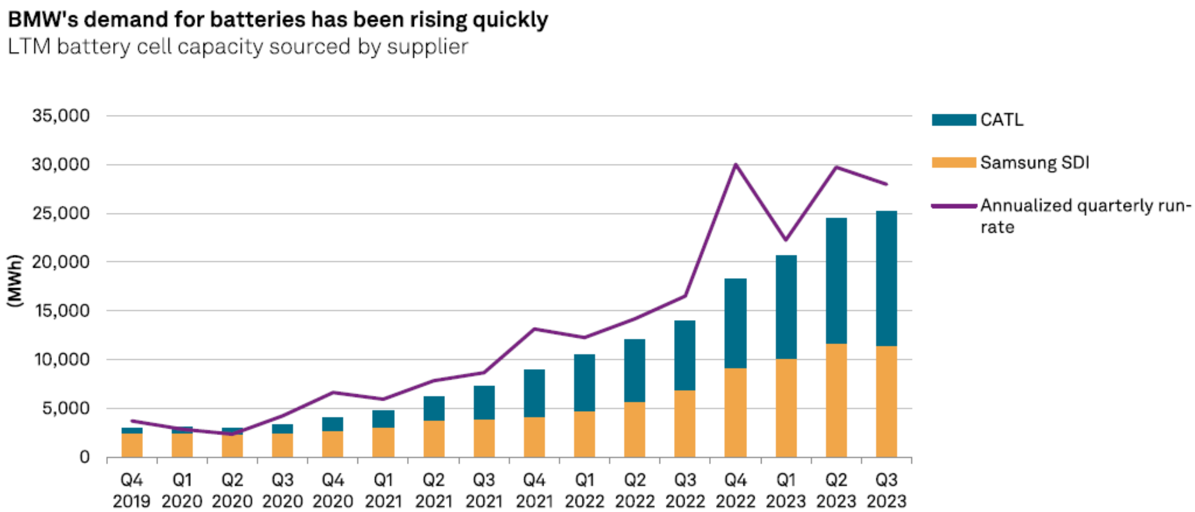
Further BEV launches will support the transition in BMW's sales mix in the next few years. We think BMW's BEV line-up extensions, which includes adding the iX2 and i5 (late 2023), to the i3, i4, i7, iX3, iX, and iX1 line up—coupled with new electric models under the Mini brand expected in 2024--lay the foundation for further growth of BEVs in the sales mix. Although a growing BEV portfolio is a prerequisite for a successful EV strategy, we consider the models' competitive appeal and use phase performance as even more important. When looking at the segment coverage of BMW's BEV offering (under the BMW brand), by the end of 2023 we expect the group to have at least one BEV available for its main segments (contributing between 85%-90% of sales volumes).

Maintaining substantial investments in electrification and vehicle digitization could cause cash flow volatility. We forecast BMW's investments, as measured by research and development and capex, will settle in the 11%-12% range in 2023-2024. With the global ramp-up of alternative powertrains and increasing competition for EVs, as well as the growing amount of software and electronics in each vehicle, we think there is limited room for BMW to materially reduce investments in absolute terms from the €15 billion-€16 billion annually that we expect for 2023–2025. Limited flexibility to cut investments would add volatility in BMW's FOCF, in times of weaker demand and pricing.

BMW's battery supply agreements cover its needs until 2025. It sources battery cells for its EVs from two main suppliers--Korean producer Samsung SDI and Chinese producer CATL. BMW has finalized further agreements with Swedish manufacturer Northvolt--which will supply BMW with battery cells from 2024--and with EVE Power for the Chinese market starting from 2023. Unlike peers such as Mercedes-Benz and Volkswagen, BMW has, so far, withheld from direct investments in cell production capacity in the form of stakes in joint ventures or partnerships, and has relied solely on contractual agreements. Although this may offer greater flexibility in times of rapidly evolving battery technology, it may also result in cost disadvantages in the longer term, or reduced security of supply in times of scarce capacity. We estimate that to achieve its target of at least 50% BEVs in total sales before 2030, BMW needs to source more than 150 gigawatt hours (GWhs) annually, a more than sixfold increase from 24 GWh in the last 12 months to second-quarter 2023 (see chart 4).

Chart 4



LTM--Last 12 months. MWh--Megawatt hour. Sources: EV Volumes and S&P Global Ratings.

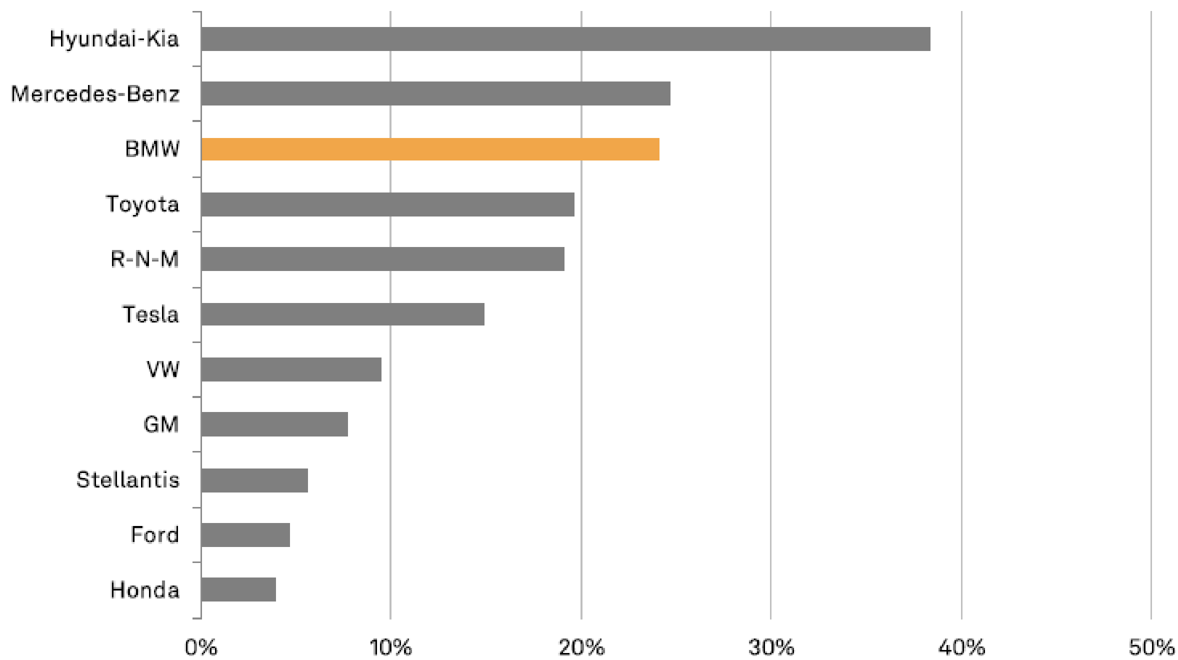
BMW is progressing in its local-for-local strategy. We think BMW is less exposed to trade or geopolitical tensions than in the past, following the localization of some models. So far, BMW's production of larger SUVs (X6, X7, XM, and above) remains concentrated in the U.S., and a sizable share of this production is shipped to China and Europe. Conversely, BMW ships high-end sedans such as the 7 series to both the U.S. and China from Europe, in addition to shipping parts between different locations. In 2022, BMW's share of imports in vehicle sales in its top three markets (Europe, China, and the U.S.) was about 24% (see chart 5). However, BMW's dependency is set to reduce because, having gained majority ownership of BBA in February 2022, it has localized the production of its X5 SUV in China, and the company will open a local factory for electrified Mini models as part of its joint venture with Great Wall Motors in 2023. Since 2022, BMW also produces the i3 BEV for the Chinese market locally and will start making the iX1 BEV in China from 2023.

BMW AG

Chart 5

Manufacturers are heading toward a local-for-local strategy

LV sales imports in Europe, North America, and Greater China in 2022



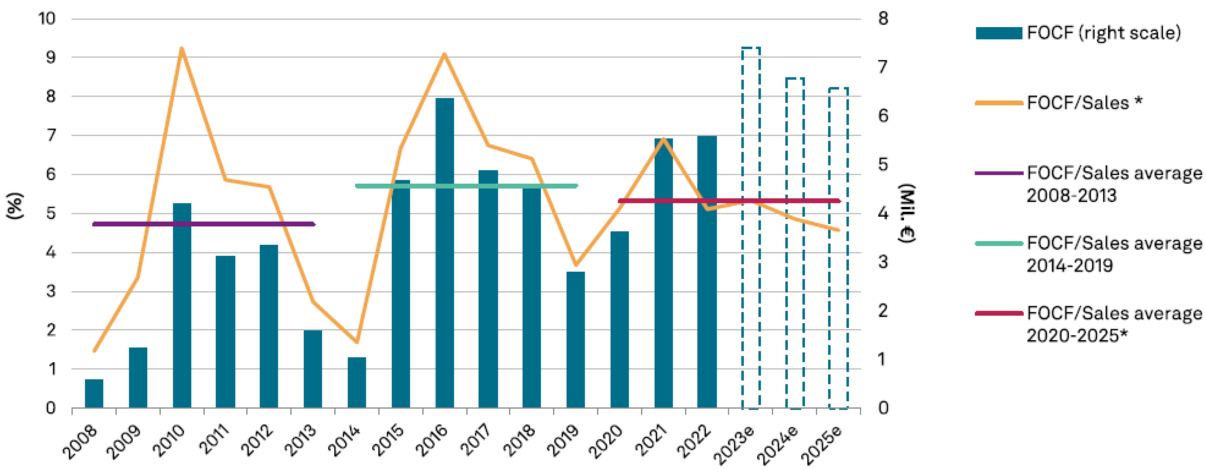
LV--Light vehicles. Sources: S&P Global Mobility and S&P Global Ratings.

Financial Risk: Minimal

BMW's balance sheet remains strong and provides flexibility to increase investments or to withstand tougher industry conditions. The group has posted an adjusted net cash position since 2010, a trend we expect to continue in the next few years with above €8.0 billion net cash in 2023 and between €6 billion-€8 billion in 2024-2025. We view the group's financial policy as relatively conservative, with moderate dividends tied to the performance of the industrial business (a targeted payout ratio of 30%-40% of net income attributable to group shareholders), and limited bolt-on acquisitions. BMW recently announced another round of share buybacks worth €2 billion until the end of 2025 after completing its previous program of €2 billion in July 2023. These shareholder returns are, in our view, still in line with our assessment of a relatively conservative financial policy, given the size of the amounts involved compared with BMW's strong balance sheet position. We think BMW retains headroom to withstand episodes of weaker market demand, as well as some power to scale up investments in EV models, platforms, and the associated supply chains, or autonomous drive technology and software, if required.

Chart 6

BMW's S&P Global Ratings-adjusted FOCF includes some downside cushion



*For 2023–2025 as recalculated following the publication of the new captive finance criteria. Historicals are not restated.
e--Estimate. FOCF--Free operating cash flow. Source: S&P Global Ratings.

BMW's captive finance operations remain well capitalized, providing headroom under our new criteria. Leverage in BMW's captive finance operations, as measured by our criteria, has steadily decreased in the past few years, with our measure of debt to equity moving to about 5.0x in 2022 from 7.2x in 2019 (see chart below). This has been helped by the company's financial services entities' recently sound earnings performance. Moreover, we consider the credit quality of BMW's loan and lease portfolios as strong, based on our average estimated net loss ratio in the past three years of below 0.3%. As a result, we assess BMW's asset and leverage risk as low.

In addition, leverage is well below the 10x upper limit for the asset and leverage risk category, providing good headroom to absorb periods of weaker earnings or incremental business growth. Consolidated leverage has also improved in recent years, supported by an increasingly strong balance sheet in the automotive business, sound financial services earnings, and a moderate decrease of the share of captive net earning assets in overall group assets (60% in 2015, 58% in 2021, 52% in 2022)--largely because of the first-time consolidation of BBA in 2022.These factors have contributed to a reduction in our adjusted debt to capital (consolidated) to a low of about 47% in 2022. We expect this ratio to remain at 43%-47% in the next three years.

BMW has a track record of successfully managing RV risk in its leasing business, leading us to view residual value (RV) risk as neutral for its credit profile. The share of operating lease assets in net earning assets of BMW's captive finance operations has been relatively stable in recent years, at 33%-34% over 2020-2022 (about 37% when based on figures from BMW's financial services segment). Although this creates a meaningful exposure to RV risk, we think it is mitigated by the company's comprehensive risk management processes and systems.

In our view, the company relies on a sophisticated RV modeling and forecasting process that combines quantitative modeling with other inputs. BMW updates its RV estimates quarterly for most markets and can draw on data from a large number of used car transactions to fine-tune its forecast. We think this has contributed to a strong RV performance historically.

For vehicles remarketed over 2018–2020, on average BMW realized a small loss over the entire contract lifetime (consisting of adjustments to vehicle values during the life of the contract and end-of-contract results), which turned into a small gain over 2021-2022 as used car prices soared. We consider this well in line with industry benchmarks. We expect that RVs for both BEVs and internal combustion engine (ICE) cars could be subject to higher volatility, as the shift to alternative powertrains progresses in many markets and BEVs undergo rapid technological evolution, which increases obsolescence risks for earlier-generation BEVs and ICE cars.

That said, the shift in the powertrain mix of lease returns will occur only very gradually with a three-to-four-year time lag to new vehicle sales, and in a staggered fashion that is linked to BMW's product launch schedule. This will enable BMW to adjust its RV risk management as the transition unfolds. Moreover, we believe the balance sheet of BMW's captive finance operations has some cushion to absorb losses from unexpected declines in RVs on either powertrain type. We therefore assess RV risk as neutral to the rating, despite BMW's leasing exposure exceeding 25%.

Table 2

Pro forma effects of new criteria on BMW's 2022 income and cash flow statement adjustments*

Mil. (€)	Old criteria	Impact	New criteria
Revenue (adjusted)	109,029.0	17,750.0	126,779.0
EBITDA (adjusted)	16,628.0	56.0	16,684.0
EBITDA margin (%)	15.3	(2.1)	13.2
CFO (adjusted)	11,788.0	(346.0)	11,442.0
Capex (adjusted)	(6,219.0)	171.0	(6,048.0)
FOCF (adjusted)	5,569.0	(175.0)	5,394.0
FOCF/sales (%)	5.1	(0.9)	4.3

*All figures adjusted by S&P Global Ratings. CFO--Captive finance operations. Capex--Capital expenditure. FOCF--Free operating cash flow.

We changed our calculation of BMW's S&P Global Ratings-adjusted profitability to better reflect the effects of intra-group profit transfers for leased vehicles. Our new captive finance criteria aims to segregate what we regard as financial services activities from industrial operations, independently from how these activities are reported by issuers. This also implies that we seek to reflect all industrial revenue and profits in our adjusted credit metrics. Like some of its peers, at the group level BMW eliminates the revenue and gross profit for certain sales of new vehicles from its automotive business to its financial services business. This mainly concerns vehicles intended to be leased out to customers by the financial services division under BMW operating leases. The profit so eliminated is realized over time in the intra-group eliminations. This affects cost of sales, but not revenue (more specifically, the financial services business records these vehicles at acquisition cost, while the group records them at manufacturing cost, and the difference in depreciation is a positive effect on cost of sales outside of reported depreciation). This affects the calculation of margins when the industrial segments are combined with the eliminations.

To better reflect our view of industrial profitability, going forward we will base our adjusted metrics on the sum of automotive segment revenue before revenue eliminations and the revenue of the motorcycle segment. Likewise, we will use the combined profit/loss before financial result for these segments as reported by BMW as the basis for our EBIT and EBITDA, and the reported operating cash flow of the automotive segment as the basis for our adjusted cash flow from operations (BMW does not report the cash flow of the motorcycles segment, but the difference is small).

The changes lead to an impact of about 200 basis points (bps) on BMW's EBITDA margin if calculated on 2022 figures, and 80 bps for adjusted FOCF to sales.

Financial summary

Table 3

BMW AG--Financial summary

Industry sector: Automotive - OEMs

	--Fiscal year ended Dec. 31--				
(Mil. €)	**2022**	**2021**	**2020**	**2019**	**2018**
Revenue	109,029.0	79,935.0	70,400.0	76,000.0	71,125.0
EBITDA	16,586.0	13,159.0	7,955.0	9,628.0	9,866.0
Funds from operations (FFO)	12,348.0	11,175.0	7,606.0	6,385.0	7,917.4
Interest expense	219.0	236.0	259.0	273.0	434.6
Cash interest paid	213.0	190.0	257.0	199.0	275.6
Cash flow from operations	11,788.0	9,628.0	7,445.0	7,542.0	9,332.4
Capital expenditure	6,219.0	4,101.0	3,836.0	4,749.0	4,780.0
Free operating cash flow (FOCF)	5,569.0	5,527.0	3,609.0	2,793.0	4,552.4
Discretionary cash flow (DCF)	(991.0)	4,250.0	1,938.0	427.0	1,922.4
Cash and short-term investments	20,308.0	20,252.0	17,763.0	17,427.0	16,295.0
Gross available cash	16,161.0	15,785.0	13,286.0	13,558.0	12,964.0
Debt	0.0	0.0	0.0	0.0	0.0
Equity	67,234.0	50,296.0	41,117.0	40,174.0	39,778.0
Adjusted ratios					
EBITDA margin (%)	15.2	16.5	11.3	12.7	13.9
Return on capital (%)	18.3	23.8	8.9	12.7	17.0
EBITDA interest coverage (x)	75.7	55.8	30.7	35.3	22.7
FFO cash interest coverage (x)	59.0	59.8	30.6	33.1	29.7
Debt/EBITDA (x)	0.0	0.0	0.0	0.0	0.0
FFO/debt (%)	N.M.	N.M.	N.M.	N.M.	N.M.
Cash flow from operations/debt (%)	N.M.	N.M.	N.M.	N.M.	N.M.
FOCF/debt (%)	N.M.	N.M.	N.M.	N.M.	N.M.
DCF/debt (%)	N.M.	N.M.	N.M.	N.M.	N.M.

*Figures before 2023 will not be restated following the introduction of new captive criteria. OEM--Original equipment manufacturer. N.M.--Not meaningful.

Liquidity: Strong

Our short-term rating on BMW is 'A-1'. We assess the group's liquidity as strong because we expect liquidity sources to cover uses by more than 2x in the next and following 12 months. We do not assess liquidity as exceptional because we think the company may not be able to maintain its liquidity buffers such that sources of liquidity exceed uses by more than 2x in weaker market conditions. Following the implementation of the criteria, we perform our liquidity analysis for BMW on a joint basis, which looks at industrial and captive operations in combination.

Principal liquidity sources as of Sept. 30, 2023, for the next 24 months include:

- Cash and liquid investments of about €25 billion for the group (industrial and captive finance operations);
- An undrawn €8.0 billion committed revolving credit facility (RCF) due 2028;
- Cash funds from operations from BMW's industrial business of €17 billion-€18 billion in the first 12 months and subsequent 12 months;
- Minimum net cash receipts from operating lease installments of the existing leasing portfolio (excluding investments in new leased assets) of €9 billion in the first 12 months and €6 billion in the second 12 months; and
- Cash inflow of about up to €1 billion in the first and subsequent 12 months that reflects the net amount of cash receipts from the maturities of the existing captive asset portfolio, a reduced level of portfolio reinvestment from BMW's own funds, and the debt maturities of the group, as further broken down below.

Principal liquidity uses for the same period include:

- Capex (including capitalized research and development) of about €11 billion annually in each period;
- Peak intra-year working capital swings of up to €3 billion, and other working capital needs of €0.4 billion-€0.9 billion in each period; and
- Dividend payouts of €5.2 billion-€6.2 billion in the first 12 months and €4.7 billion-€5.7 billion in the subsequent 12 months, including dividends to minority shareholders in BBA.

Our estimated net cash inflows and outflows from BMW's portfolio run-off, portfolio reinvestment, and debt maturities can be broken down as follows:

- Gross portfolio run-off: Inflows from contractual repayments of loans and finance principal, as well as expected proceeds from the remarketing of leased assets, totaling about €48 billion and €24 billion in the first and subsequent 12 months, respectively;
- Net portfolio run-off: We net these amounts with our assumption of €9 billion of portfolio investments in the first 12 months and €5 billion in the subsequent 12 months, which we assume BMW would undertake from own funds during periods of constrained capital market access. These estimates are based on an imputed debt-to-equity ratio that we apply to the gross portfolio run-off plus cash receipts from operating leases (as shown in liquidity sources); and
- The group's debt maturities of about €38 billion in the first 12 months and €19 billion in the subsequent 12 months, which we calculate by subtracting our estimate of stable retail deposits from total maturities of €43 billion in the first

12 months and €20 billion in the subsequent 12 months. The amount of stable retail deposits is after deducting our estimate of monthly deposit attrition.

Our strong liquidity assessment for BMW is also supported by the following considerations:

- Our view that BMW enjoys well-established bank relationships, reflected in the availability of a committed RCF of €8 billion with a broad consortium of more than 40 domestic and international banks;
- Our liquidity coverage metric for the group of about 0.9x for the 12 months from Sept. 30, 2023, well above the 0.5x threshold below which we typically consider liquidity coverage to be weaker;
- Our estimate of a coverage ratio of scheduled asset maturities to contractual debt repayments of more than 1.3x in the first and subsequent 12 months; and
- Good diversification of funding sources across markets and instruments, including bonds, bank debt, asset-backed securities (ABS), deposits, and commercial paper (CP), as well as a track record of tapping these sources in a variety of market conditions.

Debt maturities

As of Sept. 30, 2023, for the BMW group:

- Short-term debt: €45.1 billion (including leases and derivatives); and
- Long-term debt: €52.4 billion (including leases and derivatives).

Covenant Analysis

There are no financial covenants, rating triggers, or material adverse change clauses in the documentation for BMW's €8.0 billion undrawn RCF due 2028 (with two one-year extension options), nor in BMW's other debt documentation, including for its unsecured bonds, ABS, CP, and bank debt.

Environmental, Social, And Governance

Environmental factors are a moderately negative consideration in our credit rating analysis of BMW AG, mainly reflecting the regulatory push toward zero-emission vehicles. In 2022, BMW reduced its average fleet carbons emissions in the EU (105g CO2/Km compared with 115.9g in 2021 and well below the allocated limit of 127.5g) and in China (150.6g CO2/Km from 163g in 2021). In the U.S., fleet carbon emissions in 2022 were higher than 2021 (145.9g CO2/Km versus 140.9g in 2021) because of mix effects, but the group could achieve compliance through credit purchases and plans to meet requirements in 2023 without third-party credits. Worldwide carbon fleet emission average 193.7g CO2/Km in 2022 (versus 197.9g CO2/Km in 2021) or 11.4% down compared with 2019 (218.5g CO2/Km). We expect regulation, intense EV competition, and BMW's ambition to become carbon neutral by 2050 will require continued high investments in EV models, alternative drivetrains, own plants, and the supply chain. With 13.4% of BEV in the global mix in the first nine months of 2023 (compared with 7.3% in the first nine months of 2022), BMW is very close to its 15% landmark target for the year. Its target of at least 25% of BEV in the sales mix by 2025 (and 50% before 2050) is likely to weigh on profitability, particularly when government subsidies are materially reduced, and the company is not able to compensate for the higher production cost of these vehicles through pricing and cost optimization measures.

Issue Ratings – Subordination Risk Analysis

Capital structure

BMW had about €92.7 billion of debt (excluding derivatives) as of Sept. 30, 2023, of which €3.1 billion relates to the automotive business. BMW typically funds about 50% of its total debt with public unsecured notes, mostly at its finance companies, in particular BMW Finance N.V. and BMW U.S. Capital LLC.

Analytical conclusions

We rate BMW's senior unsecured debt 'A', in line with the issuer credit rating, because we assess there are no significant elements of subordination risk present in the capital structure.

Related Criteria

- Criteria | Corporates | General: Methodology: The Impact Of Captive Finance Operations On Nonfinancial Corporate Issuers, Oct. 23, 2023
- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Business And Financial Risk Matrix

Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	**a/a-**	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Ratings Detail (As Of November 29, 2023)*

BMW AG	
Issuer Credit Rating	A/Stable/A-1
Issuer Credit Ratings History	
05-Aug-2021	A/ Stable /A-1
26-Mar-2020	A/Negative/A-1
13-Nov-2019	A+/ Negative /A-1
Related Entities	
BMW Finance N.V.	
Senior Unsecured	A
BMW International Investment B.V.	
Senior Unsecured	A

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

Additional Contact:

Corporate and IFR EMEA; RatingsCorpIFREMEA@spglobal.com

Appendix

Appendix 1：

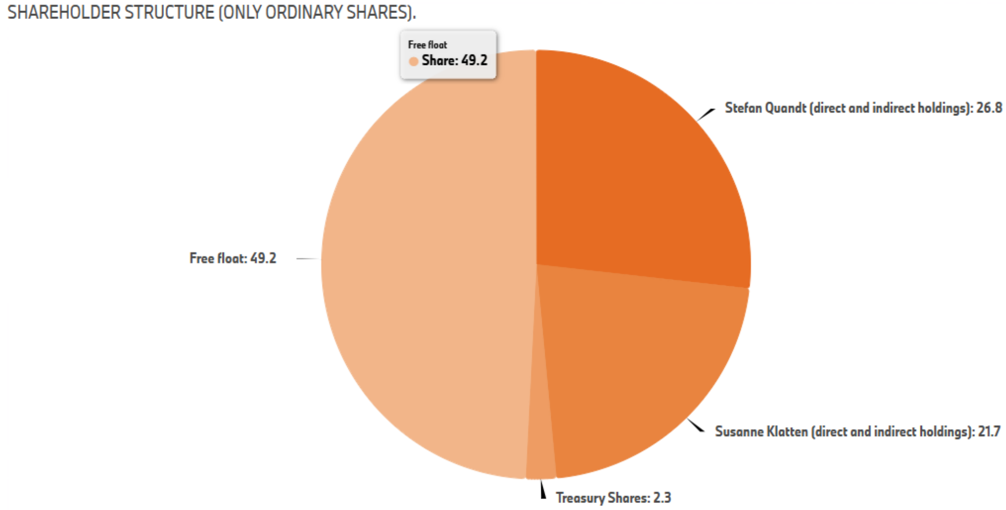
Rated Entity's Key Financial Data and Indicators (in € million)	2022	2023	2024
Revenue	142,610	155,498	142,380
Cost of sales	118,042	125,809	119,485
Selling and administrative expenses	10,616	11,025	11,296
Other operating income	1,377	1,045	1,411
Other operating expenses	1,330	1,227	1,501
Interest and similar expenses	-251	656	573
Net profit/loss	18,582	12,165	7,678
Cash and cash equivalents	16,870	17,327	19,287
Inventories	20,005	23,719	24,387
Intangible assets	21,776	20,022	20,220
Property, plant and equipment	32,126	35,266	39,581
Leased products	42,820	43,118	48,838
Total assets	246,926	250,890	267,732
Financial liabilities (Current)	40,727	42,130	44,491
Financial liabilities (Non-current)	53,469	52,880	66,770
Equity	91,288	92,923	95,003
Cash inflow/outflow from operating activities	23,523	17,542	7,566
Cash inflow/outflow from investing activities	-4,772	-9,548	-11,369
Cash inflow/outflow from financing activities	-17,984	-6,859	5,766

Adjusted Financial Data and Indicators (in € million)	2022	2023	2024
Revenue	109,029	135,491	128,137
EBITDA	16,586	19,614	13,344
FFO	12,348	15,111	10,094
Capital Expenditures	6,219	8,084	8,289
Free Operating Cash Flow	5,569	5,956	3,752
Debt	0	0	0
Debt/EBITDA (x)	0.0	0.0	0.0
EBITDA Interest Coverage (x)	75.7	109.0	55.4
FFO Cash Interest Coverage (x)	59.0	15.7	9.4
EBITDA Margin (%)	15.2	14.5	10.4

Note：The financial data in the above table is based on annual reports of BMW AG. Adjusted financial data and indicators are those adjusted by S&P Global Ratings.

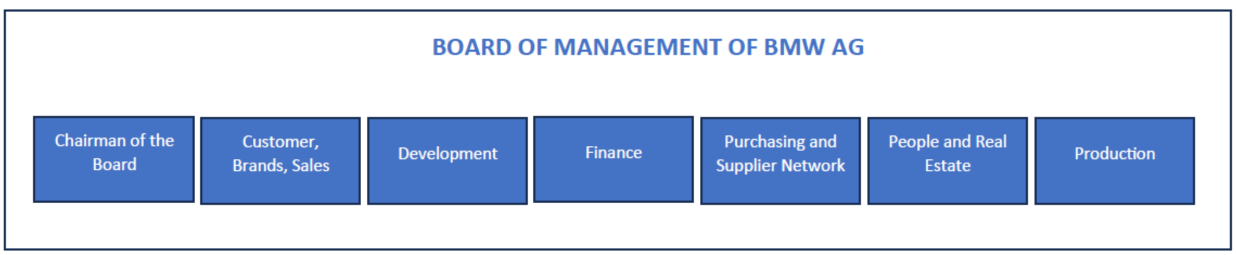
Source: Annual reports of BMW AG, CIQ, S&P Global (China) Ratings.

Appendix 2: Ownership Structure of the Rated Entity as of End of December 2024



Source: Data provided by the company.

Appendix 3: Organization Structure of the Rated Entity as of End of December 2024



Source: Data provided by the company.

Appendix 4: **Ratings Definitions**

Category	Definition
AAA$_{spc}$	The repayment ability is extremely strong, generally not impacted by any adverse economic environment, and the default risk is extremely low.
AA$_{spc}$	The repayment ability is very strong, not considerably impacted by any adverse economic environment, and the default risk is very low.
A$_{spc}$	The repayment ability is comparatively strong, comparatively vulnerable to the impact of adverse economic environment, and the default risk is comparatively low.
BBB$_{spc}$	The repayment ability is average, comparatively impacted by adverse economic environment, and the default risk is average.
BB$_{spc}$	The repayment ability is comparatively weak, materially impacted by adverse economic environment, and the default risk is comparatively high.
B$_{spc}$	The repayment ability relies comparatively on fair economic environment and the default risk is very high.
CCC$_{spc}$	The repayment ability relies extremely on fair economic environment and the default risk is extremely high.
CC$_{spc}$	Lower protection in situation of bankruptcy or reorganization and the repayment of debt may not be generally guaranteed.
C$_{spc}$	Unable to repay the debt.

Note: Ratings from AA$_{spc}$ to CCC$_{spc}$ may be added a "+" or "-" sign for minor adjustment to indicate a slightly higher or lower rating.