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DAIMLER EQUITY RESEARCH - FORECAST

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Abstract

Rising level of competition is a significant concern for the automotive giants. Innovations such as electric vehicles and autonomous driving are shaping the new dynamics of automotive industry. As big data companies challenging long-established companies on self-driving cars technology, we are witnessing the future of mobility coming through. The purpose of this study is to compute the underlying value of Daimler Equity in the light of all available information. Quantitative analysis is performed on the historical results of Daimler, its competitors, and the capital markets. In addition, qualitative analysis is employed to assess future strength of the group. Our research is concluded with a HOLD recommendation due to the moderate positive return potential projected.

Keywords

Autonomous Driving, Forecasts, Valuation

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This report is part of the DAIMLER EQUITY RESEARCH report and should be read as an integral part of it.

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Market overview

Competition

We consider BMW and Audi as the main competitors. They are chosen to evaluate the dynamics in the premium and luxury segments of the automotive industry. Daimler's competitors are not limited to these companies. However, they are the best comparables in terms of premium target segmentation, based geography and capital structure. Upon analysis, the reader will have a better view on the market of premium cars.

- Audi

Audi manufactures sport vehicles. As Daimler, their strategy is to go toward Co2 neutrality. The company is aiming for 40% of plug-in hybrids and battery electric vehicles (EVs) sales in 2025 and 100% of them in 2050. As of 2019, 3.5% of total vehicles sold were EVs or Hybrids. In Q1-Q3 2020, the company's operating return on sales (0.3%) as well as Mercedes-Benz cars' (8.2%) were impacted by the diesel gate issues. In addition, the Covid-19 pandemic impacted more Audi's revenues (-19.5% Q1-Q3 2020 compared to Q1-Q3 2019) than Mercedes-Benz Cars & Vans (-10.6% Q1-Q3 2020 compared to Q1-Q3 2019) on a year over year comparison (-10.6% for Mercedes-Benz Cars & Vans segment).

The company produced 764,230 sport utility vehicles (SUVs), representing 42.6% of total sales while Daimler produced 790,000 SUVs representing 33.1% of its total sales. The Lamborghini Urus was a success, with 60% of the bull's total sales. Audi estimates to double the sales of its sport category (R and RS series, equivalent of Mercedes-AMG models) by 2023. The company research and development (R&D) spending focuses on electrification, automation, connectivity and user experience.

- BMW

BMW manufactures motorcycle and automobiles on the premium segment. Similarly to its peers, their strategy focuses on sustainability and high profitability with innovative technologies. The company's Q1-Q3 2020 automobile deliveries dropped -12.5% compared to Q1-Q3 2019. The company aims to have 23 fully electric models by 2023. They also aim that 50% of their sales will be electrified vehicles in 2030. The company pooled their mobility services together with Daimler's. To highlight, the company developed a platform to fit both plug-in hybrid and battery electric cars which aim to drop the cost of production. BMW is working on capturing the value chain of EV batteries by initiating mass production in Dingolfing plant. BMW is going to release model IX in late 2021, which is expected to be the challenger of Mercedes's EQ model.

- Other competitors & comparative performance

Volvo, Tesla, General Motors and Waymo are challengers for Daimler in the field of Autonomous Driving. Free Now, the ride-hailing app of BMW and Daimler, is threatened by increasing competition such as the Volvo-Uber partnership for autonomous hailing cars. We consider techs companies dominant in this market, having superior data processing power.

The past three years average return on assets of Daimler is 2.6%. It is lower than its German peers BMW (3.4%) and Volkswagen (VW) (2.8%). Despite the reduced performance in 2019, the company has been able to generate more value from its net fixed assets than BMW. It is important to note that investments on new production plants had a reduction effect, as it inflated the assets although income has not generated. Daimler's return on equity (ROE) has been significantly higher than its peers and its increase in 2019 implies that the company did not need additional equity to create more value. However, a high ROE for Daimler also means an excessive debt-to-equity ratio. Return on invested capital (ROIC) has been decreasing throughout all the peers, reflecting a transformation in the industry with high investment needed.

Daimler's operating margin average for the last three years is lower than all its comparable companies except General Motors (GM). Daimler's profitability has decreased over the last three years due to high cost of sales. In 2019 cost of sales increased by 6.9% due to legal proceedings and measures taken regarding Mercedes-Benz diesel vehicles. In the second quarter of 2019, company booked 4.2 billion euros in one-time charges. Moreover, 43 million vehicles with Takata airbags globally are recalled due to defective manufacturing globally. Daimler has recalled 840 thousand vehicles. Additionally, company incurs additional costs related to new technologies such as EV batteries and AVs. All those elements led to a significant cost cutting plan. Overall, the profitability metrics show that Daimler performed inferior to its peers.

Prior to 2019 Daimler Equity holders enjoyed higher dividend yields than BMW and VW with a 40% payout ratio on earnings. Concerning 2020, we forecast a 1.78€ earnings per share (EPS) despite the Q3 results driven by the rebound of sales in China. We projected a slow recovery in net income due to Covid-19 and investments to gain more market share in the future of automotive and mobility industry. For 2021 our expected EPS increases to 2.95€ and by 2022 it reaches the previous EPS levels in the industry.

Daimler's equity value grew with a CAGR of 2.8% through the last five years, which is low for a company with a payout ratio of 40%. However, it is important to note that the one-year decrease in 2019 is an outlier, and the CAGR for the previous four years was 4.8%. However, despite the lower results in 2019 and the 2.22€

ROE/ROIC	Daimler	Volkswagen	BMW
ROE -17	16,9%	12,2%	17,0%
ROE -18	11,3%	11,7%	12,6%
ROE -19	18,7%	12,7%	8,3%
ROIC -17	5,4%	4,2%	6,2%
ROIC -18	3,6%	3,6%	4,8%
ROIC -19	4,6%	3,5%	4,2%

Source: Bloomberg

2017-2019 average

Company	Operating margin	ROA	Net fixed asset turnover
Volvo	10,0%	5,9%	4,0%
BMW	8,8%	3,4%	1,7%
Volkswagen	7,2%	2,8%	2,4%
Daimler	7,0%	2,6%	2,1%
GM	5,8%	1,6%	3,9%

Source: Bloomberg

DAIMLER	2017	2018	2019
Dividend Yield	5,2%	7,1%	1,8%
Dividend P/O	38,0%	48,0%	40,5%
EPS	€ 9,61	€ 6,78	€ 2,22
P/E	7,37	6,77	22,24
BMW			
Dividend Yield	4,6%	5,0%	3,4%
Dividend P/O	30,6%	32,9%	33,8%
EPS	€ 13,07	€ 10,60	€ 7,47
P/E	6,64	6,64	9,88
Volkswagen			
Dividend Yield	2,3%	3,5%	2,8%
Dividend P/O	17,9%	20,3%	18,0%
EPS	€ 22,28	€ 23,57	€ 26,60
P/E	7,57	5,90	6,51

Source: Bloomberg

EPS, the group kept the dividend payout ratio at the same level. This short-term solution was applied to keep the shareholders satisfied. If Daimler does not effectively cut costs and enhance profitability the group might end up taking on excessive debt and further increase Debt/Equity, as well as WACC.

Autonomous driving

▪ A technology in tomorrow's cars

Self-driving cars have the theoretical potential to eliminate traffic congestion, to decrease fuels consumptions and transport people safer. The most recent model developed by Mercedes-Benz, the new S-Class, will be the flagship of Mercedes' recent autonomous technology. The new S-Class is a level-3 autonomous vehicle and equipped for level-4 support. Level-3 is a conditional automation support, which detects the conditions for human take-over. Comparatively, level-4 does not need human interaction within geofencing. The new S-Class autonomous version will only be available in Germany due to the legal legislations. In addition to camera systems, the model also uses laser sensors to improve safety. The dual cameras placed on in front of the vehicle interprets the traffic signs and adjusts the speed. The vehicle is equipped with an interior infrared camera, which detect driver's face and body position for the purpose of emergency safety. Furthermore, autonomous driving (AD) technology interprets emergency vehicles such as ambulance and police cars by their sirens, and requests human take-over.

Levels of driving automation	0	1	2	3	4	5
Human has control	✓	✓	✓	✓	✓	
Cruise control		✓	✓	✓	✓	✓
Steering			✓	✓	✓	✓
Acceleration			✓	✓	✓	✓
Human is required	✓	✓	✓	✓		
Human is optional					✓	

Source: The Society of Automotive Engineer

▪ Challenges and risks for autonomous driving

The real challenge for autonomous vehicles (AVs) is to understand pedestrian intentions. The decision-making process requires correct interpretation of large amount of data. This data can be categorized as environmental and pedestrian factors. Vehicle distance, lighting, road structure are environmental factors and relatively easier to interpret. In contrary, pedestrian specific factors are highly variable and harder to create a pattern of it. Attention, age, and social factors might influence the pedestrian behaviour. Therefore, every single information is valuable to improve AI decision-making. For this reason, Alphabet's subsidiary Waymo benefitting from Google's massive data sources and capacity to process data, has a superior advantage in terms of software.

Despite the legislation of AVs in Nevada, California, Florida, and Washington, it

remains unclear whether there is going to be unified legislation in the United States of America (US). As a result, AI-decisions regarding the state laws and liability subjection becomes an obstacle. It takes many miles to measure safety of AD, and it is a matter of decimals to be considered safer than humans or not. The legal issues seem to be the biggest obstacle in front of AVs. In case of an accident, addressing the liability is going to be quite challenging as the legal framework is still not adequate for AVs. Tesla and Uber AVs have already been involved into fatal accidents. There are variable opinions about the addressing liability. Volvo accepts to take the legal liability on AVs accidents. Listing potential risks on the buying contract and defining the responsibility in case of an accident before-hand would be alarming for the customer. In addition, there is a real question on whether insurance companies or automobile companies would take responsibility.¹

Forecasts

In this equity report the fundamental method chosen to value Daimler AG is the discounted cash flow (DCF). The discount rate applied to the projected future cash flow is the weighted average cost of capital (WACC), representing overall company risk, while incorporating forecasted capital structure. In addition to the DCF, Multiple valuation method is also used to have a supportive evidence on the possible price range for Daimler equity. Furthermore, the weighted average DCF and Multiples price is accepted as the expected target price.

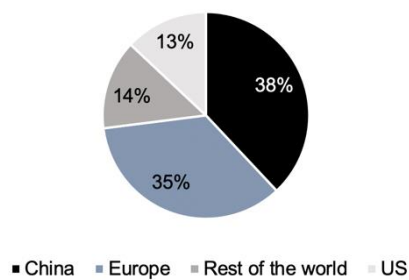
Valuation

■ Revenue forecast

Daimler's cars business unit revenues were forecasted based on two components. First, the weighted average prices of the models, taking into account the decreasing price premium of EVs. Second, the forecasted market share on main markets (US, Europe and China). Inflation was assumed to be 1%. Regarding the weight of EVs in Daimler's portfolio, we based our estimations on an increasing share, reaching 100% EVs sales in 2039. Daimler Mobility business unit was forecasted based on the number of contract per vehicle sold. Daimler's other business units were forecasted based on our average prices and unit sales estimations upon markets research.

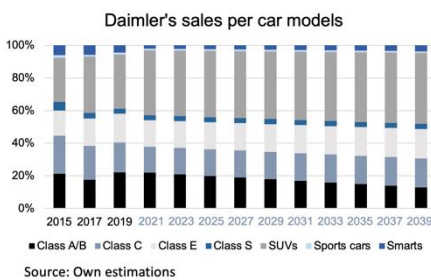
Daimler's total sales performed a 4.5% CAGR for 2015-2019. The forecasted period (2020-2039) CAGR is 2.4%. Daimler's revenues will reach 283.4 billion euros in 2039. Mercedes-Benz cars sales in China will weight for 29.1% of Daimler's total revenues (82.4 billion euros of revenues). Sales in Europe and US

Daimler's 2021 revenue by geography



Source: Own estimations

¹ University of Berkeley, School of Law



will weight 15.1% and 4.0% of Daimler's total revenue respectively. Cumulated, the sales of cars in those three regions will weight for almost half of Daimler's total revenues. Daimler mobility and Mercedes-Benz cars business units will gain weight in Daimler's total revenues throughout the years (16.3% and 52.8% of total revenues in 2021; 18.2% and 54.6% in 2039) to the detriment of the other business units.

Models	Non-Hybrid price	Hybrid price
Class A/B	€30 000	€40 000
Class C	€39 000	€54 000
Class E	€55 000	€63 000
Class S	€86 000	€98 900
SUVs	€40 000	€50 000
Sport cars	€80 000	€150 000
Smart	€22 000	€22 000
Weighted Average	€40 621	€52 429

Group unit sales	Q3 2019	Q3 2020	% change
Daimler Group	839	773	-8
Mercedes-Benz Cars	605	567	-6
Mercedes-Benz Vans	100	107	+7
Daimler Trucks	125	94	-25
Daimler Buses	9	5	-43

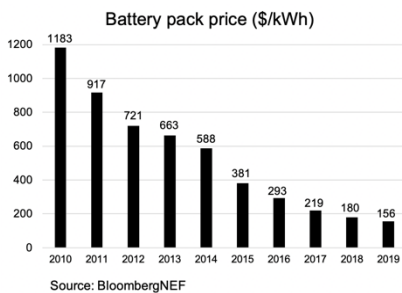
Values in thousand

Source: Daimler interim report

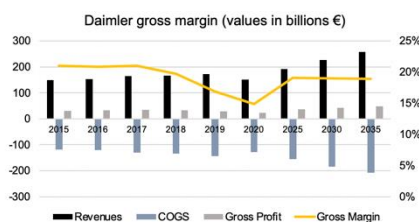
Source: Own estimations

▪ Gross margin

Gross margin of Daimler has been in a decline because of tightening competition in the industry. Nevertheless, the company maintains a higher gross margin than other German auto manufacturers BMW, Volkswagen having 12%, 6% respectively. Gross profit margins correlate closely with the brand positioning. Therefore, as more brands continue to offer additional features, the industry margins are being pushed downward.



Daimler aims to electrify its offerings and aims 50% of their sales to be battery electric and hybrid vehicles by 2030. As the group pursues the goal of being completely CO2 neutral by 2039, the group make the effort to costs in order to shift its investments toward electric vehicles. The cost structure in the EV industry depends mainly on range and kWh. Our expectation for hybrids to have higher margin was supported by our market research. Fully electric models will improve in terms of contributing to profitability of Daimler, when the technological advancement on battery and range is reached.

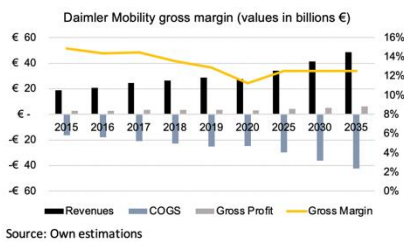


For 2020, we expect a of 2 percentage point decline in overall gross margin from last year's 16.8%. High-cost requirements of autonomous driving and EV production would result a lower profitability alongside with the upcoming environmental sustainability laws. The research data² examined by consultancy Oliver Wynman for Financial Times suggests that the current price of manufacturing a compact electric vehicle is 20,500€, and it is going to decrease by 20% by 2030. It is expected for a 50kWh engine would fall 46% in price with the economies of scale effect and new massive production plants in Europe and Asia.

The preliminary results alongside with the historical ones signals promising margins also for the Mercedes-Benz vans business unit. It has been developing

² Electric car costs to remain higher than traditional engines, Financial Times (2020)

digital solutions for various business needs. Mercedes Pro brand works on tackling daily business issues and fleet management in the modern business environment. Per example, Mercedes Me app offers connectivity to commercial businesses and integrable with business management systems for the data flows. It allows businesses to assign capabilities to each vehicle and to set authorization to each user. The service's main offerings such as increased efficiency, optimization and safety is valued by businesses. Mercedes Pro services introduced in 2019 had a boosting effect on the demand and Q3 results are 7% increased on 2020 from prior year.



Mobility services gained more importance for the business. The group recorded more than 5.4 million leasing and financing contracts for 2019. Overall, contract volume has reached 162.8 billion with an increase of 6% in the division in 2019. The joint venture established with BMW Group had 90 million customer base as of 2019. Mobility services expected to grow at a high pace due to increasing demand for the fleet management in the upcoming years. Nevertheless, the contract volume being 8% down in Mobility section support the evidence of a correlation with the Covid-19 pandemic. In the Mobility section, the expected average gross margin is 10.3% for 2020. Q3 results show a gross margin of 13.8% that balances Q1 result of 7%.

▪ Research and development

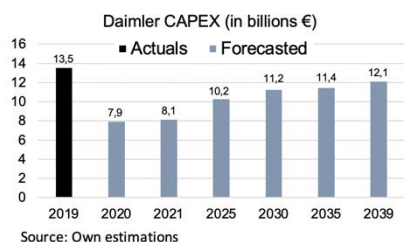
Daimler is shifting its R&D investments towards autonomous trucks and moving away from robotaxi business. Daimler announced a partnership with Alphabet on self-driving trucks to be sold in the US. Previously it had reported a possible sale of the joint venture with BMW called Free Now to Uber. The sale might generate cash for Daimler's core operational business. Furthermore, Daimler is acquiring a stake in Luminar technologies to improve Laser Imaging Detection and Ranging (LiDAR) sensing for heavy-duty autonomous trucks. In the following years, Daimler will have to do invest heavily to autonomous driving and electric vehicle technologies. The R&D costs would be mainly allocated to AVs sensors, battery development and software, as these fields make up the biggest share of total number of patented in the industry³. The product life cycle of software expected to be short because of the obstacles facing autonomous driving such as broken roads and layout differences in parking spaces. McKinsey's study claims that only 41% of US roads meet the requirements for AVs. This might cause a gradual shift, where the software would need to be constantly developed.

Number of patents since 2010	in thousand
AV sensors and ADAS components	9,1
Electric vehicles and charging	9
Batteries	5,7
Telematics and intelligent traffic	3,1
Semiconductors	2,5
AV software and mapping	1,2
Connectivity/Infotainment	1,1
HMI and voice recognition	0,2
E-hailing	0,1
Back end/Cybersecurity	0,1
TOTAL	32,1

Source: McKinsey Compendium 2019/2020

³ McKinsey Compendium 2019/2020

- Capital expenditures



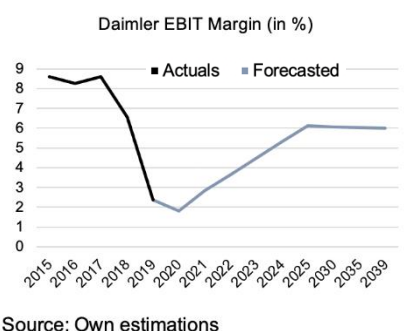
The Daimler Group invested 1.92 billion euros as capital expenditure (CAPEX) in Q3 2020, 63% of it was investments in property plant and equipment (PPE). The scope of the investments were production lines of the new S-Class and C-Class. Daimler CAPEX made to support the battery production and it is expected to continue for the following years. Daimler Trucks & Buses division is currently investing mostly on Autonomous Mobility development for the business, as there is a significant innovation opportunity.

We used historical CAPEX for the core business to estimate the outlook. Investment in CAPEX averaged to a yearly increase of 1.7%, and PPE investments yield to 21.2% of the revenues for the 2015-2019 period. PPE investments in the automotive industry is very high, because of transformation to electricity and autonomous driving in past five years. The expectation is by 2030, collectively established infrastructure will contribute to economies of scale.

Shared mobility may not be immediately adopted globally, however there are solid steps towards building the technological infrastructure. China the biggest market for Daimler, does not have adequate road infrastructure to support the excessive demand for motorized transport. Over the ten years, CAGR of car ownership in China was 26% whereas for the road area of 6%.⁴ Considering that and the gap in rest of the world, countries might partially allow private companies to facilitate the transition process to shape the future of transit. CAPEX for the future is highly dependent on official regulations on Shared Autonomous Mobility (SAM). Possible investment areas are support facilities, staging areas, and mobility hubs.

Profitability and financing

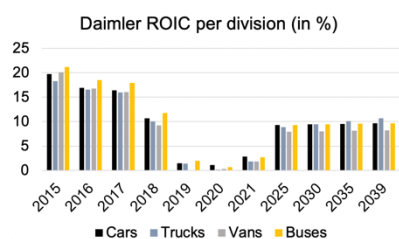
- EBIT margin



Financial statements were broken down to each business units. To forecast EBIT, we forecasted the evolution COGS and SG&A. Three quarterly reports announced yielded an EBIT margin of 2.9% for the year 2020. However, the result is hoisted by the outlier Q3 result of 7.6%, and in the first half of the year Daimler EBIT margin was around zero. Therefore, our conservative projection 1.7% still holds for 2020. We forecasted an increasing EBIT margin for the next five years, resulting from the costs saving plans of Daimler. In addition, the price of batteries in EVs will decrease and the multiple partnerships and actions on Daimler's side will decrease the cost of goods sold for the cars & vans business unit, which is responsible for 60% of total COGS. From 2025, the EBIT of the group will retrieve the market average of 6% for automobile companies.

⁴ Future of Shared Mobility in China, Deloitte

- Return on invested capital



Source: Own estimations

We employed a top-down estimation method to calculate each business segment invested capital allocation. The invested capital of the industrial business is allocated according to the proportion of revenues coming from each segment to the industrial business revenue. NOPLAT is computed after elimination of the intersegments revenues.

ROIC of Daimler has been lower than 2017 for two consecutive years. Three-year average of ROIC remains below of its peer companies such as BMW. The decrease in ROIC showed an operational inefficiency. After the 9.3 billion increase of cost of sales in 2019, the group announced cost cutting measures in 2020.⁵ Cost cutting measures will include gradual elimination of manual gearboxes and reducing combustion engine models in the upcoming years. Since growth is a derivative of efficiency gains and invested capital, and the outlook for automotive shows increased investments on EV and AD, efficiency measures will be significant for the group.

Despite the high capital investments, Daimler was able to create economical value in 2019, as the difference between 4.6% of ROIC and 2% of WACC remains positive. Our forecast for ROIC remains low with respect to the expected low net income for the year 2020. For the upcoming year we expect ROIC to exceed 3%, as the impact of Covid-19 declines. Moreover, Daimler completed five previously announced factories to support the production EVs in the three continent Europe, Asia, and America. The group plans to cut the costs 20% by 2025, which has a positive impact on our projection alongside with the increased profitability on EV by that year.

- Financial risks

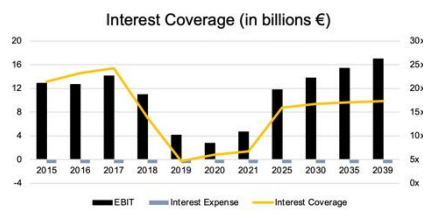
Current rating classifications of Daimler

	Standard & Poor's	Moody's	Fitch	DBRS	Scope
Long term rating	BBB+	A3	BBB+	BBB	A
Outlook	Negative	Negative	Stable	Stable	Stable
Short term rating	A-2	P-2	F1	R-2	S-1

Daimler is exposed to various type of risks, which are mainly exchange rate, interest rate, commodity price, and country risks. In the normal course of the business Daimler uses bonds, commercial papers as well as bank loans. In a scenario of restriction of access to capital markets or early credit repayment enforcements due to a breach in agreement terms, business would be negatively impacted.

Daimler has been heavily debt financed for the past years, with the recent poor performance and the pandemic hit concerns about its debt levels arises. The group

⁵ Daimler to cut fixed costs and take Mercedes more upmarket, Reuters



Source: Own estimations

having a history of great credit ratings, now is downgraded by major investors services. The interest coverage ratio fell by 6x in 2019 and expected to remain low for 2021. The group is exposed to credit risks from its financial services activities as well as from industrial business. The negative outlook would result higher cost of debt for Daimler, if not counter-balanced with profitability and cost cutting measures in the future. High cost of debt might alter the DCF valuation and decrease the target price computed with WACC.

Furthermore, the group has invested in Aston Martin (AM) in 2013, and its 5% shares were diluted after its disappointing initial public offering (IPO) to 2.6%. According to the terms of the strategic partnership agreement AM would hand Daimler shares worth up to £286 million. The agreement is made in October when the price was £48 per share implying that Daimler might increase the stakes to in up to 20%. The partnership carries risks as AM was on the verge of its 8th bankruptcy in summer of 2020.

Estimations

WACC

The analysis of capital structure is made with WACC formula⁶ and future Debt/Equity is expected to remain the same. The risk-free rate of -0.40%⁷, used in the WACC calculation is the most recent yield of Germany 10-Y Government Bond, as it is denominated in the same currency and geographically suited proxy for the company. The cost of equity is calculated using Capital Asset Pricing Model (CAPM) method⁸. Historical equity Beta is derived by regressing Daimler equity excess return with market excess return. Germany market risk premium 5.23%⁹ is used in the WACC calculations and is last updated in July 2020. The comparables analysis show that competitors BMW and Volkswagen have Betas 1.41 and 1.23, respectively. These Beta values are not incorporated in our calculation due to the significant difference between the capital structure of the companies. The equity Beta remains the same after re-leverage as we assume the debt level of Daimler to remain the same for the upcoming year. Daimler has been heavily financed by debt and it was downgraded from A- to BBB+ by Fitch in April 2020. It is expected that Daimler will decrease indebtedness only after 2021, as a stable recovery from Covid-19 economic downturn rather than a rapid one is projected. Instead of assuming a zero beta on debt, it was estimated using the country risk premium (CRP) and market risk premium¹⁰ (MRP). We use three-year yield of BBB+

Credit profile

Daimler YTM	-0,1%
Cumul. default prob.	0,3%
Maturity	3
Default prob. annual.	0,1%
Recovery rate	40,0%
Loss given default	60,0%
Rd	-0,1%

WACC metrics

Risk-free rate	-0,40%
Market risk premium	5,23%
Debt/EV	0,75
Equity/EV	0,25
Tax rate	28,95%
Beta	1,64
Beta debt	0,052
Beta unlevered	0,45
Beta re-levered	1,64
Rd	-0,13%
Re	8,18%
WACC	2,00%

Levered beta

DAI	1.64
DMW	1.41
VOW	1.23

Source: Own estimations

⁶ $WACC = D/V * Rd * (1 - T) + E/V * Re$

⁷ GDBR10, Bloomberg

⁸ $E(Ri) = rf + \beta i[E(Rm) - rf]$

⁹ Damodaran, NYU Stern

¹⁰ $\beta d = (Rd - rf)/MRP$

European corporate bonds to estimate cost of debt (R_d), since Daimler's bonds have an average maturity of 3.27 years. Using the above stated inputs WACC resulted is 2%.

▪ Discounted cash flows

The competitive environment in the industry affects the DCF valuation of Daimler by reducing the free cash flow of the core business. The shift to the EV production increases PPE, thus the investment cash flow. We assume that the Covid-19 uncertainty had delayed the required investments for the electrification technology planned for 2020/2021 period. Therefore, we project the net investment cash flow to be 7.3 and 6.5 billion euros respectively for that period. Starting from 2022 it is expected to rebound to 12 billion euros, closer to the previous five-year levels.

Long-term nominal growth rate used for the purpose of DCF is the average gross domestic product (GDP) growth rate of Germany and EU for 2019 (1%). Due to the 2039 vision of electrification, we chose this date as our horizon and we computed the terminal value by discounting the free cash flow of 2039 as a perpetuity. Afterwards, the terminal value is discounted to the investment year 2021 to obtain the enterprise value. Equity value is obtained by subtracting the net debt from enterprise value. The DCF valuation resulted a target price of 63.72 euros implying an upwards potential for Daimler's equity.

▪ Sensitivity & scenario analyses

In this part of our analysis, we test our valuation model's sensitivity to Beta as it might fluctuate with respect to the period it has been calculated. Moreover, the prices we obtain in the 1% growth rate column supports the accuracy of the assumptions employed as it is the actual price range of the equity in last six years. The current outlook signals us that in the bullish/bearish runs of the market Daimler share price might fluctuate between 79-49€, excluding the big shocks. The changing WACC rate shows how the company DCF value responds to high costs of capital, which may be applicable in financial recession. It is also representative for the scenarios if Daimler's credit score gets upgraded back or further downgraded. Since, Daimler is a stable company, long-term growth rate of 1% was used in our valuation.

As mentioned earlier, China is the most significant market for future growth of the Daimler Group. The country stands out by actualizing over 38% of all sales Daimler makes globally. Moreover, the evolution in the transportation solution in China matters for Daimler's future strategy. In case modern mobility systems are initialized in China, Daimler's current investments might help to gain a massive market share. The future of transportation is likely to take in place in China with the interconnected systems. The achievements required for the complete

DCF valuation

WACC	2,00%
Growth	1,00%
Enterprise Value	212,750
Net Debt	-144,583
Equity value	68,167
Share outstanding	1,070
Price target FY2021	63,72
Price today (03-01-21)	57,79

Final valuation

DCF price	63,72
Multiple price	59,44
Weighted final price	61,58

Source: Own estimations

		Growth Rate				
Beta	63.72	0.8%	0.9%	1.0%	1.1%	1.2%
	1.54	55.81	74.17	96.73	125.15	162.03
	1.59	43.35	59.35	78.75	102.80	133.36
	1.64	32.26	46.31	63.16	83.73	109.42
	1.69	22.34	34.75	49.49	67.27	89.14
	1.74	13.40	24.44	37.43	52.92	71.73

		Growth Rate				
WACC	63.72	0.8%	0.9%	1.0%	1.1%	1.2%
	1.80%	70.43	91.78	118.44	152.68	198.28
	1.90%	49.66	66.83	87.80	113.99	147.64
	2.00%	32.36	46.42	63.29	83.90	109.63
	2.10%	17.73	29.43	43.25	59.82	80.06
	2.20%	5.20	15.06	26.55	40.13	56.41

transformation to autonomous and intelligent mobility in massive scale are integrity, collaboration, and safety.¹¹ In addition, roads, cars and all the traffic lights must be integrated. Collaboration within automotive brands is a must due to co-movement of each vehicle. It is significant to consider these factors because of the direct impact Daimler's market share as well as its profitability and cost structure after 2025. To assess the potential impact of the market share on future value of Daimler Group, a scenario analysis is conducted. The three scenarios identified for the future are: Pessimistic, Moderate and Optimistic.

	Probability	China Market Share by 2039	Price €	Shareholder Return	Recommendation
Base Scenario	0,70	4,6%	61,58	6,56%	HOLD
Worst Scenario	0,15	4,0%	46,12	-20,20%	SELL
Best Scenario	0,15	4,9%	68,21	18,03%	BUY
Expected Price			60,26	4,27%	HOLD

Source: Own estimations

The base case expected price is the average of implied prices by DCF and WACC valuation methods. Moreover, in the base case we used the latest computed market share for the future. The best and worst scenario market shares are asymmetric due to the consistent increasing trend in the computed market share throughout the years 2015-2019. Incorporating all the respective probabilities and implied prices, the expected target price is equal to 60,26€, which results a total return of 4,27%.

▪ Multiples

We computed a multiples valuation from other companies in the automotive industry for the purpose of understanding the market perception of Daimler in comparison with its competitors. We selected 9 comparable firms, based on size, capital structure, and earnings. Companies with negative EBITs such as Ford, Nissan and Renault were excluded. Since Daimler is distinguished by being heavily debt financed, net debt to revenue ratio metric is used for classification. Companies having net debt to revenues ratio lower than 50% such as Fiat Chrysler, Honda, Peugeot, and Volvo were excluded from the analysis. After filtering out, the most suitable peers of Daimler were BMW, Toyota, and Volkswagen.

The multiple EV/Revenues was selected for the purpose of valuation due to its accuracy regarding the price range of Daimler's equity. Moreover, EBIT and EBITDA margins fluctuate according to companies' R&D costs incurred and investment decisions, thus results a distortion in the valuation. Although Daimler's current EV/revenues is slightly under the average of its peer group, the average multiple of peers is used to compute the share price, as the company has strong value drivers in automotive industry.

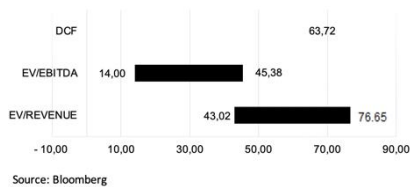
Multiples	EV/Revenue	EV/EBITDA	EV/EBIT
BMW	1,34	9,26	27,52
FIAT CHRYSLER	0,24	2,39	8,39
FORD MOTOR	1,22	13,16	-61,39
HONDA MOTOR	0,73	9,56	29,71
NISSAN MOTOR	0,93	12,64	-40,93
PEUGEOT SA	0,23	1,98	5,32
RENAULT	1,17	12,63	-37,75
TOYOTA MOTOR	1,55	12,49	26,00
VOLKSWAGEN	1,07	8,54	85,70
VOLVO	1,45	10,33	22,04
DAIMLER	1,23	11,19	79,47

Source: Bloomberg

¹¹ 2018 Global Intelligent Vehicle Summit

Our approach to capture the economic impact of Covid-19 was using the most recent data, which is the trailing 12 months from Q3 2020. Our analysis resulted 59.44€ for Daimler's share price, which is slightly above the current price of 57.79€.

Disclosure and recommendation



Daimler's undervalued look might be a result of the one-time charges due to extremely high legal proceedings taken in 2019 with regards to the diesel emission scandal. Moreover, Daimler had to recall 840 thousand vehicles due to faulty Takata airbags. However, these charges were booked in 2019, thus already affected company's profitability. As the market efficiency theory states, all the public information about Daimler Group was incorporated in the current market price. After forecasting the future cash flow of the company with conservative assumptions the computed price of 63.72€ showed a moderate upwards potential. For the base scenario price, we took the average of DCF and EV/REVENUE multiple prices for the purpose of increasing the accuracy and incorporating the relative perception of Daimler group in comparison with the market. The base case final price is computed is 61.58€.

Regarding the outlook of the automotive industry, the competition for Daimler is expected to emerge in the upper end of the market, as the company is going to slash manual gearbox production, traditional combustion engines and focus on EVs and AD. Daimler Group is a giant in the industry and have competitive advantage against new entrants of EV and AD fields except tech companies with massive data sources such as Alphabet and Amazon.

Financial year	Dividend per share	Pay-out ratio
2019	€0,90	40%
2018	€3,25	48%
2017	€3,65	37%
2016	€3,25	41%
2015	€3,25	40%

Source: Daimler annual reports

Our recommendation is to hold Daimler, as the projected scenarios shows an asymmetric return potential and we do not expect a breakthrough. The factors previously discussed may had resulted an overreaction in the market, thus the current price is underestimating the true value of the company. Furthermore, it is a company with stable revenue streams and maintains a high dividend payout ratio. Therefore, we perceive it as a solid value stock.

It is important to note that our analysis results an annual total return potential (capital gain +dividends) of 8.6%.¹² Our perception of Daimler is, it can be an option for investors seeking to reduce risk of their portfolio, since it has a long dividend payout history.

¹² Dividends: €3,159 bn(NI 2021E)*0.4(Assumed payout ratio)/1,069.8(Shares Outstanding)

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