

A Work Project, presented as part of the requirements for the Award of a Master's Degree in Finance from the NOVA – School of Business and Economics.

MERCEDES BENZ GROUP AG EQUITY RESEARCH – REACHING FOR THE STARS IN THE  
NEW ERA OF AUTOMOBILES

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#### Abstract:

This work project aims to determine the current fair stock price valuation of the German carmaker Mercedes-Benz by forecasting the future free cash flows of the company. The projections are based on a comprehensive company and automotive industry analysis, which discusses the macroeconomic environment, Mercedes-Benz's strategy, historic financials, leadership team and business model, as well as the industry's current trends and challenges. The intrinsic valuation is complemented by a multiples valuation as well as an ESG analysis. In total, the analysis identifies a buy recommendation with upside potential of 10.55% for the Mercedes-Benz stock.

#### Keywords

Mercedes-Benz, Corporate Valuation, Equity Research, Automobile Industry

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This report is part of the Equity Research report (annexed), developed by Manuel Barbosa Pereira (55593) and Michael Oliver Lamm (49880) and should be read as an integral part of it.

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# 1. Introduction

The purpose of this joint Work Project report is to establish an academic equity research analysis of the Mercedes-Benz stock. Both intrinsic and relative valuation methodologies as well as commercial due diligence were employed to identify an underlying investment thesis for the stock for the end of the Financial Year 2024, resulting in a **“Buy” recommendation** with a potential **upside of 10.55%**.

After gaining insight into the company’s strategy, sustainability positioning, as well as its historic financial performance, the report focusses on the current global developments in the automotive industry. Combining the company internal and industry information, forecasts are presented that determine the future free cash flows of Mercedes. Using a range of valuation methods and analysis tools, an intrinsic and relative valuation are obtained, which represent the fundament of our investment thesis.

This part of the report mainly deals with the sections related to the **external factors** influencing the valuation of Mercedes. After discussing the shareholder structure, ESG strategy and historic financials of Mercedes, a comprehensive industry overview will be given, highlighting its key trends and challenges as well as analysing the most important regional markets and competitors. These insights are enhanced with a SWOT and Porter’s Five Forces analysis. Finally, a relative valuation is conducted based on Mercedes’ competitive peer group.

The other part of the report, composed by Manuel Barbosa Pereira (55593), deals with the sections related to the **internal factors** influencing the absolute valuation of Mercedes by developing a comprehensive financial forecast.

## 2. Company Overview

### 2.1 Shareholder Structure

As opposed to the other two German automotive giants Volkswagen and BMW, Mercedes-Benz is not majorly in family ownership, instead its shareholder base is much more fragmented, with a free float of 77.56% compared to 49.51% of BMW and 26.69% of Volkswagen. The two largest equity stakes are held by Chinese companies BAIC Group, which is the 7<sup>th</sup> largest car manufacturer in China and state-owned, and Geely, a multi-brand car manufacturer with 2.8m car sales in 2023 (3<sup>rd</sup> largest in China) with holdings of 9.98% and 9.69% respectively. The only other two investors with a larger than 5% equity stake are the Kuwait Investment Authority (5.57%, down from 6.8% in 2023) and Blackrock (5.02%). While being in such fragmented ownership leads to financial discipline under high financial market scrutiny, it also leaves the company vulnerable to a large-scale takeover. Considering that Geely owner Li Shufu was able to quietly take over close to 10% in ownership, it is not unthinkable that altogether, Chinese companies could admit ownership of over 25% and reach a blocking minority – thus making Mercedes-Benz ultimately an increasingly China-influenced company.

Share Data	
Shares Outstanding	1,069,837,447
thereof Treasury Shares	28,900,000
Shares in Free Float	807,336,813
Free Float %	77.56%

Figure 1: Share Data  
(Source: Company Website and Refinitiv)

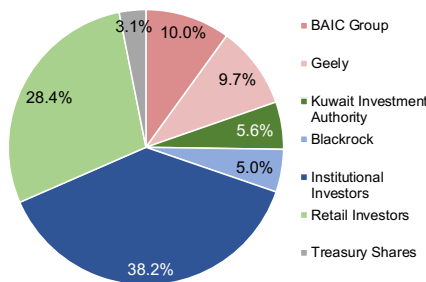


Figure 2: Shareholder Structure  
(Source: Company Website)

Mercedes-Benz ESG Ratings			
Rating Provider	Refinitiv	Sustainalytics	MSCI
ESG Rating	92	20	A
Industry Ranking	1st	73%-ile	54 %-ile
Environmental Score	95	6	1.5°C aligned
Social Score	89	7.4	
Governance Score	94	7.5	

Figure 3: Mercedes-Benz ESG Ratings  
(Sources listed)

### 2.2 Environment, Social and Governance

With the rising importance of sustainable business practices in public policies and society, investors are evaluating companies' sustainability performance as an additional risk factor in their portfolios. Sustainability is measured along three pillars – environment, social and governance – and summarized by an overall ESG rating, calculated by different providers. While no rating providers have the same methodology to obtain their ESG ratings, Mercedes-Benz performs among the best of all major automobile manufacturers, showcasing clearly defined goals and processes to improve sustainability. However, when evaluating the “Controversy” Score, the company performs below the industry average, mainly due to past legal problems concerning widespread manipulation of emissions data of Diesel vehicles around 2015.

Competitor ESG Ratings			
Rating Provider	Refinitiv (100 = best)	Sustainalytics (0 = best)	MSCI (AAA = best)
Mercedes	93.34	20.0	A
BMW	88.75	24.6	AA
Porsche	n/a	17.1	B
Stellantis	87.15	23.3	BB
Volkswagen	80.69	26.1	B
Volvo Cars	71.81	18.4	BBB

Figure 4: Overview Peer Group ESG Ratings  
(Sources listed)

#### Environment

Nowadays, Mercedes is fully aligned with the goals of the Paris Climate Agreement for 2050 and the company even strives to reach a carbon-neutral vehicle fleet by 2039 according to its “Ambition 2039” target. Not only are the targets ambitious, but many initiatives are already being taken to reduce emissions along the whole value chain of automobile production, from sourcing CO<sub>2</sub> reduced steel to implementing green charging solutions, having already achieved an emission reduction in production of 18.5% in the last 2 years. However, the viability of the

Peer Group Environmental Performance			
	Net Zero Target	Scope 1 to 3 emissions	
		per vehicle (in t CO <sub>2</sub> e)	
		2023	2 yr CAGR
BMW	2050	51.1	-1.31%
Mercedes-Benz	2039	46.5	-2.68%
Porsche	2030	62.7	-0.87%
Stellantis	2038	74.3	-3.75%
Volkswagen	2050	47.3	-1.14%
Volvo Cars	2040	43.9	-6.02%

Figure 5: Peer Group Environmental Performance (Sources: Company's Sustainability Reports)

Ambition 2039 goal is questionable, as car manufacturers rely on a significant number of suppliers for the production of a car, which realistically do not follow as ambitious decarbonization goals as Mercedes does or may not even be able to fulfil the environmental criteria. So, despite immense power over suppliers by Mercedes, it is not so straightforward to become one of the carbon-neutral pioneers along with Stellantis and Polestar (CO<sub>2</sub>-neutrality targets: 2038 and 2040). Nevertheless, Mercedes' highly ambitious goals and actions compared to its main competitors BMW and Volkswagen Group (CO<sub>2</sub>-neutrality targets: both 2050) towards emission reduction are beneficial to maintain its high ESG score and instil investor confidence in the company's long-term orientation. However, maintaining a favorable ESG score in the long-term will highly depend on continuing to follow the electrification strategy and investing in emission-free production capabilities.

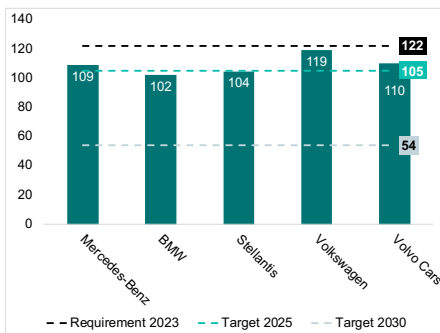


Figure 6: Peer Group CO<sub>2</sub> Fleet Emissions in EU (in g/km) (2023) (WLTP Measurement) (Sources: Company's Sustainability Reports)

### ▪ Social

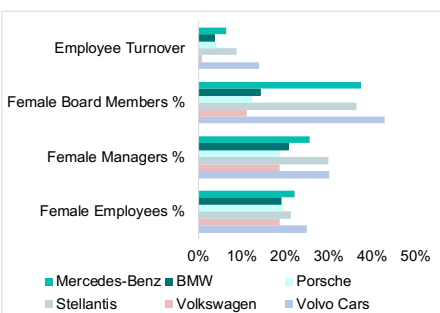


Figure 7: Peer Group Social Sustainability Performance (2023) (Sources: Company's Sustainability Reports)

Mercedes-Benz, along with its main European-based competitors, score relatively high in the Social pillar, as can be expected for companies that are based in a very employee friendly and regulated region. One of the main initiatives for Mercedes employees is the "Sustainable People Plan" which aims to help adapt the workforce to the new skills needed in the continuously transforming automotive industry. This initiative has led to an increase of 19% in training hours to 2.3m in the last year. Furthermore, the plan encompasses the goal to reach 30% women in senior management positions, compared to 25.7% in 2023 and 20.5% in 2020.

Additionally, Mercedes sees itself as a contributor to society and urban mobility through its development of autonomous driving and car safety standards, as well as through expansion of its charging network.

### ▪ Governance

A high score in Governance is what sets Mercedes apart from its competitors. A high share of females in the board (37.5%) as well as strong processes that promote the focus on the company's long-term sustainability and integrity are factors that play into this dominant rating. In its organizational structure, Renata Jungo Brüngger is a member of the board and responsible for integrity, governance and sustainability and therefore leads the Group Sustainability Committee. This makes her the only board member at one of the large publicly held German automakers to hold a board position that focusses on sustainability.

Furthermore, remuneration for board members at Mercedes-Benz includes a variable compensation that can be based on the fulfilment of ESG targets and make up 20% of stock options and up to 25% of annual bonus remuneration. Hereby, a diverse number of non-financial goals are set which incentivize the transformation to a more sustainable organization.

**Renata Juno Brügger**  
as the board member  
for Integrity,  
Governance and  
Sustainability

## 2.3 Historic Financial Analysis

Diving into Mercedes-Benz's financials, we can better understand the current situation of the company. Excluding the Daimler Trucks business, **revenues** were stable until 2020, when the Covid-19 pandemic slowed down sales by 8%. Mercedes recovered strongly afterwards, growing on average by 8.6% until 2023, despite the emergence of armed conflicts in Europe. Looking at **gross profit** and **EBIT margins**, it is noticeable that Mercedes is a strong performer among its industry peers, coming in second after Porsche. Surprisingly, the Vans division has greatly improved its operational performance, exceeding the margins of the larger Cars division. For the Mercedes Group it can be seen as a concern that the smaller Vans division which sells their commercial vehicles at a much lower price point than the premium Cars division is able to outperform by 2.9pp. in **EBIT margin**. Investigating the efficiency, liquidity and solvency ratios, Mercedes is a very stable company that falls in line with its main competitors, so that no financial concerns need to be raised for the immediate future.

This assumption can be confirmed when analysing the historical free cash flows of the firm. After reformulating the financial statements into core and non-core activities (of which non-core is assigned to the Parent Company), the business was then split into the industrial business and the financial services (Mobility) business. The industrials business has historically shown strong **Unlevered Free Cash Flows to the Firm**, reaching its peak in 2021 due to the Daimler Trucks spin-off. Due to the company's strong sales and operational efficiency, the free cash flows are strong enough to launch an electric offensive and heavily invest into the R&D, technologies and infrastructure that is needed to succeed as an EV maker. Since Mobility is a financial services provider, the **Free Cash Flows to Equity** need to be analysed. As expected, Mobility's cash flows are much lower than those of the industrials business, as it is a supporting division to facilitate the sales process. Nevertheless, the cash flows have been positive since 2019, indicating that the firm is being managed appropriately financially.

Looking further at the financial arm of Mercedes-Benz, the most relevant financial measure is the **Return on Equity (RoE)**, which has decreased by almost 10pp. to 12.3% in the last two years, but still boasts the highest figure among its 2 German competitors, BMW and VW. Not only has the **RoE** decreased, but with it also the **gross profit** and **EBIT margin** of the segment, while revenues stayed stable. This recent negative financial performance in the whole automotive industry can be explained by the extraordinarily strong **net interest margins** carmakers were able to achieve during the Covid-19 pandemic in 2020 and 2021. While borrowing rates reached a low, financing rates offered to customers more or less stagnated, leading to a large boost in the interest margin. With treasury interest rates rising

Competitive Financial Analysis - Industrials			
<b>Gross Profit Margin</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz Cars	23.7%	23.9%	23.4%
Mercedes-Benz Vans	20.4%	21.3%	24.6%
BMW	17.6%	15.6%	16.9%
Porsche	28.4%	30.0%	32.0%
<b>RoA</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	4.3%	6.1%	5.9%
BMW	5.5%	7.8%	4.8%
Porsche	8.3%	10.0%	11.2%
<b>RoE</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	16.7%	18.8%	16.4%
BMW	18.3%	22.2%	12.7%
Porsche	18.6%	24.8%	28.5%
<b>Cash Conversion Cycle</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	75.1	75.9	74.6
BMW	154.2	120.6	119.2
Porsche	62.0	63.0	68.3
<b>Current Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	1.17	1.16	1.26
BMW	1.13	1.09	1.09
Porsche	1.42	1.22	1.48
<b>Quick Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	0.93	0.87	0.93
BMW	0.92	0.86	0.82
Porsche	1.07	0.88	1.04
<b>Solvency Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	0.39	0.49	0.54
BMW	0.48	0.56	0.57
Porsche	0.81	0.56	0.75
<b>Dividend Yield (Gross)</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	2.0%	8.1%	8.3%
BMW	2.1%	6.9%	8.4%
Volkswagen	1.8%	17.9%	7.3%
<b>Dividend Payout Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	50.1%	38.3%	42.4%
BMW	30.9%	30.5%	33.6%
Volkswagen	25.4%	29.3%	28.2%

Figure 8: Competitive Financial Analysis  
(Source: Annual Reports, Refinitiv)

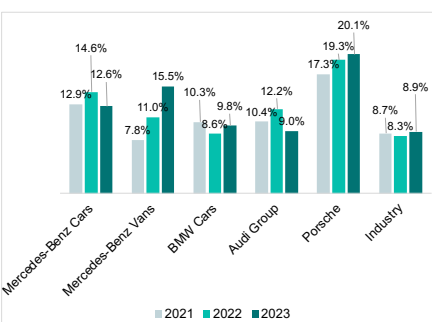


Figure 9: EBIT Margin Industry Comparison  
(Source: Annual Reports, Refinitiv)

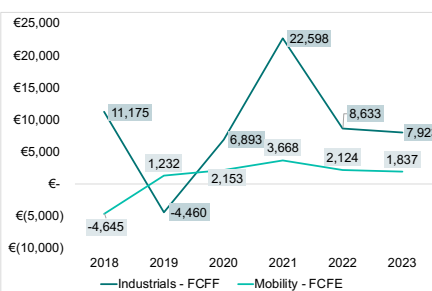


Figure 10: Historical Free Cash Flows

Financial Analysis - Financial Services			
<b>Gross Profit Margin</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	18%	15%	12%
BMW	16%	13%	13%
Volkswagen	16%	20%	15%
<b>EBIT Margin</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	13%	9%	5%
BMW	11%	9%	8%
Volkswagen	11%	12%	7%
<b>RoE</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	22.0%	16.8%	12.3%
BMW	11.3%	11.9%	11.0%
Volkswagen	17.3%	14.1%	8.8%

Figure 11: Competitive Financial Analysis – Financial Services (Sources: Annual Reports, Refinitiv)

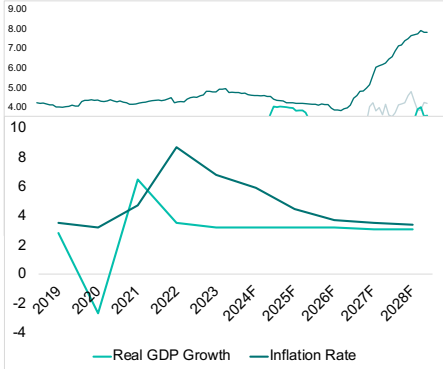


Figure 12: Worldwide Economic Indicators (in %) (Source: IMF)

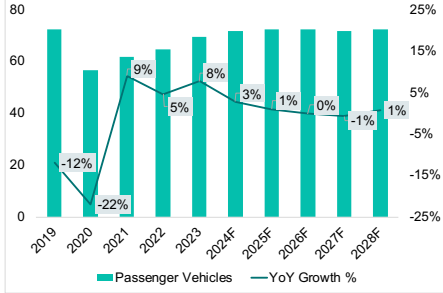


Figure 13: Worldwide Passenger Vehicles Sales Forecast (in m) (Source: Statista)

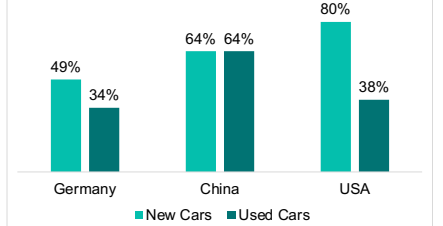


Figure 14: Share of Car Financing Deals (2022/2023) (Sources: Ipsos, JD Power, Experian)

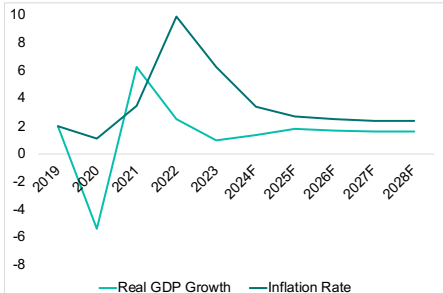


Figure 15: Europe Economic Indicators (in %) (Source: IMF)

globally in 2022, the **net interest margin** has decreased as the interest rate increases could not be fully passed on to the customers. Also, carmakers nowadays offer deals on financing and leasing rates as a pricing instrument. Instead of decreasing the retail price when demand is suffering, financing rates are decreased to not give a negative signal to the capital markets that retail prices are being lowered, thereby decreasing the net interest margin.

Finally, it's worth noting that Mercedes-Benz has a tradition of paying **dividends**, with an average payout of 5.17€ since the pandemic, in line with its biggest competitor BMW. This translates to a payout ratio of approximately 40%.

### 3. Industry Overview and Outlook

#### 3.1 Macroeconomic Environment and Outlook

With the automotive industry contributing to 5.7% of global economic output (IMF, 2019), the supply and demand of cars is highly dependent on each region's economic situation. As the biggest automotive markets are still recovering from the economic aftermath of the Covid-19 pandemic in the form of widespread inflation and the fastest hike of interest rates in the history of central banks as well as being impacted by geopolitical conflicts and restrictive trade policies, the 2024 forecast for global passenger car sales growth is at 3%, with commercial vehicle sales stagnating. It is important to note that interest rates are an important driver to determine car demand, as the majority of car purchases, both for new and used cars, are based on financing deals (Figure 14). With 84% of Mercedes' vehicle sales coming from Europe, China and USA, these markets will be expanded upon.

- European Markets

Last year's GDP growth in Europe has decelerated to 1% from 3.6% in 2022 amid large interest rate hikes combating ramping inflation especially in energy prices following the outbreak of the Russia-Ukraine conflict as well as economic stimuli during the pandemic. Growth within the largest European economies has suffered even more, with Germany, the largest GDP in Europe, even recording GDP shrinkage and being close to a recession. However, with inflation in the EU decreasing, the first interest rate cut since 2019 is expected in June 2024 and intends to initiate an economic upturn (Reuters, 2024). Driven by wage growth, consumer spending in the five largest European economies is expected to increase around 1% YoY (MasterCard, 2024).

For the long term, Europe will have to overcome significant economic and competitive challenges. A quickly aging population means increased pension burdens as well as a reduced labor force. Another challenge is the regulatory environment that hinders technological innovation, as seen by the R&D

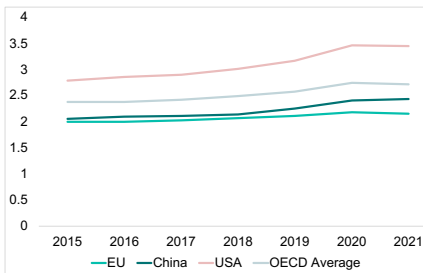


Figure 16: Gross Domestic Spending on R&D (in % of GDP) (Source: OECD)

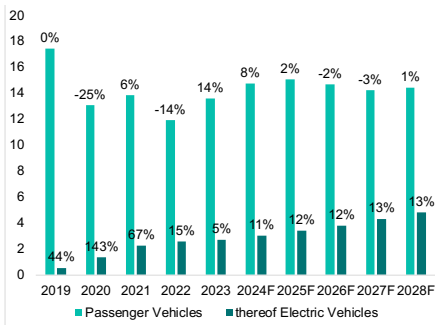


Figure 17: Europe Passenger Vehicle Sales Forecast (in m), incl. YoY % growth (Source: Statista)

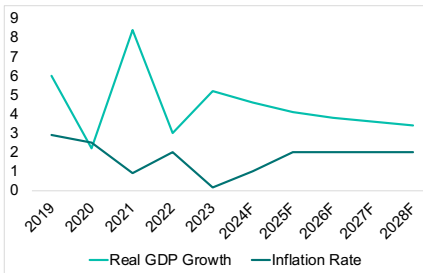


Figure 18: China Economic Indicators (in %) (Source: IMF)

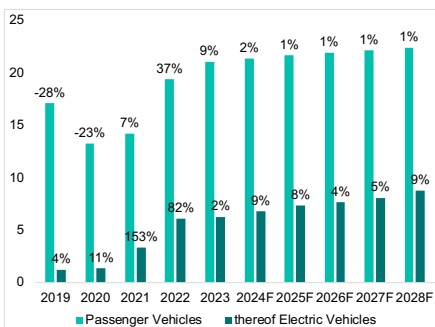


Figure 19: China Passenger Vehicle Sales Forecast (in m), incl. YoY % growth (Source: Statista)

investments as % of GDP that places the EU at 2.16% significantly lower than its main economic counterparts, USA and China (OECD, 2023). Also, the energy transition, especially in industrial powerhouses like Germany, which is moving away from cheap Russian gas, is causing a loss in competitiveness in the manufacturing industry due to higher energy costs and thereby affecting Mercedes-Benz and other automobile manufacturers.

Despite the wide number of economic challenges in Europe, 2024 car sales are projected to increase by 8.1% in 2024, reaching a total market volume 14.72m cars sold. However, the CAGR from 2024 to 2028 is expected to be slightly negative at -0.42%, due to the aforementioned challenges as well as Europe's population increasingly moving to urban areas and cities becoming less car friendly. Yet, automobile manufacturers can still find growth opportunities within this stagnant market, namely in the form of electric vehicles. With the ban of sales of passenger cars with ICEs starting in the EU in 2035, EV sales are estimated to increase year for year until a close to 100% share is reached in 2035 (assuming no other competing powertrain technology emerges and policies are not changed).

- China

China, the second largest country in the world in terms of economic output, is forecasted to grow their economy modestly by 4.6% this year. After seeing a major slowdown in economic growth due to the country's zero-Covid policy as well as a property sector crisis after the 2021 default of the Evergrande Group, China's Central Bank has reduced its 5-year Loan Prime Rate to 3.95% in February (Reuters, 2024). This cut of 25 bps is the biggest ever and displays an attempt to stimulate economic growth, especially in the property sector.

Despite fears of a deflationary environment, passenger vehicle sales in the largest automotive market in the world are expected to rise 2% this year, reaching 21.4m units. Despite the end of the subsidy scheme for EV buyers in 2022, China's strong focus on EV technology has made the local industry competitive enough to sell an estimated 6.8m EVs, capturing 32% of the total car market. However, a lower demand than expected triggered price wars in 2023, leaving many carmakers struggling to make profits on the expensive to build EVs (Fortune, 2024). It should also be noted that EVs in the premium segment are by far not as popular as in the entry segment. Especially foreign car makers are struggling to sell their premium EVs to Chinese consumers, with cars like the Mercedes EQS and Porsche Taycan falling significantly below sales expectations (Automobilwoche, 2023).

- United States

Similarly to Europe, United States has suffered a decrease in GDP growth with a simultaneous rise in inflation following the Covid-19 pandemic. In the current high

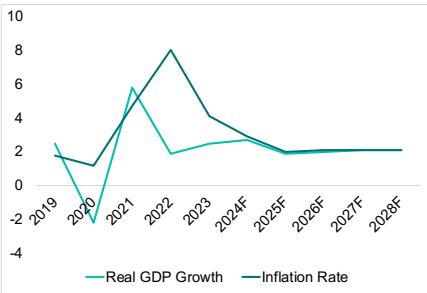


Figure 20: USA Economic Indicators (in %) (Source: IMF)

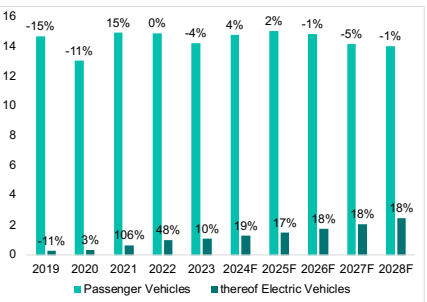


Figure 21: USA Passenger Vehicle Sales Forecast (in m), incl. YoY % growth (Source: Statista)

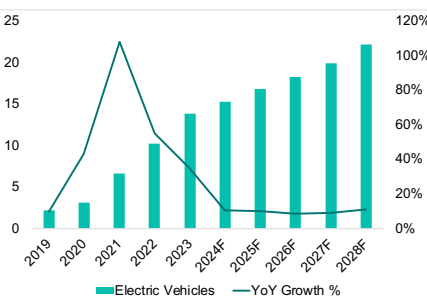


Figure 22: Worldwide Electric Vehicle Sales Forecast (in m) (Source: Statista)

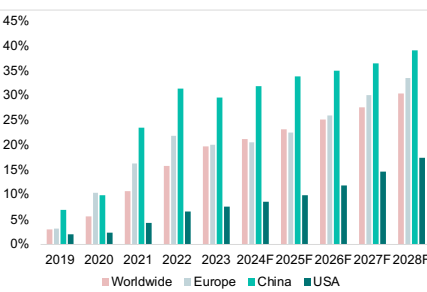


Figure 23: Worldwide Electric Vehicle Sales Share per region (in %) (Source: Statista)

interest rate environment, inflation is easing and could allow for rate reductions by the Federal Reserve in late 2024, potentially revitalizing the economy. Also, the labour market remains strong with a low unemployment rate of 3.5%, supporting consumer income and maintaining a good level of spending and economic activity.

In the automotive sector, total U.S. car sales for 2024 are expected to increase by 4% to approximately 14.8 million units, reflecting the impact of economic uncertainties and higher financing costs. In contrast, the EV market is set to expand significantly, with sales projected to increase by over 19% YoY, driven by federal incentives and advancements in EV infrastructure. While at least 7 states have planned to join California in committing to phasing out internal combustion engines (ICEs) by 2035 under the Advanced Clear Cars II rule, there is currently no unified agreement at the federal level regarding a nationwide ICE ban.

### 3.2 Industry Trends

- Electrification

With the world pushing to reduce carbon emissions and reach a carbon neutral world by 2050 according to the Paris agreement, it is generally agreed upon that ICE cars powered by fossil fuels need to go. As standards for CO<sub>2</sub> reductions and penalties for non-compliance are rising, all major car manufacturers have expanded their vehicle offering to include battery powered EVs which is currently the most promising low carbon substitute for the ICE and more favoured than the still highly inefficient synthetic fuels.

With European regulations indicating a stop to ICEs in 2035 and governments worldwide incentivizing EV purchases through consumer and manufacturer subsidies, all major car manufacturers want to gain market share within this fast-growing market that has sold 13.6m vehicles in 2023, making up 18% of worldwide car sales (Reuters, 2024). Looking forward, it is hard to predict how large the share of EV sales will be, as consumer adoption depends on a multitude of factors and challenges described in the next chapter. Forecasts by the IEA (2024), McKinsey (2023), UBS (2021) and Rystad Energy (2023) all predict an EV share of 40 to 44% in 2030, indicating the sale of around 40m EVs in 2030. This number aligns with Mercedes and BMW's goal of selling 50% EVs in 2030 (as more premium EVs are sold than entry-level ones) and is a more conservative estimate than other publications, which predict a share of 60% to 86% under favourable conditions (RMI, 2023) (Forbes, 2024). Such a large shift in technology means that incumbent ICE car manufacturers are at significant risk of losing their market leadership if they do not appropriately adapt to market demands.

- Hydrogen Powered Cars

While EVs are the currently most advanced and widespread technology to reduce carbon emissions, Toyota's Akio Toyoda, CEO of the world's largest car manufacturer, is the most vocal proponent of FCEVs and believes that EVs will only reach a maximum market share of 30% (Forbes, 2024), with FCEVs and ICEs making up the rest – hence justifying the company's large investments in hydrogen drivetrains.. While less than 15,000 FCEVs were globally sold in 2023, looking forward, the success of FCEVs is highly dependent on the manufacturers ability to address the main challenges in the development and operations of a hydrogen vehicle which encompass the high cost of hydrogen production, the tank safety as well as the fuelling infrastructure. As of now, hydrogen cars are not ready for large scale deployment and this does not seem likely for the foreseeable future. A coexistence of EVs and FCEVs is possible, with a market share of 1 to 5% not out of the picture (IDTechEx, 2023).

Commercially available FCEVs	
Manufacturers	Model
Toyota	Mirai II
Honda	CR-V e:FCEV
Hyundai	Nexo
<b>Total Unit Sales 2023</b>	<b>&lt;15,000</b>

Figure 24: Overview of Commercially Available FCEVs in 2024

- Autonomous Driving

The rapid advancement in autonomous driving technology, fueled significantly by breakthroughs in artificial intelligence, marks a pivotal shift in automotive capabilities aligned with increasing demands for safety and efficiency. Leading the charge are the companies Waymo, Mercedes-Benz and BMW, which are setting industry standards. Waymo, renowned for its extensive testing and development in Level 4 autonomous technologies, operates robo-taxi services across various U.S. cities, utilizing sophisticated AI algorithms that allow vehicles to navigate roads without human oversight within designated areas. With the DRIVE PILOT in the S-Class and EQS, Mercedes-Benz has made significant headway with the introduction of the world's first Level 3 autonomous vehicle approved for commercial use in 2023, which can independently handle traffic jam conditions driving under 60 km/h. One year later, BMW, employing over 1800 individuals at their Autonomous Driving Campus, became the second carmaker to offer L3 technology in their top-end cars.

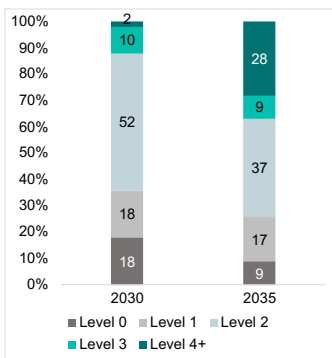


Figure 25: Autonomous Driving Levels Installed in Sold Vehicles (in %) (Source: McKinsey)

Forecasts suggest a robust expansion in the autonomous vehicle market, with expectations that up to 50% of new vehicles could incorporate a basic level of L2 autonomous driving by 2030 and advanced L3+ technologies in 12% of vehicles (McKinsey, 2023). This growth is anticipated to transform not just driving, but broader mobility trends, influencing everything from car ownership rates to urban development and emission reduction.

- Connected Car

Nowadays, mechanical excellence is not the key criteria for consumer's car purchases anymore. The global trend of connected cars is rapidly gaining

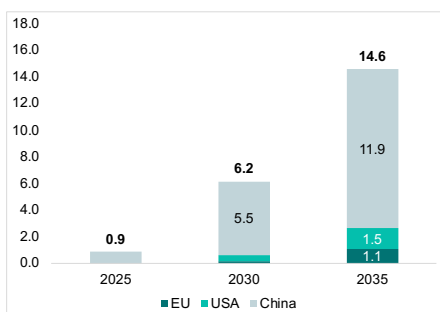


Figure 26: L4+ Autonomous Driving Unit Sales by Region (in m) (Source: Strategy&)

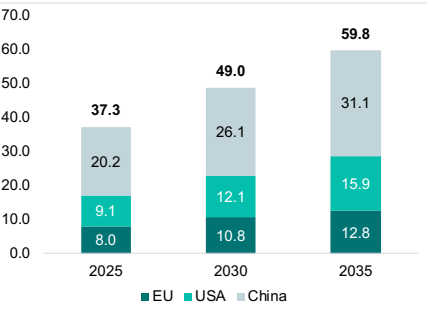


Figure 27: Advanced Connected Cars Unit Sales Forecast (in m) (Source: Strategy&)

significance, particularly in China where advanced in-car connectivity and digital services are major selling points. Chinese consumers are particularly open to switching brands for better digital features, underscoring the importance of technology in vehicle purchase decisions (McKinsey, 2023).

Connected cars enhance driving experiences by providing real-time traffic data, remote diagnostics, AI-powered personal assistants, and in-car payment systems, among others. These functionalities not only improve safety and convenience but also meet the high expectations of tech-savvy buyers. Globally, features like over-the-air (OTA) updates and advanced telematics are expected to generate substantial economic value, potentially contributing \$250 billion to \$400 billion annually by 2030 (McKinsey, 2023).

- Direct-to-Consumer Sales

Mercedes and other carmakers are starting to shift to direct-to-consumer sales models (DTC) in the car industry, an industry that has historically been reliant on dealerships to bring their product to the end consumer. With customers increasingly demanding an upgraded customer experience, pricing consistency and transparency, as well as more digital purchase options, the DTC model is becoming more prevalent amongst car manufacturers, to the detriment of car dealerships. While car dealerships will not be completely cut out from the value chain, as they provide crucial after-sales services as well as local presence and expertise to accustom important customer relationships, they are being transitioned into an agency business model, meaning the cars on the dealership lot will stay in the inventory books of the manufacturer.

While this poses a great financial risk for the OEMs if car demand dips, there is much to gain from DTC sales. Not only does DTC entail higher profit margins by offering a consistent manufacturer set retail price amongst all channels instead of giving out individual customer discounts and paying a dealership commission, but the car manufacturers can also take larger control over the brand experience while collecting a large amount of customer data along the whole sales process.

- Light Commercial Vehicles

The market for small-, mid- and large-size vans, summarized as light commercial vehicles (LCV) is expected to stagnate in all of Mercedes-Benz’s main markets, Europe, China and the US. However, a market opportunity arises for selling electric LCVs, as a large number of companies, especially in Europe, are aiming to reduce their carbon footprint. As LCV owners use their vehicles much more intensively and are much more sensitive to the total cost of ownership (TCO), electric LCVs are becoming more attractive due to increased performance and a lower TCO due to cheaper recharging and repairs. In the long-term, carbon neutral commercial

DTC Opportunities and Risks for OEMs	
<b>Opportunities</b>	
Consistent omni-channel customer experience	
More data-driven decision making	
Full pricing power	
Cost savings through centralization	
<b>Risks</b>	
Balance Sheet inventory risk	
High IT infrastructure costs	
Dealership resistance to change	

Figure 28: DTC Opportunities and Risks for OEMs

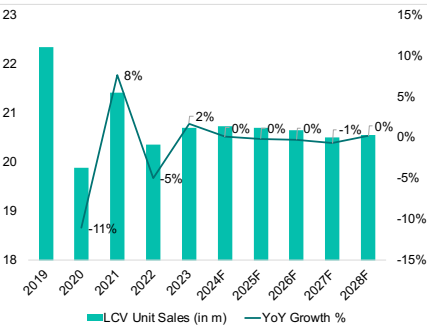


Figure 29: Worldwide Light Commercial Vehicle Sales Forecast (in m) (Source: Statista)

vehicles will be crucial for businesses, hence significant growth in the electric LCV market can be expected.

### 3.3 Industry Challenges and Risks

- Battery Technology and Production

The battery is the most important component of a BEV. Not only is it the largest variable cost component in a car and therefore an important profitability driver, it also determines the range, durability and charging time of the car which prove to be important buying criteria. The main conflict is finding the right trade-off between range (and therefore battery size) and price (which increases with battery size). Currently, the most widespread and proven battery technology is lithium-ion batteries, which are made using different raw materials, mainly containing lithium, cobalt, manganese, nickel and graphite. However, an alternative and safer battery technology that is in development by several OEMs are solid state batteries (SSB). Tests have shown that SSBs have higher energy density, meaning they could have a serious cost advantage in theory. Yet, these batteries are not yet economical to produce at scale due to the need of scarce materials serving as a solid electrolyte.

Regardless of the battery technology in use, the main challenge for OEMs is to further develop these technologies to be more cost-efficient, so that EVs can be offered at prices on par with ICE vehicles. While battery prices are forecasted to fall, recent news confirmed that EV market leader Tesla have cancelled their plans to introduce their entry level model that was supposed to start at € 25,000. This again underlines the current difficulty of building an economical EV (Reuters, 2024) and proves to be an obstacle for widespread EV adoption, if governments do not provide financial subsidies for the time being. An example for customer's high price sensitivity is Germany, where EV sales declined significantly after an abrupt end to the government subsidies at the end of 2023 (Figure 30)

While Mercedes has a more affluent and less price sensitive customer base, another challenge presented by BEVs is the degradation of battery health with increasing use, especially under the use of fast charging. A deterioration in battery health leads to a decrease in range and therefore a much higher loss in value for the used car than for ICE vehicles. This poses challenges in the lifecycle management of cars within fleets, especially when car leasing services are planning to sell on the cars for their residual value after the leasing period has ended. Automobile manufacturers have even started to pay holding premiums to leasing service providers to not release their vehicle to the used car market, as this would reduce demand for new cars and probably lead to more price cuts for the OEMs (Automobilwoche, 2024). Also, lower residual values mean higher leasing rates, again making EVs less economically competitive.

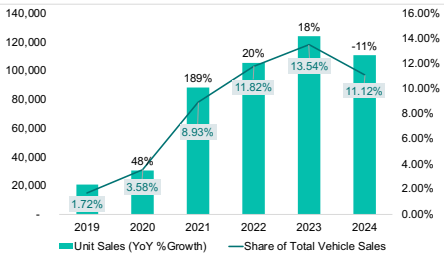


Figure 30: EV Unit Sales in Germany (January to April), incl. YoY %growth (Source: KBA)

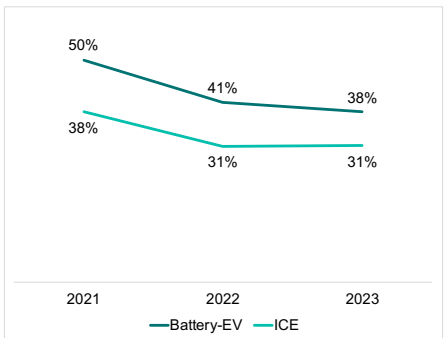


Figure 31: BEV Depreciation compared to Retail Price of 3-year old vehicles in Germany (in %) (Source: DAT)

- Charging infrastructure

While arguments for the purchase of an EV are the environmental benefits and potential savings on running costs, the availability and accessibility of charging stations remain a significant barrier to widespread adoption. Consumers often cite range anxiety as a major concern, fearing that they may run out of charge before reaching their destination. Additionally, the compatibility and consistency of charging stations and prices vary, leading to inconvenience and frustration for EV owners. Millions of new charging points, especially for fast chargers, must be opened to convert to an EV world, and to address this challenge, automobile manufacturers, governments and energy companies are collaborating to accelerate the deployment of charging infrastructure and improve the EV ownership experience. This is especially crucial in urban areas, where residents are often not able to set up their own charge port at home and thereby rely on a sufficient public charging infrastructure. However, especially in Europe, urban planning is increasingly encouraging car-free areas within cities, which go hand-in-hand with alternative micro-mobility solutions to the disadvantage of car use.

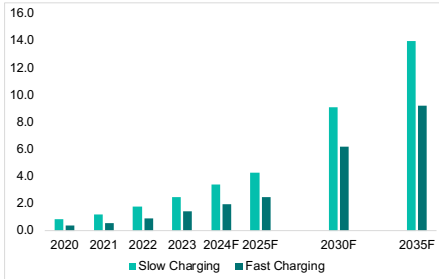


Figure 32: EV Charging Points Forecast (in m) (Source: IEA)

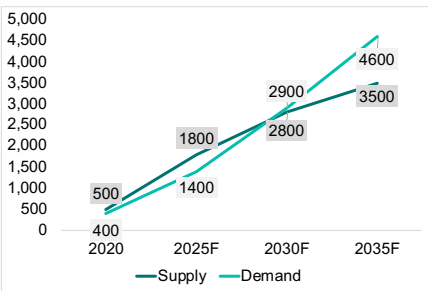


Figure 33: Lithium Supply and Demand Forecast (in kilotons) (Source: BCG)

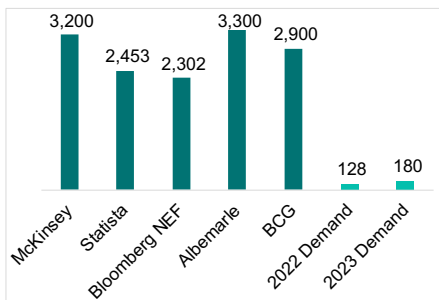


Figure 34: Lithium 2030 Demand Forecast (in kilotons) (Sources listed, IEA, US Geological Survey)

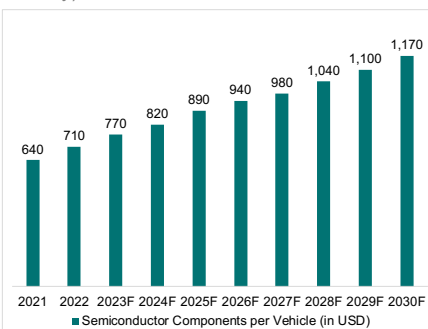


Figure 35: Semiconductor Components per Vehicle (in USD) (Source: BCG)

- Raw material scarcity

An average EV lithium-ion battery weighs 450kg, typically using around 8kg of lithium, 14kg of cobalt, 20kg of manganese (EV-Box, 2023), with a 107.8 kWh Mercedes EQS battery weighing 692kg (Auto-Motor-Sport, 2021). With millions of EVs being built every year, the demand for these metals and along with that, their prices have skyrocketed on global markets. While prices for the most critical metal for EVs, lithium, have plummeted in 2024 due to a slowdown in demand growth for EVs (Carbon Credits, 2024), an at least tenfold increase in demand for lithium can be expected until 2030 (Figure 34). Lithium in itself is an abundant material on Earth, however the mining and extraction process of this metal is still relatively inefficient, constraining the supply for battery production and should therefore be seen as a potential risk when it comes to EV production. The recycling of batteries from used cars is one of the solutions to combat a raw material supply issue and improve sustainability figures.

- Semi-conductor chip shortage

In addition to the high demand for raw materials by technological hardware companies, there is also an increasing need for semi-conductors. These are essential for the operation of electric vehicles, as they are responsible for executing the software that defines the vehicle's electricity efficiency, running the infotainment system and implementing autonomous driving. During the global pandemic, supply chain issues led to a shortage of semiconductor chips, resulting in the loss of production of over 9.5 million cars in 2021 and 3 million in 2022 (S&P

Global, 2023). Currently, supply shortages have eased, but future uncertainty remains due to geopolitical tensions. Consequently, it is of utmost importance for automotive manufacturers to establish a diverse range of reliable semiconductor supply chains to ensure the uninterrupted functioning of their production lines.

- Policies and Regulations

Since most countries in the world are looking to reduce their carbon emissions, they will have to eventually introduce policies that (1) disincentivize or ban the production of fossil fuel powered vehicles and (2) incentivize the production and sale of alternative technologies for passenger vehicles. While the largest car markets in the world, China, Europe and the US, have already put incentives for EVs in place and the EU as well as California having defined the ban of ICE car sales from 2035, these regulations can always be subject to change. The EU's 2035 ICE ban could still be overturned after the planned review in 2026, with conservatives within the EU Commission president's party strongly pushing for an adoption of synthetic fuels. A legislative overturn in 2026 could massively shift away the focus from the development of EVs for many automakers. Also, the new emissions standard "Euro7", announced in December 2023 and to be implemented in 2026, is not enforcing stricter emissions standard for passenger cars, thereby reducing the adoption to EVs. In the US, a possible second term as president for the Republicans Party under Donald Trump could mean a significant rollback in climate-related policies under the Inflation Reduction Act, especially when it comes to tax credits for purchasing EVs. Even China, the worldwide leader in the EV space, considers synthetic-fuelled ICE vehicles as a part of the "Green and Low-carbon Development Roadmap for China Automotive Industry" which was presented at the 2023 World New Energy Vehicle Congress (ChinaDaily, 2023).

In conclusion, it cannot yet be ruled out that ICE vehicles will play an important role in the long-term, despite contrary legislatives potentially coming into effect. Therefore, carmakers should not put all their eggs in one basket and continue development in a multitude of technologies – even if at a higher cost.

### 3.4 Competitive Overview

To determine the market share that Mercedes will be able to retain and capture in the future, it is important to analyse what strategies the competition is pursuing. In the following, the key strategic directions of Mercedes' biggest competitors in the cars and vans segment will be evaluated.

- BMW

The eternal rival has taken a different approach than Mercedes-Benz when it comes to the EV platform, as BMW values more flexibility within their production

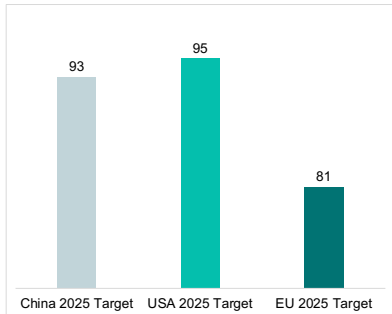


Figure 36: Fuel economy emission standards (in g CO<sub>2</sub>/km) (NEDC measurement)

Europe (selected countries): EV Incentives	
Germany	Road Tax Exemption Company Car Tax Reduction End of Purchase Subsidy in 2023
France	Purchase Subsidy up to 5,000€ Registration Tax Relief Company Car Tax Exemption
United Kingdom	Company Car Tax Reduction Charge Station Subsidy up to £350
Italy	Purchase Subsidy up to 3,000€ Charge Station Subsidy up to 1,500€ Road Tax Exemption

Figure 37: Overview of EV Incentives in European countries (Source: FleetEurope)

USA: Federal EV Policy	
Purchase Subsidy	up to \$7,500 per EV
Charging Infrastructure Funding	\$7.5bn
Federal Fleet Electrification	\$3bn
EV Manufacturing and supply chain funding	\$21.1bn

Figure 38: Overview of EV Incentives in the USA (Source: Electrification Coalition)

China: EV Incentives	
Purchase Subsidy (ended in 2022)	
Purchase tax exemption (to end in 2027)	
Exemption from consumption tax and vehicle & vessel tax	
Infrastructure support	

Figure 39: Overview of EV Incentives in China (Source: Dialogue Earth, IEA)

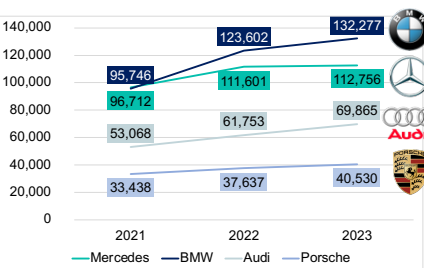


Figure 40: Revenue Comparison Competitors (in m€) (Source: Annual Reports)

BMW - Key Facts	
Revenues (in m€)	132,277 €
Unit Sales (in '000)	2,554
Segment	Premium & Luxury
Positioning	"Sheer Driving Pleasure" - Sporty Driving
Main Markets	China (32%) USA (16%) Germany (11%) UK (6%)
Brands	BMW (Premium/Luxury) Rolls Royce (Ultra-Luxury) MINI (Entry-Level)

Figure 41: BMW Key Facts (2023)  
(Source: Company Reports and Website)

Porsche - Key Facts	
Revenues (in m€)	40,530 €
Unit Sales (in '000)	320
Segment	Luxury & Sport
Positioning	"Driven by Dreams" - Aspirational sportscars
Main Markets	North America (27%) China (25%) Rest of Europe (22%) Germany (10%)
Brand	Porsche

Figure 42: Porsche Key Facts (2023)  
(Source: Company Reports and Website)

Audi - Key Facts	
Revenues (in m€)	69,865 €
Unit Sales (in '000)	1,861
Segment	Premium & Luxury
Positioning	"Progress through Technology" - Modern driving technology
Main Markets	China (39%) Rest of Europe (27%) Germany (14%) USA (12%)
Brands	Audi (Premium/Luxury) Lamborghini (Luxury/Sport) Bentley (Luxury)

Figure 43: Audi Key Facts (2023)  
(Source: Company Reports and Website)

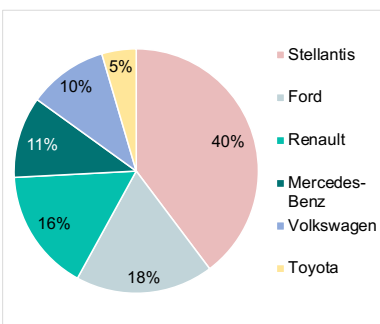


Figure 44: LCV Market Share in EU (2021) (Source: Dataforce)

line. 7 out of the 9 available electric models are built on the same production line as their ICE counterpart, as the build except for the powertrain is basically the same (for example i5 and 5 Series). While building EVs with the same aerodynamics as their ICE counterparts leads to a lower battery range, it provides flexibility in production when consumer demand for either of the engine types is lower or higher than expected. BMW is currently benefitting from this flexibility, as EV sales are slowing down and more ICEs are demanded by the market. BMW's goal until 2030 is to have a 50% share of EVs sold in their product mix, which also aligns with Mercedes' 2030 goal.

- Porsche

After the release of the highly awaited eMacan, which was significantly delayed by 2 years due to complications with the inhouse software provider of the Volkswagen Group Cariad in the development of the operating system, Porsche now offers the second EV model along with the Taycan. Porsche is aiming to quickly electrify their whole fleet and predicts 80% of their sales in 2030 to be electric – with one exception: Porsche's flagship car, the 911 with a current share of 13% of Porsche's sales, will continue to be produced as an ICE, and running on synthetic fuels even beyond 2035. Having set a more ambitious electrification goal than Mercedes and BMW, the company is looking to introduce new EV models in the coming years, with the electric Cayman scheduled for 2025 and Cayenne for 2026

- Audi

Audi currently offers 4 different EV models (10 if you consider Sportback editions) and is targeting for all model releases after 2026 to be electric. The last ICE car forecasted to be released in 2026 is the Q5 and will be produced until 2033, meaning this is the year Audi will go fully electric. The company benefits from being part of the large Volkswagen Group and is able to reach scale effects by sharing production platforms with the other brands of the Group. The currently cheapest EV offered, the Q4 e-tron, is built on Volkswagen's MEB platform, while Audi's higher end models, such as the Q6 e-tron are developed on the PPE platform, which was developed with Porsche and is the basis for its new eMacan.

- Vans competitors (Stellantis Pro One)

Stellantis, the current leader in lightweight commercial EVs in Europe and number 3 in the US, has launched an offensive under the name of "Dare Forward 2030" which has revamped their whole electric vans portfolio and is expanding their production line for hydrogen fuel cell large and mid-size vans, which will be produced for 4 of their brands. Stellantis is aiming to reach a 40% BEV, PHEV, fuel cell mix for their commercial vehicle fleet until 2030 and is rapidly developing the required technologies to make these vehicles attractive for the customer base,

mainly in terms of battery range and charging speed.

### 3.5 SWOT and Porter's Five Forces Analysis

To summarize the key findings of Mercedes' company strategy combined with insights from the industry analysis, a **Strength, Weaknesses, Opportunities and Threats (SWOT)** framework is developed in Figure 45.

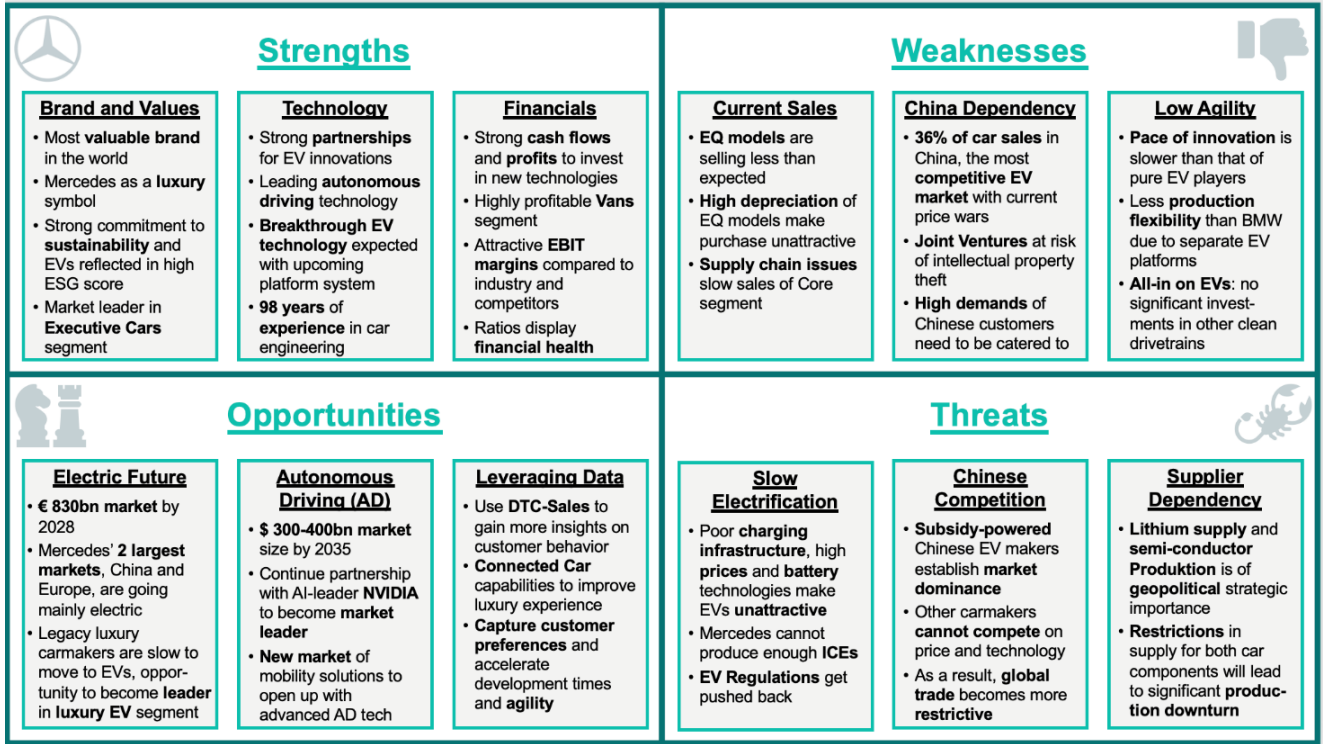


Figure 45: SWOT Analysis (Source: McKinsey)

Furthermore, to determine Mercedes' competitiveness in the automotive market, a **Porter's Five Forces** analysis has been conducted, focussing on competitive forces of suppliers, customers, new entrants, substitutes and current carmakers, summarized in Figure 46.

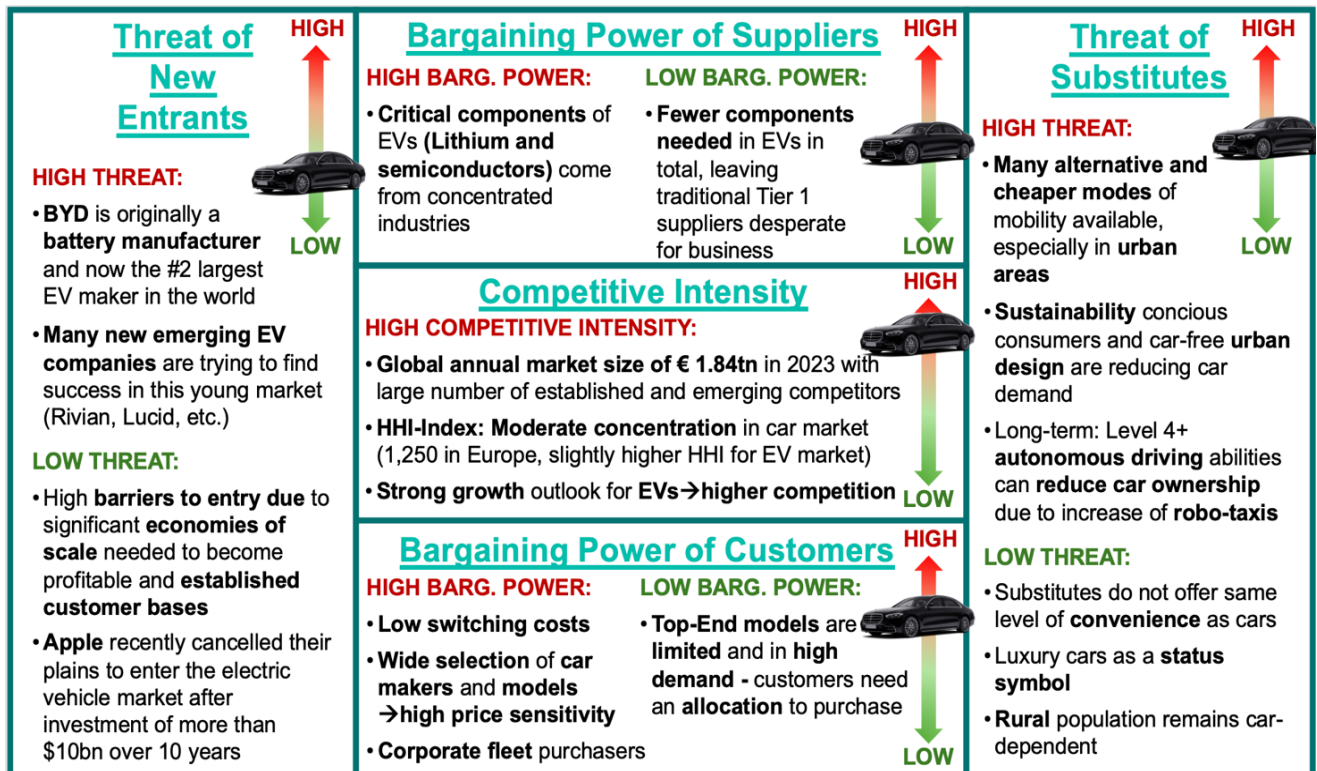


Figure 46: Porter's Five Forces Analysis (Sources: Statista Market Insights, Allianz, Bain)

## 4. Relative Valuation

### 4.1 Peer Selection

To conduct a multiple valuation, first a set of peers need to be identified that operate in a similar manner to Mercedes-Benz in terms of market positioning, sales regions and cash flow metrics. It is also important to consider peers that operate in a similar manner by use of a financial services arm, such as Mobility for Mercedes. For that, we have identified BMW AG, Volkswagen AG, Porsche AG, Stellantis NV and Volvo Car as the main peer group. BMW has basically the same positioning as Mercedes in the Cars segment. Volvo is following a similar EV strategy as Mercedes and is a strong competitor in its Core business. Volkswagen has exposure to both the premium and luxury segment through its brands Audi, Porsche and Bentley, as well as the commercial vehicle segment. Porsche is an icon in the luxury and sports car market and Mercedes is aspiring to win over more Porsche customers in the future. Finally, Stellantis represents a good fit due to its premium and luxury exposure, as well as the strong light commercial vehicles division, the financial services arm and an ambitious EV strategy.

Other prominent carmakers were not considered as the peer group for a multitude of reasons. Renault and Honda are not catering to the same customer segments as Mercedes, and despite Renault's strong LCV business, recent financial trouble do not make it a great comparison yet. While Tata Motors also competes in the luxury segment with Jaguar-Land Rover, the rest of the company is too exposed to the Indian market. Tesla and other uprising EV companies such as NIO are not yet comparable due to very different cash flow metrics and their valuations primarily as growing technology stocks. Lastly, Ferrari as an ultra-luxury carmaker sells very small volumes of cars and should rather be compared to luxury consumer-good brands instead of traditional automobile manufacturers.

Peer Group Profile			
Automotive Company	Segment	Offers LCVs?	Peer Group?
Mercedes-Benz	Premium to Luxury	Yes	Yes
BMW	Premium to Luxury	No	Yes
Porsche	Luxury	No	Yes
Stellantis	Mass Market (MM) to Luxury	Yes	Yes
Volkswagen	MM to Luxury	Yes	Yes
Volvo Cars	Premium EV	No	Yes
Renault	MM	Yes	No
Honda	MM	No	No
Tata Motors	MM and Luxury	Yes	No
Tesla	MM and Premium EV	No	No
Ferrari	Ultra-Luxury	No	No

Figure 47: Peer Group Selection

Peer Group Multiples			Not Included Peer Group Multiples		
Multiple	EV/Revenue		Multiple	EV/Revenue	
	LTM	2024F		LTM	2024F
Mercedes-Benz	0.36x	0.36x	Renault	0.19x	0.19x
BMW	0.30x	0.30x	Honda	0.26x	0.25x
Porsche	1.71x	1.72x	Tata Motors	1.18x	1.11x
Stellantis	0.25x	0.25x	Tesla	5.38x	5.32x
Volkswagen	0.25x	0.25x	Ferrari	10.89x	10.33x
Volvo Cars	0.23x	0.22x			
<b>75%-Quartile</b>	<b>0.70x</b>	<b>0.70x</b>			
<b>Mean</b>	<b>0.52x</b>	<b>0.52x</b>			
<b>Median</b>	<b>0.28x</b>	<b>0.28x</b>			
<b>25%-Quartile</b>	<b>0.24x</b>	<b>0.24x</b>			
Multiple	EV/EBITDA		Multiple	EV/EBITDA	
	LTM	2024F		LTM	2024F
Mercedes-Benz	2.28x	2.39x	Renault	1.67x	1.41x
BMW	1.76x	1.83x	Honda	2.63x	2.49x
Porsche	6.76x	6.87x	Tata Motors	8.39x	7.71x
Stellantis	1.63x	1.70x	Tesla	32.47x	33.76x
Volkswagen	1.62x	1.64x	Ferrari	28.47x	26.93x
Volvo Cars	2.16x	2.04x			
<b>75%-Quartile</b>	<b>3.40x</b>	<b>3.51x</b>			
<b>Mean</b>	<b>2.70x</b>	<b>2.75x</b>			
<b>Median</b>	<b>1.96x</b>	<b>1.94x</b>			
<b>25%-Quartile</b>	<b>1.63x</b>	<b>1.69x</b>			
Multiple	EV/EBIT		Multiple	EV/EBIT	
	LTM	2024F		LTM	2024F
Mercedes-Benz	2.95x	3.29x	Renault	3.62x	2.76x
BMW	2.71x	2.98x	Honda	n/a	
Porsche	10.18x	10.80x	Tata Motors	15.94x	14.14x
Stellantis	2.20x	2.34x	Tesla	52.89x	59.27x
Volkswagen	3.54x	3.51x	Ferrari	39.56x	36.75x
Volvo Cars	3.83x	3.89x			
<b>75%-Quartile</b>	<b>5.42x</b>	<b>5.62x</b>			
<b>Mean</b>	<b>4.24x</b>	<b>4.47x</b>			
<b>Median</b>	<b>3.24x</b>	<b>3.40x</b>			
<b>25%-Quartile</b>	<b>2.58x</b>	<b>2.82x</b>			

Figure 48: Peer Group Multiples

### 4.2 Multiples Valuation

The selection of multiples is based on three Enterprise Value multiples: EV to Revenue, EV to EBITDA and EV to EBIT, which were calculated as the median, mean and 1<sup>st</sup> and 3<sup>rd</sup> quartile of the peers. The Price to Earnings ratio is not being included as this multiple does not consider the leverage ratio of firms which has significant variance in the automotive industry and therefore impacts each stock's price. By using these 3 ratios both as historical (Last Twelve Months) and forward multiples (2024 Forecast, both from Refinitiv), it is possible to get a more realistic view of a relative valuation, as both past and future insights are being considered. Applying the 2024 projected Revenue, EBITDA and EBIT to the multiples gives us a range of valuations, ranging from 50.9€ in the lower quartile to 123.2€ in the

Relative Valuation (Mobility)			
Multiple	P/E		P/B LTM
	LTM	2024F	
Deutsche Bank	8.06x	7.87x	0.025x
Commerzbank	7.61x	7.22x	0.034x
ING	7.38x	8.02x	0.051x
BNP Paribas	7.71x	7.51x	0.030x
Societe Generale	7.19x	6.19x	0.013x
<b>Median</b>	<b>7.61x</b>	<b>7.51x</b>	<b>0.030x</b>
<b>Mean</b>	<b>7.59x</b>	<b>7.36x</b>	<b>0.030x</b>

Figure 49: Financial Services Peer Group Multiples

upper quartile (see Appendix 2). It is noticeable that there is no significant valuation difference between the trailing historical and the forward multiples.

From the results we can gather that the **median multiples** are all close to the current stock valuation, ranging from **56.4€** to **72.2€**. The **mean multiples** range from **80.0€** to **93.5€** and can be explained by Porsche's very high multiples as a pure luxury carmaker. Since we believe that Mercedes will continue to serve its Entry and Core segment and not become a pure-play luxury car brand, it makes more sense to assume the median multiples for the final valuation.

Additionally, a sum of the parts multiple valuation was applied by separating the Industrial and the Mobility business and obtaining new multiples based on a financial services peer group that is based on large European banks. Since banks have similar capital structures, the Price-to-Earnings and Price-to-Book Value ratios were used. Applying the median P/E and P/B multiples gives us a stock price of **10.7€** and **3.5€** respectively. Obtaining the Industrials Stock price from an average of the three previously used median multiples gives us a total stock price of **68.0€** and **60.8€**, respectively. This implies that the Mobility division makes up 6% to 16% of the company's total valuation, which is reasonable considering its supportive function – and in line with the 14% share from the absolute valuation.

## 5. Final Recommendation

In essence, our entire endeavor revolves around a single question: is the stock price of Mercedes Benz AG accurately priced? Having factored in many different business scenarios and using the insights we gained from the different valuation methods, we give each valuation method a weight to obtain our **final price target** for the financial year 2024. The absolute valuation makes up the majority of our analysis and is assigned a weight of **70%**, with the remaining **30%** being equally assigned to the 5 different multiples valuations. Finally, this gives us a weighted valuation of **75.39 €**. A **dividend yield** does not need to be considered, as the ex-dividend date for 2024 has already passed on May 9<sup>th</sup>, with a dividend of 5.30 € being paid, up 1.2% (0.10 €) vs. last year. In total, the stock is expected to return **10.5%** this year compared to the current stock price of **68.19 €**, which indicates a current undervaluation and therefore a **buy recommendation** from our side.

The main driver impacting Mercedes-Benz's future growth will be the customer adoption of electric vehicles, which highly depends on the technology proving to be the best carbon-neutral solution as well as governments setting regulations to incentivize EV adoption. The revision of the 2026 ICE ban law will in this case be the next large indicator how well Mercedes' strategy pans out. If other technologies will be favoured, it will be crucial for Mercedes to be able to pivot to these as quickly as possible.

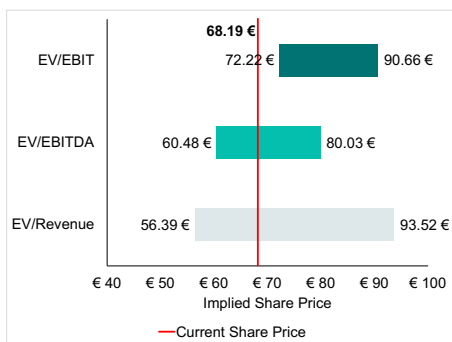


Figure 50: Implied Multiple Valuation (Median=lower end, Mean=upper end) (using 2024F Forward Multiples)

Implied Stock Price (Sum of the Parts)				
Mobility Multiple	P/E		P/B	
	LTM	2024F	LTM	
Multiple	7.61x	7.51x	0.03x	
=Stock Price Mobility	10.81 €	10.66 €	3.48 €	
Industrials Multiple	EV/Rev.	EV/EBITDA	EV/EBIT	
	2024F	2024F	2024F	
Multiple (Median)	0.28x	1.94x	3.40x	
Implied EV	38,283 €	45,774 €	55,692 €	
=Stock Price Industrials	49.35 €	56.55 €	66.08 €	
Avg Stock Price Industrials		57.33 €		
<b>Total Stock Price</b>	<b>68.14 €</b>	<b>67.99 €</b>	<b>60.81 €</b>	

Figure 51: Implied Multiple Valuation (Sum of the Parts)

*For the determination of the Absolute Valuation, please refer to the other part of the report*

Weighted Valuation		
Valuation Method	Stock Price	Weight
<b>Absolute Valuation</b>	<b>80.71 €</b>	<b>70%</b>
APV	80.46 €	35%
DCF	80.97 €	35%
<b>Relative Valuation</b>	<b>62.96 €</b>	<b>30%</b>
EV/Revenue	55.43 €	6%
EV/EBITDA	59.62 €	6%
EV/EBIT	70.94 €	6%
P/E	67.99 €	6%
P/B	60.81 €	6%
<b>Weighted Valuation</b>	<b>75.39 €</b>	
<b>Current Stock Price</b>	<b>68.19 €</b>	
<b>Shareholder Return</b>	<b>10.55%</b>	

Figure 52: Weighted Valuation and Comparison to Current Stock Price

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# 1. Appendix

## 1.1 Financial Statements

Consolidated Income Statement (2017-2028)												
in million euros	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Revenue	164 330,00 €	167 362,00 €	172 745,00 €	154 309,00 €	133 893,00 €	150 017,00 €	153 218,00 €	161 192,95 €	165 259,46 €	168 243,00 €	160 016,92 €	159 897,18 €
Cost of sales	- 129 999,00 €	- 134 295,00 €	- 143 580,00 €	- 128 721,00 €	- 103 218,00 €	- 115 997,00 €	- 118 839,00 €	- 124 792,56 €	- 128 833,00 €	- 132 068,72 €	- 126 264,65 €	- 127 145,50 €
<b>Gross profit</b>	<b>34 331,00 €</b>	<b>33 067,00 €</b>	<b>29 165,00 €</b>	<b>25 588,00 €</b>	<b>30 675,00 €</b>	<b>34 020,00 €</b>	<b>34 379,00 €</b>	<b>36 400,39 €</b>	<b>36 426,46 €</b>	<b>36 174,28 €</b>	<b>33 752,27 €</b>	<b>32 751,67 €</b>
Selling expenses	- 12 965,00 €	- 13 067,00 €	- 12 801,00 €	- 11 058,00 €	- 9 194,00 €	- 9 482,00 €	- 9 728,00 €	- 11 668,39 €	- 11 953,42 €	- 12 159,37 €	- 11 547,79 €	- 11 560,77 €
General administrative expenses	- 3 809,00 €	- 4 036,00 €	- 4 050,00 €	- 3 534,00 €	- 2 808,00 €	- 2 584,00 €	- 2 688,00 €	- 2 659,65 €	- 2 632,10 €	- 2 596,81 €	- 2 560,48 €	- 2 529,57 €
Research and non-capitalised development costs	- 5 938,00 €	- 6 581,00 €	- 6 586,00 €	- 6 116,00 €	- 5 467,00 €	- 5 602,00 €	- 6 230,00 €	- 6 655,34 €	- 6 852,02 €	- 7 004,69 €	- 6 680,42 €	- 6 741,21 €
Net Other operating income	1 782,00 €	868,00 €	1 632,00 €	1 280,00 €	1 153,00 €	2 034,00 €	802,98 €	844,77 €	866,08 €	881,72 €	838,61 €	837,98 €
Gains/losses on equity-method investments, net	1 498,00 €	656,00 €	479,00 €	797,00 €	1 352,00 €	1 732,00 €	2 129,00 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €
Other financial income/expense, net	- 230,00 €	210,00 €	262,00 €	354,00 €	317,00 €	340,00 €	108,00 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €
<b>Earnings before interest and taxes (EBIT)</b>	<b>14 669,00 €</b>	<b>11 117,00 €</b>	<b>4 313,00 €</b>	<b>6 603,00 €</b>	<b>16 028,00 €</b>	<b>20 458,00 €</b>	<b>19 660,00 €</b>	<b>17 875,56 €</b>	<b>17 468,79 €</b>	<b>16 908,90 €</b>	<b>15 415,96 €</b>	<b>14 371,88 €</b>
Net interest expense	- 368,00 €	- 522,00 €	- 483,00 €	- 264,00 €	- 217,00 €	- 154,00 €	424,00 €	425,54 €	417,72 €	378,17 €	337,97 €	302,70 €
<b>Profit from continuing operations before taxes</b>	<b>14 301,00 €</b>	<b>10 595,00 €</b>	<b>3 830,00 €</b>	<b>6 339,00 €</b>	<b>15 811,00 €</b>	<b>20 304,00 €</b>	<b>20 084,00 €</b>	<b>18 301,10 €</b>	<b>17 886,51 €</b>	<b>17 287,08 €</b>	<b>15 753,93 €</b>	<b>14 674,58 €</b>
Income taxes	- 3 437,00 €	- 3 013,00 €	- 1 121,00 €	- 2 330,00 €	- 4 761,00 €	- 5 495,00 €	- 5 553,00 €	- 4 245,61 €	- 4 109,08 €	- 3 930,93 €	- 3 516,51 €	- 3 205,70 €
<b>Net Profit</b>	<b>10 864,00 €</b>	<b>7 582,00 €</b>	<b>2 709,00 €</b>	<b>4 009,00 €</b>	<b>11 050,00 €</b>	<b>14 809,00 €</b>	<b>14 531,00 €</b>	<b>14 055,49 €</b>	<b>13 777,43 €</b>	<b>13 356,14 €</b>	<b>12 237,42 €</b>	<b>11 468,89 €</b>
Profit/loss from discontinued operations after taxes	- €	- €	- €	- €	12 346,00 €	- €	- €	- €	- €	- €	- €	- €
<b>Net profit</b>	<b>10 864,00 €</b>	<b>7 582,00 €</b>	<b>2 709,00 €</b>	<b>4 009,00 €</b>	<b>23 396,00 €</b>	<b>14 809,00 €</b>	<b>14 531,00 €</b>	<b>14 055,49 €</b>	<b>13 777,43 €</b>	<b>13 356,14 €</b>	<b>12 237,42 €</b>	<b>11 468,89 €</b>
Earnings per Share	10,44 €	7,28 €	2,60 €	3,85 €	22,48 €	14,23 €	13,58 €	13,14 €	12,88 €	12,48 €	11,44 €	10,72 €

Consolidated Income Statement (2028-2040)												
in million euros	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Revenue	166 642,58 €	175 657,93 €	188 175,98 €	196 194,77 €	200 367,64 €	201 751,94 €	234 711,63 €	230 731,22 €	240 564,79 €	246 069,82 €	250 364,23 €	256 031,58 €
Cost of sales	- 132 551,80 €	- 139 897,27 €	- 152 237,22 €	- 160 547,92 €	- 166 202,16 €	- 169 376,06 €	- 199 321,74 €	- 195 741,96 €	- 203 997,56 €	- 208 475,77 €	- 212 041,71 €	- 216 561,84 €
<b>Gross profit</b>	<b>34 090,78 €</b>	<b>35 760,66 €</b>	<b>35 938,76 €</b>	<b>35 646,85 €</b>	<b>34 165,47 €</b>	<b>32 375,88 €</b>	<b>35 389,89 €</b>	<b>34 989,26 €</b>	<b>36 567,23 €</b>	<b>37 594,06 €</b>	<b>38 322,52 €</b>	<b>39 469,74 €</b>
Selling expenses	- 12 176,27 €	- 12 841,90 €	- 13 765,19 €	- 14 346,54 €	- 14 623,47 €	- 14 712,11 €	- 17 131,52 €	- 16 769,89 €	- 17 462,59 €	- 17 964,07 €	- 18 322,76 €	- 18 805,42 €
General administrative expenses	- 2 504,00 €	- 2 494,77 €	- 2 489,50 €	- 2 488,18 €	- 2 490,84 €	- 2 497,48 €	- 2 508,14 €	- 2 522,85 €	- 2 541,65 €	- 2 564,58 €	- 2 591,71 €	- 2 623,07 €
Research and non-capitalised development costs	- 7 223,31 €	- 7 665,55 €	- 8 050,24 €	- 8 386,90 €	- 8 530,91 €	- 8 574,74 €	- 9 995,00 €	- 9 738,85 €	- 10 127,07 €	- 10 482,96 €	- 10 720,98 €	- 11 046,41 €
Net Other operating income	873,33 €	920,58 €	986,18 €	1 028,21 €	1 050,08 €	1 057,33 €	1 230,07 €	1 209,21 €	1 260,74 €	1 289,59 €	1 312,10 €	1 341,80 €
Gains/losses on equity-method investments, net	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €
Other financial income/expense, net	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €
<b>Earnings before interest and taxes (EBIT)</b>	<b>14 674,31 €</b>	<b>15 292,79 €</b>	<b>14 233,79 €</b>	<b>13 067,22 €</b>	<b>11 184,11 €</b>	<b>9 262,66 €</b>	<b>8 599,07 €</b>	<b>8 780,66 €</b>	<b>9 310,45 €</b>	<b>9 485,81 €</b>	<b>9 612,95 €</b>	<b>9 950,41 €</b>
Net interest expense	275,26 €	234,81 €	204,46 €	179,37 €	165,34 €	149,48 €	193,91 €	160,03 €	149,50 €	136,76 €	119,23 €	107,15 €
<b>Profit from continuing operations before taxes</b>	<b>14 949,57 €</b>	<b>15 527,59 €</b>	<b>14 438,25 €</b>	<b>13 246,58 €</b>	<b>11 349,44 €</b>	<b>9 412,14 €</b>	<b>8 792,99 €</b>	<b>8 940,68 €</b>	<b>9 459,95 €</b>	<b>9 622,57 €</b>	<b>9 732,18 €</b>	<b>10 057,56 €</b>
Income taxes	- 3 271,11 €	- 3 421,89 €	- 3 059,19 €	- 2 681,21 €	- 2 103,85 €	- 1 525,55 €	- 1 204,23 €	- 1 273,05 €	- 1 394,14 €	- 1 426,17 €	- 1 448,16 €	- 1 527,82 €
<b>Net Profit</b>	<b>11 678,46 €</b>	<b>12 105,70 €</b>	<b>11 379,06 €</b>	<b>10 565,37 €</b>	<b>9 245,59 €</b>	<b>7 886,59 €</b>	<b>7 588,76 €</b>	<b>7 667,63 €</b>	<b>8 065,81 €</b>	<b>8 196,40 €</b>	<b>8 284,01 €</b>	<b>8 529,74 €</b>
Profit/loss from discontinued operations after taxes	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
<b>Net profit</b>	<b>11 678,46 €</b>	<b>12 105,70 €</b>	<b>11 379,06 €</b>	<b>10 565,37 €</b>	<b>9 245,59 €</b>	<b>7 886,59 €</b>	<b>7 588,76 €</b>	<b>7 667,63 €</b>	<b>8 065,81 €</b>	<b>8 196,40 €</b>	<b>8 284,01 €</b>	<b>8 529,74 €</b>
Earnings per Share	10,92 €	11,32 €	10,64 €	9,88 €	8,64 €	7,37 €	7,09 €	7,17 €	7,54 €	7,66 €	7,74 €	7,97 €

# Consolidated Balance Sheet (2017-2028)

in million euros	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Assets</b>												
Intangible assets	13 735,00 €	14 801,00 €	15 978,00 €	16 399,00 €	15 005,00 €	15 869,00 €	17 593,00 €	15 586,60 €	16 507,31 €	16 783,50 €	16 084,42 €	16 173,15 €
Property, plant and equipment	27 981,00 €	30 948,00 €	37 143,00 €	35 246,00 €	27 859,00 €	27 250,00 €	26 090,00 €	32 041,04 €	33 356,63 €	34 341,19 €	36 368,35 €	36 118,99 €
Equipment on operating leases	47 714,00 €	49 476,00 €	51 482,00 €	47 552,00 €	44 471,00 €	41 552,00 €	41 712,00 €	45 384,77 €	47 405,40 €	48 046,69 €	45 778,13 €	44 399,53 €
Equity-method investments	4 818,00 €	4 860,00 €	5 949,00 €	5 189,00 €	13 588,00 €	13 530,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €
Receivables from financial services	46 413,00 €	51 300,00 €	52 880,00 €	53 709,00 €	46 955,00 €	48 237,00 €	49 742,00 €	48 564,25 €	49 141,95 €	49 618,25 €	47 323,82 €	44 803,22 €
Net Other financial assets	- 4 721,00 €	- 4 299,00 €	- 3 781,00 €	- 1 674,00 €	- 1 545,00 €	- 3,00 €	- 821,00 €	- 821,00 €	- 821,00 €	- 821,00 €	- 821,00 €	- 821,00 €
Net Other Non-Current Assets	824,00 €	760,00 €	349,00 €	398,00 €	13,00 €	563,00 €	845,00 €	356,39 €	365,95 €	326,54 €	284,76 €	249,25 €
<b>Total Non-current Assets</b>	<b>136 764,00 €</b>	<b>147 846,00 €</b>	<b>160 000,00 €</b>	<b>156 023,00 €</b>	<b>146 320,00 €</b>	<b>145 878,00 €</b>	<b>148 217,00 €</b>	<b>155 145,27 €</b>	<b>159 970,34 €</b>	<b>162 388,10 €</b>	<b>159 194,95 €</b>	<b>155 170,64 €</b>
Inventories	25 686,00 €	29 489,00 €	29 757,00 €	26 444,00 €	21 466,00 €	25 621,00 €	27 294,00 €	29 672,92 €	30 258,74 €	30 745,44 €	29 145,01 €	29 606,04 €
Trade receivables	11 990,00 €	12 586,00 €	12 332,00 €	10 649,00 €	7 673,00 €	8 100,00 €	7 281,00 €	8 463,64 €	10 774,91 €	10 974,19 €	10 455,59 €	10 468,86 €
Receivables from financial services	39 374,00 €	45 440,00 €	50 781,00 €	42 476,00 €	33 670,00 €	37 312,00 €	38 469,00 €	39 746,90 €	40 219,71 €	40 609,53 €	38 731,67 €	36 668,72 €
Cash and cash equivalents	12 072,00 €	15 853,00 €	18 883,00 €	23 048,00 €	23 120,00 €	17 679,00 €	15 962,00 €	22 893,43 €	22 613,39 €	20 845,05 €	18 822,05 €	17 189,62 €
Marketable debt securities and similar investments	10 063,00 €	9 577,00 €	8 655,00 €	6 397,00 €	7 579,00 €	7 060,00 €	6 858,00 €	10 616,86 €	10 421,81 €	9 435,12 €	8 431,98 €	7 552,16 €
Net Other Current Assets	2 599,00 €	3 888,00 €	2 557,00 €	1 458,00 €	1 809,00 €	2 339,00 €	2 699,00 €	3 260,09 €	3 069,81 €	2 939,88 €	2 620,46 €	2 366,88 €
Net Assets held for sale	- €	319,00 €	- €	- €	2 973,00 €	- €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €
<b>Total Current Assets</b>	<b>101 784,00 €</b>	<b>117 152,00 €</b>	<b>122 965,00 €</b>	<b>110 472,00 €</b>	<b>98 290,00 €</b>	<b>98 111,00 €</b>	<b>99 134,00 €</b>	<b>108 704,65 €</b>	<b>111 789,75 €</b>	<b>110 240,45 €</b>	<b>103 536,85 €</b>	<b>99 689,52 €</b>
<b>Total Assets</b>	<b>238 548,00 €</b>	<b>264 998,00 €</b>	<b>282 965,00 €</b>	<b>266 495,00 €</b>	<b>244 610,00 €</b>	<b>243 989,00 €</b>	<b>247 351,00 €</b>	<b>263 849,92 €</b>	<b>271 760,10 €</b>	<b>272 628,55 €</b>	<b>262 731,80 €</b>	<b>254 860,16 €</b>
<b>Equity and liabilities</b>												
Share capital	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €
Capital reserves	11 742,00 €	11 710,00 €	11 552,00 €	11 551,00 €	11 723,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €
Retained earnings (restated)	47 682,00 €	49 490,00 €	46 329,00 €	47 111,00 €	56 190,00 €	67 695,00 €	76 650,00 €	71 549,96 €	77 650,07 €	78 164,23 €	77 248,71 €	76 599,45 €
Other reserves (restated)	1 529,00 €	397,00 €	393,00 €	1 041,00 €	968,00 €	2 932,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €
Treasury Shares	- €	- €	- €	- €	- €	- €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €
<b>Equity Attributable to Shareholders of Mercedes-Benz Group AG</b>	<b>64 023,00 €</b>	<b>64 667,00 €</b>	<b>61 344,00 €</b>	<b>60 691,00 €</b>	<b>71 951,00 €</b>	<b>85 415,00 €</b>	<b>91 773,00 €</b>	<b>86 652,96 €</b>	<b>92 753,07 €</b>	<b>93 267,23 €</b>	<b>92 351,71 €</b>	<b>91 702,45 €</b>
Non-controlling interests	1 291,00 €	1 386,00 €	1 497,00 €	1 557,00 €	1 216,00 €	1 125,00 €	1 043,00 €	1 121,01 €	1 209,24 €	1 231,89 €	1 229,57 €	1 229,60 €
<b>Total Equity</b>	<b>65 314,00 €</b>	<b>66 053,00 €</b>	<b>62 841,00 €</b>	<b>62 248,00 €</b>	<b>73 167,00 €</b>	<b>86 540,00 €</b>	<b>92 816,00 €</b>	<b>87 773,97 €</b>	<b>93 962,30 €</b>	<b>94 499,12 €</b>	<b>93 581,28 €</b>	<b>92 932,05 €</b>
Provisions for pensions and similar obligations	5 767,00 €	7 393,00 €	9 728,00 €	12 070,00 €	5 359,00 €	1 021,00 €	1 090,00 €	3 275,65 €	3 020,98 €	2 786,10 €	2 569,48 €	2 369,71 €
Provisions for other risks	17 244,00 €	15 562,00 €	20 924,00 €	20 450,00 €	15 962,00 €	16 023,00 €	15 300,00 €	17 933,57 €	18 174,25 €	18 354,26 €	17 893,20 €	17 942,33 €
Financing liabilities	78 378,00 €	88 662,00 €	99 179,00 €	86 539,00 €	73 543,00 €	62 051,00 €	63 724,00 €	74 888,03 €	74 788,09 €	72 159,36 €	67 074,91 €	62 174,34 €
Deferred income	5 802,00 €	1 612,00 €	1 598,00 €	1 567,00 €	1 175,00 €	1 234,00 €	1 223,00 €	1 984,87 €	2 008,48 €	2 027,95 €	1 934,17 €	1 831,15 €
Contract and refund liabilities	- €	5 438,00 €	6 060,00 €	5 787,00 €	3 980,00 €	3 656,00 €	3 514,00 €	4 344,49 €	4 460,11 €	4 546,54 €	4 324,78 €	4 347,79 €
Net Deferred tax assets/liabilities	- 451,00 €	- 259,00 €	- 1 868,00 €	- 2 610,00 €	- 1 054,00 €	- 3 185,00 €	- 3 587,00 €	- 3 109,48 €	- 3 033,64 €	- 2 989,78 €	- 2 760,39 €	- 2 607,96 €
<b>Total Non-current Liabilities</b>	<b>107 786,00 €</b>	<b>119 036,00 €</b>	<b>135 621,00 €</b>	<b>123 803,00 €</b>	<b>101 073,00 €</b>	<b>87 170,00 €</b>	<b>88 438,00 €</b>	<b>105 536,11 €</b>	<b>105 485,55 €</b>	<b>102 863,99 €</b>	<b>96 556,94 €</b>	<b>91 273,28 €</b>
Trade payables	12 474,00 €	14 185,00 €	12 707,00 €	12 378,00 €	10 655,00 €	12 204,00 €	12 828,00 €	13 143,21 €	13 684,05 €	14 493,59 €	13 866,37 €	14 046,80 €
Financing liabilities	48 746,00 €	56 240,00 €	62 601,00 €	59 303,00 €	52 300,00 €	49 786,00 €	44 914,00 €	48 541,52 €	49 563,56 €	51 548,92 €	49 949,48 €	47 884,98 €
Deferred income	3 668,00 €	1 580,00 €	1 624,00 €	1 594,00 €	1 486,00 €	1 391,00 €	1 478,00 €	1 789,53 €	1 810,82 €	1 828,37 €	1 743,83 €	1 650,95 €
Contract and refund liabilities	- €	7 081,00 €	7 571,00 €	7 169,00 €	5 929,00 €	6 898,00 €	6 877,00 €	7 065,59 €	7 253,80 €	7 394,56 €	7 033,90 €	7 072,12 €
<b>Total Current Liabilities</b>	<b>65 448,00 €</b>	<b>79 909,00 €</b>	<b>84 503,00 €</b>	<b>80 444,00 €</b>	<b>70 370,00 €</b>	<b>70 279,00 €</b>	<b>66 097,00 €</b>	<b>70 539,84 €</b>	<b>72 312,24 €</b>	<b>75 265,44 €</b>	<b>72 593,58 €</b>	<b>70 654,84 €</b>
	127 124,00 €	144 902,00 €	161 780,00 €	145 842,00 €	125 843,00 €							
<b>Total Equity and Liabilities</b>	<b>238 548,00 €</b>	<b>264 998,00 €</b>	<b>282 965,00 €</b>	<b>266 495,00 €</b>	<b>244 610,00 €</b>	<b>243 989,00 €</b>	<b>247 351,00 €</b>	<b>263 849,92 €</b>	<b>271 760,10 €</b>	<b>272 628,55 €</b>	<b>262 731,80 €</b>	<b>254 860,16 €</b>

# Consolidated Balance Sheet (2028-2040)

in million euros	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<b>Assets</b>												
Intangible assets	17 117,26 €	17 975,77 €	19 103,13 €	19 799,82 €	20 097,84 €	20 188,54 €	23 127,60 €	22 597,53 €	23 400,91 €	24 137,40 €	24 629,95 €	25 303,41 €
Property, plant and equipment	35 895,36 €	34 359,59 €	32 609,03 €	32 025,32 €	33 080,10 €	33 102,36 €	38 301,60 €	36 248,93 €	36 655,55 €	36 947,60 €	36 573,61 €	38 127,62 €
Equipment on operating leases	44 337,61 €	45 923,98 €	48 939,25 €	51 190,53 €	53 172,40 €	53 932,37 €	62 238,54 €	63 434,59 €	66 835,59 €	65 139,00 €	64 844,82 €	64 162,42 €
Equity-method investments	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €
Receivables from financial services	42 628,27 €	43 422,07 €	46 037,17 €	48 307,68 €	50 997,98 €	52 081,30 €	59 650,16 €	62 830,63 €	66 807,02 €	62 329,35 €	60 752,82 €	58 124,56 €
Net Other financial assets	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €
Net Other Non-Current Assets	- 298,52 € -	316,71 € -	345,12 € -	265,83 € -	153,70 € -	51,41 €	67,65 €	52,64 €	47,82 €	20,88 €	4,98 € -	24,27 €
<b>Total Non-current Assets</b>	<b>153 604,98 €</b>	<b>155 289,70 €</b>	<b>160 268,45 €</b>	<b>164 982,51 €</b>	<b>171 119,62 €</b>	<b>173 178,16 €</b>	<b>197 310,55 €</b>	<b>199 089,32 €</b>	<b>207 671,89 €</b>	<b>202 499,23 €</b>	<b>200 731,18 €</b>	<b>199 618,74 €</b>
Inventories	31 566,00 €	33 443,90 €	35 421,87 €	37 375,49 €	38 610,59 €	39 338,93 €	46 428,65 €	45 245,65 €	47 045,01 €	48 565,88 €	49 613,60 €	50 993,40 €
Trade receivables	10 988,31 €	11 596,57 €	12 361,27 €	12 885,18 €	13 143,95 €	13 228,04 €	15 397,71 €	15 098,04 €	15 729,57 €	16 144,74 €	16 451,00 €	16 860,19 €
Receivables from financial services	34 888,66 €	35 538,33 €	37 678,63 €	39 536,91 €	41 738,76 €	42 625,39 €	48 820,04 €	51 423,06 €	54 677,50 €	51 012,80 €	49 722,50 €	47 571,43 €
Cash and cash equivalents	16 055,99 €	14 366,45 €	13 214,38 €	12 214,64 €	11 649,57 €	10 944,54 €	13 657,41 €	12 011,48 €	11 721,66 €	11 242,71 €	10 518,22 €	10 073,41 €
Marketable debt securities and similar investments	6 867,45 €	5 858,18 €	5 101,20 €	4 475,02 €	4 124,97 €	3 729,47 €	4 837,97 €	3 992,53 €	3 729,94 €	3 412,00 €	2 974,58 €	2 673,31 €
Net Other Current Assets	- 2 270,71 € -	2 355,16 € -	1 913,89 € -	1 681,55 € -	1 330,47 € -	959,42 € -	814,40 € -	872,90 € -	967,30 € -	903,94 € -	868,90 € -	855,34 €
Net Assets held for sale	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €
<b>Total Current Assets</b>	<b>98 666,69 €</b>	<b>99 019,26 €</b>	<b>102 434,46 €</b>	<b>105 376,70 €</b>	<b>108 508,37 €</b>	<b>109 477,95 €</b>	<b>128 898,37 €</b>	<b>127 468,87 €</b>	<b>132 507,37 €</b>	<b>130 045,20 €</b>	<b>128 982,01 €</b>	<b>127 887,40 €</b>
<b>Total Assets</b>	<b>252 271,66 €</b>	<b>254 308,96 €</b>	<b>262 702,91 €</b>	<b>270 359,21 €</b>	<b>279 627,98 €</b>	<b>282 656,11 €</b>	<b>326 208,92 €</b>	<b>326 558,19 €</b>	<b>340 179,26 €</b>	<b>332 544,42 €</b>	<b>329 713,19 €</b>	<b>327 506,13 €</b>
<b>Equity and liabilities</b>												
Share capital	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €
Capital reserves	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €
Retained earnings (restated)	77 925,28 €	77 712,14 €	79 862,19 €	81 869,64 €	85 116,61 €	86 387,55 €	103 615,38 €	99 542,86 €	102 558,36 €	103 861,09 €	104 173,05 €	106 775,77 €
Other reserves (restated)	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €
Treasury Shares	- 2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -
<b>Equity Attributable to Shareholders of Mercedes-Benz Group AG</b>	<b>93 028,28 €</b>	<b>92 815,14 €</b>	<b>94 965,19 €</b>	<b>96 972,64 €</b>	<b>100 219,61 €</b>	<b>101 490,55 €</b>	<b>118 718,38 €</b>	<b>114 645,86 €</b>	<b>117 661,36 €</b>	<b>118 964,09 €</b>	<b>119 276,05 €</b>	<b>121 878,77 €</b>
Non-controlling interests	1 252,37 €	1 265,41 €	1 296,40 €	1 337,72 €	1 393,45 €	1 418,25 €	1 667,25 €	1 619,21 €	1 670,92 €	1 690,98 €	1 700,04 €	1 741,40 €
<b>Total Equity</b>	<b>94 280,64 €</b>	<b>94 080,55 €</b>	<b>96 261,59 €</b>	<b>98 310,36 €</b>	<b>101 613,06 €</b>	<b>102 908,80 €</b>	<b>120 385,63 €</b>	<b>116 265,08 €</b>	<b>119 332,28 €</b>	<b>120 655,07 €</b>	<b>120 976,09 €</b>	<b>123 620,17 €</b>
Provisions for pensions and similar obligations	2 185,47 €	2 015,55 €	1 858,84 €	1 714,32 €	1 581,03 €	1 458,11 €	1 344,74 €	1 240,19 €	1 143,77 €	1 054,84 €	972,83 €	897,19 €
Provisions for other risks	18 529,81 €	19 087,26 €	19 824,74 €	20 282,78 €	20 484,70 €	20 547,08 €	22 472,36 €	22 140,96 €	22 673,87 €	23 134,11 €	23 446,86 €	23 872,82 €
Financing liabilities	58 175,37 €	55 752,61 €	55 688,61 €	55 728,80 €	56 984,71 €	56 705,66 €	66 693,18 €	66 847,21 €	69 489,13 €	64 622,19 €	61 905,12 €	58 694,88 €
Deferred income	1 742,26 €	1 774,70 €	1 881,58 €	1 974,38 €	2 084,34 €	2 128,61 €	2 437,96 €	2 567,95 €	2 730,47 €	2 547,46 €	2 483,03 €	2 375,61 €
Contract and refund liabilities	4 627,99 €	4 895,52 €	5 249,83 €	5 470,04 €	5 567,52 €	5 597,69 €	6 522,83 €	6 364,65 €	6 621,18 €	6 840,83 €	6 990,44 €	7 194,10 €
Net Deferred tax assets/liabilities	2 719,95 €	2 922,96 €	2 743,33 €	2 535,27 €	2 156,24 €	1 775,79 €	1 508,17 €	1 619,23 €	1 742,49 €	1 799,30 €	1 856,74 €	1 946,67 €
<b>Total Non-current Liabilities</b>	<b>87 980,84 €</b>	<b>86 448,59 €</b>	<b>87 246,94 €</b>	<b>87 705,59 €</b>	<b>88 858,54 €</b>	<b>88 212,93 €</b>	<b>100 979,24 €</b>	<b>100 780,19 €</b>	<b>104 400,91 €</b>	<b>99 998,74 €</b>	<b>97 655,01 €</b>	<b>94 981,26 €</b>
Trade payables	14 908,00 €	15 782,56 €	16 071,76 €	16 956,09 €	17 524,87 €	17 856,39 €	21 060,45 €	20 560,16 €	21 389,23 €	22 029,40 €	22 482,07 €	23 073,94 €
Financing liabilities	46 000,55 €	48 430,53 €	52 882,78 €	56 705,41 €	60 692,54 €	62 650,24 €	70 971,24 €	76 282,01 €	81 822,64 €	76 432,58 €	74 985,13 €	71 979,94 €
Deferred income	1 570,80 €	1 600,05 €	1 696,41 €	1 780,08 €	1 879,21 €	1 919,13 €	2 198,04 €	2 315,23 €	2 461,76 €	2 296,76 €	2 238,67 €	2 141,82 €
Contract and refund liabilities	7 530,84 €	7 966,68 €	8 543,43 €	8 901,69 €	9 059,76 €	9 108,61 €	10 614,33 €	10 355,52 €	10 772,45 €	11 131,87 €	11 376,23 €	11 709,00 €
<b>Total Current Liabilities</b>	<b>70 010,18 €</b>	<b>73 779,82 €</b>	<b>79 194,38 €</b>	<b>84 343,26 €</b>	<b>89 156,38 €</b>	<b>91 534,38 €</b>	<b>104 844,05 €</b>	<b>109 512,92 €</b>	<b>116 446,08 €</b>	<b>111 890,61 €</b>	<b>111 082,09 €</b>	<b>108 904,70 €</b>
<b>Total Equity and Liabilities</b>	<b>252 271,66 €</b>	<b>254 308,96 €</b>	<b>262 702,91 €</b>	<b>270 359,21 €</b>	<b>279 627,98 €</b>	<b>282 656,11 €</b>	<b>326 208,92 €</b>	<b>326 558,19 €</b>	<b>340 179,26 €</b>	<b>332 544,42 €</b>	<b>329 713,19 €</b>	<b>327 506,13 €</b>

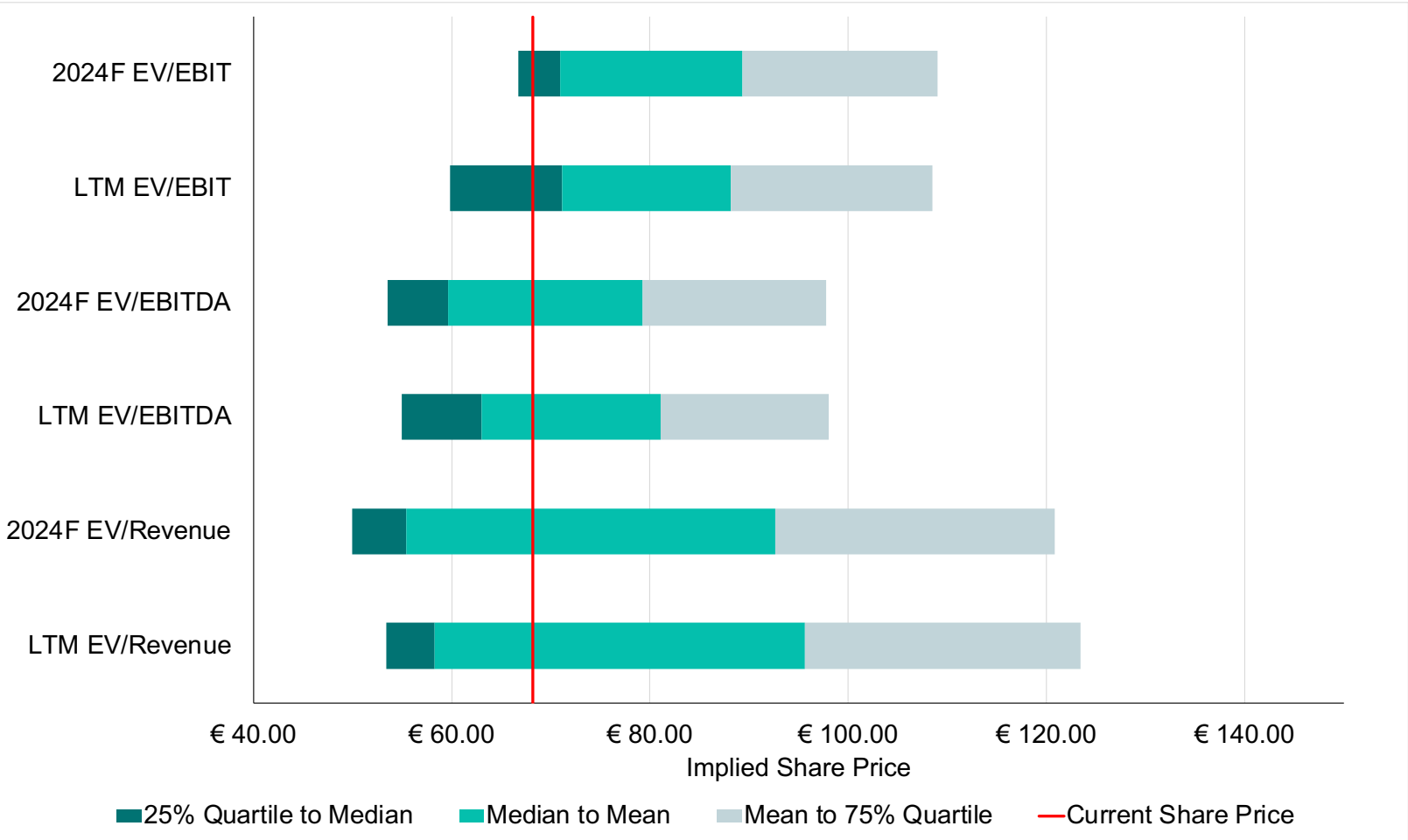
## Consolidated Cash Flow Map (2018-2028)

in million euros	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Operating Activities</b>											
Profit before income taxes	10 595,00 €	3 830,00 €	6 339,00 €	28 775,00 €	20 304,00 €	20 084,00 €	18 301,10 €	17 886,51 €	17 287,08 €	15 753,93 €	14 674,58 €
Depreciation and amortization/impairments	6 305,00 €	7 751,00 €	8 957,00 €	698,00 €	6 521,00 €	6 663,00 €	7 384,04 €	7 843,84 €	8 034,85 €	8 076,54 €	8 063,13 €
Other non-cash expense and income	- 872,00 €	24,00 € -	836,00 € -	11 503,00 € -	1 296,00 € -	2 369,00 € -	376,19 € -	368,58 € -	357,62 € -	324,33 € -	302,78 €
Gains (-)/losses (+) from disposals of assets	- 178,00 € -	761,00 €	131,00 € -	695,00 € -	990,00 € -	920,00 € -	920,00 € -	920,00 € -	920,00 € -	920,00 € -	920,00 € -
Change in operating assets and liabilities	- 14 029,00 € -	2 051,00 €	7 951,00 €	3 179,00 € -	4 241,00 € -	7 430,00 € -	14 471,32 € -	6 373,50 € -	1 995,55 €	1 412,80 € -	1 446,00 €
Inventories	- 3 850,00 €	99,00 €	2 039,00 € -	2 561,00 € -	4 111,00 € -	2 733,00 € -	2 378,92 € -	702,99 € -	584,04 €	320,09 € -	3 227,21 €
Trade receivables and trade payables	810,00 €	- 1 971,00 €	1 040,00 €	1 694,00 €	1 029,00 €	131,00 € -	1 182,64 € -	2 773,52 € -	239,14 €	103,72 € -	66,36 €
Receivables from financial services	- 10 257,00 €	- 4 664,00 €	2 397,00 €	3 879,00 € -	5 327,00 € -	5 812,00 € -	1 277,90 € -	567,37 € -	467,79 €	375,57 €	1 031,48 €
Vehicles on operating leases	- 1 609,00 €	- 1 156,00 €	1 822,00 €	1 428,00 €	3 810,00 € -	640,00 € -	3 672,77 € -	2 424,75 € -	769,55 €	453,71 €	689,30 €
Other operating assets and liabilities	877,00 €	5 641,00 €	653,00 € -	1 261,00 €	358,00 €	1 624,00 € -	5 959,09 €	95,14 €	64,96 €	159,71 €	126,79 €
Dividends received from equity-method investments	1 380,00 €	1 202,00 €	1 783,00 €	1 625,00 €	1 605,00 €	2 056,00 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €
Income taxes paid	- 2 858,00 € -	2 107,00 € -	1 993,00 € -	3 812,00 € -	5 009,00 € -	5 621,00 € -	4 245,61 € -	4 109,08 € -	3 930,93 € -	3 516,51 € -	3 205,70 €
<b>Cash flow from operating activities</b>	<b>343,00 €</b>	<b>7 888,00 €</b>	<b>22 332,00 €</b>	<b>24 549,00 €</b>	<b>16 894,00 €</b>	<b>14 470,00 €</b>	<b>7 285,80 €</b>	<b>15 572,97 €</b>	<b>19 731,61 €</b>	<b>22 096,21 €</b>	<b>18 477,01 €</b>
<b>Investing Activities</b>											
Additions to property, plant and equipment	- 7 534,00 € -	7 199,00 € -	5 741,00 € -	4 579,00 € -	3 481,00 € -	3 745,00 € -	5 951,04 € -	3 946,77 € -	7 876,50 €	10 135,76 €	124,68 €
Additions to intangible assets	- 3 167,00 € -	3 636,00 € -	2 819,00 € -	2 741,00 € -	3 418,00 € -	4 468,00 € -	3 672,77 € -	6 061,88 € -	5 130,32 €	1 134,28 €	689,30 €
Proceeds from disposals of property, plant and equipment and intangi	644,00 €	429,00 €	365,00 €	826,00 €	469,00 €	285,00 €	- €	- €	- €	- €	- €
Investments in shareholdings	- 780,00 € -	1 619,00 € -	661,00 € -	573,00 € -	849,00 € -	334,00 € -	334,00 € -	334,00 € -	334,00 € -	334,00 € -	334,00 € -
Proceeds from disposals of shareholdings and other business operati	363,00 €	394,00 €	259,00 €	159,00 €	3 337,00 €	612,00 €	3 827,95 €	306,15 € -	1 738,03 € -	2 079,00 € -	4 307,92 €
Acquisition of marketable debt securities and similar investments	- 5 739,00 € -	5 960,00 € -	3 792,00 € -	5 694,00 € -	2 622,00 € -	4 714,00 € -	3 758,86 €	1 368,52 €	576,89 €	560,44 € -	3 418,75 €
Proceeds from sales of marketable debt securities and similar investm	6 210,00 €	7 014,00 €	5 941,00 €	4 385,00 €	3 084,00 €	5 021,00 €	5 322,43 €	195,05 €	986,69 €	1 003,13 €	879,83 €
Other cash flows	82,00 € -	30,00 €	27,00 € -	7,00 €	27,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €
<b>Cash flow from investing activities</b>	<b>- 9 921,00 € -</b>	<b>10 607,00 € -</b>	<b>6 421,00 € -</b>	<b>6 226,00 € -</b>	<b>3 453,00 € -</b>	<b>7 315,00 € -</b>	<b>4 538,28 € -</b>	<b>8 444,93 € -</b>	<b>13 487,28 € -</b>	<b>9 822,91 € -</b>	<b>6 338,87 €</b>
<b>Financing Activities</b>											
Change in short-term financing liabilities	2 637,00 €	840,00 € -	3 263,00 €	1 463,00 €	172,00 € -	512,00 €	725,50 €	204,41 €	397,07 € -	799,72 € -	1 032,25 €
Additions to long-term financing liabilities	71 137,00 €	63 607,00 €	53 713,00 €	42 196,00 €	38 429,00 €	39 288,00 €	44 870,02 €	44 850,03 €	44 324,28 €	41 273,61 €	38 333,27 €
Repayment of long-term financing liabilities	- 56 318,00 € -	55 043,00 € -	59 953,00 € -	60 859,00 € -	51 945,00 € -	39 473,00 € -	33 705,98 € -	44 890,00 € -	45 375,77 € -	47 374,95 € -	44 213,96 €
Dividend paid to shareholders of Mercedes-Benz Group AG	- 3 905,00 € -	3 477,00 € -	963,00 € -	1 444,00 € -	5 349,00 € -	5 556,00 € -	7 081,19 € -	6 926,02 € -	6 706,09 € -	6 743,66 € -	5 735,03 €
Dividends paid to non-controlling interests	- 315,00 € -	263,00 € -	282,00 € -	366,00 € -	320,00 € -	324,00 € -	280,43 € -	302,50 € -	308,16 € -	307,58 € -	307,59 €
Other cash flows	- 78,00 € -	79,00 €	- €	37,00 € -	19,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €
<b>Cash flow from financing activities</b>	<b>13 226,00 €</b>	<b>5 628,00 € -</b>	<b>10 747,00 € -</b>	<b>19 059,00 € -</b>	<b>19 032,00 € -</b>	<b>8 391,00 €</b>	<b>4 654,92 €</b>	<b>6 937,08 €</b>	<b>7 541,67 €</b>	<b>13 825,30 € -</b>	<b>12 828,57 €</b>
Effect of foreign exchange-rate changes on cash and cash equivalent:	133,00 €	121,00 € -	999,00 €	870,00 €	88,00 € -	471,00 € -	471,00 € -	471,00 € -	471,00 € -	471,00 € -	942,00 €
<b>Net decrease in cash and cash equivalents</b>	<b>3 781,00 €</b>	<b>3 030,00 €</b>	<b>4 165,00 €</b>	<b>134,00 € -</b>	<b>5 503,00 € -</b>	<b>1 707,00 €</b>	<b>6 931,43 € -</b>	<b>280,04 € -</b>	<b>1 768,34 € -</b>	<b>2 023,00 € -</b>	<b>1 632,42 €</b>
<b>Cash and cash equivalents at beginning of year</b>	<b>12 072,00 €</b>	<b>15 853,00 €</b>	<b>18 883,00 €</b>	<b>23 048,00 €</b>	<b>23 182,00 €</b>	<b>17 679,00 €</b>	<b>15 962,00 €</b>	<b>22 893,43 €</b>	<b>22 613,39 €</b>	<b>20 845,05 €</b>	<b>18 822,05 €</b>
<b>Cash and cash equivalents at end of year</b>	<b>15 853,00 €</b>	<b>18 883,00 €</b>	<b>23 048,00 €</b>	<b>23 120,00 €</b>	<b>17 679,00 €</b>	<b>15 962,00 €</b>	<b>22 893,43 €</b>	<b>22 613,39 €</b>	<b>20 845,05 €</b>	<b>18 822,05 €</b>	<b>17 189,62 €</b>

## Consolidated Cash Flow Map (2028-2040)

in million euros	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<b>Operating Activities</b>												
Profit before income taxes	14 949,57 €	15 527,59 €	14 438,25 €	13 246,58 €	11 349,44 €	9 412,14 €	8 792,99 €	8 940,68 €	9 459,95 €	9 622,57 €	9 732,18 €	10 057,56 €
Depreciation and amortization/impairments	8 283,98 €	8 337,85 €	8 444,77 €	8 571,23 €	8 783,45 €	8 813,94 €	10 237,24 €	9 864,73 €	10 141,22 €	10 359,13 €	10 442,83 €	10 797,36 €
Other non-cash expense and income	- 310,01 €	- 325,24 €	- 304,60 €	- 282,11 €	- 244,47 €	- 204,19 €	- 199,00 €	- 201,42 €	- 215,06 €	- 219,38 €	- 222,81 €	- 230,84 €
Gains (-)/losses (+) from disposals of assets	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €
Change in operating assets and liabilities	- 2 006,21 €	- 9 613,30 €	- 9 257,26 €	- 7 788,35 €	- 6 637,55 €	- 4 732,54 €	- 14 183,62 €	- 8 873,35 €	- 11 016,86 €	- 1 159,77 €	- 3 252,16 €	- 723,29 €
Inventories	- 2 351,94 €	- 3 755,80 €	- 2 373,57 €	- 2 344,35 €	- 1 482,11 €	- 1 456,69 €	- 4 253,83 €	- 591,50 €	- 2 159,22 €	- 3 041,75 €	- 3 143,17 €	- 1 655,76 €
Trade receivables and trade payables	- 623,34 €	- 1 216,52 €	- 917,64 €	- 628,70 €	- 310,52 €	- 168,18 €	- 1 301,80 €	- 149,83 €	- 757,83 €	- 830,34 €	- 918,76 €	- 491,04 €
Receivables from financial services	890,03 €	- 1 299,35 €	- 2 568,36 €	- 2 229,94 €	- 2 642,21 €	- 1 773,26 €	- 3 716,79 €	- 6 507,56 €	- 3 905,32 €	- 1 832,35 €	- 645,15 €	- 1 075,54 €
Vehicles on operating leases	30,96 €	- 3 172,73 €	- 3 618,33 €	- 2 701,53 €	- 2 378,25 €	- 1 519,93 €	- 4 983,70 €	- 2 990,12 €	- 4 081,20 €	- 848,30 €	- 147,09 €	- 341,20 €
Other operating assets and liabilities	48,08 €	- 168,90 €	220,64 €	116,17 €	175,54 €	185,52 €	72,51 €	- 117,00 €	- 113,28 €	31,68 €	17,52 €	6,78 €
Dividends received from equity-method investments	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €
Income taxes paid	- 3 271,11 €	- 3 421,89 €	- 3 059,19 €	- 2 681,21 €	- 2 103,85 €	- 1 525,55 €	- 1 204,23 €	- 1 273,05 €	- 1 394,14 €	- 1 426,17 €	- 1 448,16 €	- 1 527,82 €
<b>Cash flow from operating activities</b>	<b>18 340,00 €</b>	<b>11 198,79 €</b>	<b>10 955,75 €</b>	<b>11 759,91 €</b>	<b>11 840,80 €</b>	<b>12 457,58 €</b>	<b>4 137,16 €</b>	<b>9 151,37 €</b>	<b>7 668,88 €</b>	<b>17 870,16 €</b>	<b>15 945,64 €</b>	<b>19 066,75 €</b>
<b>Investing Activities</b>												
Additions to property, plant and equipment	111,82 €	767,88 €	875,28 €	291,86 €	- 3 164,35 €	- 133,56 €	- 3 639,47 €	- 1 026,34 €	- 1 219,85 €	- 2 336,40 €	- 187,00 €	- 4 662,03 €
Additions to intangible assets	30,96 €	- 4 759,10 €	- 9 045,82 €	- 6 753,82 €	- 5 945,62 €	- 6 079,73 €	- 5 814,32 €	- 7 176,29 €	- 6 802,01 €	- 848,30 €	- 147,09 €	- 341,20 €
Proceeds from disposals of property, plant and equipment and intangibles	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
Investments in shareholdings	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €
Proceeds from disposals of shareholdings and other business operations	2 891,75 €	- 543,92 €	759,26 €	- 1 931,00 €	121,37 €	- 3 005,10 €	- 30,39 €	960,00 €	- 1 450,51 €	- 2 081,05 €	- 3 391,37 €	- 1 619,71 €
Acquisition of marketable debt securities and similar investments	4 394,33 €	554,31 €	806,60 €	937,40 €	1 213,52 €	1 168,08 €	1 108,49 €	718,14 €	1 300,99 €	1 245,63 €	1 126,16 €	1 262,30 €
Proceeds from sales of marketable debt securities and similar investments	684,71 €	1 009,27 €	756,98 €	626,18 €	350,05 €	395,49 €	2 672,07 €	845,44 €	262,59 €	317,94 €	437,41 €	301,27 €
Other cash flows	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €
<b>Cash flow from investing activities</b>	<b>- 6 764,59 €</b>	<b>- 3 277,56 €</b>	<b>- 6 153,70 €</b>	<b>- 7 135,39 €</b>	<b>- 7 973,78 €</b>	<b>- 7 960,82 €</b>	<b>- 8 165,82 €</b>	<b>- 5 852,37 €</b>	<b>- 8 214,79 €</b>	<b>- 2 311,59 €</b>	<b>- 1 799,70 €</b>	<b>- 4 682,96 €</b>
<b>Financing Activities</b>												
Change in short-term financing liabilities	- 942,21 €	486,00 €	890,45 €	764,53 €	797,43 €	391,54 €	1 664,20 €	1 062,15 €	2 770,31 €	- 1 078,01 €	- 1 447,44 €	- 3 005,19 €
Additions to long-term financing liabilities	35 933,88 €	34 480,23 €	34 467,43 €	34 475,47 €	34 726,65 €	34 447,59 €	39 441,36 €	39 472,16 €	40 793,12 €	35 926,19 €	31 850,58 €	28 640,34 €
Repayment of long-term financing liabilities	- 40 732,65 €	- 37 387,54 €	- 34 493,03 €	- 34 459,39 €	- 34 224,28 €	- 35 005,70 €	- 29 453,83 €	- 38 671,25 €	- 38 151,20 €	- 45 660,06 €	- 40 001,80 €	- 35 060,81 €
Dividend paid to shareholders of Mercedes-Benz Group AG	- 5 839,79 €	- 6 057,90 €	- 5 679,67 €	- 5 255,21 €	- 4 568,31 €	- 3 865,44 €	- 3 678,12 €	- 5 587,93 €	- 3 923,16 €	- 3 987,64 €	- 4 031,49 €	- 4 152,32 €
Dividends paid to non-controlling interests	- 313,29 €	- 316,55 €	- 324,30 €	- 334,64 €	- 348,58 €	- 354,78 €	- 417,07 €	- 405,05 €	- 417,99 €	- 423,01 €	- 425,27 €	- 435,62 €
Other cash flows	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €
<b>Cash flow from financing activities</b>	<b>- 11 767,05 €</b>	<b>- 8 668,77 €</b>	<b>- 5 012,12 €</b>	<b>- 4 682,25 €</b>	<b>- 3 490,10 €</b>	<b>- 4 259,79 €</b>	<b>- 7 683,53 €</b>	<b>- 4 002,92 €</b>	<b>- 1 198,09 €</b>	<b>- 15 095,52 €</b>	<b>- 13 928,44 €</b>	<b>- 13 886,60 €</b>
Effect of foreign exchange-rate changes on cash and cash equivalents	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €	- 942,00 €
<b>Net decrease in cash and cash equivalents</b>	<b>- 1 133,64 €</b>	<b>- 1 689,54 €</b>	<b>- 1 152,07 €</b>	<b>- 999,73 €</b>	<b>- 565,08 €</b>	<b>- 705,03 €</b>	<b>- 2 712,87 €</b>	<b>- 1 645,93 €</b>	<b>- 289,82 €</b>	<b>- 478,95 €</b>	<b>- 724,50 €</b>	<b>- 444,81 €</b>
<b>Cash and cash equivalents at beginning of year</b>	<b>17 189,62 €</b>	<b>16 055,99 €</b>	<b>14 366,45 €</b>	<b>13 214,38 €</b>	<b>12 214,64 €</b>	<b>11 649,57 €</b>	<b>10 944,54 €</b>	<b>13 657,41 €</b>	<b>12 011,48 €</b>	<b>11 721,66 €</b>	<b>11 242,71 €</b>	<b>10 518,22 €</b>
<b>Cash and cash equivalents at end of year</b>	<b>16 055,99 €</b>	<b>14 366,45 €</b>	<b>13 214,38 €</b>	<b>12 214,64 €</b>	<b>11 649,57 €</b>	<b>10 944,54 €</b>	<b>13 657,41 €</b>	<b>12 011,48 €</b>	<b>11 721,66 €</b>	<b>11 242,71 €</b>	<b>10 518,22 €</b>	<b>10 073,41 €</b>

# 1.2 Multiples Valuation: Range of Implied Share Prices



**MERCEDES-BENZ GROUP AG**

**COMPANY REPORT**

*AUTOMOTIVE INDUSTRY*

10 MAY 2024

MICHAEL LAMM & MANUEL PEREIRA

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**Reaching for the Stars in the New Era of Automobiles**

*Equity Research in the Automotive Industry*

- A **BUY** recommendation is given based on a comprehensive sum of the parts valuation considering **intrinsic** and **relative valuation** methods, (APV, DCF, Multiples Valuation) resulting in a target price of **75.39 €** and return of **10.55%**.
- Mercedes is pursuing a **luxury strategy** and investing heavily in the **electrification** of its fleet. The company is leveraging its brand, strategic partnerships and innovation capabilities to become a leader in the premium and luxury EV segment.
- **Current demand** growth for EVs is **slowing down**, with high prices and range anxiety as barriers to adoption. However, as **EV technology** and **infrastructure improves** and **regulatory pressure** tightens, demand for EVs will pick up, making up at least **40% of total vehicle sales** in 2030.
- Other major challenges and risks include the increased **competition** of emerging **Chinese EV manufacturers**, trade tariffs, the **lower profit margins** of EVs due to expensive raw materials for the batteries and **uncertainty of environmental policies**.
- Mercedes' **high ESG ratings** signal strong commitment to its sustainability strategy and give a **positive outlook** to the company's performance in a **climate-change** oriented world.

**Company description**

Mercedes-Benz Group AG (formerly Daimler AG) is a German automotive engineering and manufacturing company. It develops, produces and distributes luxury and premium cars and vans globally. Segments include Mercedes-Benz Cars, Mercedes-Benz Vans and Mercedes-Benz Mobility, offering financing, leasing, and mobility solutions to support automotive sales worldwide.

**Recommendation:** **BUY**

Shareholder Return 10.55%

**Price Target FY24:** **75.39 €**

**Price (as of 10-May-24)** **68.19 €**

Reuters: mbgn.de, Bloomberg: MBG

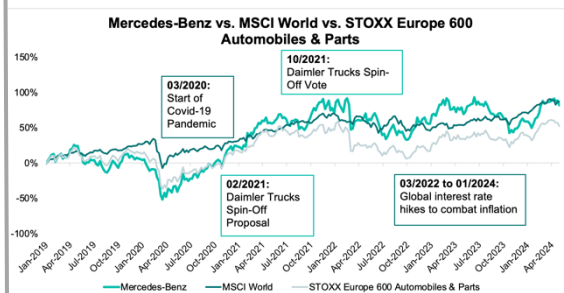
52-week range (€) 55.08-77.45

Market Cap (€m) 70,985

Outstanding Shares (m) excl. Treasury Shares 1040.97

Free Float % 77.56%

Source: Refinitiv WS



Source: Refinitiv WS

(Values in € billions)	2023	2024E	2025F
Vehicle Sales (in m)	2.49	2.58	2.57
thereof Top-End	0.23	0.25	0.26
thereof Core	1.16	1.21	1.21
thereof Entry	0.65	0.62	0.60
thereof Vans	0.45	0.50	0.50
Cars Electric Vehicle Share	20%	22%	27%
Revenues	153.22	161.19	165.26
Gross Profit	34.38	36.40	36.43
EBIT	19.66	17.88	17.47
Net Profit	14.53	14.06	13.78
EPS	13.58	13.14	12.88
P/E	5.02x	5.19x	5.30x

Source: Mercedes-Benz Annual Report, Own Projections

**THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY MICHAEL LAMM & MANUEL PEREIRA, MASTER IN FINANCE STUDENTS OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)**

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# 1. Company Overview

## 1.1 Company History

*Mercedes-Benz stands for luxury cars*

Mercedes-Benz, a hallmark of automotive excellence and innovation, traces its origins to the late 19th century, reflecting a rich history characterized by pioneering engineering and luxury. The company was founded in 1926 under the name Daimler-Benz AG, through the merger of Benz & Cie. and Daimler Motoren Gesellschaft, two of the earliest automobile manufacturers, established in 1883 and 1890 and under the lead of Karl Benz and Gottlieb Daimler, respectively.

Post-World War II, Mercedes-Benz quickly re-established itself as a symbol of luxury and quality. The company made significant advancements in automotive technology, including the introduction of fuel injection, anti-lock brakes, and airbags, setting industry standards for safety and performance.

*Chrysler merger and Daimler Trucks spinoff*

However, not all ventures were successful: the 1998 merger with Chrysler was intended to create a global powerhouse but instead faced cultural and economic clashes, leading to a separation in 2007. Moreover, recognizing the need to sharpen its focus on core automotive and mobility solutions, Mercedes' parent company, Daimler AG, executed a strategic spinoff of Daimler Trucks in 2021, aiming to enhance capital market perception and increase operational clarity.

*Electrification Strategy*

Today, Mercedes-Benz is not only a leader in luxury vehicles and premium vans but also at the forefront of electric vehicle technology and autonomous driving innovations. The company sees the future of automobiles being powered by electricity and has consequently committed itself to an electrification of its car and vans fleet, targeting electric vehicle (EV) sales to reach up to 50% of overall sales in the second half of this decade.

## 1.2 Business Model

Following the 2021 spin-off of its trucks and buses division, Mercedes-Benz has streamlined its operations into three core areas: Cars, Vans and Mobility. The first two divisions focus on the worldwide production and sales of luxury and premium vehicles, while the purpose of the complementary Mobility division is to provide financing, leasing and other financial services as part of the sales process.

- Mercedes-Benz Cars

The Cars division is the largest within Mercedes-Benz in terms of revenue and units sold, bringing in € 107bn from selling 2.04m cars in 2023. It focusses on the production and sale of luxury and premium passenger cars, which can be divided

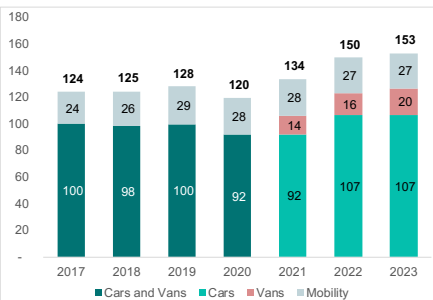


Figure 1: Historical Revenues by Segment (in bn€) (Source: Company Reports)

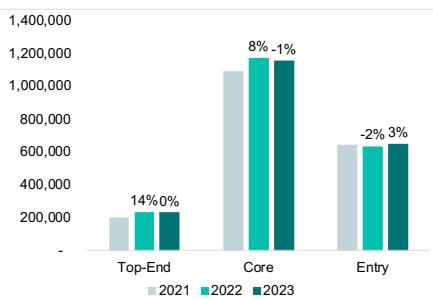


Figure 2: Cars - Unit Sales by Segment, incl. YoY % growth

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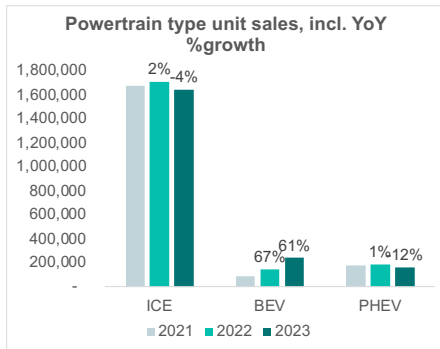


Figure 3: Cars - Unit sales by Powertrain, incl. YoY %growth

into three product categories: Top-End, Core and Entry. While the Top-End cars, such as the S- and G-Class as well as the Maybach brand, are the most recognizable and quickly growing, this category only makes up 16% of the company’s unit sales. 54% of the cars sold are in the Core category which is made up of the classic C- and E-Class as well as their SUV counterparts, GLC and GLE. The remaining product mix of 30% is captured by the entry level cars, with the A-Class, GLA and GLB being the most popular models.

As Mercedes-Benz’s steers towards electrification of its fleet, electric vehicles (EVs) currently account for 20% of its total sales in 2023, up from last year’s 16%. Thereof, 60% of vehicles sold were all-electric vehicles (BEVs), with the entry-level models EQA and EQB making up 45% of the BEV sales. The remaining 40% comprised plug-in hybrids (PHEVs), with sales declining to 161,000 units from 184,000 in the prior year. Additionally, in cooperation with Geely, Mercedes-Benz is offering entry-level EVs under the *smart* brand.

Mercedes-Benz’s regional sales distribution underscores its global market presence. The company has fully embraced its popularity in Asia, accounting for 47% of sales. China especially stands out, accounting for 36% of global sales, with 80% of cars sold being produced locally. The 2 other most important regions are Europe and the USA, of which the former displayed strong growth of 9% in the last year. Sales in Mercedes’ home market Germany grew by 11% as sales are creeping up to pre-pandemic highs.

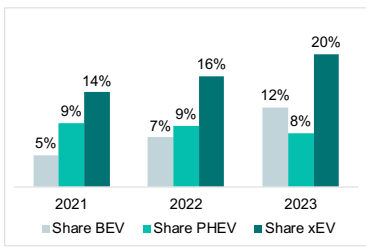


Figure 4: Share of Electric Vehicles of Total Sales in %

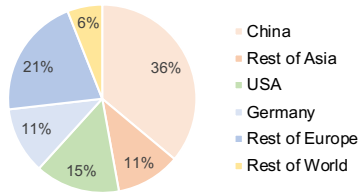


Figure 5: Cars - Sales by Region (2023)

Mercedes-Benz Vans

The Vans division is a rapidly growing market segment for Mercedes-Benz that serves premium vans to commercial and private customers. With unit sales reaching a record 447,790 and revenues hitting close to €20 billion, Mercedes-Benz Vans has observed an 8% increase in unit sales and an 18% surge in revenues compared to the previous year. These vans are highly valued for their reliability and versatility and are available in three size categories. The largest, the Sprinter, dominates the segment, accounting for 53% of total sales. The mid-sized models, which include the V-Class geared towards private use and the Vito for commercial use, also contribute significantly to the division's success, comprising 40% of unit sales. While being able to grow 40% YoY, the small sized vans T-Class and Citan make up only 7% of total vans sales.

Electric vehicle sales within this segment are gaining momentum, currently representing 5% of total unit sales—an increase by 53% compared to 2022. This upward trend is expected to accelerate with the recent launch of the significantly improved eSprinter, which debuted in North America in September 2023 and in

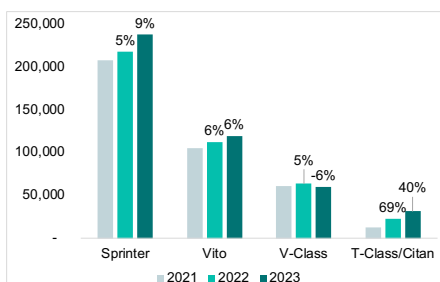


Figure 6: Vans - Unit Sales by Model, incl. YoY %growth

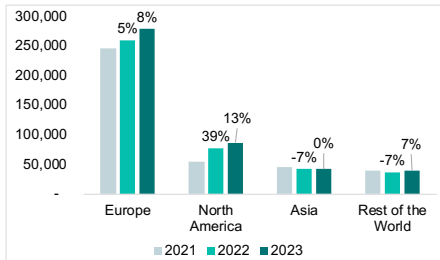


Figure 7: Vans - Unit Sales by Region, incl. YoY %growth

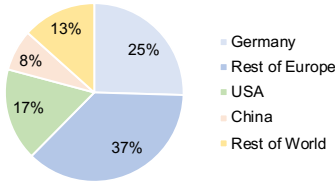


Figure 8: Vans - Sales by Region (2023)

Europe in early 2024. Mercedes-Benz is clearly committed to its electrification goals, offering an electric version for each model in its current van line-up.

Regionally, Mercedes-Benz's main van market is Europe, making up 62% of global sales – of which Germany accounts for 25%. Europe as well as the second biggest market, the USA, displayed strong growth of 8% and 13% last year, respectively. However, a strong presence in Asia and the rest of the world has not yet been established, with sales numbers stagnating in the last 2 years.

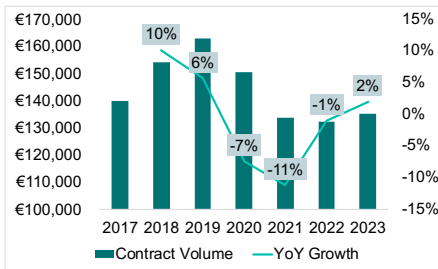


Figure 9: Mobility – Total Contract Volume

### Mercedes-Benz Mobility

The Mobility division's main function is to facilitate the sales of the two vehicle brands, Cars and Vans, by offering custom financial and mobility services. It operates similarly to a bank by offering financing and leasing contracts for the purchased vehicles. Currently, 4.3m Mercedes-Benz vehicles are leased and financed, with the division's total contract volume of € 135,000 million being up 2% compared to 2022 figures. On top of that, Mobility offers insurance services as well as fleet management solutions for its business customers under the Athlon brand.

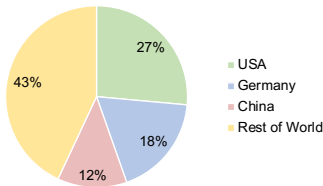


Figure 10: Mobility - Revenues by Region (2023)

The division has also found a new focus within its electrification strategy: excite and incentivize the customer for electric mobility. It is working on expanding the Mercedes-Benz charging network which already has access to more than 1.5m public charging points. By offering leasing and financing customers attractive follow-up contracts for EVs, Mercedes-Benz Mobility is playing an active part to increase widespread EV adoption.

### 1.3 Board of Management and Supervisory Board

German corporations employ a strict two-tier corporate governance model according to §§ 95 to 116 Aktiengesetz (AktG), consisting of a governing management board that is subordinated to the supervisory board, which is responsible for controlling the management board's actions by approving major business decisions as well as appointing the management board.

The newly appointed Chairman of the Supervisory Board (appointed on 25. April 2024), Martin Brudermüller, was the most recent CEO of the German chemical giant BASF, who is highly experienced in the supply of chemical automotive components such as paint, plastics and battery chemicals. He has been in the spotlight for initiating an investment of over € 10bn in new production sites for BASF in China, a move deemed very controversial by German media and politics (Hage, 2022). Looking forward, we predict Brudermüller's influence to expand Mercedes' business in China.

Board of Management		
<b>Name</b>	<b>Ola Källenius</b>	<b>Dr Jörg Burzer</b>
Age	54	54
Role	Chairman/CEO	Production, Quality & SCM
Joined Mercedes	1993	1999
Joined Board	2015	2021
Appointed Until	05/2029	11/2029
<b>Name</b>	<b>Renata Jungo Brünigger</b>	<b>Sabine Kohleisen</b>
Age	62	60
Role	Integrity, Governance & Sustainability	HR & Labour Director
Joined Mercedes	2011	1990
Joined Board	2016	2021
Appointed Until	12/2025	11/2025
<b>Name</b>	<b>Markus Schäfer</b>	<b>Britta Seeger</b>
Age	58	55
Role	CTO, Development & Procurement	Marketing & Sales
Joined Mercedes	1990	1989
Joined Board	2019	2017
Appointed Until	05/2026	12/2029
<b>Name</b>	<b>Hubertus Troska</b>	<b>Harald Wilhelm</b>
Age	64	58
Role	Greater China	Finance & Controlling/ Mobility
Joined Mercedes	1988	1992
Joined Board	2012	2019
Appointed Until	12/2025	03/2027

Figure 11: Current Board of Management

Supervisory Board Structure	
<b>Chairman:</b>	Dr. Martin Brudermüller
<b>Deputy Chairman:</b>	Ergun Lümali
Shareholder Representatives	Employee Representatives
Ben van Beurden	Michael Bettag
Dr. Doris Höpke	Nadine Boguslawski
Liz Centoni	Michael Häberle
Dame Polly Courtice	Gabriela Neher
Marco Gobetti	Michael Peters
Timotheus Höttges	Roman Romanowski
Olaf Koch	Monika Tielsch
Stefan Pierer	Dr. Frank Weber
Prof. Dr. Helene Svahn	Roman Zitzelsberger

Figure 12: Current Supervisory Board

Meanwhile, Ola Källenius, the Chairman of the Board of Management (CEO), who is the main driver behind Mercedes-Benz's strategy of focussing on electrification and luxury, has had his contract renewed until 2029, showing strong signs of trust by the Supervisory Board in the path that the company is taking under his lead. We can therefore assume there to be no significant change in company strategy in the short to medium-term.

### 1.4 Shareholder Structure

Share Data	
<b>Shares Outstanding</b>	1,069,837,447
<b>thereof Treasury Shares</b>	28,900,000
<b>Shares in Free Float</b>	807,336,813
<b>Free Float %</b>	77.56%

Figure 13: Share Data

As opposed to the other two German automotive giants Volkswagen and BMW, Mercedes-Benz is not majorly in family ownership, instead its shareholder base is much more fragmented, with a free float of 77.56% compared to 49.51% of BMW and 26.69% of Volkswagen. The two largest equity stakes are held by Chinese companies BAIC Group, which is the 7<sup>th</sup> largest car manufacturer in China and state-owned, and Geely, a multi-brand car manufacturer with 2.8m car sales in 2023 (3<sup>rd</sup> largest in China) with holdings of 9.98% and 9.69% respectively. The only other two investors with a larger than 5% equity stake are the Kuwait Investment Authority (5.57%, down from 6.8% in 2023) and Blackrock (5.02%). While being in such fragmented ownership leads to financial discipline under high financial market scrutiny, it also leaves the company vulnerable to a large-scale takeover. Considering that Geely owner Li Shufu was able to quietly take over close to 10% in ownership, it is not unthinkable that altogether, Chinese companies could admit ownership of over 25% and reach a blocking minority – thus making Mercedes-Benz ultimately an increasingly China-influenced company.

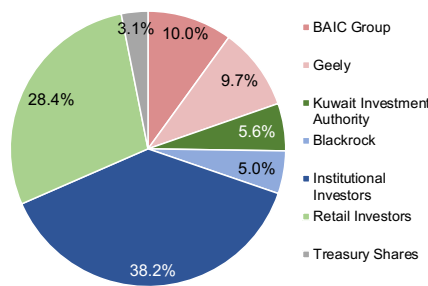


Figure 14: Shareholder Structure

### 1.5 Company Strategy

**“Electric-First” Platform means that, if demanded, ICE production is also possible.**

Under the reign of Ola Källenius, Mercedes-Benz Cars is pursuing a luxury strategy, with the goal of building the “world’s most desirable cars”. The company is looking to mainly grow in their Top-End customer segment and focus on its luxury positioning, which should also benefit their reputation in the Core and Entry-level segment. With the new electric-first MMA platform, production starting in early 2025, the Entry-level offering is expected to shrink as the A- and B-Class will be discontinued (13% of unit sales in 2023) and replaced by the new CLA.

Strategic Partnerships	
Company	Technology
NVIDIA	Autonomous Driving & Semiconductors
Google	Digital Operating System "MB.OS"
BAIC	Battery Production in China
Geely	Hybrid Powertrains & smart production
BMW	Fast Charging Network
Stellantis & Total Energies	Joint Battery Gigafactory "Automotive Cells Company"
ProLogium	Solid State Batteries
Luminar	Lidar Sensors for Autonomous Driving

Figure 15: Strategic Partnerships

The second major pillar in Mercedes-Benz's strategy is the electrification of their fleet, both in the cars and vans segment. While the carmaker had previously announced the target of 50% of sales to be electric (BEV and PHEV) in 2025, it has backpedalled from this goal until later this decade as market developments have made clear that demand for EVs is cooling down. Mercedes is now aiming to be more tactically flexible in the short- to mid-term and wants to be able to serve

Platform Developments		
Platform	Segment	Release
MMA	Entry	2025
MB.EA	Core	2026
MB.EA-L	Top-End	2027
AMG.EA	AMG Models	2026
VAN.EA	Vans	2026

Figure 16: Platform Developments

demand for their cars, whether as Internal Combustion Engines (ICEs) or EVs. This implies that not only huge investments will have to be made in EVs and battery development, but also funds will also be needed to develop cutting-edge ICE technology. However, in the long-term, Mercedes-Benz sees an electric future for cars, for which 4 highly innovative electric platforms are currently in development (Figure 16). The new platforms are expected to achieve breakthroughs when it comes to battery technology, reaching up to more than 1000km of range and a significant improvement in charging time.

In the Vans segment, Mercedes is positioning itself to be the leading electric premium and luxury van manufacturer and is expecting to reach a 20% share of electric sales in 2026 (Wirtschaftswoche, 2024). With many commercial clients aiming to reach their carbon emission reduction goals, the electric vans segment shows promising growth despite the current low adoption rates.

Furthermore, Mercedes has introduced a new agency-based Direct-to-Consumer sales model in May 2023 in Germany, which is being rolled out to further geographies. The implications of this new sales strategy will be discussed in the “Industry Trends” section.

**A “super-luxury” van is in development for the Chinese market** (Wirtschaftswoche, 2024)

## 1.6 Environment, Social and Governance

With the rising importance of sustainable business practices in public policies and society, investors are evaluating companies’ sustainability performance as an additional risk factor in their portfolios. Sustainability is measured along three pillars – environment, social and governance – and summarized by an overall ESG rating, calculated by different providers. While no rating providers have the same methodology to obtain their ESG ratings, Mercedes-Benz performs among the best of all major automobile manufacturers, showcasing clearly defined goals and processes to improve sustainability. However, when evaluating the “Controversy” Score, the company performs below the industry average, mainly due to past legal problems concerning widespread manipulation of emissions data of Diesel vehicles around 2015.

### Environment

Nowadays, Mercedes is fully aligned with the goals of the Paris Climate Agreement for 2050 and the company even strives to reach a carbon-neutral vehicle fleet by 2039 according to its “Ambition 2039” target. Not only are the targets ambitious, but many initiatives are already being taken to reduce emissions along the whole value chain of automobile production, from sourcing CO<sub>2</sub> reduced steel to implementing green charging solutions, having already achieved an emission

Mercedes-Benz ESG Ratings			
Rating Provider	Refinitiv	Sustainalytics	MSCI
ESG Rating	92	20	A
Industry Ranking	1st	73%-ile	54 %-ile
Environmental Score	95	6	1.5°C aligned
Social Score	89	7.4	
Governance Score	94	7.5	

Figure 17: Mercedes-Benz ESG Ratings (Sources listed)

Competitor ESG Ratings			
Rating Provider	Refinitiv (100 = best)	Sustainalytics (0 = best)	MSCI (AAA = best)
Mercedes	93.34	20.0	A
BMW	88.75	24.6	AA
Porsche	n/a	17.1	B
Stellantis	87.15	23.3	BB
Volkswagen	80.69	26.1	B
Volvo Cars	71.81	18.4	BBB

Figure 18: Overview Peer Group ESG Ratings (Sources listed)

Peer Group Environmental Performance			
	Net Zero Target	Scope 1 to 3 emissions per vehicle (in t CO <sub>2</sub> e)	
		2023	2 yr CAGR
		BMW	2050
Mercedes-Benz	2039	46.5	-2.68%
Porsche	2030	62.7	-0.87%
Stellantis	2038	74.3	-3.75%
Volkswagen	2050	47.3	-1.14%
Volvo Cars	2040	43.9	-6.02%

Figure 19: Peer Group Environmental Performance (Sources: Company’s Sustainability Reports)

reduction in production of 18.5% in the last 2 years. However, the viability of the Ambition 2039 goal is questionable, as car manufacturers rely on a significant number of suppliers for the production of a car, which realistically do not follow as ambitious decarbonization goals as Mercedes does or may not even be able to fulfil the environmental criteria. So, despite immense power over suppliers by Mercedes, it is not so straightforward to become one of the carbon-neutral pioneers along with Stellantis and Polestar (CO<sub>2</sub>-neutrality targets: 2038 and 2040). Nevertheless, Mercedes' highly ambitious goals and actions compared to its main competitors BMW and Volkswagen Group (CO<sub>2</sub>-neutrality targets: both 2050) towards emission reduction are beneficial to maintain its high ESG score and instil investor confidence in the company's long-term orientation. However, maintaining a favorable ESG score in the long-term will highly depend on continuing to follow the electrification strategy and investing in emission-free production capabilities.



Figure 20: Peer Group CO<sub>2</sub> Fleet Emissions in EU (in g/km) (2023) (WLTP Measurement) (Sources: Company's Sustainability Reports)

▪ Social

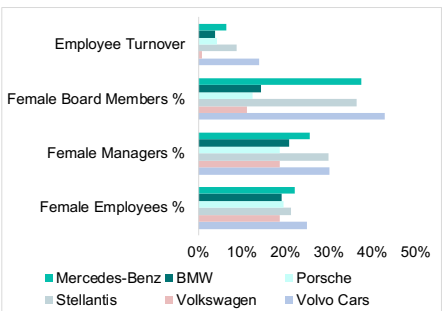


Figure 21: Peer Group Social Sustainability Performance (2023) (Sources: Company's Sustainability Reports)

Mercedes-Benz, along with its main European-based competitors, score relatively high in the Social pillar, as can be expected for companies that are based in a very employee friendly and regulated region. One of the main initiatives for Mercedes employees is the "Sustainable People Plan" which aims to help adapt the workforce to the new skills needed in the continuously transforming automotive industry. This initiative has led to an increase of 19% in training hours to 2.3m in the last year. Furthermore, the plan encompasses the goal to reach 30% women in senior management positions, compared to 25.7% in 2023 and 20.5% in 2020.

Additionally, Mercedes sees itself as a contributor to society and urban mobility through its development of autonomous driving and car safety standards, as well as through expansion of its charging network.

▪ Governance

A high score in Governance is what sets Mercedes apart from its competitors. A high share of females in the board (37.5%) as well as strong processes that promote the focus on the company's long-term sustainability and integrity are factors that play into this dominant rating. In its organizational structure, Renata Jungo Brüngger is a member of the board and responsible for integrity, governance and sustainability and therefore leads the Group Sustainability Committee. This makes her the only board member at one of the large publicly held German automakers to hold a board position that focusses on sustainability.

Furthermore, remuneration for board members at Mercedes-Benz includes a variable compensation that can be based on the fulfilment of ESG targets and

**Renata Juno Brügger**  
as the board member  
for Integrity,  
Governance and  
Sustainability

Competitive Financial Analysis - Industrials			
<b>Gross Profit Margin</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz Cars	23.7%	23.9%	23.4%
Mercedes-Benz Vans	20.4%	21.3%	24.6%
BMW	17.6%	15.6%	16.9%
Porsche	28.4%	30.0%	32.0%
<b>RoA</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	4.3%	6.1%	5.9%
BMW	5.5%	7.8%	4.8%
Porsche	8.3%	10.0%	11.2%
<b>RoE</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	16.7%	18.8%	16.4%
BMW	18.3%	22.2%	12.7%
Porsche	18.6%	24.8%	28.5%
<b>Cash Conversion Cycle</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	75.1	75.9	74.6
BMW	154.2	120.6	119.2
Porsche	62.0	63.0	68.3
<b>Current Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	1.17	1.16	1.26
BMW	1.13	1.09	1.09
Porsche	1.42	1.22	1.48
<b>Quick Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	0.93	0.87	0.93
BMW	0.92	0.86	0.82
Porsche	1.07	0.88	1.04
<b>Solvency Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	0.39	0.49	0.54
BMW	0.48	0.56	0.57
Porsche	0.81	0.56	0.75
<b>Dividend Yield (Gross)</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	2.0%	8.1%	8.3%
BMW	2.1%	6.9%	8.4%
Volkswagen	1.8%	17.9%	7.3%
<b>Dividend Payout Ratio</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Mercedes-Benz	50.1%	38.3%	42.4%
BMW	30.9%	30.5%	33.6%
Volkswagen	25.4%	29.3%	28.2%

Figure 22: Competitive Financial Analysis (Source: Annual Reports, Refinitiv)

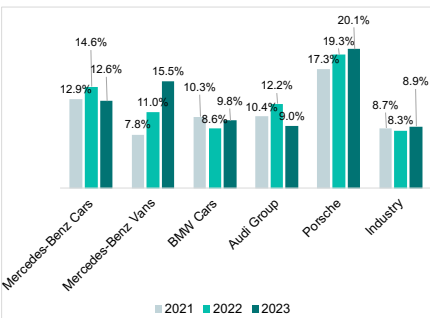


Figure 23: EBIT Margin Industry Comparison (Source: Annual Reports, Refinitiv)

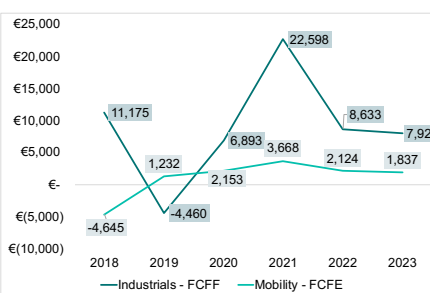


Figure 24: Historical Free Cash Flows

make up 20% of stock options and up to 25% of annual bonus remuneration. Hereby, a diverse number of non-financial goals are set which incentivize the transformation to a more sustainable organization.

### 1.7 Historic Financial Analysis

Diving into Mercedes-Benz’s financials, we can better understand the current situation of the company. Excluding the Daimler Trucks business, **revenues** were stable until 2020, when the Covid-19 pandemic slowed down sales by 8%. Mercedes recovered strongly afterwards, growing on average by 8.6% until 2023, despite the emergence of armed conflicts in Europe. Looking at **gross profit** and **EBIT margins**, it is noticeable that Mercedes is a strong performer among its industry peers, coming in second after Porsche. Surprisingly, the Vans division has greatly improved its operational performance, exceeding the margins of the larger Cars division. For the Mercedes Group it can be seen as a concern that the smaller Vans division which sells their commercial vehicles at a much lower price point than the premium Cars division is able to outperform by 2.9pp. in **EBIT margin**. Investigating the efficiency, liquidity and solvency ratios, Mercedes is a very stable company that falls in line with its main competitors, so that no financial concerns need to be raised for the immediate future.

This assumption can be confirmed when analysing the historical free cash flows of the firm. After reformulating the financial statements into core and non-core activities (of which non-core is assigned to the Parent Company), the business was then split into the industrial business and the financial services (Mobility) business. The industrials business has historically shown strong **Unlevered Free Cash Flows to the Firm**, reaching its peak in 2021 due to the Daimler Trucks spin-off. Due to the company’s strong sales and operational efficiency, the free cash flows are strong enough to launch an electric offensive and heavily invest into the R&D, technologies and infrastructure that is needed to succeed as an EV maker. Since Mobility is a financial services provider, the **Free Cash Flows to Equity** need to be analysed. As expected, Mobility’s cash flows are much lower than those of the industrials business, as it is a supporting division to facilitate the sales process. Nevertheless, the cash flows have been positive since 2019, indicating that the firm is being managed appropriately financially.

Looking further at the financial arm of Mercedes-Benz, the most relevant financial measure is the **Return on Equity (RoE)**, which has decreased by almost 10pp. to 12.3% in the last two years, but still boasts the highest figure among its 2 German competitors, BMW and VW. Not only has the **RoE** decreased, but with it also the **gross profit** and **EBIT margin** of the segment, while revenues stayed stable. This

Financial Analysis - Financial Services			
Gross Profit Margin	2021	2022	2023
Mercedes-Benz	18%	15%	12%
BMW	16%	13%	13%
Volkswagen	16%	20%	15%
EBIT Margin	2021	2022	2023
Mercedes-Benz	13%	9%	5%
BMW	11%	9%	8%
Volkswagen	11%	12%	7%
RoE	2021	2022	2023
Mercedes-Benz	22.0%	16.8%	12.3%
BMW	11.3%	11.9%	11.0%
Volkswagen	17.3%	14.1%	8.8%

Figure 25: Competitive Financial Analysis – Financial Services (Sources: Annual Reports, Refinitiv)

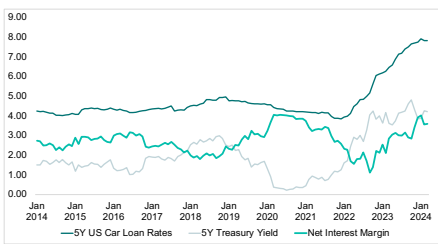


Figure 26: USA – Historical Net Interest Margins (Source: Bankrate)

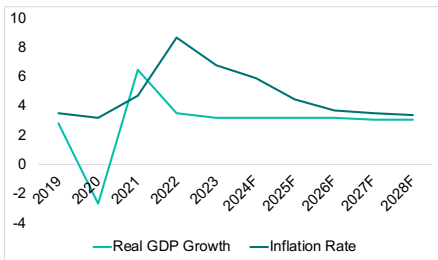


Figure 27: Worldwide Economic Indicators (in %) (Source: IMF)

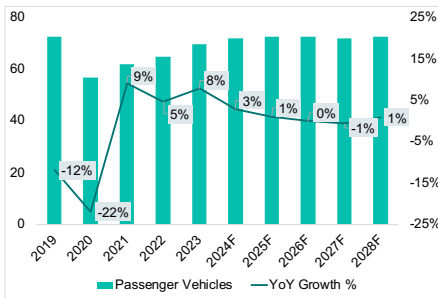


Figure 28: Worldwide Passenger Vehicles Sales Forecast (in m) (Source: Statista)

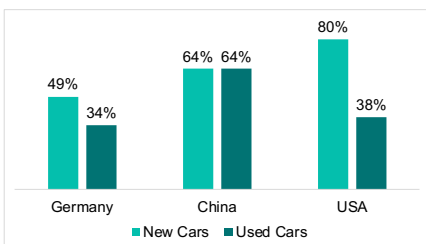


Figure 29: Share of Car Financing Deals (2022/2023) (Sources: Ipsos, JD Power, Experian)

recent negative financial performance in the whole automotive industry can be explained by the extraordinarily strong **net interest margins** carmakers were able to achieve during the Covid-19 pandemic in 2020 and 2021. While borrowing rates reached a low, financing rates offered to customers more or less stagnated, leading to a large boost in the interest margin. With treasury interest rates rising globally in 2022, the **net interest margin** has decreased as the interest rate increases could not be fully passed on to the customers. Also, carmakers nowadays offer deals on financing and leasing rates as a pricing instrument. Instead of decreasing the retail price when demand is suffering, financing rates are decreased to not give a negative signal to the capital markets that retail prices are being lowered, thereby decreasing the net interest margin.

Finally, it's worth noting that Mercedes-Benz has a tradition of paying **dividends**, with an average payout of 5.17€ since the pandemic, in line with its biggest competitor BMW. This translates to a payout ratio of approximately 40%.

## 2. Industry Overview and Outlook

### 2.1 Macroeconomic Environment and Outlook

With the automotive industry contributing to 5.7% of global economic output (IMF, 2019), the supply and demand of cars is highly dependent on each region's economic situation. As the biggest automotive markets are still recovering from the economic aftermath of the Covid-19 pandemic in the form of widespread inflation and the fastest hike of interest rates in the history of central banks as well as being impacted by geopolitical conflicts and restrictive trade policies, the 2024 forecast for global passenger car sales growth is at 3%, with commercial vehicle sales stagnating. It is important to note that interest rates are an important driver to determine car demand, as the majority of car purchases, both for new and used cars, are based on financing deals (Figure 29). With 84% of Mercedes' vehicle sales coming from Europe, China and USA, these markets will be expanded upon.

- European Markets

Last year's GDP growth in Europe has decelerated to 1% from 3.6% in 2022 amid large interest rate hikes combating ramping inflation especially in energy prices following the outbreak of the Russia-Ukraine conflict as well as economic stimuli during the pandemic. Growth within the largest European economies has suffered even more, with Germany, the largest GDP in Europe, even recording GDP shrinkage and being close to a recession. However, with inflation in the EU decreasing, the first interest rate cut since 2019 is expected in June 2024 and

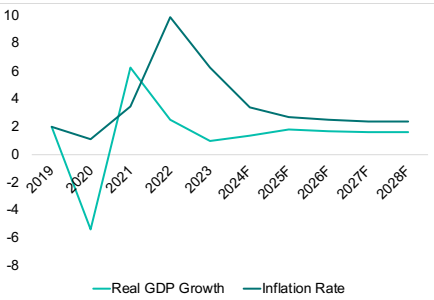


Figure 30: Europe Economic Indicators (in %) (Source: IMF)

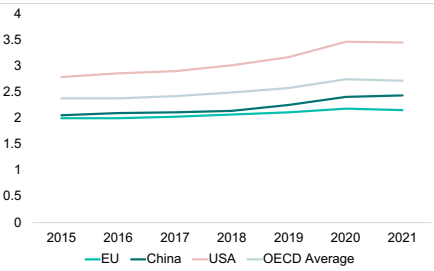


Figure 31: Gross Domestic Spending on R&D (in % of GDP) (Source: OECD)

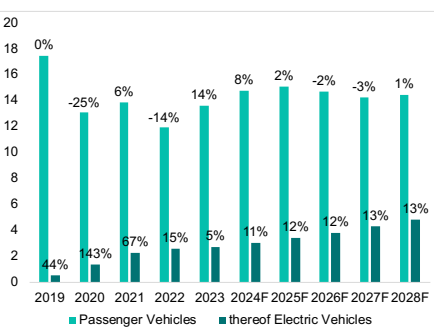


Figure 32: Europe Passenger Vehicle Sales Forecast (in m), incl. YoY %growth (Source: Statista)

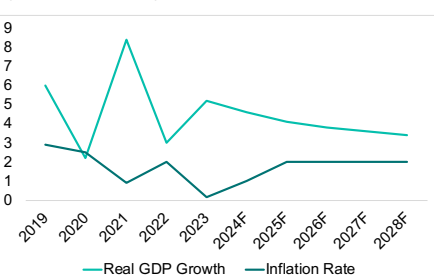


Figure 33: China Economic Indicators (in %) (Source: IMF)

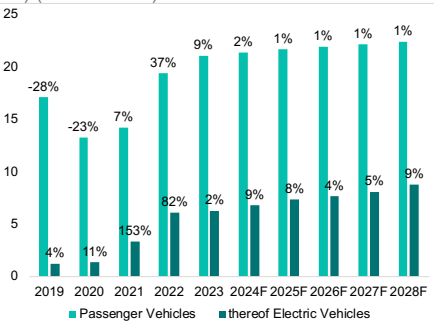


Figure 34: China Passenger Vehicle Sales Forecast (in m), incl. YoY %growth (Source: Statista)

intends to initiate an economic upturn (Reuters, 2024). Driven by wage growth, consumer spending in the five largest European economies is expected to increase around 1% YoY (MasterCard, 2024).

For the long term, Europe will have to overcome significant economic and competitive challenges. A quickly aging population means increased pension burdens as well as a reduced labor force. Another challenge is the regulatory environment that hinders technological innovation, as seen by the R&D investments as % of GDP that places the EU at 2.16% significantly lower than its main economic counterparts, USA and China (OECD, 2023). Also, the energy transition, especially in industrial powerhouses like Germany which is moving away from cheap Russian gas, is causing a loss in competitiveness in the manufacturing industry due to higher energy costs and thereby affecting Mercedes-Benz and other automobile manufacturers.

Despite the wide number of economic challenges in Europe, 2024 car sales are projected to increase by 8.1% in 2024, reaching a total market volume 14.72m cars sold. However, the CAGR from 2024 to 2028 is expected to be slightly negative at -0.42%, due to the aforementioned challenges as well as Europe's population increasingly moving to urban areas and cities becoming less car friendly. Yet, automobile manufacturers can still find growth opportunities within this stagnant market, namely in the form of electric vehicles. With the ban of sales of passenger cars with ICEs starting in the EU in 2035, EV sales are estimated to increase year for year until a close to 100% share is reached in 2035 (assuming no other competing powertrain technology emerges and policies are not changed).

▪ China

China, the second largest country in the world in terms of economic output, is forecasted to grow their economy modestly by 4.6% this year. After seeing a major slowdown in economic growth due to the country's zero-Covid policy as well as a property sector crisis after the 2021 default of the Evergrande Group, China's Central Bank has reduced its 5-year Loan Prime Rate to 3.95% in February (Reuters, 2024). This cut of 25 bps is the biggest ever and displays an attempt to stimulate economic growth, especially in the property sector.

Despite fears of a deflationary environment, passenger vehicle sales in the largest automotive market in the world are expected to rise 2% this year, reaching 21.4m units. Despite the end of the subsidy scheme for EV buyers in 2022, China's strong focus on EV technology has made the local industry competitive enough to sell an estimated 6.8m EVs, capturing 32% of the total car market. However, a lower demand than expected triggered price wars in 2023, leaving many carmakers

struggling to make profits on the expensive to build EVs (Fortune, 2024). It should also be noted that EVs in the premium segment are by far not as popular as in the entry segment. Especially foreign car makers are struggling to sell their premium EVs to Chinese consumers, with cars like the Mercedes EQS and Porsche Taycan falling significantly below sales expectations (Automobilwoche, 2023).

▪ United States

Similarly to Europe, United States has suffered a decrease in GDP growth with a simultaneous rise in inflation following the Covid-19 pandemic. In the current high interest rate environment, inflation is easing and could allow for rate reductions by the Federal Reserve in late 2024, potentially revitalizing the economy. Also, the labour market remains strong with a low unemployment rate of 3.5%, supporting consumer income and maintaining a good level of spending and economic activity.

In the automotive sector, total U.S. car sales for 2024 are expected to increase by 4% to approximately 14.8 million units, reflecting the impact of economic uncertainties and higher financing costs. In contrast, the EV market is set to expand significantly, with sales projected to increase by over 19% YoY, driven by federal incentives and advancements in EV infrastructure. While at least 7 states have planned to join California in committing to phasing out internal combustion engines (ICEs) by 2035 under the Advanced Clear Cars II rule, there is currently no unified agreement at the federal level regarding a nationwide ICE ban.

2.2 Industry Trends

▪ Electrification

With the world pushing to reduce carbon emissions and reach a carbon neutral world by 2050 according to the Paris agreement, it is generally agreed upon that ICE cars powered by fossil fuels need to go. As standards for CO<sub>2</sub> reductions and penalties for non-compliance are rising, all major car manufacturers have expanded their vehicle offering to include battery powered EVs which is currently the most promising low carbon substitute for the ICE and more favoured than the still highly inefficient synthetic fuels.

With European regulations indicating a stop to ICEs in 2035 and governments worldwide incentivizing EV purchases through consumer and manufacturer subsidies, all major car manufacturers want to gain market share within this fast-growing market that has sold 13.6m vehicles in 2023, making up 18% of worldwide car sales (Reuters, 2024). Looking forward, it is hard to predict how large the share of EV sales will be, as consumer adoption depends on a multitude of factors and challenges described in the next chapter. Forecasts by the IEA (2024), McKinsey

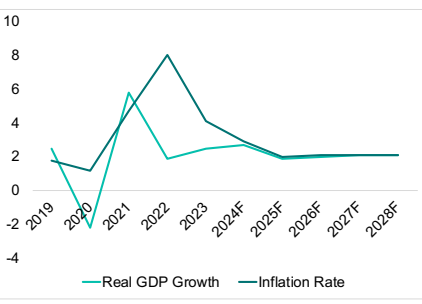


Figure 35: USA Economic Indicators (in %) (Source: IMF)

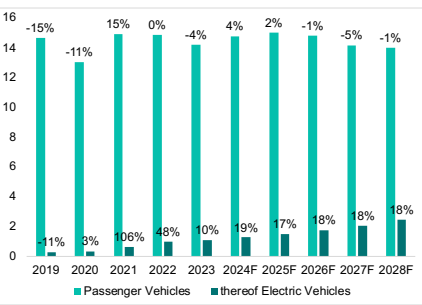


Figure 36: USA Passenger Vehicle Sales Forecast (in m), incl. YoY % growth (Source: Statista)

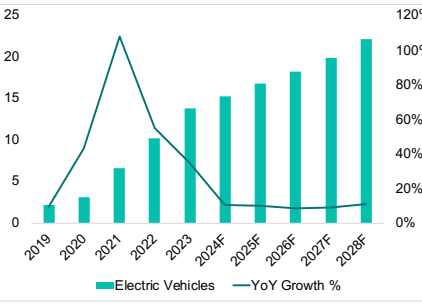


Figure 37: Worldwide Electric Vehicle Sales Forecast (in m) (Source: Statista)

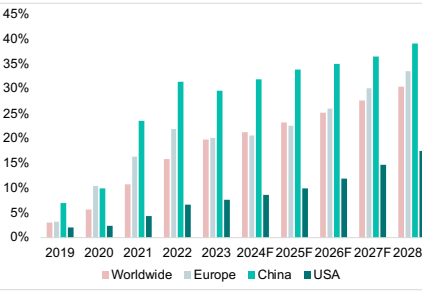


Figure 38: Worldwide Electric Vehicle Sales Share per region (in %) (Source: Statista)

(2023), UBS (2021) and Rystad Energy (2023) all predict an EV share of 40 to 44% in 2030, indicating the sale of around 40m EVs in 2030. This number aligns with Mercedes and BMW's goal of selling 50% EVs in 2030 (as more premium EVs are sold than entry-level ones) and is a more conservative estimate than other publications, which predict a share of 60% to 86% under favourable conditions (RMI, 2023) (Forbes, 2024). Such a large shift in technology means that incumbent ICE car manufacturers are at significant risk of losing their market leadership if they do not appropriately adapt to market demands.

▪ **Hydrogen Powered Cars**

While EVs are the currently most advanced and widespread technology to reduce carbon emissions, Toyota's Akio Toyoda, CEO of the world's largest car manufacturer, is the most vocal proponent of FCEVs and believes that EVs will only reach a maximum market share of 30% (Forbes, 2024), with FCEVs and ICEs making up the rest – hence justifying the company's large investments in hydrogen drivetrains.. While less than 15,000 FCEVs were globally sold in 2023, looking forward, the success of FCEVs is highly dependent on the manufacturers ability to address the main challenges in the development and operations of a hydrogen vehicle which encompass the high cost of hydrogen production, the tank safety as well as the fuelling infrastructure. As of now, hydrogen cars are not ready for large scale deployment and this does not seem likely for the foreseeable future. A coexistence of EVs and FCEVs is possible, with a market share of 1 to 5% not out of the picture (IDTechEx, 2023).

▪ **Autonomous Driving**

The rapid advancement in autonomous driving technology, fueled significantly by breakthroughs in artificial intelligence, marks a pivotal shift in automotive capabilities aligned with increasing demands for safety and efficiency. Leading the charge are the companies Waymo, Mercedes-Benz and BMW, which are setting industry standards. Waymo, renowned for its extensive testing and development in Level 4 autonomous technologies, operates robo-taxi services across various U.S. cities, utilizing sophisticated AI algorithms that allow vehicles to navigate roads without human oversight within designated areas. With the DRIVE PILOT in the S-Class and EQS, Mercedes-Benz has made significant headway with the introduction of the world's first Level 3 autonomous vehicle approved for commercial use in 2023, which can independently handle traffic jam conditions driving under 60 km/h. One year later, BMW, employing over 1800 individuals at their Autonomous Driving Campus, became the second carmaker to offer L3 technology in their top-end cars.

Commercially available FCEVs	
Manufacturers	Model
Toyota	Mirai II
Honda	CR-V e:FCEV
Hyundai	Nexo
<b>Total Unit Sales 2023</b>	<b>&lt;15,000</b>

Figure 39: Overview of Commercially Available FCEVs in 2024

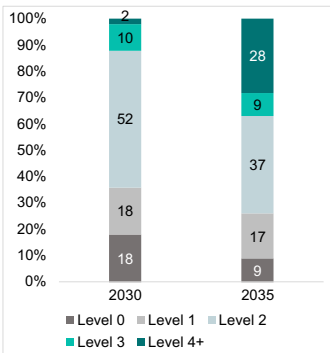


Figure 40: Autonomous Driving Levels Installed in Sold Vehicles (in %) (Source: McKinsey)

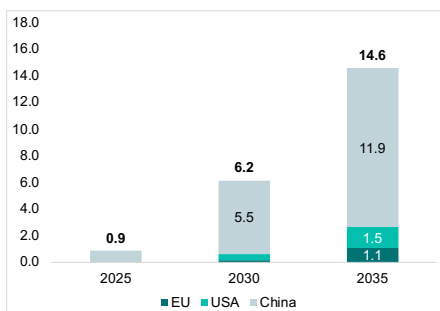


Figure 41: L4+ Autonomous Driving Unit Sales by Region (in m) (Source: Strategy&)

Forecasts suggest a robust expansion in the autonomous vehicle market, with expectations that up to 50% of new vehicles could incorporate a basic level of L2 autonomous driving by 2030 and advanced L3+ technologies in 12% of vehicles (McKinsey, 2023). This growth is anticipated to transform not just driving, but broader mobility trends, influencing everything from car ownership rates to urban development and emission reduction.

▪ **Connected Car**

Nowadays, mechanical excellence is not the key criteria for consumer’s car purchases anymore. The global trend of connected cars is rapidly gaining significance, particularly in China where advanced in-car connectivity and digital services are major selling points. Chinese consumers are particularly open to switching brands for better digital features, underscoring the importance of technology in vehicle purchase decisions (McKinsey, 2023).

Connected cars enhance driving experiences by providing real-time traffic data, remote diagnostics, AI-powered personal assistants, and in-car payment systems, among others. These functionalities not only improve safety and convenience but also meet the high expectations of tech-savvy buyers. Globally, features like over-the-air (OTA) updates and advanced telematics are expected to generate substantial economic value, potentially contributing \$250 billion to \$400 billion annually by 2030 (McKinsey, 2023).

▪ **Direct-to-Consumer Sales**

Mercedes and other carmakers are starting to shift to direct-to-consumer sales models (DTC) in the car industry, an industry that has historically been reliant on dealerships to bring their product to the end consumer. With customers increasingly demanding an upgraded customer experience, pricing consistency and transparency, as well as more digital purchase options, the DTC model is becoming more prevalent amongst car manufacturers, to the detriment of car dealerships. While car dealerships will not be completely cut out from the value chain, as they provide crucial after-sales services as well as local presence and expertise to accustom important customer relationships, they are being transitioned into an agency business model, meaning the cars on the dealership lot will stay in the inventory books of the manufacturer.

While this poses a great financial risk for the OEMs if car demand dips, there is much to gain from DTC sales. Not only does DTC entail higher profit margins by offering a consistent manufacturer set retail price amongst all channels instead of giving out individual customer discounts and paying a dealership commission, but

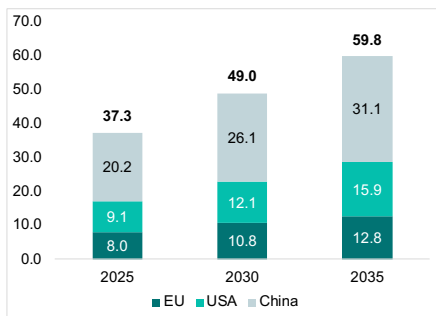


Figure 42: Advanced Connected Cars Unit Sales Forecast (in m) (Source: Strategy&)

DTC Opportunities and Risks for OEMs	
<b>Opportunities</b>	
Consistent omni-channel customer experience	
More data-driven decision making	
Full pricing power	
Cost savings through centralization	
<b>Risks</b>	
Balance Sheet inventory risk	
High IT infrastructure costs	
Dealership resistance to change	

Figure 43: DTC Opportunities and Risks for OEMs

the car manufacturers can also take larger control over the brand experience while collecting a large amount of customer data along the whole sales process.

- Light Commercial Vehicles

The market for small-, mid- and large-size vans, summarized as light commercial vehicles (LCV) is expected to stagnate in all of Mercedes-Benz’s main markets, Europe, China and the US. However, a market opportunity arises for selling electric LCVs, as a large number of companies, especially in Europe, are aiming to reduce their carbon footprint. As LCV owners use their vehicles much more intensively and are much more sensitive to the total cost of ownership (TCO), electric LCVs are becoming more attractive due to increased performance and a lower TCO due to cheaper recharging and repairs. In the long-term, carbon neutral commercial vehicles will be crucial for businesses, hence significant growth in the electric LCV market can be expected.

### 2.3 Industry Challenges and Risks

- Battery Technology and Production

The battery is the most important component of a BEV. Not only is it the largest variable cost component in a car and therefore an important profitability driver, it also determines the range, durability and charging time of the car which prove to be important buying criteria. The main conflict is finding the right trade-off between range (and therefore battery size) and price (which increases with battery size). Currently, the most widespread and proven battery technology is lithium-ion batteries, which are made using different raw materials, mainly containing lithium, cobalt, manganese, nickel and graphite. However, an alternative and safer battery technology that is in development by several OEMs are solid state batteries (SSB). Tests have shown that SSBs have higher energy density, meaning they could have a serious cost advantage in theory. Yet, these batteries are not yet economical to produce at scale due to the need of scarce materials serving as a solid electrolyte.

Regardless of the battery technology in use, the main challenge for OEMs is to further develop these technologies to be more cost-efficient, so that EVs can be offered at prices on par with ICE vehicles. While battery prices are forecasted to fall, recent news confirmed that EV market leader Tesla has cancelled their plans to introduce their entry level model that was supposed to start at € 25,000. This again underlines the current difficulty of building an economical EV (Reuters, 2024) and proves to be an obstacle for widespread EV adoption, if governments do not provide financial subsidies for the time being. An example for customer’s high price

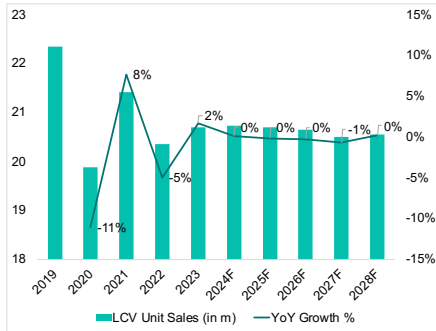


Figure 44: Worldwide Light Commercial Vehicle Sales Forecast (in m) (Source: Statista)

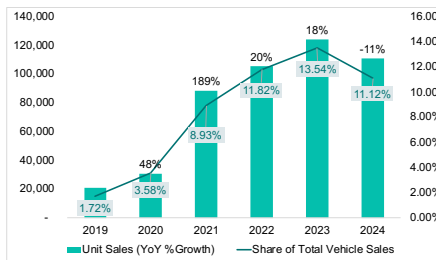


Figure 45: EV Unit Sales in Germany (January to April), incl. YoY %growth (Source: KBA)

sensitivity is Germany, where EV sales declined significantly after an abrupt end to the government subsidies at the end of 2023 (Figure 46)

While Mercedes has a more affluent and less price sensitive customer base, another challenge presented by BEVs is the degradation of battery health with increasing use, especially under the use of fast charging. A deterioration in battery health leads to a decrease in range and therefore a much higher loss in value for the used car than for ICE vehicles. This poses challenges in the lifecycle management of cars within fleets, especially when car leasing services are planning to sell on the cars for their residual value after the leasing period has ended. Automobile manufacturers have even started to pay holding premiums to leasing service providers to not release their vehicle to the used car market, as this would reduce demand for new cars and probably lead to more price cuts for the OEMs (Automobilwoche, 2024). Also, lower residual values mean higher leasing rates, again making EVs less economically competitive.

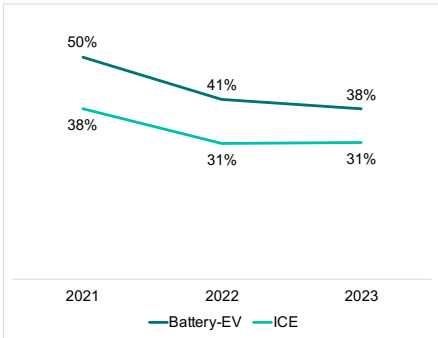


Figure 46: BEV Depreciation compared to Retail Price of 3-year old vehicles in Germany (in %) (Source: DAT)

▪ Charging infrastructure

While arguments for the purchase of an EV are the environmental benefits and potential savings on running costs, the availability and accessibility of charging stations remain a significant barrier to widespread adoption. Consumers often cite range anxiety as a major concern, fearing that they may run out of charge before reaching their destination. Additionally, the compatibility and consistency of charging stations and prices vary, leading to inconvenience and frustration for EV owners. Millions of new charging points, especially for fast chargers, must be opened to convert to an EV world, and to address this challenge, automobile manufacturers, governments and energy companies are collaborating to accelerate the deployment of charging infrastructure and improve the EV ownership experience. This is especially crucial in urban areas, where residents are often not able to set up their own charge port at home and thereby rely on a sufficient public charging infrastructure. However, especially in Europe, urban planning is increasingly encouraging car-free areas within cities, which go hand-in-hand with alternative micro-mobility solutions to the disadvantage of car use.

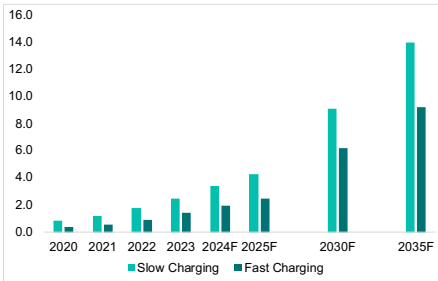


Figure 47: EV Charging Points Forecast (in m) (Source: IEA)

▪ Raw material scarcity

An average EV lithium-ion battery weighs 450kg, typically using around 8kg of lithium, 14kg of cobalt, 20kg of manganese (EV-Box, 2023), with a 107.8 kWh Mercedes EQS battery weighing 692kg (Auto-Motor-Sport, 2021). With millions of EVs being built every year, the demand for these metals and along with that, their prices have skyrocketed on global markets. While prices for the most critical metal for EVs, lithium, have plummeted in 2024 due to a slowdown in demand growth for

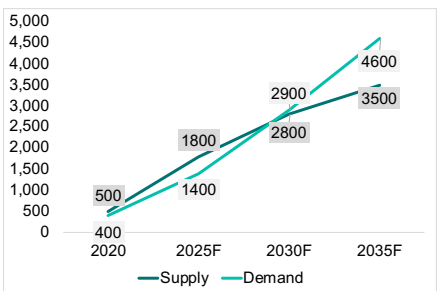


Figure 48: Lithium Supply and Demand Forecast (in kilotons) (Source: BCG)

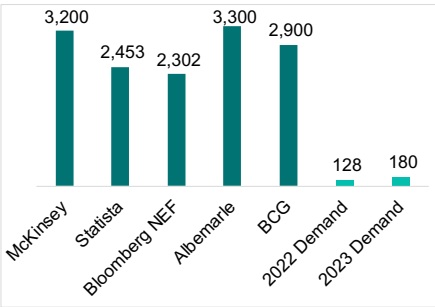


Figure 49: Lithium 2030 Demand Forecast (in kilotons) (Sources listed, IEA, US Geological Survey)

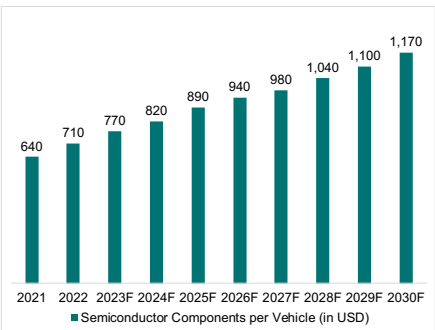


Figure 50: Semiconductor Components per Vehicle (in USD) (Source: BCG)

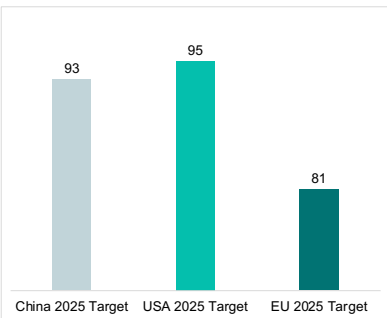


Figure 51: Fuel economy emission standards (in g CO<sub>2</sub>/km) (NEDC measurement)

Europe (selected countries): EV Incentives	
Germany	Road Tax Exemption Company Car Tax Reduction End of Purchase Subsidy in 2023
France	Purchase Subsidy up to 5,000€ Registration Tax Relief Company Car Tax Exemption
United Kingdom	Company Car Tax Reduction Charge Station Subsidy up to £350
Italy	Purchase Subsidy up to 3,000€ Charge Station Subsidy up to 1,500€ Road Tax Exemption

Figure 52: Overview of EV Incentives in European countries (Source: FleetEurope)

USA: Federal EV Policy	
Purchase Subsidy	up to \$7,500 per EV
Charging Infrastructure Funding	\$7.5bn
Federal Fleet Electrification	\$3bn
EV Manufacturing and supply chain funding	\$21.1bn

Figure 53: Overview of EV Incentives in the USA (Source: Electrification Coalition)

EVs (Carbon Credits, 2024), an at least tenfold increase in demand for lithium can be expected until 2030 (Figure 49). Lithium in itself is an abundant material on Earth, however the mining and extraction process of this metal is still relatively inefficient, constraining the supply for battery production and should therefore be seen as a potential risk when it comes to EV production. The recycling of batteries from used cars is one of the solutions to combat a raw material supply issue and improve sustainability figures.

▪ **Semi-conductor chip shortage**

In addition to the high demand for raw materials by technological hardware companies, there is also an increasing need for semi-conductors. These are essential for the operation of electric vehicles, as they are responsible for executing the software that defines the vehicle's electricity efficiency, running the infotainment system and implementing autonomous driving. During the global pandemic, supply chain issues led to a shortage of semiconductor chips, resulting in the loss of production of over 9.5 million cars in 2021 and 3 million in 2022 (S&P Global, 2023). Currently, supply shortages have eased, but future uncertainty remains due to geopolitical tensions. Consequently, it is of utmost importance for automotive manufacturers to establish a diverse range of reliable semiconductor supply chains to ensure the uninterrupted functioning of their production lines.

▪ **Policies and Regulations**

Since most countries in the world are looking to reduce their carbon emissions, they will have to eventually introduce policies that (1) disincentivize or ban the production of fossil fuel powered vehicles and (2) incentivize the production and sale of alternative technologies for passenger vehicles. While the largest car markets in the world, China, Europe and the US, have already put incentives for EVs in place and the EU as well as California having defined the ban of ICE car sales from 2035, these regulations can always be subject to change. The EU's 2035 ICE ban could still be overturned after the planned review in 2026, with conservatives within the EU Commission president's party strongly pushing for an adoption of synthetic fuels. A legislative overturn in 2026 could massively shift away the focus from the development of EVs for many automakers. Also, the new emissions standard "Euro7", announced in December 2023 and to be implemented in 2026, is not enforcing stricter emissions standard for passenger cars, thereby reducing the adoption to EVs. In the US, a possible second term as president for the Republicans Party under Donald Trump could mean a significant rollback in climate-related policies under the Inflation Reduction Act, especially when it comes to tax credits for purchasing EVs. Even China, the worldwide leader in the EV

China: EV Incentives	
Purchase Subsidy (ended in 2022)	
Purchase tax exemption (to end in 2027)	
Exemption from consumption tax and vehicle & vessel tax	
Infrastructure support	

Figure 54: Overview of EV Incentives in China (Source: Dialogue Earth, IEA)

space, considers synthetic-fuelled ICE vehicles as a part of the "Green and Low-carbon Development Roadmap for China Automotive Industry" which was presented at the 2023 World New Energy Vehicle Congress (ChinaDaily, 2023).

In conclusion, it cannot yet be ruled out that ICE vehicles will play an important role in the long-term, despite contrary legislations potentially coming into effect. Therefore, carmakers should not put all their eggs in one basket and continue development in a multitude of technologies – even if at a higher cost.

## 2.4 Competitive Overview

To determine the market share that Mercedes will be able to retain and capture in the future, it is important to analyse what strategies the competition is pursuing. In the following, the key strategic directions of Mercedes' biggest competitors in the cars and vans segment will be evaluated.

### ▪ BMW

The eternal rival has taken a different approach than Mercedes-Benz when it comes to the EV platform, as BMW values more flexibility within their production line. 7 out of the 9 available electric models are built on the same production line as their ICE counterpart, as the build except for the powertrain is basically the same (for example i5 and 5 Series). While building EVs with the same aerodynamics as their ICE counterparts leads to a lower battery range, it provides flexibility in production when consumer demand for either of the engine types is lower or higher than expected. BMW is currently benefitting from this flexibility, as EV sales are slowing down and more ICEs are demanded by the market. BMW's goal until 2030 is to have a 50% share of EVs sold in their product mix, which also aligns with Mercedes' 2030 goal.

### ▪ Porsche

After the release of the highly awaited eMacan, which was significantly delayed by 2 years due to complications with the inhouse software provider of the Volkswagen Group Cariad in the development of the operating system, Porsche now offers the second EV model along with the Taycan. Porsche is aiming to quickly electrify their whole fleet and predicts 80% of their sales in 2030 to be electric – with one exception: Porsche's flagship car, the 911 with a current share of 13% of Porsche's sales, will continue to be produced as an ICE, and running on synthetic fuels even beyond 2035. Having set a more ambitious electrification goal than Mercedes and BMW, the company is looking to introduce new EV models in the coming years, with the electric Cayman scheduled for 2025 and Cayenne for 2026

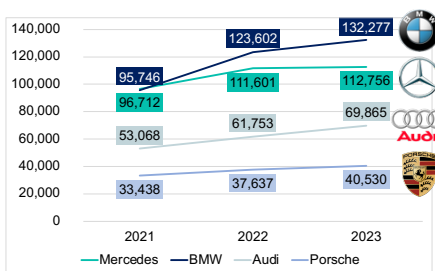


Figure 55: Revenue Comparison Competitors (in m€) (Source: Annual Reports)

BMW - Key Facts	
Revenues (in m€)	132,277 €
Unit Sales (in '000)	2,554
Segment	Premium & Luxury
Positioning	"Sheer Driving Pleasure" - Sporty Driving
Main Markets	China (32%) USA (16%) Germany (11%) UK (6%)
Brands	BMW (Premium/Luxury) Rolls Royce (Ultra-Luxury) MINI (Entry-Level)

Figure 56: BMW Key Facts (2023) (Source: Company Reports and Website)

Porsche - Key Facts	
Revenues (in m€)	40,530 €
Unit Sales (in '000)	320
Segment	Luxury & Sport
Positioning	"Driven by Dreams" - Aspirational sportscars
Main Markets	North America (27%) China (25%) Rest of Europe (22%) Germany (10%)
Brand	Porsche

Figure 57: Porsche Key Facts (2023) (Source: Company Reports and Website)

Audi - Key Facts	
Revenues (in m€)	69,865 €
Unit Sales (in '000)	1,861
Segment	Premium & Luxury
Positioning	"Progress through Technology" - Modern driving technology
Main Markets	China (39%) Rest of Europe (27%) Germany (14%) USA (12%)
Brands	Audi (Premium/Luxury) Lamborghini (Luxury/Sport) Bentley (Luxury)

Figure 58: Audi Key Facts (2023)  
(Source: Company Reports and Website)

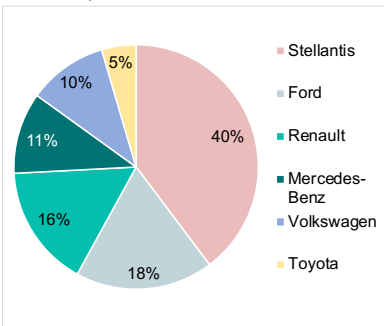


Figure 59: LCV Market Share in EU (2021) (Source: Dataforce)

▪ Audi

Audi currently offers 4 different EV models (10 if you consider Sportback editions) and is targeting for all model releases after 2026 to be electric. The last ICE car forecasted to be released in 2026 is the Q5 and will be produced until 2033, meaning this is the year Audi will go fully electric. The company benefits from being part of the large Volkswagen Group and is able to reach scale effects by sharing production platforms with the other brands of the Group. The currently cheapest EV offered, the Q4 e-tron, is built on Volkswagen's MEB platform, while Audi's higher end models, such as the Q6 e-tron are developed on the PPE platform, which was developed with Porsche and is the basis for its new eMacan.

▪ Vans competitors (Stellantis Pro One)

Stellantis, the current leader in lightweight commercial EVs in Europe and number 3 in the US, has launched an offensive under the name of "Dare Forward 2030" which has revamped their whole electric vans portfolio and is expanding their production line for hydrogen fuel cell large and mid-size vans, which will be produced for 4 of their brands. Stellantis is aiming to reach a 40% BEV, PHEV, fuel cell mix for their commercial vehicle fleet until 2030 and is rapidly developing the required technologies to make these vehicles attractive for the customer base, mainly in terms of battery range and charging speed.

Strengths			Weaknesses		
<p><b>Brand and Values</b></p> <ul style="list-style-type: none"> <li>Most valuable brand in the world</li> <li>Mercedes as a luxury symbol</li> <li>Strong commitment to sustainability and EVs reflected in high ESG score</li> <li>Market leader in Executive Cars segment</li> </ul>	<p><b>Technology</b></p> <ul style="list-style-type: none"> <li>Strong partnerships for EV innovations</li> <li>Leading autonomous driving technology</li> <li>Breakthrough EV technology expected with upcoming platform system</li> <li>98 years of experience in car engineering</li> </ul>	<p><b>Financials</b></p> <ul style="list-style-type: none"> <li>Strong cash flows and profits to invest in new technologies</li> <li>Highly profitable Vans segment</li> <li>Attractive EBIT margins compared to industry and competitors</li> <li>Ratios display financial health</li> </ul>	<p><b>Current Sales</b></p> <ul style="list-style-type: none"> <li>EQ models are selling less than expected</li> <li>High depreciation of EQ models make purchase unattractive</li> <li>Supply chain issues slow sales of Core segment</li> </ul>	<p><b>China Dependency</b></p> <ul style="list-style-type: none"> <li>36% of car sales in China, the most competitive EV market with current price wars</li> <li>Joint Ventures at risk of intellectual property theft</li> <li>High demands of Chinese customers need to be catered to</li> </ul>	<p><b>Low Agility</b></p> <ul style="list-style-type: none"> <li>Pace of innovation is slower than that of pure EV players</li> <li>Less production flexibility than BMW due to separate EV platforms</li> <li>All-in on EVs: no significant investments in other clean drivetrains</li> </ul>
Opportunities			Threats		
<p><b>Electric Future</b></p> <ul style="list-style-type: none"> <li>€ 830bn market by 2028</li> <li>Mercedes' 2 largest markets, China and Europe, are going mainly electric</li> <li>Legacy luxury carmakers are slow to move to EVs, opportunity to become leader in luxury EV segment</li> </ul>	<p><b>Autonomous Driving (AD)</b></p> <ul style="list-style-type: none"> <li>\$ 300-400bn market size by 2035</li> <li>Continue partnership with AI-leader NVIDIA to become market leader</li> <li>New market of mobility solutions to open up with advanced AD tech</li> </ul>	<p><b>Leveraging Data</b></p> <ul style="list-style-type: none"> <li>Use DTC-Sales to gain more insights on customer behavior</li> <li>Connected Car capabilities to improve luxury experience</li> <li>Capture customer preferences and accelerate development times and agility</li> </ul>	<p><b>Slow Electrification</b></p> <ul style="list-style-type: none"> <li>Poor charging infrastructure, high prices and battery technologies make EVs unattractive</li> <li>Mercedes cannot produce enough ICEs</li> <li>EV Regulations get pushed back</li> </ul>	<p><b>Chinese Competition</b></p> <ul style="list-style-type: none"> <li>Subsidy-powered Chinese EV makers establish market dominance</li> <li>Other carmakers cannot compete on price and technology</li> <li>As a result, global trade becomes more restrictive</li> </ul>	<p><b>Supplier Dependency</b></p> <ul style="list-style-type: none"> <li>Lithium supply and semi-conductor Production is of geopolitical strategic importance</li> <li>Restrictions in supply for both car components will lead to significant production downturn</li> </ul>

Figure 60: SWOT Analysis (Source: McKinsey)

## 2.5 SWOT and Porter's Five Forces Analysis

To summarize the key findings of Mercedes' company strategy combined with insights from the industry analysis, a **Strength, Weaknesses, Opportunities and Threats (SWOT)** framework is developed in Figure 60.

Furthermore, to determine Mercedes' competitiveness in the automotive market, a **Porter's Five Forces** analysis has been conducted, focussing on competitive forces of suppliers, customers, new entrants, substitutes and current carmakers, summarized in Figure 61.

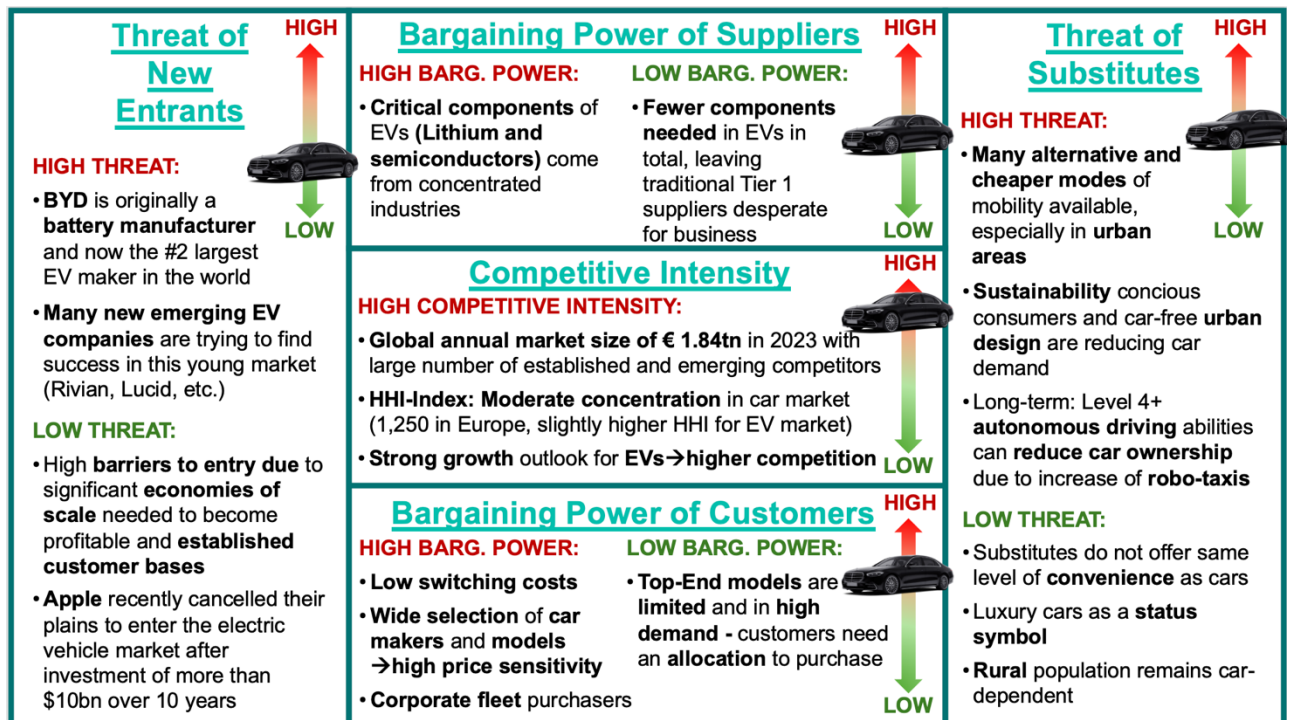


Figure 61: Porter's Five Forces Analysis (Sources: Statista Market Insights, Allianz, Bain)

## 3. Company Forecasts

### 3.1 Main Forecast Drivers and Revenue Breakdown

- Vehicle Sales

The number of vehicles sold stands as one of the pivotal revenue streams for MBI, constituting one of its two primary pillars. Given the distinct markets for Cars and Vans, revenue for each division was calculated independently.

This challenge was addressed from two angles to enhance the resilience of the forecasts. Firstly, employing a **top-down approach** involved forecasting both the cars and vans market across various geographical regions, along with projecting Mercedes' market share.

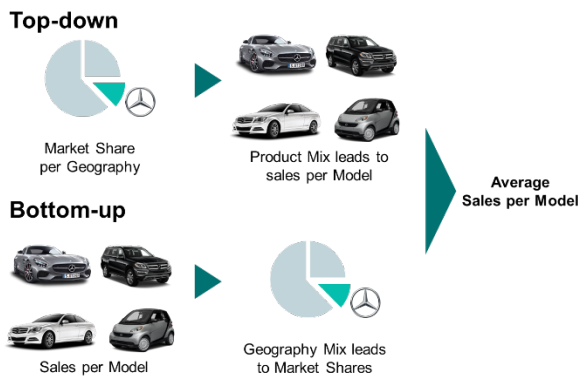


Figure 62: Vehicle Sales estimation scheme, self-creation

By determining the total units sold, we derived sales per model based on the defined product mix. Conversely, adopting a bottom-up approach entailed directly forecasting the evolution of units sold for each model, which were then aggregated to obtain the total value. The final result would be the average of both approaches.

To calculate the unit sales in the **bottom-up approach**, the **product lifecycle of cars** needs to be considered. The phenomenon is common amongst durable consumer goods, that when a new model or edition is released, the demand upon initial release is very strong, but slowly fades as product age increases (Volpato & Stocchetti, 2008). Before a new model is released, demand reaches a bottom, as consumers prefer to wait out their purchase until the new model is released. For Mercedes, the typical lifecycle of a model is 7 years, where demand reaches its peak in the year after the release (the release year is not the strongest as the models are not usually released at the beginning of the year and initial deliveries can take months to reach their customers), and the bottom is reached in year 7 after the release. Mercedes tries to reduce the inevitable demand downturn by launching a facelifted version of their models after 3 to 4 years, however, our analysis of the C-, E- and S-Class sales shows that demand still continues to decline after the facelift release. A comprehensive chart is found in Appendix 2.

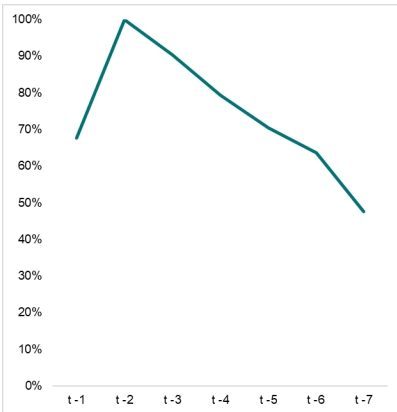


Figure 63: Model Life Cycle average sales per year compared to peak, self-creation

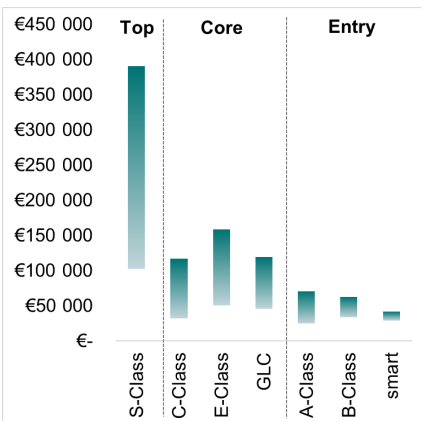


Figure 64: (Selected) Car Price Ranges – 2024 prices, self-creation

### Vehicle Prices

Simultaneously, we recognized that vehicle pricing represents the other cornerstone of MBI revenues. However, determining prices posed a significant challenge due to variations stemming from add-ons and geographic differences. To address this, we established a price range by identifying the retail prices of the cheapest and most expensive versions of each model in the key markets Germany, USA, and China. With this, Excel’s Solver tool was used to arrive at an average price per model, that multiplied by the number of units sold would lead to the revenue value for that year. Retrospectively, replicating this pricing process for past years posed difficulties as historical retail prices were often unavailable. To mitigate this, we utilized industry averages for inflation in vehicle prices, ensuring a reasonable estimation.

### Operating Margin

Ideally, we would have analyzed the Operating Margin on a per-model basis, aligning with our revenue approach. However, due to insufficient granularity in the available public data, we aggregated the models into three levels: top-end, core, and entry. Additionally, recognizing disparities in the production process and raw materials used, we introduced further segmentation by splitting the margins between ICE and EV powertrains. This additional layer of segmentation allowed

	Combustion Engine	Electric Cars
Manufacturing	Casting, machining, and assembly of key parts	Construction of EV motors; assembly of battery cells, modules, and packs
Components	Cylinder block, pistons, crankshaft, camshaft, valves	EV motor (stator, rotor, bearings, shaft, controller), battery pack (cells, modules, BMS)
Materials	Iron/steel, aluminum, copper, rubber/plastic	Copper, steel/iron, aluminum, permanent magnets, lithium, graphite, plastics/rubber

Figure 65: Operational differences between ICE and EV motors, self-creation

for a more nuanced understanding of the factors influencing operating margins across different vehicle categories and powertrain technologies.

▪ **Total Contract Volume**

Shifting our attention to the Mobility segment, the total contract volume encompasses both new contracts for financing and leasing deals signed in the current year and the volume of ongoing contracts.

Initially, the number of new contracts signed was defined as a percentage of the vehicles sold in that year. Multiplying this figure by the average contract size yielded the total volume of new contracts. Subsequently, the volume of ongoing contracts was determined by subtracting the volume of expired contracts from the total contract volume of the previous year. The number of expired contracts also correlates with vehicles sold, albeit with a lag of five years – as most contracts have a maturity around that time span.

Total Contract Volume (2023)	
# of New Contracts as % of vehicles sold	56,2%
Total vehicles sold	2 491 841
<b># of New Contracts (in units)</b>	<b>1 400 000</b>
Average volume of new contract (in euros)	44 296 €
<b>New Contracts Volume (in millions euros)</b>	<b>62 014,00 €</b>
# of Expired Contracts as % of vehicles sold in t-5	40,3%
Total vehicles sold in t-5 (2018)	3 321 500
<b># of Expired Contracts (in units)</b>	<b>1 340 220</b>
Average volume of new contract (in euros)	44 296 €
<b>Expired Contracts Volume (in millions euros)</b>	<b>59 366,00 €</b>
Total Contract Volume t-1 (2022) (in millions euros)	132 379,00 €
Expired Contracts Volume (in millions euros)	- 59 366,00 €
<b>Ongoing contracts Volume (in millions euros)</b>	<b>73 013,00 €</b>
New Contracts Volume (in millions euros)	62 014,00 €
Ongoing contracts Volume (in millions euros)	73 013,00 €
<b>Total Contract Volume</b>	<b>135 027,00 €</b>

Figure 66: Total Contract Volume calculations breakdown - 2023, self-creation

▪ **From Contract Volume to Revenue**

Calculating Mobility's Revenue from the total contract volume was a straightforward process. Utilizing Excel's Solver once more, we determined the revenue yield from both new and ongoing contracts that multiplying by the total volume of each contract type resulted in the exact revenue figures.

▪ **Mobility's Debt**

Given that Mobility serves as the financial arm of Mercedes, its debt is considered to be part of the division's core business. Moreover, their debt requirements is directly tied to the volume of the contracts. The contract volume is represented on the asset side as the Receivables from Financial Services and the Equipment on Operating Leases. Consequently, the equity and short- and long-term debt of Mobility needs to be able to cover these two positions on the asset side. For that, a Tier 1 Capital Ratio (CET 1) is determined, similar to the ones that are mandatory for banks. CET 1 defines the ratio of between a bank's equity capital and its total risk-weighted assets and the minimum requirement in the EU is 11.1% for financial institutions (ECB, 2023). While this requirement does not apply to the carmakers, the same methodology was used to calculate Mobility's liabilities. Having obtained the equity value from Mobility's CET 1 in each year (9.0% in 2023), the remainder was assigned to the liabilities. This way, the core debt of Mobility will be dependent on the receivables from financial services and equipment on operating leases, which depend on the contract volume of Mercedes-Benz in each year.

Mobility Debt Calculation (2023)	
Contract Volume	135,027 €
Receivables from Financial Services	88,211 €
% of Contract Volume	65%
Equipment on Operating Leases	27,267 €
% of Contract Volume	20%
Risk-weighted Assets*	115,478.00 €
Tier 1 Capital Ratio	9.0%
Implied Equity	10,360 €
Implied Debt	105,118 €
Short term Debt %	59%
Long term Debt %	41%
<b>Short Term Debt</b>	<b>61,659 €</b>
<b>Long Term Debt</b>	<b>43,459 €</b>

\*Risk-weighted Assets and Contract Volume are not equal due to financial valuation differences

Figure 67: Mercedes Mobility Debt calculations breakdown - 2023, self-creation

▪ **Other drivers**

**PP&E breaks down into Land and buildings, Technical equipment and machinery, Other equipment, Advance payments and Right of use assets from leasing.**

Most other figures in the financial statements were considered to be either a percentage of revenue or EBIT. Some relevant exceptions are personal expenses which are linked to the number of employees, PP&E where each sub caption is linked to the number of vehicles produced and all figures embedded in the cash conversion cycle which follow either the payable, collection, or holding period.

### 3.2 Scenario-adjusted Forecasts

With over 150 drivers identified, our model was ready to receive forecasts. We aimed for our forecasts to embody the statistical outcomes of diverse scenarios we envisaged could unfold. To achieve this, we broke down the problem into eight distinct dimensions, summarized in Figure 68. Each dimension was assigned an "importance score," reflecting its perceived relevance.

Within these dimensions, we delineated mutually exclusive scenarios, assigned a probability of occurrence to each scenario. These scenarios comprised future events, enabling us to gauge their impact on the company by forecasting values for selected drivers under each scenario.

Subsequently, we constructed a base case, representing historical averages for most drivers. For each scenario, we computed the average deviation from the base case for every driver. This deviation was then adjusted based on the probability of occurrence and the importance score assigned to the dimension, effectively synthesizing the various events and their potential impacts into our overall forecast. All dimensions, scenarios and respective importance score and probability of occurrence can be summarized in Figure 69.

Dimensions
Electrification
China
Macroeconomy
Geopolitics
Company Internal
Regulations
Demographics & Consumer Behavior
Raw Materials and Supply Chain

Figure 68: Dimensions used for the scenario-adjusted forecasts

Dimension (Importance Score)	Sub-Dimension (Importance Score)	Scenarios	Probability of Occurrence	Revenues	Operational Margins	CAPEX
Electrification (10)		Mercedes becomes a main luxury EV vehicles brand	45%	▲	▼	▲
		Electrification does not affect Mercedes Benz market position	23%	■	▼	▲
		Mercedes loses the electrification race	23%	▼	▼	▲
		Electric is substituted by a new tech and Mercedes successfully adapts to it	8%	▲	▼	▲
		Mercedes bets on electric but a new tech arrives and is not able to adapt in time	3%	▼	▼	▲
China (8)		Mercedes is able to expand its market share in China	70%	▲	▲	▲
		China is more restrictive with foreign car manufacturers and Mercedes loses market share	30%	▼	▼	■
Macroeconomy (7)		World Economy is in a long-term upswing after high interest-rate phase	50%	▲	■	■
		Europe sustains high interest rates to combat inflation	30%	▼	■	■
		World Economy crumbles down again into recession	20%	▼	▼	■
Geopolitics (8)		Armed conflicts escalation and Geopolitical tension lead to trade policies become more restrictive	40%	▼	▼	▼
		Trade policies become more liberal	5%	▲	▲	▲
		Armed conflicts escalate on a global scale	1%	▼	▼	▼
		Status quo in geopolitics remain	54%	■	■	■
Company Internal (10)	Cost Cutting Policies (4)	Mercedes successfully improves its operations as intended	40%	■	▲	▲
		Status quo - No improvement on cost structure	50%	■	■	■
		Mercedes has some operational problems increasing its cost burden	10%	■	▼	▲
Regulations (10)	EU's 2035 Combustion Engine Ban (10)	The EU sticks with the 2035 combustion Engine Ban	75%	▲	■	■
		The EU delay the 2035 combustion Engine Ban	25%	▼	■	■
Regulations (10)	EV Regulation (3)	EVs vehicles continue to be subsidise to create incentive to consumers	60%	▲	▲	■
		EV vehicles become the norm, hence tax benefits for owners disappear	40%	▼	▼	■
Demographics & Consumer Behavior (5)	Demographics (2)	Population growth in Asia and Africa leads to higher demand in cars - while Europe suffers from a demographic decline with lower demand for cars	100%	▲	■	▲
		Consumer interests align with Mercedes product offering	60%	▲	■	■
Raw Materials and Supply Chain (6)	Car purchase criteria (5)	Consumer interests do not align with Mercedes product offering	40%	▼	■	■
		European automotive manufacturers struggle to secure a competitive supply of raw materials (esp. Lithium)	60%	■	▼	■
Raw Materials and Supply Chain (6)		Mercedes secures itself a reliable and affordable supply of necessary raw materials (esp. Lithium)	40%	■	▲	■

Figure 69: Summary of the Dimensions and Scenarios

- Importance Score

Among the eight defined dimensions, three clearly emerge as paramount: Electrification, Company Internal, and Regulations. **Company Internal** warrants a perfect score of 10/10, as Mercedes' response to market trends is pivotal in its valuation. Understanding how the company adapts to industry shifts is crucial for assessing its future performance. **Electrification**, another critical dimension, earns a 10/10 score as well. This trend is widely recognized as transformative within the automotive industry, with industry analysts such as (Heineke, Kampshoff, & Möller, 2024) and (Goldman Sachs, 2024) highlighting its significance. Therefore, assigning it a maximum score aligns with its substantial impact on Mercedes' future. Furthermore, **Regulations**, closely intertwined with the electrification process, also garners a maximum score. Regulatory frameworks significantly shape the automotive landscape, especially concerning the transition to EV and the ICE ban in the EU 2035, underscoring the importance of this dimension.

In addition to the primary dimensions, **China** and **Geopolitics** emerge as key factors, each earning an importance score of 8. **China's** expanding role in the automotive market, particularly in the electric vehicle (EV) segment as highlighted by (Yueyuan Selina Xue, 2024), highlights its significance. Given the increasing influence of China-related events on the industry, assigning a high importance level to this dimension is justified. Moreover, **geopolitical** tensions, as outlined by (Halpin & Humphries, 2023), persist in influencing the distribution of vital raw materials, particularly energy-related commodities. This, in turn, affects the broader macroeconomy, leading to disruptions in market dynamics due to imposed sanctions and tariffs. Acknowledging the significant impact of geopolitics on the economy underscores its profound influence on market dynamics. It's worth noting that the decision for all scores was a blend of our own perspective and insights gleaned from various reports and articles, including those mentioned earlier.

### 3.3 Forecasts Summary

Our explicit forecast extends until 2040 given the importance of the 2035 ICE bans and the impact it will have on the automotive industry.

- Revenue

Before delving into revenue projections, it's crucial to understand the evolution of vehicle sales. While not on a linear trajectory, the number of vehicles sold is expected to follow an increasing trend, peaking at 3,337,306 units in 2035. Additionally, a subtle shift in the product mix is observable. The Vans division's more stable growth dilutes its position in the Mercedes portfolio from nearly 20%

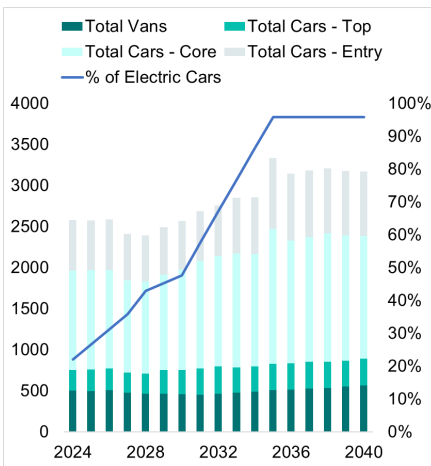


Figure 70: Unit Sales Evolution, in thousand of cars – 2024//2040, self-creation

to around 15%. Within the Cars division, a trend towards luxury is evident, with Entry-level cars losing market share, while Top-End models gain prominence. Furthermore, we anticipate Mercedes to attain its target of having 50% electric vehicles by 2030 and fully transitioning to EVs by the time the ICE ban is realized.

These fluctuations in unit sales are reflected in revenue projections, where two main trends are forecasted. Initially, a reduction in revenues is anticipated as Mercedes transitions to EVs while consumers still favour ICE vehicles. This, coupled with expected economic turmoil, negatively impacts Mercedes' revenue. Subsequently, a peak in sales is expected as the 2035 ban on ICE vehicles looms. Mercedes' strong commitment to EVs positions it to capture market share. However, quick responses from competitors are anticipated to affect sales in the following years. Additionally, Mercedes Mobility is expected to maintain a stable revenue stream, with fluctuations associated with variations in vehicles sold, albeit with a slight lag until realization.

▪ **Gross Margin**

From an operational standpoint, electric cars typically yield smaller margins, particularly considering the expected challenges associated with sourcing certain raw materials such as lithium. Therefore, as Mercedes transitions towards a fully electric portfolio, its gross margin is anticipated to decline. Additionally, a shift from dealership sales to a DTC model is expected to contribute to this decrease, as discounts and other selling costs are incorporated into Mercedes' accounts. Furthermore, heightened competition from Chinese companies will complicate pricing strategies. As a result, we forecast Industrials' gross margin to decrease from **24%** to approximately **16%**. These transitions will become more pronounced upon the implementation of the 2035 ICE ban. Conversely, we do not expect any major shift in Mercedes Mobility margins, staying stable across the explicit years.

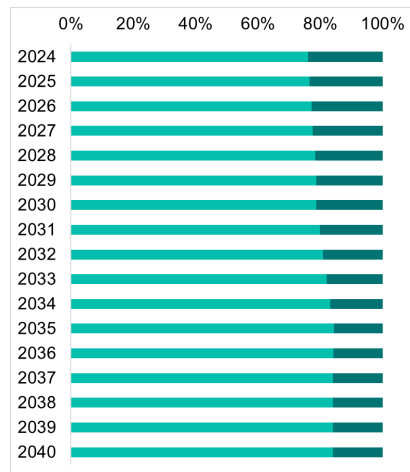


Figure 71: Gross Margin Evolution – 2024//2040, self-creation

▪ **Capital Expenditures**

In a company undergoing a significant transition in its product portfolio, understanding the expected evolution of its capital expenditure is crucial. With the shift to EV vehicles, we anticipate continuous investment in Property, Plant, and Equipment (PP&E) as new factories and machinery will be required to accommodate the new production lines. This is projected to result in an average investment of around **€10,000 million** annually. Additionally, investments in operating leases are expected to closely mirror the changes in new vehicles sold, with a notable peak projected for the year 2035 when Mercedes is expected to reach its unit sales peak. Finally, capital expenditures in intangible assets (internally generated) represent the smallest of the three categories, averaging

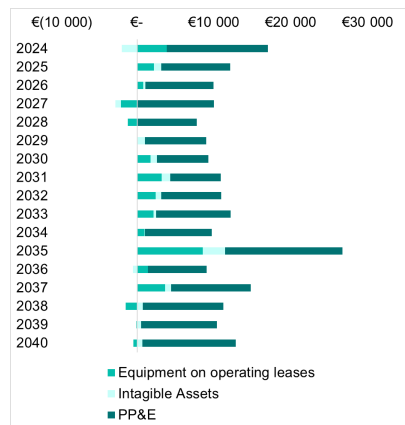


Figure 72: CapEx Evolution – 2024//2040

around €500 million. These expenses mainly comprise development costs for ongoing projects, which typically align with the company's revenue figures.

▪ Return on Invested Capital

The return on invested capital (ROIC) tends to be a meaningful measure of a company's ability to create value for its shareholders.

In our forecasts we see Mercedes Core ROIC go from the actual superb 19.03% to a more conservative, yet good, 7.29%. This fall is mainly justified by a smaller Core Operational Margin, which, as discussed earlier, is expected to suffer from the transition to electric. Furthermore, as expected, Mercedes Industrials is the one yielding a higher ROIC as financial arms like Mobility tend to slightly drag the companies return down in general.

▪ Free Cash Flow

Ultimately, it's the cash flows generated at the end of each year that determine the company's value. It's worth noting that, due to Mercedes Mobility's financial profile, we utilized Equity Cash Flows, where changes in debt—considered as an asset for Mobility—are factored in.

Both Mercedes Industrials and Mercedes Mobility consistently generate positive cash flows throughout the explicit forecast years. However, a notable exception arises in 2035, where despite Mercedes achieving its highest sales figures, the additional capital expenditures required to accommodate both the increased sales volume and the final transition to full electric vehicles result in a negative cash flow. Nonetheless, we anticipate Mercedes Industrials to rebound in the subsequent year, recording its highest cash-generating performance.

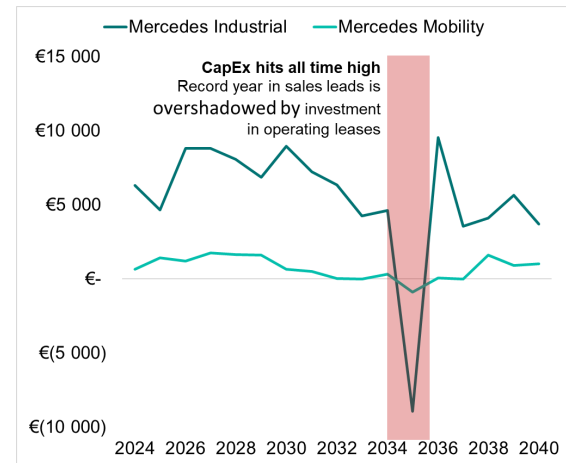
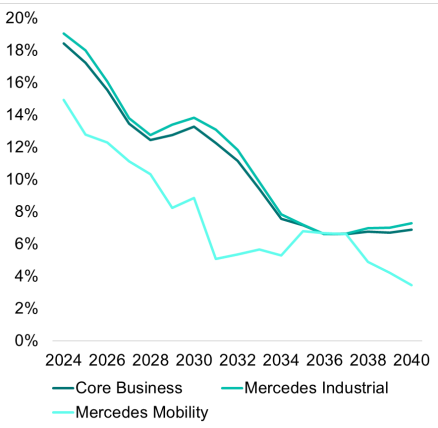


Figure 74: FCF Evolution – 2024//2040

## 4. Absolute Valuation

### 4.1 Cost of Capital

Before delving into the valuation models, it's imperative to assess the idiosyncratic risk associated with Mercedes by computing the risk measures of debt and equity.

Mercedes, being a financially stable company with its debt consistently rated as stable by major rating agencies (A by Standard & Poor's and A2 by Moody's), is expected to have a relatively low cost of debt. We approximated the **cost of debt** to be **3.25%** based on the yield of an 8-year corporate bond issued by Mercedes-Benz in January 2024.

Market Risk Premium Calculation		
Region	MRP	Weight
China	5.63%	31%
USA & Canada	4.60%	17%
Germany	4.60%	14%
Rest of Europe	6.39%	24%
Rest of Asia	8.35%	9%
Rest of World	6.99%	5%
<b>Weighted MRP</b>	<b>5.81%</b>	

Figure 75: Market Risk Premium Calculations

Peer Group Equity Betas			
Comparable	Levered Beta (5Y)	Debt to EV Ratio	Unlevered Beta
BMW	1.33	-24%	1.65
Porsche	1.38	-6%	1.46
Volkswagen	1.66	15%	1.43
Stellantis	1.82	-29%	2.31
Volvo Cars	1.47	-8%	1.57
<b>Median</b>	<b>1.47</b>	<b>-8%</b>	<b>1.57</b>

Figure 76: Peer Group Equity Betas

Computing Cost of Equity	
Unlevered Beta	1.57
Risk-free Rate	2.46%
Market Risk Premium	5.81%
<b>Unlevered Cost of Equity</b>	<b>11.57%</b>
Unlevered Beta	1.57
Target D/EV Ratio	-8%
Target Debt Rating	A
Target Debt Beta	0.05
<b>Relevered Equity Beta</b>	<b>1.46</b>
Risk-free Rate	2.46%
Market Risk Premium	5.81%
<b>Relevered Cost of Equity</b>	<b>10.94%</b>

Figure 77: Cost of Equity calculations

Computing WACC	
Cost of Debt	3.25%
Relevered Cost of Equity	10.94%
Target D/EV Ratio	-8%
Statutory Tax Rate	29.825%
<b>WACC</b>	<b>11.60%</b>

Figure 78: WACC calculations

To obtain the cost of equity according to the CAPM method, the **risk-free rate** was defined as **2.46%** for a German 10-year federal bond. The **Market Risk Premium (MRP)** was obtained by weighing the individual country-specific equity risk premia provided by Damadoran (2024) based on the international exposure Mercedes has to each national market by unit sales across the Cars and Vans divisions. China therefore is the largest contributor to the MRP, with a share of 31% of total unit sales and a risk premium of 5.63%.

Next, an **equity beta** needs to be determined. For that, an industry beta based on a selected peer group will be computed based on a 5-year monthly stock price and a 2-year weekly stock price regression against the market (represented by MSCI World in €). Proceeding with the 5-year betas as these were more in line with the industry beta of 1.52 by Damodaran (Damodaran, 2024) and unlevering these according to each competitors D/EV ratio, an unlevered **industry equity beta** of **1.57** was obtained. The **D/EV ratio** of the competitors was obtained by calculating each company's net debt and current market capitalization. It must be noted that leverage ratios vary greatly within the automotive industry, as companies deal differently in presenting their financial statements regarding their financial services (FS) business. The FS part of a company which deals with financing and leasing of its customers cars are in its nature highly levered and highly increase the balance sheet volume. While the large German automakers present their FS balance sheet consolidated with its industrial business, companies such as Stellantis and Volvo do not. This makes the leverage ratios of the peer group very hard to compare, which is why it is crucial to separate the FS assets and liabilities from the consolidated statement to reach a comparable net debt value of the industrials business. Using the same approach as previously in the chapter "Mobility's Debt", all comparables bar Volkswagen had a negative D/EV ratio, implying that the industrial business is running without a financial deficit. Hence, the median of **-8%** of the comparables D/EV Ratio was used as the **target leverage** level for Mercedes. In the last step, the **equity beta** needs to be **relevered** according to the target debt rating of A (S&P) and target debt beta of 0.05 (Schaefer & Strebulaev, 2006), amounting to **1.46**.

Having obtained all the components of the CAPM formula, the **unlevered cost of equity**, **levered cost of equity** and consequently the **Weighted Average Cost of Capital (WACC)** could be computed (Figure 77 and 78).

## 4.2 Long-term Growth

Now that we have estimations for the risk profile of the company, it's essential to forecast the expected growth beyond the explicit years. Our explicit forecasts

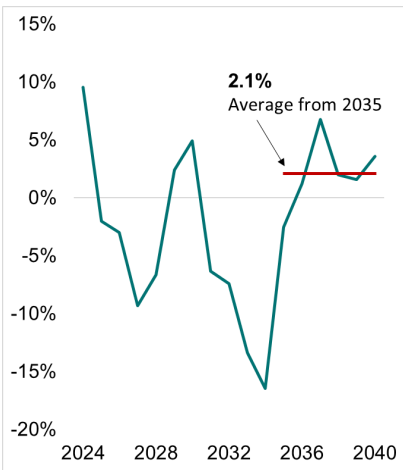


Figure 79: Implicit Growth Rate evolution - 2024//2040

extend until 2040. To determine the future growth trajectory, we computed both the Return on New Invested Capital (RONIC) and the Investment Rate (IR) based on the forecasted financial statements. This enabled us to calculate the growth rate per year per division.

Additionally, we leveraged comparable metrics to make a more informed decision. After thorough analysis, taking into consideration the forecasted growth rate for the last 5 explicit years – 2.1% on average – and comparable information, we have settled on a growth rate of 2.5% for both divisions. These growth rates reflect our projections for Mercedes' and the automobile industry's expansion, as more people replace their ICE to EV cars, hence the value above the 5-year average.

### 4.3 Valuation by parts

Given the conventional nature of the industrial segment of Mercedes, we were able to apply more traditional valuation models such as the Adjusted Present Value (APV) and the Discounted Cash Flow (DCF). These methods operate under different assumptions, enabling a more thorough analysis of the segment's equity value. It's crucial to underline that in this scenario, the APV method discounts cash flows using the Unlevered Return Rate, while the DCF method utilizes the WACC.

The APV model offers distinct advantages by separately valuing tax shields and financial leverage from the company's assets. This approach provides greater flexibility in financial assumptions and enables a more nuanced understanding of capital structure evolution. Our analysis using the **APV** model forecasts an Enterprise Value of **50,359.88 million €** for Mercedes Benz Industrials.

On the other hand, the DCF model focuses on intrinsic cash flows and discounts them to their present value, while considering the financial leverage and tax benefits of debt within the WACC discount rate. This approach provides insights into the segment's fundamental performance. Based on our calculations, the **DCF** yields an Enterprise Value of **50,893.79 million €** for Mercedes Benz Industrials.

Moreover, considering the unique nature of the mobility segment, where debt is an integral part of its operations and is embedded in its operational cash flows, the APV and WACC may fail to accurately value it. Hence, we employed the Flow to Equity (FTE) method to assess the Enterprise Value of Mercedes Benz Mobility. This approach incorporates Equity Cash Flows and discounts them using the relevered Cost of Equity, effectively accounting for the intricate relationship between debt and equity within the company's financial framework. According to our projections, the forecasted Enterprise Value for Mercedes Benz Mobility stands

**APV and DCF valuations methods obtain – as intended - almost identical Enterprise Values**

Enterprise Value Calculation		
Valuation Method	Divisional Value	Share
<b>Industrials</b>		
APV	50,359.88 €	74%
DCF	50,893.79 €	75%
<b>Mobility</b>		
Flow to Equity	9,692.87 €	14%
<b>Parent Company</b>		
Book Value	7,615.77 €	11%
<b>Total Enterprise Value</b>		
APV	67,668.51 €	
DCF	68,202.42 €	

Figure 80: Enterprise Value Calculation

Equity Value Calculation	
<b>Enterprise Value</b>	
APV	67,668.51 €
DCF	68,202.42 €
<b>Liabilities Value (Parent Company)</b>	
Short-term debt	-16,745.10 €
Long-term debt	20,265.38 €
(-) Excess cash	12,897.64 €
(-) Marketable debt secu	6,858.00 €
(-) Deferred Tax Assets	891.08 €
(=) Net Debt	-17,126.44 €
Non-Controlling Interest	1,043.00 €
<b>Total Liabilities Value</b>	<b>-16,083.44 €</b>
<b>Equity Value</b>	
APV	83,751.95 €
DCF	84,285.87 €

Figure 81: Equity Value calculation

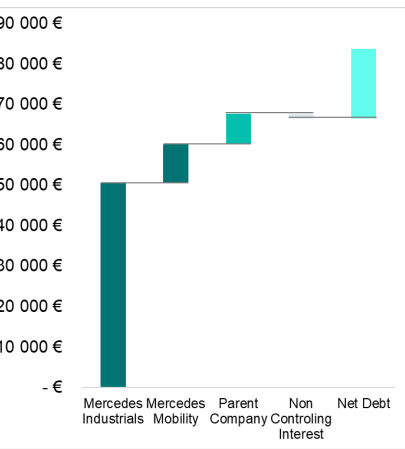


Figure 82: Enterprise Value Breakdown

at **9,692.87 million €**. As anticipated, this division represents a significantly smaller portion of the overall divisional enterprise value at 14%.

Finally, in our analysis, the Parent Company encompasses all non-core and financial assets and liabilities. Firstly, the non-core assets and liabilities (invested capital) were valued at their book value, as they do not depend on Mercedes' core activities. Secondly, Non-Controlling Interest followed the same logic, hence being valued at Book Value. Finally, net debt was extrapolated from the APV model, considering the assumptions made on the "Cost of Capital" sub-topic.

#### 4.4 Mercedes Benz Stock Price

After valuing all the divisions, we arrive at the overall forecast enterprise value of **67,668.51 million €** using the APV method, and **68,202.42 million €** under the DCF method. Upon removing both the non-controlling interest and the net debt, we obtain the following equity values: **83,751.95 million €** and **84,285.87 million €**, assuming APV and DCF, respectively. With these figures in mind, and considering a total of 1040.97 million shares, we calculate an estimated price per share of **80.46€** under the APV method and **80.97€** under the DCF method.

#### 4.5 Scenario Analysis

Considering our scenario-adjusted forecast, we conducted a scenario analysis in two stages. Initially, we examined the ramifications of alterations in the probabilities of occurrence within each dimension on the overall stock price. This exercise enabled us to discern which dimensions exerted the most considerable influence on the stock price, necessitating a more meticulous consideration of the probability distribution. Notably, we found that **Electrification, Company Internal, and Regulations** had the most pronounced impact, aligning with their highest importance scores. Consequently, the probability of the 2035 ban materializing and Mercedes' capacity to adapt will be pivotal factors determining its value. Secondly, we developed worst and best-case scenarios by combining the negative and positive scenarios of each dimension and increasing their probability of occurrence by 5 to 10 percentage points. This adjustment resulted in a price of **77.57 €** under the worst-case scenario and **84.27 €** under the best-case scenario (Appendix 3).

#### 4.6 Sensitivity Analysis

As an additional measure to enhance the robustness of our absolute valuation, we conducted sensitivity testing on our long-term assumptions. This involved analysing variations in both the growth rates for Industrials and Mobility, as well as their respective discount rates.

Given that our explicit forecast extends until 2040, the terminal value of both segments represents a relatively small portion of their overall value – 13% and 21% respectively. Consequently, the impact of long-term variables on the stock

**Mercedes Benz Industrials**

		Long-Term Growth Rate				
		1,50%	2,00%	2,50%	3,00%	3,50%
WACC	10,60%	84,03 €	84,53 €	85,09 €	85,72 €	86,44 €
	11,10%	82,05 €	82,47 €	82,93 €	83,45 €	84,05 €
	<b>11,60%</b>	80,23 €	80,58 €	80,97 €	81,40 €	81,89 €
	12,10%	78,57 €	78,87 €	79,20 €	79,56 €	79,97 €
	12,60%	77,03 €	77,29 €	77,56 €	77,87 €	78,21 €

price is considerably subdued. The growth rate primarily influences the terminal value calculation, thus exerting minimal impact on the stock price, with a range in obtained prices of 2.41€ for Industrials and 0.87€ for Mobility.

**Mercedes Benz Mobility**

		Long-Term Growth Rate				
		1,50%	2,00%	2,50%	3,00%	3,50%
Equity Return Rate	9,94%	81,55 €	81,73 €	81,93 €	82,16 €	82,42 €
	10,44%	81,10 €	81,25 €	81,41 €	81,60 €	81,81 €
	<b>10,94%</b>	80,71 €	80,83 €	80,97 €	81,12 €	81,30 €
	11,44%	80,35 €	80,45 €	80,57 €	80,70 €	80,84 €
	11,94%	80,03 €	80,12 €	80,22 €	80,32 €	80,44 €

Conversely, the discount rates play a pivotal role in the terminal value computation and the discounting of cash flows for every explicit year. Consequently, their influence on the stock price is more pronounced, albeit not overly significant. Fluctuating the discount rate values resulted in price ranges from 77.03€ to 84.03€ for Industrials and 80.03€ to 81.55€ for Mobility.

Figure 83: Sensitivity Analyses breakdown

In conclusion, our assessment of parameter robustness instills confidence, leading us to retain our original assumptions without alterations.

**4.7 Monte Carlo Simulation**

To ensure the robustness of our results, we conducted a Monte Carlo Simulation. This involved selecting 25 different variables (Appendix 4) primarily operational metrics like market shares and profit margins, along with discount and growth rates. The variables' averages and standard deviations were based on our original forecasts. For the simulations, we assumed a normal distribution for all variables.

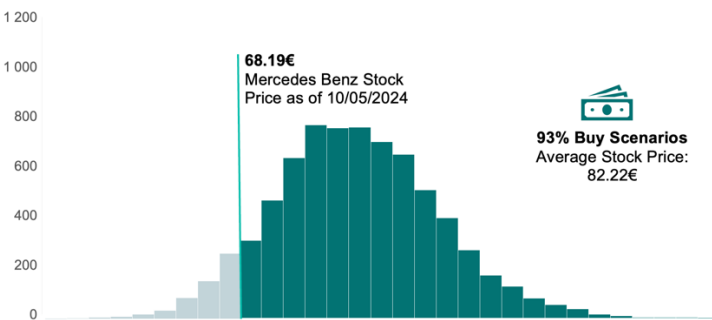


Figure 84: Monte Carlo Simulation Histogram – 10,000 simulations and assuming the averages and standard deviations of original forecasts

After running 10,000 simulations of our model, the average price calculated was **82.22€**. The range of results varied significantly, from -47.39€ to 124.51€. Notably, with a stock price of 68.19€ as of 10 May 2024, our simulation indicated a buy recommendation in 93% of cases. This suggests that, in the majority of scenarios, our DCF model supports the view that the stock is undervalued, providing a strong basis for our recommendation to buy.

**5. Relative Valuation**

**5.1 Peer Selection**

To conduct a multiple valuation, first a set of peers need to be identified that operate in a similar manner to Mercedes-Benz in terms of market positioning, sales regions and cash flow metrics. It is also important to consider peers that operate

Peer Group Profile			
Automotive Company	Segment	Offers LCVs?	Peer Group?
Mercedes-Benz	Premium to Luxury	Yes	Yes
BMW	Premium to Luxury	No	Yes
Porsche	Luxury	No	Yes
Stellantis	Mass Market (MM) to Luxury	Yes	Yes
Volkswagen	MM to Luxury	Yes	Yes
Volvo Cars	Premium EV	No	Yes
Renault	MM	Yes	No
Honda	MM	No	No
Tata Motors	MM and Luxury	Yes	No
Tesla	MM and Premium EV	No	No
Ferrari	Ultra-Luxury	No	No

Figure 85: Peer Group Selection

in a similar manner by use of a financial services arm, such as Mobility for Mercedes. For that, we have identified BMW AG, Volkswagen AG, Porsche AG, Stellantis NV and Volvo Car as the main peer group. BMW has basically the same positioning as Mercedes in the Cars segment. Volvo is following a similar EV strategy as Mercedes and is a strong competitor in its Core business. Volkswagen has exposure to both the premium and luxury segment through its brands Audi, Porsche and Bentley, as well as the commercial vehicle segment. Porsche is an icon in the luxury and sports car market and Mercedes is aspiring to win over more Porsche customers in the future. Finally, Stellantis represents a good fit due to its premium and luxury exposure, as well as the strong light commercial vehicles division, the financial services arm and an ambitious EV strategy.

Peer Group Multiples			Not Included Peer Group Multiples		
Multiple	EV/Revenue		Multiple	EV/Revenue	
	LTM	2024F		LTM	2024F
Mercedes-Benz	0.36x	0.36x	Renault	0.19x	0.19x
BMW	0.30x	0.30x	Honda	0.26x	0.25x
Porsche	1.71x	1.72x	Tata Motors	1.18x	1.11x
Stellantis	0.25x	0.25x	Tesla	5.38x	5.32x
Volkswagen	0.25x	0.25x	Ferrari	10.89x	10.33x
Volvo Cars	0.23x	0.22x			
75%-Quartile	0.70x	0.70x			
Mean	0.52x	0.52x			
Median	0.28x	0.28x			
25%-Quartile	0.24x	0.24x			
Multiple	EV/EBITDA		Multiple	EV/EBITDA	
	LTM	2024F		LTM	2024F
Mercedes-Benz	2.28x	2.39x	Renault	1.67x	1.41x
BMW	1.76x	1.83x	Honda	2.63x	2.49x
Porsche	6.76x	6.87x	Tata Motors	8.39x	7.71x
Stellantis	1.63x	1.70x	Tesla	32.47x	33.76x
Volkswagen	1.62x	1.64x	Ferrari	28.47x	26.93x
Volvo Cars	2.16x	2.04x			
75%-Quartile	3.40x	3.51x			
Mean	2.70x	2.75x			
Median	1.96x	1.94x			
25%-Quartile	1.63x	1.69x			
Multiple	EV/EBIT		Multiple	EV/EBIT	
	LTM	2024F		LTM	2024F
Mercedes-Benz	2.95x	3.29x	Renault	3.62x	2.76x
BMW	2.71x	2.98x	Honda	n/a	
Porsche	10.18x	10.80x	Tata Motors	15.94x	14.14x
Stellantis	2.20x	2.34x	Tesla	52.89x	59.27x
Volkswagen	3.54x	3.51x	Ferrari	39.56x	36.75x
Volvo Cars	3.83x	3.89x			
75%-Quartile	5.42x	5.62x			
Mean	4.24x	4.47x			
Median	3.24x	3.40x			
25%-Quartile	2.58x	2.82x			

Figure 86: Peer Group Multiples

Other prominent carmakers were not considered as the peer group for a multitude of reasons. Renault and Honda are not catering to the same customer segments as Mercedes, and despite Renault's strong LCV business, recent financial trouble do not make it a great comparison yet. While Tata Motors also competes in the luxury segment with Jaguar-Land Rover, the rest of the company is too exposed to the Indian market. Tesla and other uprising EV companies such as NIO are not yet comparable due to very different cash flow metrics and their valuations primarily as growing technology stocks. Lastly, Ferrari as an ultra-luxury carmaker sells very small volumes of cars and should rather be compared to luxury consumer-good brands instead of traditional automobile manufacturers.

## 5.2 Multiples Valuation

The selection of multiples is based on three Enterprise Value multiples: EV to Revenue, EV to EBITDA and EV to EBIT, which were calculated as the median, mean and 1<sup>st</sup> and 3<sup>rd</sup> quartile of the peers. The Price to Earnings ratio is not being included as this multiple does not consider the leverage ratio of firms which has significant variance in the automotive industry and therefore impacts each stock's price. By using these 3 ratios both as historical (Last Twelve Months) and forward multiples (2024 Forecast, both from Refinitiv), it is possible to get a more realistic view of a relative valuation, as both past and future insights are being considered. Applying the 2024 projected Revenue, EBITDA and EBIT to the multiples gives us a range of valuations, ranging from 50.9€ in the lower quartile to 123.2€ in the upper quartile (see Appendix 5). It is noticeable that there is no significant valuation difference between the trailing historical and the forward multiples.

Relative Valuation (Mobility)			
Multiple	P/E		P/B
	LTM	2024F	
Deutsche Bank	8.06x	7.87x	0.025x
Commerzbank	7.61x	7.22x	0.034x
ING	7.38x	8.02x	0.051x
BNP Paribas	7.71x	7.51x	0.030x
Societe Generale	7.19x	6.19x	0.013x
Median	7.61x	7.51x	0.030x
Mean	7.59x	7.36x	0.030x

Figure 87: Financial Services Peer Group Multiples

From the results we can gather that the **median multiples** are all close to the current stock valuation, ranging from **56.4€** to **72.2€**. The **mean multiples** range from **80.0€** to **93.5€** and can be explained by Porsche's very high multiples as a

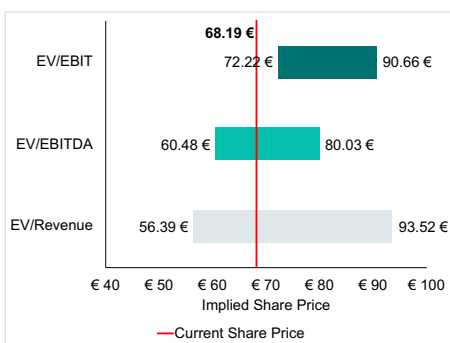


Figure 88: Implied Multiple Valuation (Median=lower end, Mean=upper end) (using 2024F Forward Multiples)

pure luxury carmaker. Since we believe that Mercedes will continue to serve its Entry and Core segment and not become a pure-play luxury car brand, it makes more sense to assume the median multiples for the final valuation.

Additionally, a sum of the parts multiple valuation was applied by separating the Industrial and the Mobility business and obtaining new multiples based on a financial services peer group that is based on large European banks. Since banks have similar capital structures, the Price-to-Earnings and Price-to-Book Value ratios were used. Applying the median P/E and P/B multiples gives us a stock price of **10.7€** and **3.5€** respectively. Obtaining the Industrials Stock price from an average of the three previously used median multiples gives us a total stock price of **68.0€** and **60.8€**, respectively. This implies that the Mobility division makes up 6% to 16% of the company’s total valuation, which is reasonable considering its supportive function – and in line with the 14% share from the absolute valuation.

Implied Stock Price (Sum of the Parts)				
Mobility Multiple	P/E		P/B	
	LTM	2024F	LTM	
	Multiple	7.61x	7.51x	0.03x
=Stock Price Mobility	10.81 €	10.66 €	3.48 €	
Industrials Multiple	EV/Rev	EV/EBITDA	EV/EBIT	
	2024F	2024F	2024F	
	Multiple (Median)	0.28x	1.94x	3.40x
	Implied EV	38,283 €	45,774 €	55,692 €
=Stock Price Industrials	49.35 €	56.55 €	66.08 €	
Avg Stock Price Industrials		57.33 €		
<b>Total Stock Price</b>	<b>68.14 €</b>	<b>67.99 €</b>	<b>60.81 €</b>	

Figure 89: Implied Multiple Valuation (Sum of the Parts)

## 6. Final Recommendation

In essence, our entire endeavor revolves around a single question: is the stock price of Mercedes Benz AG accurately priced? Having factored in many different business scenarios and using the insights we gained from the different valuation methods, we give each valuation method a weight to obtain our **final price target** for the financial year 2024. The absolute valuation makes up the majority of our analysis and is assigned a weight of **70%**, with the remaining **30%** being equally assigned to the 5 different multiples valuations. Finally, this gives us a weighted valuation of **75.39 €**. A **dividend yield** does not need to be considered, as the ex-dividend date for 2024 has already passed on May 9<sup>th</sup>, with a dividend of 5.30 € being paid, up 1.2% (0.10 €) vs. last year. In total, the stock is expected to return **10.5%** this year compared to the current stock price of **68.19 €**, which indicates a current undervaluation and therefore a **buy recommendation** from our side.

Weighted Valuation		
Valuation Method	Stock Price	Weight
<b>Absolute Valuation</b>	<b>80.71 €</b>	<b>70%</b>
APV	80.46 €	35%
DCF	80.97 €	35%
<b>Relative Valuation</b>	<b>62.96 €</b>	<b>30%</b>
EV/Revenue	55.43 €	6%
EV/EBITDA	59.62 €	6%
EV/EBIT	70.94 €	6%
P/E	67.99 €	6%
P/B	60.81 €	6%
<b>Weighted Valuation</b>	<b>75.39 €</b>	
<b>Current Stock Price</b>	<b>68.19 €</b>	
<b>Shareholder Return</b>	<b>10.55%</b>	

Figure 90: Weighted Valuation and Comparison to Current Stock Price

The main driver impacting Mercedes-Benz’s future growth will be the customer adoption of electric vehicles, which highly depends on the technology proving to be the best carbon-neutral solution as well as governments setting regulations to incentivize EV adoption. The revision of the 2026 ICE ban law will in this case be the next large indicator how well Mercedes’ strategy pans out. If other technologies will be favoured, it will be crucial for Mercedes to be able to pivot to these as quickly as possible.

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# 1. Appendix

## 1.1 Financial Statements

Consolidated Income Statement (2017-2028)												
in million euros	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Revenue	164 330,00 €	167 362,00 €	172 745,00 €	154 309,00 €	133 893,00 €	150 017,00 €	153 218,00 €	161 192,95 €	165 259,46 €	168 243,00 €	160 016,92 €	159 897,18 €
Cost of sales	- 129 999,00 €	- 134 295,00 €	- 143 580,00 €	- 128 721,00 €	- 103 218,00 €	- 115 997,00 €	- 118 839,00 €	- 124 792,56 €	- 128 833,00 €	- 132 068,72 €	- 126 264,65 €	- 127 145,50 €
<b>Gross profit</b>	<b>34 331,00 €</b>	<b>33 067,00 €</b>	<b>29 165,00 €</b>	<b>25 588,00 €</b>	<b>30 675,00 €</b>	<b>34 020,00 €</b>	<b>34 379,00 €</b>	<b>36 400,39 €</b>	<b>36 426,46 €</b>	<b>36 174,28 €</b>	<b>33 752,27 €</b>	<b>32 751,67 €</b>
Selling expenses	- 12 965,00 €	- 13 067,00 €	- 12 801,00 €	- 11 058,00 €	- 9 194,00 €	- 9 482,00 €	- 9 728,00 €	- 11 668,39 €	- 11 953,42 €	- 12 159,37 €	- 11 547,79 €	- 11 560,77 €
General administrative expenses	- 3 809,00 €	- 4 036,00 €	- 4 050,00 €	- 3 534,00 €	- 2 808,00 €	- 2 584,00 €	- 2 688,00 €	- 2 659,65 €	- 2 632,10 €	- 2 596,81 €	- 2 560,48 €	- 2 529,57 €
Research and non-capitalised development costs	- 5 938,00 €	- 6 581,00 €	- 6 586,00 €	- 6 116,00 €	- 5 467,00 €	- 5 602,00 €	- 6 230,00 €	- 6 655,34 €	- 6 852,02 €	- 7 004,69 €	- 6 680,42 €	- 6 741,21 €
Net Other operating income	1 782,00 €	868,00 €	1 632,00 €	1 280,00 €	1 153,00 €	2 034,00 €	802,98 €	844,77 €	866,08 €	881,72 €	838,61 €	837,98 €
Gains/losses on equity-method investments, net	1 498,00 €	656,00 €	479,00 €	797,00 €	1 352,00 €	1 732,00 €	2 129,00 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €
Other financial income/expense, net	- 230,00 €	210,00 €	262,00 €	354,00 €	317,00 €	340,00 €	108,00 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €
<b>Earnings before interest and taxes (EBIT)</b>	<b>14 669,00 €</b>	<b>11 117,00 €</b>	<b>4 313,00 €</b>	<b>6 603,00 €</b>	<b>16 028,00 €</b>	<b>20 458,00 €</b>	<b>19 660,00 €</b>	<b>17 875,56 €</b>	<b>17 468,79 €</b>	<b>16 908,90 €</b>	<b>15 415,96 €</b>	<b>14 371,88 €</b>
Net interest expense	- 368,00 €	- 522,00 €	- 483,00 €	- 264,00 €	- 217,00 €	- 154,00 €	424,00 €	425,54 €	417,72 €	378,17 €	337,97 €	302,70 €
<b>Profit from continuing operations before taxes</b>	<b>14 301,00 €</b>	<b>10 595,00 €</b>	<b>3 830,00 €</b>	<b>6 339,00 €</b>	<b>15 811,00 €</b>	<b>20 304,00 €</b>	<b>20 084,00 €</b>	<b>18 301,10 €</b>	<b>17 886,51 €</b>	<b>17 287,08 €</b>	<b>15 753,93 €</b>	<b>14 674,58 €</b>
Income taxes	- 3 437,00 €	- 3 013,00 €	- 1 121,00 €	- 2 330,00 €	- 4 761,00 €	- 5 495,00 €	- 5 553,00 €	- 4 245,61 €	- 4 109,08 €	- 3 930,93 €	- 3 516,51 €	- 3 205,70 €
<b>Net Profit</b>	<b>10 864,00 €</b>	<b>7 582,00 €</b>	<b>2 709,00 €</b>	<b>4 009,00 €</b>	<b>11 050,00 €</b>	<b>14 809,00 €</b>	<b>14 531,00 €</b>	<b>14 055,49 €</b>	<b>13 777,43 €</b>	<b>13 356,14 €</b>	<b>12 237,42 €</b>	<b>11 468,89 €</b>
Profit/loss from discontinued operations after taxes	- €	- €	- €	- €	12 346,00 €	- €	- €	- €	- €	- €	- €	- €
<b>Net profit</b>	<b>10 864,00 €</b>	<b>7 582,00 €</b>	<b>2 709,00 €</b>	<b>4 009,00 €</b>	<b>23 396,00 €</b>	<b>14 809,00 €</b>	<b>14 531,00 €</b>	<b>14 055,49 €</b>	<b>13 777,43 €</b>	<b>13 356,14 €</b>	<b>12 237,42 €</b>	<b>11 468,89 €</b>
Earnings per Share	10,44 €	7,28 €	2,60 €	3,85 €	22,48 €	14,23 €	13,58 €	13,14 €	12,88 €	12,48 €	11,44 €	10,72 €

Consolidated Income Statement (2028-2040)												
in million euros	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Revenue	166 642,58 €	175 657,93 €	188 175,98 €	196 194,77 €	200 367,64 €	201 751,94 €	234 711,63 €	230 731,22 €	240 564,79 €	246 069,82 €	250 364,23 €	256 031,58 €
Cost of sales	- 132 551,80 €	- 139 897,27 €	- 152 237,22 €	- 160 547,92 €	- 166 202,16 €	- 169 376,06 €	- 199 321,74 €	- 195 741,96 €	- 203 997,56 €	- 208 475,77 €	- 212 041,71 €	- 216 561,84 €
<b>Gross profit</b>	<b>34 090,78 €</b>	<b>35 760,66 €</b>	<b>35 938,76 €</b>	<b>35 646,85 €</b>	<b>34 165,47 €</b>	<b>32 375,88 €</b>	<b>35 389,89 €</b>	<b>34 989,26 €</b>	<b>36 567,23 €</b>	<b>37 594,06 €</b>	<b>38 322,52 €</b>	<b>39 469,74 €</b>
Selling expenses	- 12 176,27 €	- 12 841,90 €	- 13 765,19 €	- 14 346,54 €	- 14 623,47 €	- 14 712,11 €	- 17 131,52 €	- 16 769,89 €	- 17 462,59 €	- 17 964,07 €	- 18 322,76 €	- 18 805,42 €
General administrative expenses	- 2 504,00 €	- 2 494,77 €	- 2 489,50 €	- 2 488,18 €	- 2 490,84 €	- 2 497,48 €	- 2 508,14 €	- 2 522,85 €	- 2 541,65 €	- 2 564,58 €	- 2 591,71 €	- 2 623,07 €
Research and non-capitalised development costs	- 7 223,31 €	- 7 665,55 €	- 8 050,24 €	- 8 386,90 €	- 8 530,91 €	- 8 574,74 €	- 9 995,00 €	- 9 738,85 €	- 10 127,07 €	- 10 482,96 €	- 10 720,98 €	- 11 046,41 €
Net Other operating income	873,33 €	920,58 €	986,18 €	1 028,21 €	1 050,08 €	1 057,33 €	1 230,07 €	1 209,21 €	1 260,74 €	1 289,59 €	1 312,10 €	1 341,80 €
Gains/losses on equity-method investments, net	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €	1 563,58 €
Other financial income/expense, net	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €	50,20 €
<b>Earnings before interest and taxes (EBIT)</b>	<b>14 674,31 €</b>	<b>15 292,79 €</b>	<b>14 233,79 €</b>	<b>13 067,22 €</b>	<b>11 184,11 €</b>	<b>9 262,66 €</b>	<b>8 599,07 €</b>	<b>8 780,66 €</b>	<b>9 310,45 €</b>	<b>9 485,81 €</b>	<b>9 612,95 €</b>	<b>9 950,41 €</b>
Net interest expense	275,26 €	234,81 €	204,46 €	179,37 €	165,34 €	149,48 €	193,91 €	160,03 €	149,50 €	136,76 €	119,23 €	107,15 €
<b>Profit from continuing operations before taxes</b>	<b>14 949,57 €</b>	<b>15 527,59 €</b>	<b>14 438,25 €</b>	<b>13 246,58 €</b>	<b>11 349,44 €</b>	<b>9 412,14 €</b>	<b>8 792,99 €</b>	<b>8 940,68 €</b>	<b>9 459,95 €</b>	<b>9 622,57 €</b>	<b>9 732,18 €</b>	<b>10 057,56 €</b>
Income taxes	- 3 271,11 €	- 3 421,89 €	- 3 059,19 €	- 2 681,21 €	- 2 103,85 €	- 1 525,55 €	- 1 204,23 €	- 1 273,05 €	- 1 394,14 €	- 1 426,17 €	- 1 448,16 €	- 1 527,82 €
<b>Net Profit</b>	<b>11 678,46 €</b>	<b>12 105,70 €</b>	<b>11 379,06 €</b>	<b>10 565,37 €</b>	<b>9 245,59 €</b>	<b>7 886,59 €</b>	<b>7 588,76 €</b>	<b>7 667,63 €</b>	<b>8 065,81 €</b>	<b>8 196,40 €</b>	<b>8 284,01 €</b>	<b>8 529,74 €</b>
Profit/loss from discontinued operations after taxes	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
<b>Net profit</b>	<b>11 678,46 €</b>	<b>12 105,70 €</b>	<b>11 379,06 €</b>	<b>10 565,37 €</b>	<b>9 245,59 €</b>	<b>7 886,59 €</b>	<b>7 588,76 €</b>	<b>7 667,63 €</b>	<b>8 065,81 €</b>	<b>8 196,40 €</b>	<b>8 284,01 €</b>	<b>8 529,74 €</b>
Earnings per Share	10,92 €	11,32 €	10,64 €	9,88 €	8,64 €	7,37 €	7,09 €	7,17 €	7,54 €	7,66 €	7,74 €	7,97 €

## Consolidated Balance Sheet (2017-2028)

in million euros	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Assets</b>												
Intangible assets	13 735,00 €	14 801,00 €	15 978,00 €	16 399,00 €	15 005,00 €	15 869,00 €	17 593,00 €	15 586,60 €	16 507,31 €	16 783,50 €	16 084,42 €	16 173,15 €
Property, plant and equipment	27 981,00 €	30 948,00 €	37 143,00 €	35 246,00 €	27 859,00 €	27 250,00 €	26 090,00 €	32 041,04 €	33 356,63 €	34 341,19 €	36 368,35 €	36 118,99 €
Equipment on operating leases	47 714,00 €	49 476,00 €	51 482,00 €	47 552,00 €	44 471,00 €	41 552,00 €	41 712,00 €	45 384,77 €	47 405,40 €	48 046,69 €	45 778,13 €	44 399,53 €
Equity-method investments	4 818,00 €	4 860,00 €	5 949,00 €	5 189,00 €	13 588,00 €	13 530,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €
Receivables from financial services	46 413,00 €	51 300,00 €	52 880,00 €	53 709,00 €	46 955,00 €	48 237,00 €	49 742,00 €	48 564,25 €	49 141,95 €	49 618,25 €	47 323,82 €	44 803,22 €
Net Other financial assets	- 4 721,00 €	- 4 299,00 €	- 3 781,00 €	- 1 674,00 €	- 1 545,00 €	- 3,00 €	- 821,00 €	- 821,00 €	- 821,00 €	- 821,00 €	- 821,00 €	- 821,00 €
Net Other Non-Current Assets	824,00 €	760,00 €	349,00 €	398,00 €	13,00 €	563,00 €	845,00 €	356,39 €	365,95 €	326,54 €	284,76 €	249,25 €
<b>Total Non-current Assets</b>	<b>136 764,00 €</b>	<b>147 846,00 €</b>	<b>160 000,00 €</b>	<b>156 023,00 €</b>	<b>146 320,00 €</b>	<b>145 878,00 €</b>	<b>148 217,00 €</b>	<b>155 145,27 €</b>	<b>159 970,34 €</b>	<b>162 388,10 €</b>	<b>159 194,95 €</b>	<b>155 170,64 €</b>
Inventories	25 686,00 €	29 489,00 €	29 757,00 €	26 444,00 €	21 466,00 €	25 621,00 €	27 294,00 €	29 672,92 €	30 258,74 €	30 745,44 €	29 145,01 €	29 606,04 €
Trade receivables	11 990,00 €	12 586,00 €	12 332,00 €	10 649,00 €	7 673,00 €	8 100,00 €	7 281,00 €	8 463,64 €	10 774,91 €	10 974,19 €	10 455,59 €	10 468,86 €
Receivables from financial services	39 374,00 €	45 440,00 €	50 781,00 €	42 476,00 €	33 670,00 €	37 312,00 €	38 469,00 €	39 746,90 €	40 219,71 €	40 609,53 €	38 731,67 €	36 668,72 €
Cash and cash equivalents	12 072,00 €	15 853,00 €	18 883,00 €	23 048,00 €	23 120,00 €	17 679,00 €	15 962,00 €	22 893,43 €	22 613,39 €	20 845,05 €	18 822,05 €	17 189,62 €
Marketable debt securities and similar investments	10 063,00 €	9 577,00 €	8 655,00 €	6 397,00 €	7 579,00 €	7 060,00 €	6 858,00 €	10 616,86 €	10 421,81 €	9 435,12 €	8 431,98 €	7 552,16 €
Net Other Current Assets	2 599,00 €	3 888,00 €	2 557,00 €	1 458,00 €	1 809,00 €	2 339,00 €	2 699,00 €	- 3 260,09 €	- 3 069,81 €	- 2 939,88 €	- 2 620,46 €	- 2 366,88 €
Net Assets held for sale	- €	319,00 €	- €	- €	2 973,00 €	- €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €
<b>Total Current Assets</b>	<b>101 784,00 €</b>	<b>117 152,00 €</b>	<b>122 965,00 €</b>	<b>110 472,00 €</b>	<b>98 290,00 €</b>	<b>98 111,00 €</b>	<b>99 134,00 €</b>	<b>108 704,65 €</b>	<b>111 789,75 €</b>	<b>110 240,45 €</b>	<b>103 536,85 €</b>	<b>99 689,52 €</b>
<b>Total Assets</b>	<b>238 548,00 €</b>	<b>264 998,00 €</b>	<b>282 965,00 €</b>	<b>266 495,00 €</b>	<b>244 610,00 €</b>	<b>243 989,00 €</b>	<b>247 351,00 €</b>	<b>263 849,92 €</b>	<b>271 760,10 €</b>	<b>272 628,55 €</b>	<b>262 731,80 €</b>	<b>254 860,16 €</b>
<b>Equity and liabilities</b>												
Share capital	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €
Capital reserves	11 742,00 €	11 710,00 €	11 552,00 €	11 551,00 €	11 723,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €
Retained earnings (restated)	47 682,00 €	49 490,00 €	46 329,00 €	47 111,00 €	56 190,00 €	67 695,00 €	76 670,00 €	71 549,96 €	77 650,07 €	78 164,23 €	77 248,71 €	76 599,45 €
Other reserves (restated)	1 529,00 €	397,00 €	393,00 €	1 041,00 €	968,00 €	2 932,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €
Treasury Shares	- €	- €	- €	- €	- €	- €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €	- 2 256,00 €
<b>Equity Attributable to Shareholders of Mercedes-Benz Group AG</b>	<b>64 023,00 €</b>	<b>64 667,00 €</b>	<b>61 344,00 €</b>	<b>60 691,00 €</b>	<b>71 951,00 €</b>	<b>85 415,00 €</b>	<b>91 773,00 €</b>	<b>86 652,96 €</b>	<b>92 753,07 €</b>	<b>93 267,23 €</b>	<b>92 351,71 €</b>	<b>91 702,45 €</b>
Non-controlling interests	1 291,00 €	1 386,00 €	1 497,00 €	1 557,00 €	1 216,00 €	1 125,00 €	1 043,00 €	1 121,01 €	1 209,24 €	1 231,89 €	1 229,57 €	1 229,60 €
<b>Total Equity</b>	<b>65 314,00 €</b>	<b>66 053,00 €</b>	<b>62 841,00 €</b>	<b>62 248,00 €</b>	<b>73 167,00 €</b>	<b>86 540,00 €</b>	<b>92 816,00 €</b>	<b>87 773,97 €</b>	<b>93 962,30 €</b>	<b>94 499,12 €</b>	<b>93 581,28 €</b>	<b>92 932,05 €</b>
Provisions for pensions and similar obligations	5 767,00 €	7 393,00 €	9 728,00 €	12 070,00 €	5 359,00 €	1 021,00 €	1 090,00 €	3 275,65 €	3 020,98 €	2 786,10 €	2 569,48 €	2 369,71 €
Provisions for other risks	17 244,00 €	15 562,00 €	20 924,00 €	20 450,00 €	15 962,00 €	16 023,00 €	15 300,00 €	17 933,57 €	18 174,25 €	18 354,26 €	17 893,20 €	17 942,33 €
Financing liabilities	78 378,00 €	88 662,00 €	99 179,00 €	86 539,00 €	73 543,00 €	62 051,00 €	63 724,00 €	74 888,03 €	74 788,09 €	72 159,36 €	67 074,91 €	62 174,34 €
Deferred income	5 802,00 €	1 612,00 €	1 598,00 €	1 567,00 €	1 175,00 €	1 234,00 €	1 223,00 €	1 984,87 €	2 008,48 €	2 027,95 €	1 934,17 €	1 831,15 €
Contract and refund liabilities	- €	5 438,00 €	6 060,00 €	5 787,00 €	3 980,00 €	3 656,00 €	3 514,00 €	4 344,49 €	4 460,11 €	4 546,54 €	4 324,78 €	4 347,79 €
Net Deferred tax assets/liabilities	- 451,00 €	- 259,00 €	- 1 868,00 €	- 2 610,00 €	- 1 054,00 €	- 3 185,00 €	- 3 587,00 €	- 3 109,48 €	- 3 033,64 €	- 2 989,78 €	- 2 760,39 €	- 2 607,96 €
<b>Total Non-current Liabilities</b>	<b>107 786,00 €</b>	<b>119 036,00 €</b>	<b>135 621,00 €</b>	<b>123 803,00 €</b>	<b>101 073,00 €</b>	<b>87 170,00 €</b>	<b>88 438,00 €</b>	<b>105 536,11 €</b>	<b>105 485,55 €</b>	<b>102 863,99 €</b>	<b>96 556,94 €</b>	<b>91 273,28 €</b>
Trade payables	12 474,00 €	14 185,00 €	12 707,00 €	12 378,00 €	10 655,00 €	12 204,00 €	12 828,00 €	13 143,21 €	13 684,05 €	14 493,59 €	13 866,37 €	14 046,80 €
Financing liabilities	48 746,00 €	56 240,00 €	62 601,00 €	59 303,00 €	52 300,00 €	49 786,00 €	44 914,00 €	48 541,52 €	49 563,56 €	51 548,92 €	49 949,48 €	47 884,98 €
Deferred income	3 668,00 €	1 580,00 €	1 624,00 €	1 594,00 €	1 486,00 €	1 391,00 €	1 478,00 €	1 789,53 €	1 810,82 €	1 828,37 €	1 743,83 €	1 650,95 €
Contract and refund liabilities	- €	7 081,00 €	7 571,00 €	7 169,00 €	5 929,00 €	6 898,00 €	6 877,00 €	7 065,59 €	7 253,80 €	7 394,56 €	7 033,90 €	7 072,12 €
<b>Total Current Liabilities</b>	<b>65 448,00 €</b>	<b>79 909,00 €</b>	<b>84 503,00 €</b>	<b>80 444,00 €</b>	<b>70 370,00 €</b>	<b>70 279,00 €</b>	<b>66 097,00 €</b>	<b>70 539,84 €</b>	<b>72 312,24 €</b>	<b>75 265,44 €</b>	<b>72 593,58 €</b>	<b>70 654,84 €</b>
	127 124,00 €	144 902,00 €	161 780,00 €	145 842,00 €	125 843,00 €							
<b>Total Equity and Liabilities</b>	<b>238 548,00 €</b>	<b>264 998,00 €</b>	<b>282 965,00 €</b>	<b>266 495,00 €</b>	<b>244 610,00 €</b>	<b>243 989,00 €</b>	<b>247 351,00 €</b>	<b>263 849,92 €</b>	<b>271 760,10 €</b>	<b>272 628,55 €</b>	<b>262 731,80 €</b>	<b>254 860,16 €</b>

# Consolidated Balance Sheet (2028-2040)

in million euros	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<b>Assets</b>												
Intangible assets	17 117,26 €	17 975,77 €	19 103,13 €	19 799,82 €	20 097,84 €	20 188,54 €	23 127,60 €	22 597,53 €	23 400,91 €	24 137,40 €	24 629,95 €	25 303,41 €
Property, plant and equipment	35 895,36 €	34 359,59 €	32 609,03 €	32 025,32 €	33 080,10 €	33 102,36 €	38 301,60 €	36 248,93 €	36 655,55 €	36 947,60 €	36 573,61 €	38 127,62 €
Equipment on operating leases	44 337,61 €	45 923,98 €	48 939,25 €	51 190,53 €	53 172,40 €	53 932,37 €	62 238,54 €	63 434,59 €	66 835,59 €	65 139,00 €	64 844,82 €	64 162,42 €
Equity-method investments	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €	13 104,00 €
Receivables from financial services	42 628,27 €	43 422,07 €	46 037,17 €	48 307,68 €	50 997,98 €	52 081,30 €	59 650,16 €	62 830,63 €	66 807,02 €	62 329,35 €	60 752,82 €	58 124,56 €
Net Other financial assets	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €	821,00 €
Net Other Non-Current Assets	- 298,52 € -	316,71 € -	345,12 € -	265,83 € -	153,70 € -	51,41 €	67,65 €	52,64 €	47,82 €	20,88 €	4,98 € -	24,27 €
<b>Total Non-current Assets</b>	<b>153 604,98 €</b>	<b>155 289,70 €</b>	<b>160 268,45 €</b>	<b>164 982,51 €</b>	<b>171 119,62 €</b>	<b>173 178,16 €</b>	<b>197 310,55 €</b>	<b>199 089,32 €</b>	<b>207 671,89 €</b>	<b>202 499,23 €</b>	<b>200 731,18 €</b>	<b>199 618,74 €</b>
Inventories	31 566,00 €	33 443,90 €	35 421,87 €	37 375,49 €	38 610,59 €	39 338,93 €	46 428,65 €	45 245,65 €	47 045,01 €	48 565,88 €	49 613,60 €	50 993,40 €
Trade receivables	10 988,31 €	11 596,57 €	12 361,27 €	12 885,18 €	13 143,95 €	13 228,04 €	15 397,71 €	15 098,04 €	15 729,57 €	16 144,74 €	16 451,00 €	16 860,19 €
Receivables from financial services	34 888,66 €	35 538,33 €	37 678,63 €	39 536,91 €	41 738,76 €	42 625,39 €	48 820,04 €	51 423,06 €	54 677,50 €	51 012,80 €	49 722,50 €	47 571,43 €
Cash and cash equivalents	16 055,99 €	14 366,45 €	13 214,38 €	12 214,64 €	11 649,57 €	10 944,54 €	13 657,41 €	12 011,48 €	11 721,66 €	11 242,71 €	10 518,22 €	10 073,41 €
Marketable debt securities and similar investments	6 867,45 €	5 858,18 €	5 101,20 €	4 475,02 €	4 124,97 €	3 729,47 €	4 837,97 €	3 992,53 €	3 729,94 €	3 412,00 €	2 974,58 €	2 673,31 €
Net Other Current Assets	- 2 270,71 € -	2 355,16 € -	1 913,89 € -	1 681,55 € -	1 330,47 € -	959,42 € -	814,40 € -	872,90 € -	967,30 € -	903,94 € -	868,90 € -	855,34 €
Net Assets held for sale	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €	571,00 €
<b>Total Current Assets</b>	<b>98 666,69 €</b>	<b>99 019,26 €</b>	<b>102 434,46 €</b>	<b>105 376,70 €</b>	<b>108 508,37 €</b>	<b>109 477,95 €</b>	<b>128 898,37 €</b>	<b>127 468,87 €</b>	<b>132 507,37 €</b>	<b>130 045,20 €</b>	<b>128 982,01 €</b>	<b>127 887,40 €</b>
<b>Total Assets</b>	<b>252 271,66 €</b>	<b>254 308,96 €</b>	<b>262 702,91 €</b>	<b>270 359,21 €</b>	<b>279 627,98 €</b>	<b>282 656,11 €</b>	<b>326 208,92 €</b>	<b>326 558,19 €</b>	<b>340 179,26 €</b>	<b>332 544,42 €</b>	<b>329 713,19 €</b>	<b>327 506,13 €</b>
<b>Equity and liabilities</b>												
Share capital	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €	3 070,00 €
Capital reserves	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €	11 718,00 €
Retained earnings (restated)	77 925,28 €	77 712,14 €	79 862,19 €	81 869,64 €	85 116,61 €	86 387,55 €	103 615,38 €	99 542,86 €	102 558,36 €	103 861,09 €	104 173,05 €	106 775,77 €
Other reserves (restated)	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €	2 571,00 €
Treasury Shares	- 2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -	2 256,00 € -
<b>Equity Attributable to Shareholders of Mercedes-Benz Group AG</b>	<b>93 028,28 €</b>	<b>92 815,14 €</b>	<b>94 965,19 €</b>	<b>96 972,64 €</b>	<b>100 219,61 €</b>	<b>101 490,55 €</b>	<b>118 718,38 €</b>	<b>114 645,86 €</b>	<b>117 661,36 €</b>	<b>118 964,09 €</b>	<b>119 276,05 €</b>	<b>121 878,77 €</b>
Non-controlling interests	1 252,37 €	1 265,41 €	1 296,40 €	1 337,72 €	1 393,45 €	1 418,25 €	1 667,25 €	1 619,21 €	1 670,92 €	1 690,98 €	1 700,04 €	1 741,40 €
<b>Total Equity</b>	<b>94 280,64 €</b>	<b>94 080,55 €</b>	<b>96 261,59 €</b>	<b>98 310,36 €</b>	<b>101 613,06 €</b>	<b>102 908,80 €</b>	<b>120 385,63 €</b>	<b>116 265,08 €</b>	<b>119 332,28 €</b>	<b>120 655,07 €</b>	<b>120 976,09 €</b>	<b>123 620,17 €</b>
Provisions for pensions and similar obligations	2 185,47 €	2 015,55 €	1 858,84 €	1 714,32 €	1 581,03 €	1 458,11 €	1 344,74 €	1 240,19 €	1 143,77 €	1 054,84 €	972,83 €	897,19 €
Provisions for other risks	18 529,81 €	19 087,26 €	19 824,74 €	20 282,78 €	20 484,70 €	20 547,08 €	22 472,36 €	22 140,96 €	22 673,87 €	23 134,11 €	23 446,86 €	23 872,82 €
Financing liabilities	58 175,37 €	55 752,61 €	55 688,61 €	55 728,80 €	56 984,71 €	56 705,66 €	66 693,18 €	66 847,21 €	69 489,13 €	64 622,19 €	61 905,12 €	58 694,88 €
Deferred income	1 742,26 €	1 774,70 €	1 881,58 €	1 974,38 €	2 084,34 €	2 128,61 €	2 437,96 €	2 567,95 €	2 730,47 €	2 547,46 €	2 483,03 €	2 375,61 €
Contract and refund liabilities	4 627,99 €	4 895,52 €	5 249,83 €	5 470,04 €	5 567,52 €	5 597,69 €	6 522,83 €	6 364,65 €	6 621,18 €	6 840,83 €	6 990,44 €	7 194,10 €
Net Deferred tax assets/liabilities	2 719,95 €	2 922,96 €	2 743,33 €	2 535,27 €	2 156,24 €	1 775,79 €	1 508,17 €	1 619,23 €	1 742,49 €	1 799,30 €	1 856,74 €	1 946,67 €
<b>Total Non-current Liabilities</b>	<b>87 980,84 €</b>	<b>86 448,59 €</b>	<b>87 246,94 €</b>	<b>87 705,59 €</b>	<b>88 858,54 €</b>	<b>88 212,93 €</b>	<b>100 979,24 €</b>	<b>100 780,19 €</b>	<b>104 400,91 €</b>	<b>99 998,74 €</b>	<b>97 655,01 €</b>	<b>94 981,26 €</b>
Trade payables	14 908,00 €	15 782,56 €	16 071,76 €	16 956,09 €	17 524,87 €	17 856,39 €	21 060,45 €	20 560,16 €	21 389,23 €	22 029,40 €	22 482,07 €	23 073,94 €
Financing liabilities	46 000,55 €	48 430,53 €	52 882,78 €	56 705,41 €	60 692,54 €	62 650,24 €	70 971,24 €	76 282,01 €	81 822,64 €	76 432,58 €	74 985,13 €	71 979,94 €
Deferred income	1 570,80 €	1 600,05 €	1 696,41 €	1 780,08 €	1 879,21 €	1 919,13 €	2 198,04 €	2 315,23 €	2 461,76 €	2 296,76 €	2 238,67 €	2 141,82 €
Contract and refund liabilities	7 530,84 €	7 966,68 €	8 543,43 €	8 901,69 €	9 059,76 €	9 108,61 €	10 614,33 €	10 355,52 €	10 772,45 €	11 131,87 €	11 376,23 €	11 709,00 €
<b>Total Current Liabilities</b>	<b>70 010,18 €</b>	<b>73 779,82 €</b>	<b>79 194,38 €</b>	<b>84 343,26 €</b>	<b>89 156,38 €</b>	<b>91 534,38 €</b>	<b>104 844,05 €</b>	<b>109 512,92 €</b>	<b>116 446,08 €</b>	<b>111 890,61 €</b>	<b>111 082,09 €</b>	<b>108 904,70 €</b>
<b>Total Equity and Liabilities</b>	<b>252 271,66 €</b>	<b>254 308,96 €</b>	<b>262 702,91 €</b>	<b>270 359,21 €</b>	<b>279 627,98 €</b>	<b>282 656,11 €</b>	<b>326 208,92 €</b>	<b>326 558,19 €</b>	<b>340 179,26 €</b>	<b>332 544,42 €</b>	<b>329 713,19 €</b>	<b>327 506,13 €</b>

## Consolidated Cash Flow Map (2018-2028)

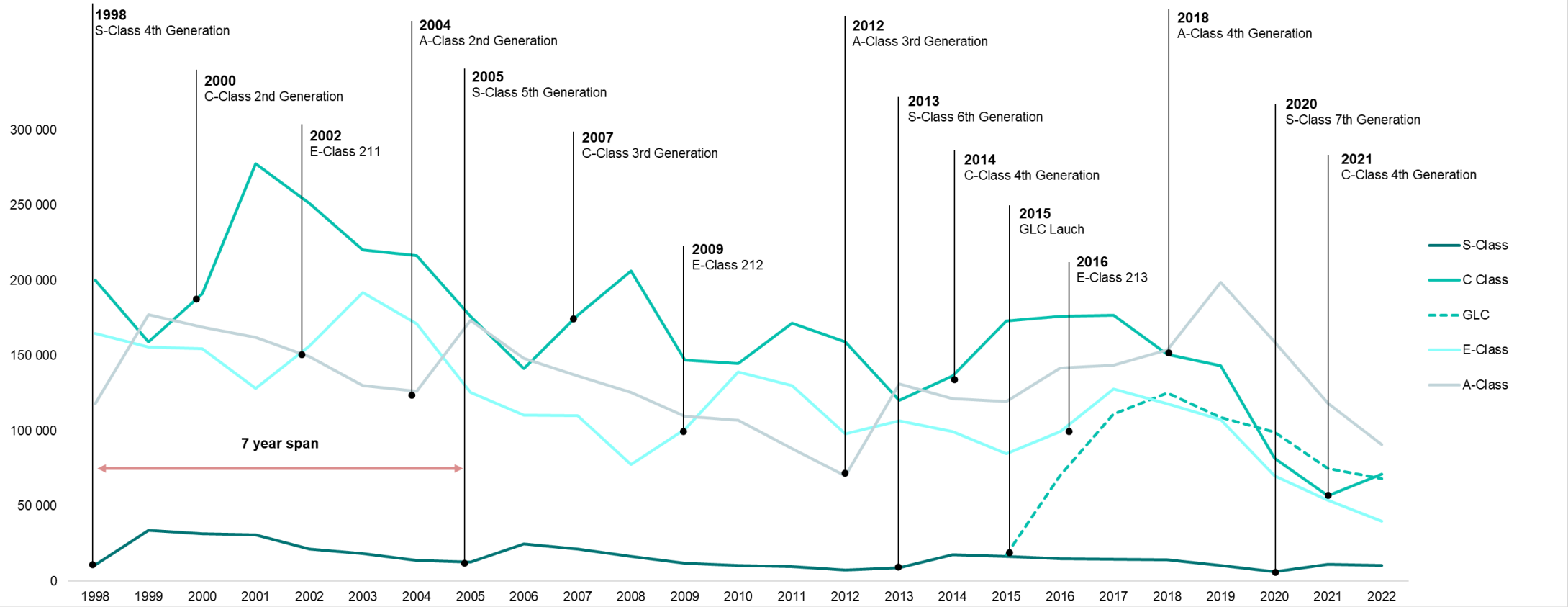
in million euros	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Operating Activities</b>											
Profit before income taxes	10 595,00 €	3 830,00 €	6 339,00 €	28 775,00 €	20 304,00 €	20 084,00 €	18 301,10 €	17 886,51 €	17 287,08 €	15 753,93 €	14 674,58 €
Depreciation and amortization/impairments	6 305,00 €	7 751,00 €	8 957,00 €	698,00 €	6 521,00 €	6 663,00 €	7 384,04 €	7 843,84 €	8 034,85 €	8 076,54 €	8 063,13 €
Other non-cash expense and income	- 872,00 €	24,00 € -	836,00 € -	11 503,00 € -	1 296,00 € -	2 369,00 € -	376,19 € -	368,58 € -	357,62 € -	324,33 € -	302,78 €
Gains (-)/losses (+) from disposals of assets	- 178,00 € -	761,00 €	131,00 € -	695,00 € -	990,00 € -	920,00 € -	920,00 € -	920,00 € -	920,00 € -	920,00 € -	920,00 € -
Change in operating assets and liabilities	- 14 029,00 € -	2 051,00 €	7 951,00 €	3 179,00 € -	4 241,00 € -	7 430,00 € -	14 471,32 € -	6 373,50 € -	1 995,55 €	1 412,80 € -	1 446,00 €
Inventories	- 3 850,00 €	99,00 €	2 039,00 €	2 561,00 € -	4 111,00 € -	2 733,00 € -	2 378,92 € -	702,99 € -	584,04 €	320,09 € -	3 227,21 €
Trade receivables and trade payables	810,00 €	- 1 971,00 €	1 040,00 €	1 694,00 €	1 029,00 €	131,00 € -	1 182,64 € -	2 773,52 € -	239,14 €	103,72 € -	66,36 €
Receivables from financial services	- 10 257,00 €	- 4 664,00 €	2 397,00 €	3 879,00 € -	5 327,00 € -	5 812,00 € -	1 277,90 € -	567,37 € -	467,79 €	375,57 €	1 031,48 €
Vehicles on operating leases	- 1 609,00 €	- 1 156,00 €	1 822,00 €	1 428,00 €	3 810,00 € -	640,00 € -	3 672,77 € -	2 424,75 € -	769,55 €	453,71 €	689,30 €
Other operating assets and liabilities	877,00 €	5 641,00 €	653,00 € -	1 261,00 €	358,00 €	1 624,00 € -	5 959,09 €	95,14 €	64,96 €	159,71 €	126,79 €
Dividends received from equity-method investments	1 380,00 €	1 202,00 €	1 783,00 €	1 625,00 €	1 605,00 €	2 056,00 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €
Income taxes paid	- 2 858,00 € -	2 107,00 € -	1 993,00 € -	3 812,00 € -	5 009,00 € -	5 621,00 € -	4 245,61 € -	4 109,08 € -	3 930,93 € -	3 516,51 € -	3 205,70 €
<b>Cash flow from operating activities</b>	<b>343,00 €</b>	<b>7 888,00 €</b>	<b>22 332,00 €</b>	<b>24 549,00 €</b>	<b>16 894,00 €</b>	<b>14 470,00 €</b>	<b>7 285,80 €</b>	<b>15 572,97 €</b>	<b>19 731,61 €</b>	<b>22 096,21 €</b>	<b>18 477,01 €</b>
<b>Investing Activities</b>											
Additions to property, plant and equipment	- 7 534,00 € -	7 199,00 € -	5 741,00 € -	4 579,00 € -	3 481,00 € -	3 745,00 € -	5 951,04 € -	3 946,77 € -	7 876,50 €	10 135,76 €	124,68 €
Additions to intangible assets	- 3 167,00 € -	3 636,00 € -	2 819,00 € -	2 741,00 € -	3 418,00 € -	4 468,00 € -	3 672,77 € -	6 061,88 € -	5 130,32 €	1 134,28 €	689,30 €
Proceeds from disposals of property, plant and equipment and intangi	644,00 €	429,00 €	365,00 €	826,00 €	469,00 €	285,00 €	- €	- €	- €	- €	- €
Investments in shareholdings	- 780,00 € -	1 619,00 € -	661,00 € -	573,00 € -	849,00 € -	334,00 € -	334,00 € -	334,00 € -	334,00 € -	334,00 € -	334,00 €
Proceeds from disposals of shareholdings and other business operati	363,00 €	394,00 €	259,00 €	159,00 €	3 337,00 €	612,00 €	3 827,95 €	306,15 €	1 738,03 €	2 079,00 € -	4 307,92 €
Acquisition of marketable debt securities and similar investments	- 5 739,00 € -	5 960,00 € -	3 792,00 € -	5 694,00 € -	2 622,00 € -	4 714,00 € -	3 758,86 €	1 368,52 €	576,89 €	560,44 € -	3 418,75 €
Proceeds from sales of marketable debt securities and similar investm	6 210,00 €	7 014,00 €	5 941,00 €	4 385,00 €	3 084,00 €	5 021,00 €	5 322,43 €	195,05 €	986,69 €	1 003,13 €	879,83 €
Other cash flows	82,00 € -	30,00 €	27,00 € -	7,00 €	27,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €
<b>Cash flow from investing activities</b>	<b>- 9 921,00 € -</b>	<b>10 607,00 € -</b>	<b>6 421,00 € -</b>	<b>6 226,00 € -</b>	<b>3 453,00 € -</b>	<b>7 315,00 € -</b>	<b>4 538,28 € -</b>	<b>8 444,93 € -</b>	<b>13 487,28 € -</b>	<b>9 822,91 € -</b>	<b>6 338,87 €</b>
<b>Financing Activities</b>											
Change in short-term financing liabilities	2 637,00 €	840,00 € -	3 263,00 €	1 463,00 €	172,00 € -	512,00 €	725,50 €	204,41 €	397,07 € -	799,72 € -	1 032,25 €
Additions to long-term financing liabilities	71 137,00 €	63 607,00 €	53 713,00 €	42 196,00 €	38 429,00 €	39 288,00 €	44 870,02 €	44 850,03 €	44 324,28 €	41 273,61 €	38 333,27 €
Repayment of long-term financing liabilities	- 56 318,00 € -	55 043,00 € -	59 953,00 € -	60 859,00 € -	51 945,00 € -	39 473,00 € -	33 705,98 € -	44 890,00 € -	45 375,77 € -	47 374,95 € -	44 213,96 €
Dividend paid to shareholders of Mercedes-Benz Group AG	- 3 905,00 € -	3 477,00 € -	963,00 € -	1 444,00 € -	5 349,00 € -	5 556,00 € -	7 081,19 € -	6 926,02 € -	6 706,09 € -	6 743,66 € -	5 735,03 €
Dividends paid to non-controlling interests	- 315,00 € -	263,00 € -	282,00 € -	366,00 € -	320,00 € -	324,00 € -	280,43 € -	302,50 € -	308,16 € -	307,58 € -	307,59 €
Other cash flows	- 78,00 € -	79,00 €	- €	37,00 € -	19,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €
<b>Cash flow from financing activities</b>	<b>13 226,00 €</b>	<b>5 628,00 € -</b>	<b>10 747,00 € -</b>	<b>19 059,00 € -</b>	<b>19 032,00 € -</b>	<b>8 391,00 €</b>	<b>4 654,92 €</b>	<b>6 937,08 €</b>	<b>7 541,67 €</b>	<b>13 825,30 € -</b>	<b>12 828,57 €</b>
Effect of foreign exchange-rate changes on cash and cash equivalent:	133,00 €	121,00 € -	999,00 €	870,00 €	88,00 € -	471,00 € -	471,00 € -	471,00 € -	471,00 € -	471,00 € -	942,00 €
<b>Net decrease in cash and cash equivalents</b>	<b>3 781,00 €</b>	<b>3 030,00 €</b>	<b>4 165,00 €</b>	<b>134,00 € -</b>	<b>5 503,00 € -</b>	<b>1 707,00 €</b>	<b>6 931,43 € -</b>	<b>280,04 € -</b>	<b>1 768,34 € -</b>	<b>2 023,00 € -</b>	<b>1 632,42 €</b>
<b>Cash and cash equivalents at beginning of year</b>	<b>12 072,00 €</b>	<b>15 853,00 €</b>	<b>18 883,00 €</b>	<b>23 048,00 €</b>	<b>23 182,00 €</b>	<b>17 679,00 €</b>	<b>15 962,00 €</b>	<b>22 893,43 €</b>	<b>22 613,39 €</b>	<b>20 845,05 €</b>	<b>18 822,05 €</b>
<b>Cash and cash equivalents at end of year</b>	<b>15 853,00 €</b>	<b>18 883,00 €</b>	<b>23 048,00 €</b>	<b>23 120,00 €</b>	<b>17 679,00 €</b>	<b>15 962,00 €</b>	<b>22 893,43 €</b>	<b>22 613,39 €</b>	<b>20 845,05 €</b>	<b>18 822,05 €</b>	<b>17 189,62 €</b>

## Consolidated Cash Flow Map (2028-2040)

in million euros	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<b>Operating Activities</b>												
Profit before income taxes	14 949,57 €	15 527,59 €	14 438,25 €	13 246,58 €	11 349,44 €	9 412,14 €	8 792,99 €	8 940,68 €	9 459,95 €	9 622,57 €	9 732,18 €	10 057,56 €
Depreciation and amortization/impairments	8 283,98 €	8 337,85 €	8 444,77 €	8 571,23 €	8 783,45 €	8 813,94 €	10 237,24 €	9 864,73 €	10 141,22 €	10 359,13 €	10 442,83 €	10 797,36 €
Other non-cash expense and income	- 310,01 €	- 325,24 €	- 304,60 €	- 282,11 €	- 244,47 €	- 204,19 €	- 199,00 €	- 201,42 €	- 215,06 €	- 219,38 €	- 222,81 €	- 230,84 €
Gains (-)/losses (+) from disposals of assets	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €	- 920,00 €
Change in operating assets and liabilities	- 2 006,21 €	- 9 613,30 €	- 9 257,26 €	- 7 788,35 €	- 6 637,55 €	- 4 732,54 €	- 14 183,62 €	- 8 873,35 €	- 11 016,86 €	- 1 159,77 €	- 3 252,16 €	- 723,29 €
Inventories	- 2 351,94 €	- 3 755,80 €	- 2 373,57 €	- 2 344,35 €	- 1 482,11 €	- 1 456,69 €	- 4 253,83 €	- 591,50 €	- 2 159,22 €	- 3 041,75 €	- 3 143,17 €	- 1 655,76 €
Trade receivables and trade payables	- 623,34 €	- 1 216,52 €	- 917,64 €	- 628,70 €	- 310,52 €	- 168,18 €	- 1 301,80 €	- 149,83 €	- 757,83 €	- 830,34 €	- 918,76 €	- 491,04 €
Receivables from financial services	890,03 €	1 299,35 €	2 568,36 €	2 229,94 €	2 642,21 €	1 773,26 €	3 716,79 €	6 507,56 €	3 905,32 €	1 832,35 €	645,15 €	1 075,54 €
Vehicles on operating leases	30,96 €	3 172,73 €	3 618,33 €	2 701,53 €	2 378,25 €	1 519,93 €	4 983,70 €	2 990,12 €	4 081,20 €	848,30 €	147,09 €	341,20 €
Other operating assets and liabilities	48,08 €	- 168,90 €	220,64 €	116,17 €	175,54 €	185,52 €	- 72,51 €	- 117,00 €	- 113,28 €	31,68 €	17,52 €	6,78 €
Dividends received from equity-method investments	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €	1 613,78 €
Income taxes paid	- 3 271,11 €	- 3 421,89 €	- 3 059,19 €	- 2 681,21 €	- 2 103,85 €	- 1 525,55 €	- 1 204,23 €	- 1 273,05 €	- 1 394,14 €	- 1 426,17 €	- 1 448,16 €	- 1 527,82 €
<b>Cash flow from operating activities</b>	<b>18 340,00 €</b>	<b>11 198,79 €</b>	<b>10 955,75 €</b>	<b>11 759,91 €</b>	<b>11 840,80 €</b>	<b>12 457,58 €</b>	<b>4 137,16 €</b>	<b>9 151,37 €</b>	<b>7 668,88 €</b>	<b>17 870,16 €</b>	<b>15 945,64 €</b>	<b>19 066,75 €</b>
<b>Investing Activities</b>												
Additions to property, plant and equipment	111,82 €	767,88 €	875,28 €	291,86 €	3 164,35 €	133,56 €	3 639,47 €	1 026,34 €	1 219,85 €	2 336,40 €	187,00 €	4 662,03 €
Additions to intangible assets	30,96 €	4 759,10 €	9 045,82 €	6 753,82 €	5 945,62 €	6 079,73 €	5 814,32 €	7 176,29 €	6 802,01 €	848,30 €	147,09 €	341,20 €
Proceeds from disposals of property, plant and equipment and intangi	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
Investments in shareholdings	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €	- 334,00 €
Proceeds from disposals of shareholdings and other business operati-	2 891,75 €	543,92 €	759,26 €	1 931,00 €	121,37 €	3 005,10 €	30,39 €	960,00 €	1 450,51 €	2 081,05 €	3 391,37 €	1 619,71 €
Acquisition of marketable debt securities and similar investments	- 4 394,33 €	554,31 €	806,60 €	937,40 €	1 213,52 €	1 168,08 €	1 108,49 €	718,14 €	1 300,89 €	1 245,63 €	1 126,16 €	1 262,30 €
Proceeds from sales of marketable debt securities and similar investm	684,71 €	1 009,27 €	756,98 €	626,18 €	350,05 €	395,49 €	2 672,07 €	845,44 €	262,59 €	317,94 €	437,41 €	301,27 €
Other cash flows	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €	28,00 €
<b>Cash flow from investing activities</b>	<b>- 6 764,59 €</b>	<b>- 3 277,56 €</b>	<b>- 6 153,70 €</b>	<b>- 7 135,39 €</b>	<b>- 7 973,78 €</b>	<b>- 7 960,82 €</b>	<b>- 8 165,82 €</b>	<b>- 5 852,37 €</b>	<b>- 8 214,79 €</b>	<b>- 2 311,59 €</b>	<b>- 1 799,70 €</b>	<b>- 4 682,96 €</b>
<b>Financing Activities</b>												
Change in short-term financing liabilities	- 942,21 €	486,00 €	890,45 €	764,53 €	797,43 €	391,54 €	1 664,20 €	1 062,15 €	2 770,31 €	1 078,01 €	1 447,44 €	3 005,19 €
Additions to long-term financing liabilities	35 933,88 €	34 480,23 €	34 467,43 €	34 475,47 €	34 726,65 €	34 447,59 €	39 441,36 €	39 472,16 €	40 793,12 €	35 926,19 €	31 850,58 €	28 640,34 €
Repayment of long-term financing liabilities	- 40 732,65 €	- 37 387,54 €	- 34 493,03 €	- 34 459,39 €	- 34 224,28 €	- 35 005,70 €	- 29 453,83 €	- 38 671,25 €	- 38 151,20 €	- 45 660,06 €	- 40 001,80 €	- 35 060,81 €
Dividend paid to shareholders of Mercedes-Benz Group AG	- 5 839,79 €	- 6 057,90 €	- 5 679,67 €	- 5 255,21 €	- 4 568,31 €	- 3 865,44 €	- 3 678,12 €	- 5 587,93 €	- 3 923,16 €	- 3 987,64 €	- 4 031,49 €	- 4 152,32 €
Dividends paid to non-controlling interests	- 313,29 €	- 316,55 €	- 324,30 €	- 334,64 €	- 348,58 €	- 354,78 €	- 417,07 €	- 405,05 €	- 417,99 €	- 423,01 €	- 425,27 €	- 435,62 €
Other cash flows	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €	127,00 €
<b>Cash flow from financing activities</b>	<b>- 11 767,05 €</b>	<b>- 8 668,77 €</b>	<b>- 5 012,12 €</b>	<b>- 4 682,25 €</b>	<b>- 3 490,10 €</b>	<b>- 4 259,79 €</b>	<b>- 7 683,53 €</b>	<b>- 4 002,92 €</b>	<b>- 1 198,09 €</b>	<b>- 15 095,52 €</b>	<b>- 13 928,44 €</b>	<b>- 13 886,60 €</b>
Effect of foreign exchange-rate changes on cash and cash equivalent-	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €	942,00 €
<b>Net decrease in cash and cash equivalents</b>	<b>- 1 133,64 €</b>	<b>- 1 689,54 €</b>	<b>- 1 152,07 €</b>	<b>- 999,73 €</b>	<b>- 565,08 €</b>	<b>- 705,03 €</b>	<b>- 2 712,87 €</b>	<b>- 1 645,93 €</b>	<b>- 289,82 €</b>	<b>- 478,95 €</b>	<b>- 724,50 €</b>	<b>- 444,81 €</b>
<b>Cash and cash equivalents at beginning of year</b>	<b>17 189,62 €</b>	<b>16 055,99 €</b>	<b>14 366,45 €</b>	<b>13 214,38 €</b>	<b>12 214,64 €</b>	<b>11 649,57 €</b>	<b>10 944,54 €</b>	<b>13 657,41 €</b>	<b>12 011,48 €</b>	<b>11 721,66 €</b>	<b>11 242,71 €</b>	<b>10 518,22 €</b>
<b>Cash and cash equivalents at end of year</b>	<b>16 055,99 €</b>	<b>14 366,45 €</b>	<b>13 214,38 €</b>	<b>12 214,64 €</b>	<b>11 649,57 €</b>	<b>10 944,54 €</b>	<b>13 657,41 €</b>	<b>12 011,48 €</b>	<b>11 721,66 €</b>	<b>11 242,71 €</b>	<b>10 518,22 €</b>	<b>10 073,41 €</b>

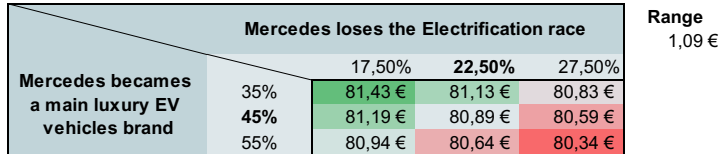
# 1.2 Model Life Cycle

Model's Lifecycle based on European Sales | Source GoodcarBadcar  
 Models are renewed every 7 years - Sales peak in 2nd year

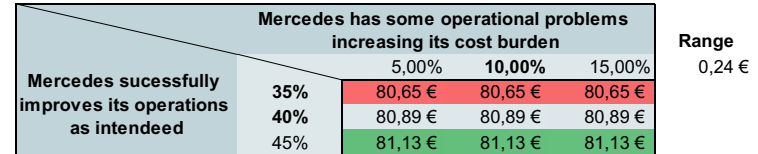


# 1.3 Scenario Analysis Results

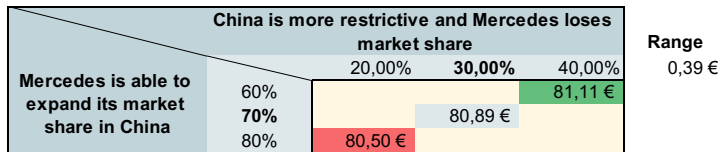
## Electrification



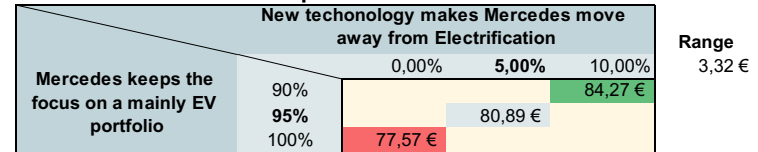
## Company Internal Cost Cutting Policies



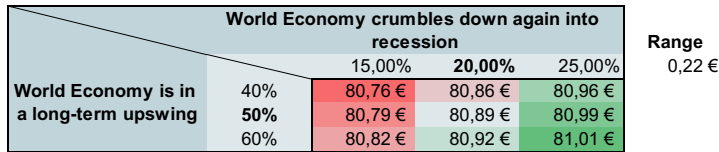
## China



## Electrification of vehicle portfolio

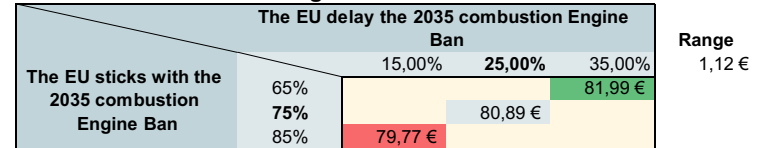


## Macroeconomy

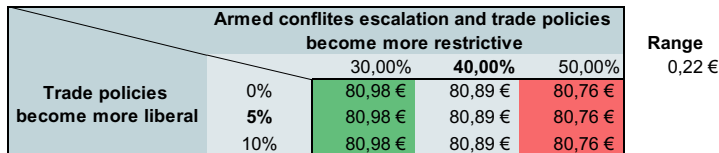


## Regulations

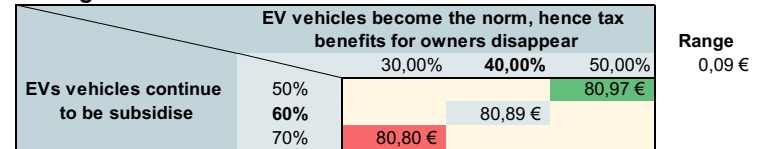
### EU's 2035 Combustion Engine Ban



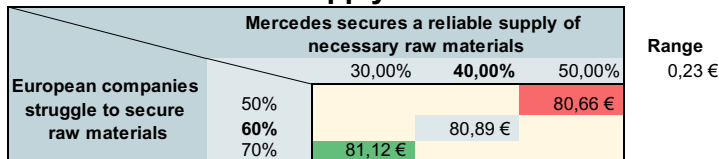
## Geopolitical



## EV regulation

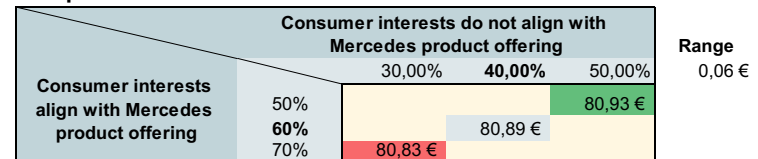


## Raw Materials and Supply Chain



## Demographics & Consumer Behavior

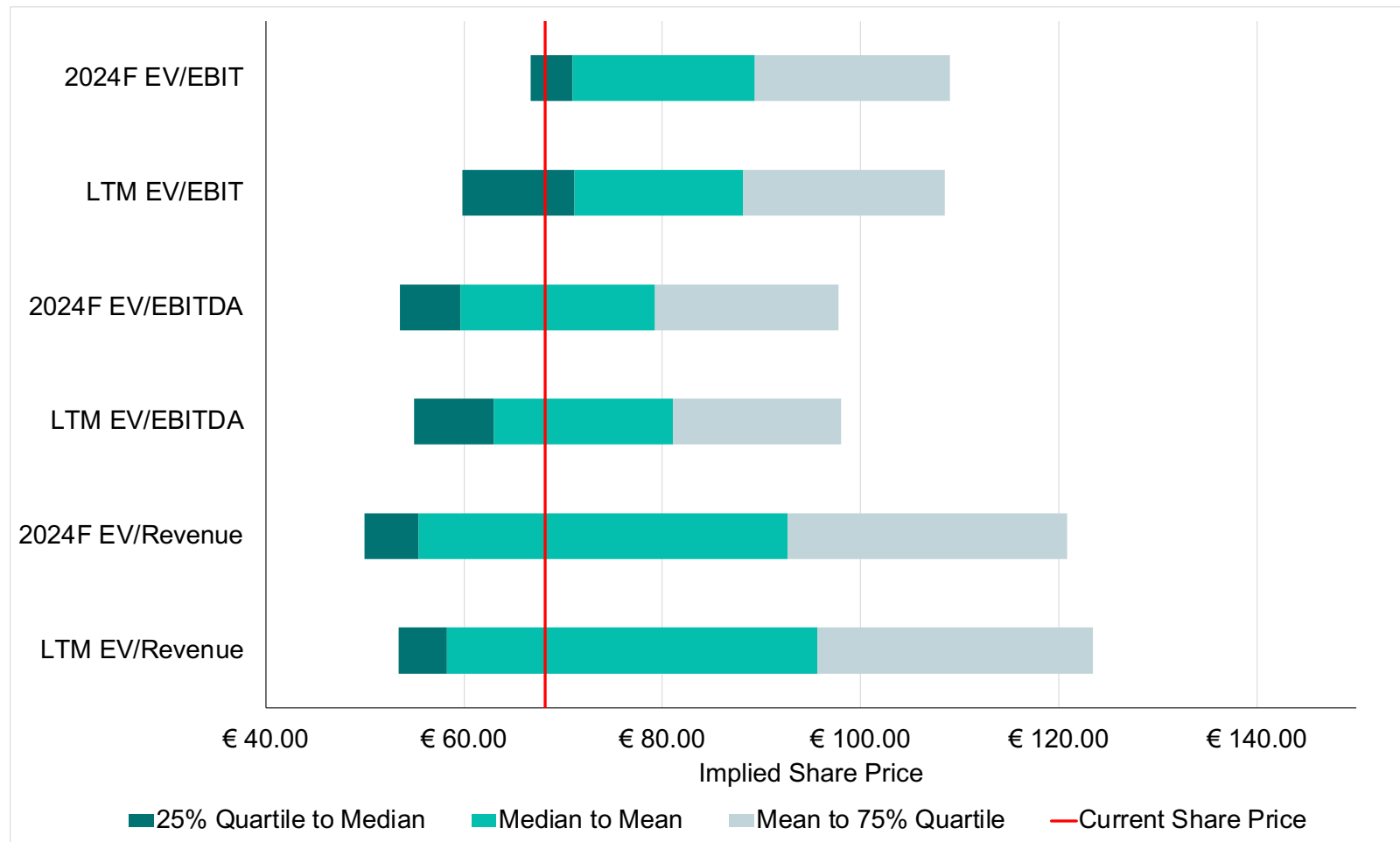
### Car purchase criteria



## 1.4 Monte Carlo Simulation: Variables considered

<b>Variables Simulated Statistics</b>		
<b>MBI - Revenue</b>		
Cars European Market Share	5,33%	0,608%
Cars North American Market Share	2,74%	0,897%
Cars Asia Market Share	3,47%	0,378%
Cars Rest of the World Market Share	2,45%	0,596%
Vans European Market Share	13,54%	0,880%
Vans North American Market Share	0,69%	0,241%
Vans Asia Market Share	1,10%	0,264%
Vans Rest of the World Market Share	3,09%	0,243%
<b>MBI - IS</b>		
Non-Electric Top-end Operating Margin	69,48%	0,051%
Non-Electric Core Operating Margin	72,06%	0,251%
Non-Electric Entry Operating Margin	78,12%	0,155%
Electric Top-end Operating Margin	79,86%	0,023%
Electric Core Operating Margin	84,22%	0,120%
Electric Entry Operating Margin	87,53%	0,071%
Selling Expenses as % of Revenue - MBI	7,82%	0,359%
R&D as % of Revenue	4,78%	0,165%
<b>MBM - IS</b>		
Revenue on new contracts (in %)	17,96%	0,793%
# of New Contracts as % of vehicles sold	57,20%	3,094%
# of Expired Contracts as % of vehicles sold in 1	56,99%	6,701%
Revenue on ongoing contracts (in %)	20,01%	0,796%
Cost of sales as % Revenues	86,58%	1,237%
Selling Expenses as % of Revenue - MBM	2,73%	0,183%
<b>Cost of Capital</b>		
Cost of Debt	3,25%	0,50%
Relevered Cost of Equity	10,94%	0,50%
Growth Rate	2,50%	0,50%

## 1.5 Multiples Valuation: Range of Implied Share Prices



## 2. Disclosures and Disclaimers

### Report Recommendations

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<b>Buy</b>	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
<b>Hold</b>	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
<b>Sell</b>	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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