

**MASTER IN
FINANCE**

**MASTER'S FINAL WORK
PROJECT**

EQUITY RESEARCH: DAIMLER AG

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I. Abstract

Daimler AG, an enterprise with more than a century of existence, is one of the most preeminent firms within the vehicle manufacturers' industry. Accounting with 5 segments, with renowned brands, such as Mercedes-Benz, Maybach or even Smart, these ones are only a "piece" of the puzzle within Daimler's world. Although the car segment accounts with more than half of its revenue, Daimler has more to it, as it also embraces Buses, Trucks, Vans and even financial services. All together they provide us a successful and leader company.

To evaluate its value within the market, the possibilities are endless. Indeed there are a lot of methodologies that can be used, though no investors acknowledge a primordial one. With that in account, the Discounted Cash Flow and Relative valuation were chosen, keeping in mind all their assumptions and specifications. These models do complement each other and will allow us to reach our ultimate goal, which is to estimate a fair price for Daimler's stock value. Moreover, a six-years forecast was also made for Daimler's financial position, income statement and cash flow statement. Additionally, some variable sensitiveness was tested, from where inferences, taking in account 2016's last stock price for Daimler, could be extrapolated. Overall, the German company reflected signs of an undervaluation, nevertheless.

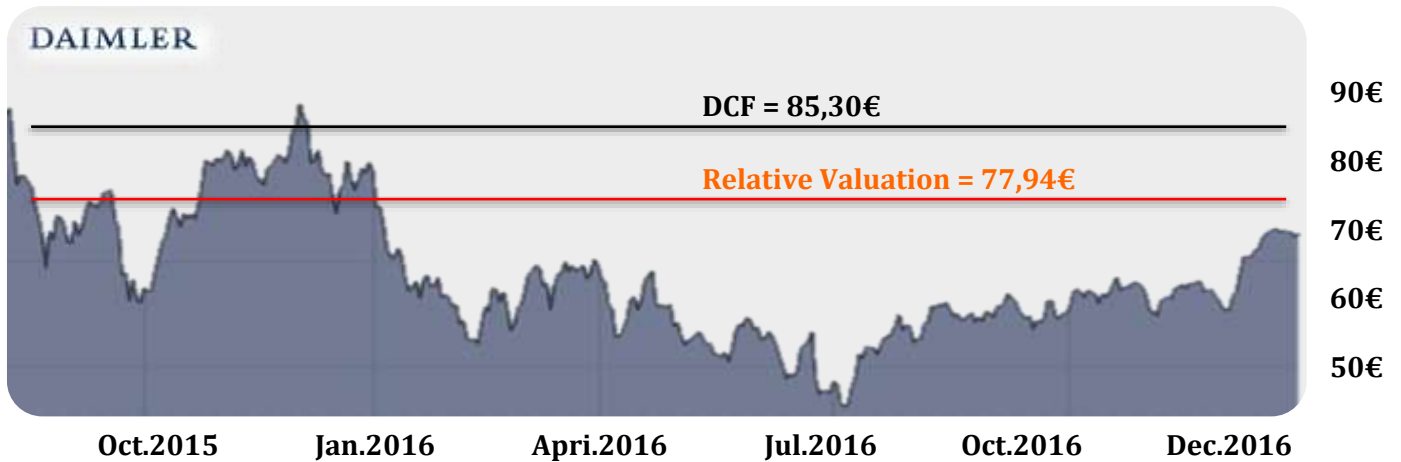
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0. Introduction



Markets are mutable, their tendencies shift, their demands fluctuate and there are numerous ways one can check how changeable their trends are. That being said, the models used to analyse them are also subject to a certain degree of unpredictability, given that they do depend on how accurate their assumptions are based on. In this valuation the models chosen are the discounted cash flow with the relative valuation as a complementary model. Both of them give us different values, however similar conclusions, as they express that Daimler is slightly undervalued. Which culminates in a final recommendation of buying Daimler's stocks. Daimler is inherent to the automotive industry, which will most definitely suffer a shift due to clientele, environmental and technological demands. Nonetheless, the historical behaviour of Daimler has been forecasted into 6 years. Thus all the strategy behind Daimler's experience reflects a positive trend within the balance sheet, the income and the cash flow statement. Likewise all the statements, the valuation methods also underline proper assumptions, for instances for the WACC rate. Henceforth its conclusions are susceptible to potential variations in certain variables, which ultimately will influence the final value. For that a sensitivity analysis can be made, in order to explore scenarios and create some boundaries. All this investigation given Daimler's management system with the customer and itself, although somewhat subjective, aims to evaluate its fair value and help investors' investment decision.

1. Literature Review

1.1. Introduction

No matter if one is underlining a company's financing, dividend or investing decision, what lies behind the scenes as a crucial factor, for a reliable choice and resource allocation measure, is the concept of valuation (Luehrman, 1997). Through this, the ambition is to achieve a value that allows us to study the market efficiency, by analysing markets' prices deviation from estimated values and how rapid and often they tend to revert to them (Damodaran, 2006). Thus, there is a notorious difference between value, which might even vary concerning distinct buyers/sellers and valuation techniques, and price, that is generated through the relationship of supply and demand among the market (Fernandez, 2007). Ultimately, markets are indeed inefficient, nevertheless, if they were to be strongly efficient the markets' prices would be the best estimate of value, therefore, the valuation purpose would be strictly to justify that same value, besides the valuation method used.

Different methodologies can and should be taken in account regarding different contexts, nonetheless, cash, risk and timing are common ground in what concerns the overall valuation scenarios (Luehrman, 1997). In addition, there has been an overloading issue towards the growth of new valuation approaches, which might constitute a barrier to a strong and reliable valuation. Consequently, it should not be used a great number of valuation methods when making a specific valuation. Moreover, most of these approaches ought to end up being mathematically equivalent, under identical assumptions (Young, Sullivan, Nokhasten & Holt, 1999).

1.2. Valuation Framework

As stated previously there are numerous ways of approaching valuation, however one may break up valuation into four major categorical groups, if one combines what (Damodaran, 2002) and (Fernández, 2007) inferred, one ends up having: Discounted Cash Flow (DCF) Valuation; Relative Valuation; Asset-Based Valuation; and, Contingent Claim Models. Besides that, (Young, Sullivan, Nokhasten & Holt, 1999) distinguished firm and equity models. Thus, if one sums up all information:

1.2.1. Discounted Cash Flow Models

Basically its aim is to show the attractiveness of a potential investment opportunity. For that it takes in account the present value (PV) of the future cash flows of a certain project discounted with a specific discount rate that reflects the cash flows' riskiness (Luehrman, 1997). Indeed it is seen as the most precise valuation technique, thus used most frequently when looking into a firm's or project's valuation (Goedhart, Koller, & Wessels, 2005). In this context it is crucial to acknowledge that the valuation will not be derived directly from the financial statements of an enterprise, but from certain expectations and assumptions that will support the future cash flows (Vélez-Pareja & Tham, 2001).

Regardless the valuation methodology underlined one can decompose it in: firstly, the cash flow generated by the company in a certain period t (CF_t); secondly, the discount rate that embraces the cash flows' risk, and will vary concerning the technique in usage (r); and, lastly, the terminal value (TV_t) or residual value that takes in account a stable scenario for the firm's growth (g), usually lower than the economy growth rate. Thus the overall formulas are (Fernandez, 2007):

$$(a) \text{ Enterprise Value} = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t} + \frac{CF_t + TV_t}{(1+r)^t} ; \quad (b) \text{ Terminal Value}_t = \frac{CF_t * (1+g)}{(r-g)}$$

1.2.1.1. Firm Discounted Cash Flow Models

Within this category of DCF methodologies one will look into three kinds of firm valuation models: Free Cash Flow to the Firm (FCFF); Adjusted Present Value (APV); Excess Return Models (ERM);

Free Cash Flow to the Firm (FCFF)

The FCFF can be seen as: $FCFF = EBIT(1 - t) + Depreciation - Capex - \Delta NWC$, thus it is a performance measure that looks into variations in the net working capital, year's investment (capex), taxes and cash expenses as a downsize of the net amount of cash that a firm had throughout the year. So Pinto (2010) describes FCFF as being the availability of cash within a certain enterprise that covers the payment of the firm's suppliers of capital, after all operating expenses. In this sense, all variables crucial to the business operation maintenance, even if not core activities need to be taken in account and deducted as they do not reflect available cash. Ultimately, all non-cash expenses should also be recognized for tax purposes, this is why depreciations are being summed up.

Weighted Average Cost of Capital (WACC)

Conventionally the WACC rate reflects the opportunity cost built on the return on a nominal risk free rate and the time value, which a firm could potentially balance, if it were to get in other kind of investments with similar riskiness. Not only does it embrace the effect of tax advantages, but also comprises values like debt and equity, thus the capital structure of the company (Luehrman, 1997). Additionally (Damodaran, 2006) reasons that it should be seen as a relationship between the way a company decides to finance itself and their weighted market value. In this context the following formula describes this rate:

$$WACC = \frac{Equity}{Debt + Equity} \times R_E + \frac{Debt}{Debt + Equity} \times R_D \times (1 - t)$$

The Cost of Equity (R_E)

The entire variables underlined in this topic are most commonly used in the Capital Asset Pricing Model (CAPM) foundations. Furthermore (Damodaran, 2002) states that this model is indeed a benchmark while trying to break down risk and return. Although some assumptions, such as the inexistence of transactions costs and asymmetric information, or that investors hold totally diversified portfolios, need to be made. On the other hand, (Goedhart, Koller, & Wessels, 2015) reasons that one can look into the cost of equity through the CAPM model, as it takes in account all crucial variables like the Beta (β), the Risk-free Rate (R_f) and the Equity Risk Premium (ERP). Thus follows the CAPM formula: $E(R_i) = R_f + \beta_i(E(R_m) - R_f)$.

The Risk-free Rate (R_f)

Usually the risk free rate is seen through the government zero-coupon bonds, which basically is accepted if some requirements are fulfilled: there can be no presence of a default or reinvestment risk (Damodaran, 2008). As commonly known there are many treasury bonds that vary their maturity, therefore, although the 10-year government coupon bond is recommended, one can adapt and match their choice given the cash flows under valuation. Ultimately this variable is crucial in the cost of debt and cost of equity estimation.

The Beta (β)

This variable, also inherent to the CAPM model, concerns the risk within a portfolio. In fact, there are two kinds of risk: the specific and the systematic. While the specific can be diminished through diversification, the systematic, represented by the beta, is not diversifiable. The aim of this variable is indeed to measure the securities' volatility regarding the markets' fluctuations (Rosenberg & Rudd, 1998). On that account, not only will there be enterprises with aggressive or low betas, meaning high or small values in comparison with the market value that will consequently have higher excess returns given the market risk premium or otherwise (Goedhart, Koller, & Wessels, 2015). But also, sometimes a benchmark

is needed, thus usually investors look into the S&P500 as a proxy. In addition Rosenberg & Rudd also reasoned some characteristics that might influence positively or negatively the beta estimation. Where within size, financial leverage, earnings variability or growth, the only one that had a negative correlation with beta was the size of the enterprise. Ultimately Damodaran (2017) distinguished different betas, for different types of industries, taking the capital structure and balance sheet information to tailor its inferences.

The Equity Risk Premium (ERP)

This next stage concerns three variables: asymmetric and uncertain information; the kind of investor, risk neutral, lover or seeker; and, the overall macroeconomic risk (Damodaran, 2012). Actually (Luehrman, 1997) relates the presence of the ERP given the opportunity cost that a firm has while not investing in other situations with similar riskiness. Hence the risk premium is often seen as the excess return that one might have for being exposed to a certain volatility degree. Moreover (Rosenberg & Rudd, 1998) stated that while estimating the ERP through historical data, the computed value would end up being near 6 percent. Additionally they would also consider that the equity risk premium should be summed up with the respective country risk premium, as it would be a way of representing the risk that one would bear for holding their enterprises in a specific country.

The Cost of Debt (R_D)

The cost of debt reflects the effective rate that a firm supports in order to pay its current debt and, as one can deduct the interest payments, it is calculated in an after-tax basis (Goedhart, Koller, & Wessels, 2010). Still, depending on the enterprise's stage of life and activity the way one computes this value varies. In this context investors often look into the yield to maturity as a benchmark for the cost of debt, concerning the bond's price present value and the future cash flows estimation, always in an after-tax basis. On the other hand, even the interest coverage ratio can be used if the underlying enterprise is not publicly rated.

Adjusted Present Value (APV)

Although having identical goals as the FCFF technique in what concerns both the future cash flows and the valuation of the firm's assets, this methodology comes to fill a gap, and is acknowledged to be more versatile, and less conditioned to assumptions (Luehrman, 1997). As already stated, tax benefits on interest expenses deductions increase if an enterprise decide to fund itself with more debt. Nevertheless, to balance that benefit the level of risk within the enterprise tends to increase as well, thus higher bankruptcy costs. In this context, the purpose of the APV is to separate these variables, meaning it will look to a project or company as it was strictly financed through equity and balancing aside all the financial side effects, such as the bankruptcy costs and tax benefits (Damodaran, 2006). In other words, it is basically discounting the FCFF with an unlevered cost of equity rate, followed by a tax shield and distress costs estimations.

Tax Shields

Tax shields are an essential part of the APV, its definition points out the ability that one corporation or project might have in deducting/reduce the amount of taxes. For instances, by being financed with a certain level of debt, which is a tax-deductible expense, thus a strategy to have a "shield" and diminish the overall taxes. Whereas (Damodaran, 2006) looks into the tax savings cash flows that might be generated to have a similar risk to debt, therefore discounting it with the cost of debt. (Luehrman, 1997) reasoned that tax shield's uncertainty might be higher in comparison with interest payments and principal, in this manner the cost of debt rate would turn out to be lower than it should. Ultimately, (Fernandez, 2007) also states that the tax shield exists due to the interest paid in each period, as a consequence of having debt. Eventually the net present of the tax shield must be computed with an appropriate rate. This rate will depend on the policy adopted by the firm, however the APV ↔

$$D + E = NPV(FCF; R_u) + Tax\ Shield's\ Value.$$

Bankruptcy Costs

This variable starts to exist when the decision of having debt within the capital structure of a firm is made. That being so, indeed there is an optimal capital structure, meaning a balance between equity and debt, for each company and/or industry. However reaching a certain amount of debt levels, not only the company might be seen differently regarding potential investors, but also it becomes even riskier for lenders. (Damodaran, 2006) reasons that in order to achieve a probability of default, one can look into the interest coverage ratio to estimate the bond rating to the respective level of debt. This author was the first to state that the bankruptcy costs, which can be direct or indirect, should be deducted. Lastly, the possibility of matching these costs with the type of industry and capital structure levels is also proposed (Korteweg, 2007).

Excess Return Models (ERM)

The purpose of these models underlines the capacity that an enterprise has regarding generating or sweeping away value. In this context a division is made concerning regular cost of capital return and, on the other hand, returns that are lower or greater than this rate. Indeed, as previously stated, this method given identical assumptions will compute values rather similar to the DCF (Damodaran, 2002)

Economic Value Added (EVA)

Concerning EVA, it underlines the exceed return that an investment or portfolios of investments might have, taking in account the capital allocated in this context. Thus there are three essential elements: The capital invested; the return received through the investment; and, the cost of capital inherent to the investment (Damodaran, 2002). Given this, one may assume that this methodology is indeed an extension of the net present value, therefore:

$$NPV = \sum_{t=1}^{t=0} \frac{EVA_t}{(1+R_c)^t}$$

Dynamic ROE

Regarding this last Excess Return Model, (Damodaran, 2002) reasoned that likewise to the Economic Value Added, the Dynamic ROE intends to show whether or not the firm is creating value but, in this case, to the shareholders.

1.2.1.2. Equity Discounted Cash Flow Models

This type of DCF models will look straight to the equity value of an enterprise, which can be an advantage. Inherent to the equity valuation one may have two different techniques: Dividend Discount Model (DDM); Free Cash Flow to the Firm (FCFE);

Dividend Discount Model (DDM)

Within this kind of equity DCF model it is mandatory to make some assumptions concerning payout policies and the earning's' potential growth rate, given that the DDM seeks the firm's value regarding the relationship between expected dividends and the cost of equity as a discount rate (Damodaran, 2006). If on the one hand this methodology is rather appealing as the correlation between stock market variations and dividends is indeed positive. On the other hand, it can lead to an overestimation both in dividend distribution or the cash that should be hold by an enterprise.

Free Cash Flow to the Equity (FCFE)

This other type of free cash flow can be extrapolated through the FCFF and can be seen as: $FCFE = FCFF - Interest (1 - T) + Net Borrowings$. It considers the cash availability to pay a firm's equity holders with all the variables inherent to its formula being properly treated (Pinto, 2010). As previously stated each technique should be discounted with the proper discount rate, so unlike FCFF the FCFE ought to be discounted with the cost of equity. Usually FCFF is better to value an entire enterprise, although FCFE might become simpler to

use when the capital structure of a company barely varies. If otherwise, and debt tends to fluctuate the FCFF becomes more pertinent in a valuation context (Damodaran, 2006).

1.2.2. Relative Valuation

It takes comparable enterprises analogous variables, like cash flows, sales and earnings, and tries to estimate the underlying asset's value. This valuation technique underlines that if a company has a perfect substitute it ought to value and be sold for an equal price than itself (Baker & S. Ruback, 1999). Not only can a multiples approach be pertinent while trying to arrange proxies for key estimators, such as Weighted Average Cost of Capital (WACC), growth and Return on Invested Capital (ROIC). But also, it can infer about markets and industry expectations, when done correctly. Additionally this methodology is less complex with fewer restrictive assumptions than the other approaches so it should not be delivered on its own (Fernández, 2002). Thus, this method is often seen as a complement of the DCF, as it can improve this last one's accuracy (Goedhart, Koller, & Wessels, 2005). Indeed if the markets' assets prices are being computed correctly then both of these valuation techniques may converge to similar conclusions, whether the market is underpricing, overpricing or being strongly efficient in arranging the price of the assets (Damodaran, 2006). Although having an advantage over the DCF valuation method as it uses current market measures and does not need an appropriate theoretical model and historical data to estimate a discount rate, there are three major implementation challenges (Baker & S.Ruback, 1999): firstly the basis of substitutability which try to measure financial or operating performances, pointing out value drivers like cash-flows, depreciations or established reserves, among others; the second issue is measuring the multiple, that most often is treated by using the median or the simple mean among the comparable enterprises; ultimately, lies the decision in what comparable companies or peer group should be taken in account.

Therefore, in order for this kind of valuation to be reliable one must look into companies that are publicly priced within the industry under analysis, assuming that their growth, cash-flows and risk levels are rather similar (Damodaran, 2006). Additionally (Liu, Nissim, & Thomas, 2007) and (Foushee, Koller & Mehta, 2012) also corroborate the previous reasoning by stating that the peer group should be tailored with firms from the same sector in order to achieve a more reliable valuation and, on the other hand, by competing in the same industry these firms will suffer similar macroeconomic events. As previously stated, one needs to look into the markets' information, such as revenues, book value or earnings, and come up with variables that allow an accurate comparison, which are known as multiples. One has a lot of different multiples that can eventually lead to inconclusive results, on that account (Goedhart & Haden, 2003) stated that forward-looking and enterprise-value multiples ought to be considered, although one must keep in mind that this valuation only takes a specific point in time, as multiples are static, thus not covering future situations. As a consequence it is crucial to look into the latest values that one can analyze rather than historical ones. Lastly, (Liu, Nissim & Thomas, 2002) infers that there is a correlation between if a multiple is based on forward earning then its valuation will be more accurate. This is also seen, for instances, in (Kim & Ritter, 1999) where it was used a price to earning ratio multiple (PER) inherent to forecasted earnings and the conclusion was that the IPOs' valuation obtained were much more accurate with this last one than while using trailing earning multiples. Next there will be a brief description of the most important multiples that might be taken in account:

- Equity Valuation – EV/EBITDA; EV/EBIT; EV/Sales;
- Firm Valuation – Price to Earning Ratio (PER); Price to Book Ratio (PBR);

1.2.2.1. Enterprise Value Multiples

Among the existent enterprise multiples, one has EBITDA Ratio (EV/EBITDA), EBIT ratio (EV/EBIT) and Sales ratio (EV/Sales). For these (Lie & Lie, 2002) stated that unlike multiples

that rely on earnings, hence manipulated effortlessly given their relationship with the capital structure, enterprise multiples are less likely to be that easily handled, so their result tend to be more precise and less biased (Foushee, Koller & Mehta, 2012). On the one hand, (Lie & Lie, 2002) come to the conclusion that enterprise multiples are accurate on their own consequently no adjustments are needed. On the other hand, (Goedhart, Koller, & Wessels, 2005) reasoned that variables like pensions, non-operating items, leases and excess cash should be taken in account and one should pay close attention to potential changes in the cost of capital while working with enterprise multiples.

For instances, EV/EBITDA reflects a flow to both equity and debt, thus being less sensitive than other multiples (Stowe, Robinson, Pinto and McLeavey, 2010). Whereas EV/Sales can be misleading given the techniques used to report sales, by a certain company. Sometimes this ratio can be high, nonetheless, it might not be including performance measures, such as profit margins and costs, and in the end variables like cash flows or earnings are being put aside although being crucial to a firm's valuation (Damodaran, 2002). At last, they still have other weaknesses in general, as they do not take in account capital expenditures or even working capital requirements (Fernández, 2001).

1.2.2.2. Price to Earning Ratio (PER)

The Price to Earnings Ratio or PER is most often seen as the most usual multiple used on a relative valuation as not only does it embrace earnings per share (EPS) growth and risk, but also its simplicity and information availability makes it truly attractive, although enterprises with seasonal activity and negative earnings should avoid using this ratio (Damodaran, 2002). Also (Goedhart, Koller, & Wessels, 2005) point out that PER can be misleading given its relationship with earning's fluctuations and the firm's capital structure. In detail PER is correlated with the level of leverage, therefore one can increase it by choosing to replace debt with equity. Also non-operating items and non-recurring events may be included in the

earning figures which contribute to the PER sensitiveness. Moreover (Foushee, Koller & Mehta, 2012) infer that there is a significant difference in the PER between a company that is totally financed through equity compared with one that is financed with debt to a certain degree. Higher debt ought to bring down the price to earning ratio, *ceteris paribus*.

The following formula shows how one should look into PER (Fernández, 2001):

$$\circ \text{ PER} = \frac{\text{Current Market Price}}{\text{EPS}} = \frac{\text{Market Capitalization}}{\frac{\text{Total Net Income}}{\text{Total Shares Outstanding}}}$$

1.2.2.3. Price to Book Ratio (PBR)

The Price to Book Ratio or PBR has many arguments that support its utility (Damodaran, 2002). Firstly while looking into the book value of a certain company one will have a more intuitive and reliable point of view for then make a more accurate comparison with market values. On the other hand, usually it is more likely for a firm to have negative earnings than negative book values, thus logically the PBR can be used more frequently and even embrace enterprises that cannot be valued through the price to earning ratio. Ultimately, it is mandatory for most of nowadays companies to follow strict accounting standards, which provide an easier comparison between their peers, and therefore a better proxy.

In this context (Fernández, 2001) stated that the PBR is oftentimes used to value real estate, insurance and bank enterprises, and its formula is:

$$\circ \text{ PBR} = \frac{\text{Market Capitalization}}{\text{Book Value of Shareholder's Equity}}$$

1.2.3. Asset-Based Valuation

Looks into the firm's assets account value and tries to estimate, for instances, a company's stock value. This methodology relies on the fact that the value of the assets and equity within a firm's balance sheet might turn out being more reliable than weak assumptions regarding

the future (Damodaran, 2006). Summing up what was inferred by this last author and, simultaneously, by (Fernández, 2007), was that there are three major values within this kind of valuation:

- Book Value; Fair Value; Liquidation Value; Substantial Value.

1.2.3.1 Book Value (BV)

This value reflects the shareholder's equity that is written in a company's balance sheet, thus embraces capital and reserves or, eventually, is the difference between total assets and total liabilities. Most often this kind of approach will never match the book value with the true "market" value, given the subjectivity that a firm may have while doing its accounting, though usually there are some guidelines that should be followed (Fernández, 2007). In this context, the only scenario where the book value and the true value of a certain enterprise might be similar is if one is underlining a mature firm with few growth opportunities, no prospects of excess returns and a predominance of fixed assets. Moreover, (Damodaran, 2006) also included the "Book Value plus Earnings" value, which tries to capture the ability that a firm has of generating excess equity return in the future. Consequently the book value will embrace not only the BV of equity in the previous year, but also the difference between net income and dividends of the present year. Henceforth the value of equity in a firm is the excess equity return in perpetuity plus the current book value.

1.2.3.2 Liquidation Value (LV)

Theoretically this value relies on the assumption that all the assets inherent to an enterprise should be immediately sold with its debt paid-off (Fernández, 2007), so it should be equivalent to the value computed through the DCF valuations of those same assets. Nevertheless, due to the urgency behind this process, it usually results in a conservative value. This difference may vary, regarding the economical environment, the properties of the assets or even the number of potential buyers (Damodaran, 2006). Regardless, likewise the BV this

kind of valuation is only realistic if the firm is in distress, where assumptions like going concern are put aside. If one underlines healthy enterprises the value estimation will be rather unrealistic, given the company's potential to grow and other kind of opportunities.

1.2.3.3 Substantial value (SV)

This last value in the asset based valuation underlines a specific scenario: How great of an investment one should make in order to generate a firm with identical characteristics and conditions as the one being under valuation. It can be divided in three types: Gross SV, which connects the market's prices and the firm's asset value; Reduced Gross SV that is similar to the last one, yet takes in account the cost-free debt value; And, ultimately, the Net SV where instead of the cost-free debt it reduces the Gross SV value with liabilities (Fernández, 2007). In summary it is usually seen as the opposite value of the liquidation value, whereas instead of the company being sold, in this context it assumes the continuity of the enterprise's operations, thus looking into the replacement value of the assets in order for the company to do so.

1.2.4 Contingent Claim Models (CCM)

Although this kind of valuation mostly concerns options valuation, it is now making a steady entrance in the decision-making processes within corporations. It is setting a footprint in how to evaluate a project's profitability, or even if one should expand, delay or default the inherent investment (Copeland & Keenan, 1998). Normally Contingent Claim Models is related with firms that might have projects under some certain degree of uncertainty. For instances, gold or natural gas, where both the level of output or even its price is highly volatile. Usually inside the automotive industry the CCM is used to correlate the product development cycles and the modification and introduction of new car designs (Copeland & Keenan, 1998).

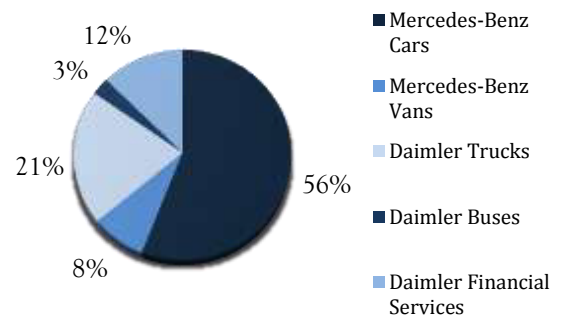
2. Corporate Profile

2.1. Business model

With 130 years of existence, and having Gottlieb Daimler & Carl Benz as its creators, the Daimler AG, the parent of the Daimler Group, has made a footprint in the leading vehicle manufacturer worldwide. With an offer that embraces not only, Mercedes-Benz Cars and Vans, but also, Daimler Trucks, Buses and Financial Services, this preeminent company in the automotive industry is roughly active in most of the world's countries. Domiciled in Stuttgart, Daimler's workforce can count with a total of 282,000 employees, 8,500 sales centers and production infrastructures distributed through 19 countries.

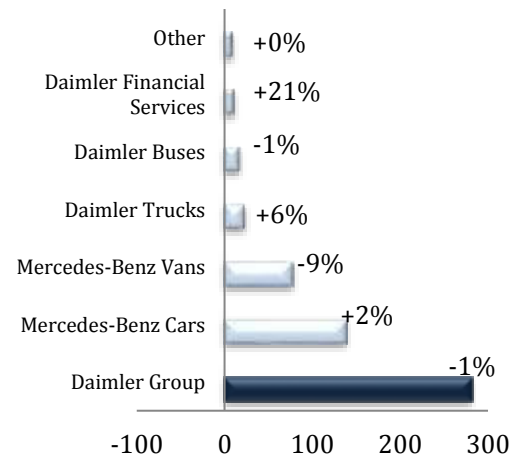
Regarding the revenue obtained by Daimler in 2016, from the total of €153,3 billion more than half of it concerns Mercedes-Benz Cars. Inherent to this segment are well-known brands such as, *Mercedes-Benz*, *Mercedes-AMG*, *Mercedes-Maybach*, *Smart*, a new brand regarding the electric automotive industry, *EQ*, and, lastly, a digital brand connecting all this to digital platforms, *Mercedes-Me*. Secondly on the total revenue appears Daimler Trucks, with a special contribution of 35% of the total unit sales from the NAFTA region. Inherent to this segment are five major brands: *Mercedes-Benz*; *Freightliner*; *Western Star*; *FUSO*; and *BharatBenz*. The first two brands are also present in the

Figure 1. Consolidated revenue by segment;



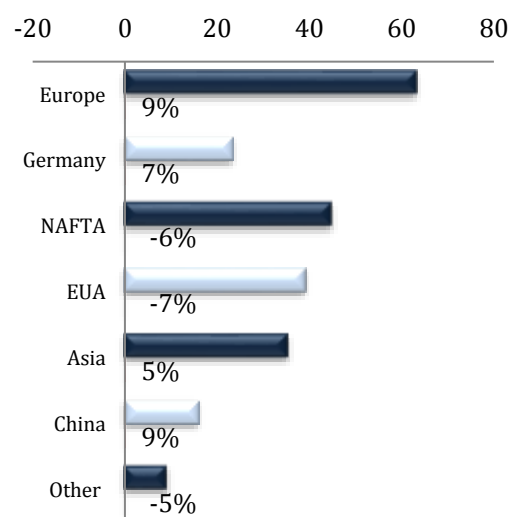
Source: Daimler Annual Report 2016;

Figure 2. Employee 2016 change & division;



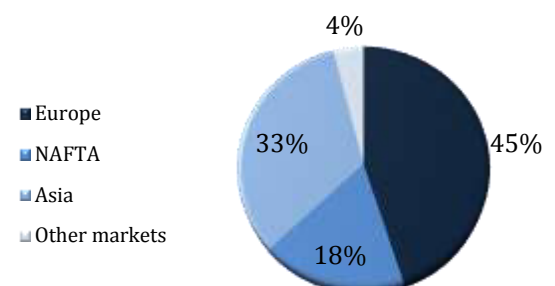
Source: Daimler Annual Report 2016;

Figure 3. Revenue by region & variation;



Source: Daimler Annual Report 2016;

Figure 4. Unit sales (Cars) by region;



Source: Daimler Annual Report 2016;

Mercedes-Benz Vans, that within all the markets of Daimler's operations it has Europe has its primarily with 70% of unit sales there in 2016. Daimler buses, on the other hand, are indeed the segment that contributes less to the whole revenue, having not only *Mercedes-Benz* and *BharatBenz* as its brands, but also *Setra* that is considered a leader in what concerns buses with more than 8 metric tons, having also Europe as its main market. Ultimately, with a crucial role in the Daimler success, are Daimler Financial Services. Embracing not only financial solution with brands like *Mercedes-Benz Bank*, *Mercedes-Benz Financial Services* and *Daimler Truck Financial* that were used in 50% of Daimler's sales in 2016, in order to arrange a financial, insurance or leasing decision. But also, mobility services such as *moovel*, *car2go* and *mytaxi*, which account with more than 8 million customers worldwide.

2.2 Company Strategy

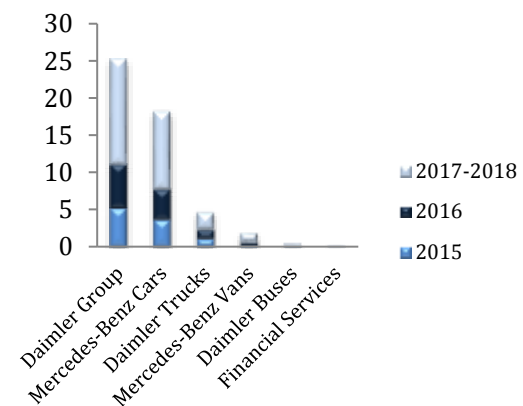
Although having tailored strategies for each segment within Daimler Group, the overall strategic focus is reflected in the acronym "Connected; Autonomous; Shared services; Electric." – CASE. Thus focusing in three major pillars: Current/potential customers; Strengthening Daimler's core activity; and, keeping up with digital market mutations. In this sense, not only will Daimler be opening a window for creating value given the market and customers demand. But

Figure 5. Daimler strategy areas;



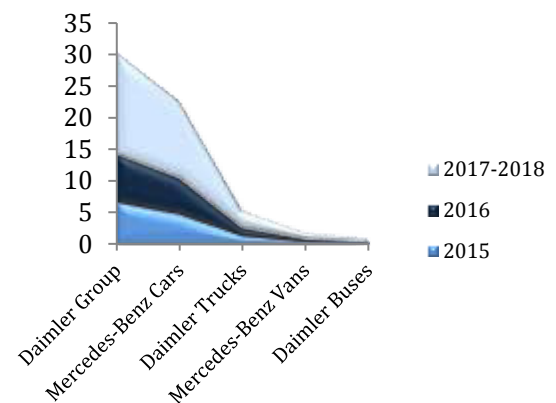
Source: Daimler Annual Report 2016;

Figure 6. Investment PPE;



Source: Daimler Annual Report 2016;

Figure 7. R&D expenditures;



Source: Daimler Annual Report 2016;

Figure 8. Daimler AG goals;



- Clients fulfillment;
- Innovative leader;
- Increase profitability;
- Enhanced workforce.

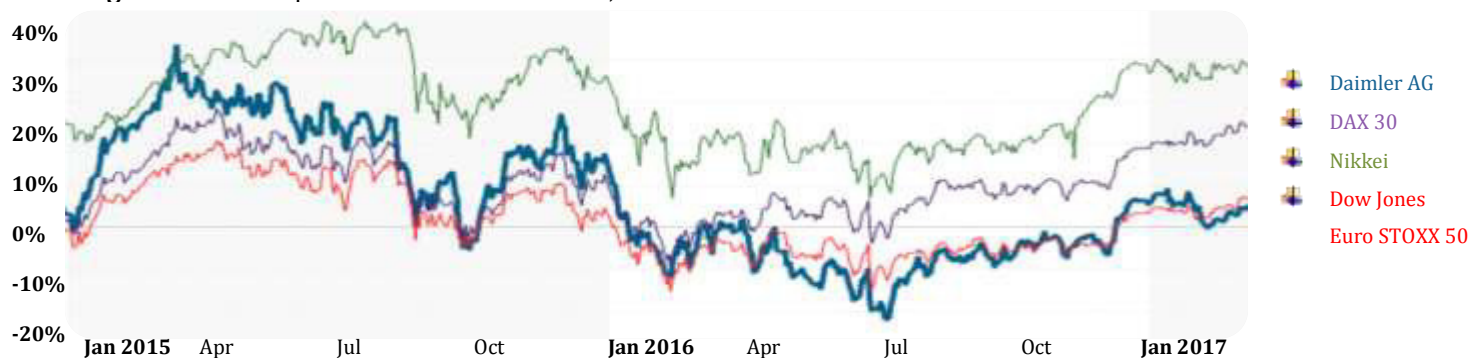
Source: Daimler Annual Report 2016;

also, allowing it to develop and exploit global opportunities. With this purpose it is mandatory to proceed with structural and mind-set changes, therefore in the years to come Daimler will be investing either in property, plant and equipment (PPE) regarding new models and engines and, also, in research and development (R&D) concerning an autonomous, safety and electric point of view. With the respective total investment estimated values reaching €14 billion and €16 billion in the years 2017-2018. As a result it is expected that certain objectives will be attained, such as an increase on the return on sales reaching 9% and, ultimately, 17% on the return on equity.

Moreover, additionally to the whole strategic measures underlined above Daimler also made some partnerships throughout 2016 in order to support the overall strategy and future goals. Firstly, there was made a €500 million investment in order to build a second battery factory in Europe, becoming one of the most modern facilities in this region and, simultaneously, following an electric revolution in the years to come. Likewise, still in the electric context, and in order to build a charging infrastructure for these kind of vehicles a joint venture between Audi, Porsche, Volkswagen Group, Ford Motor Company, BMW Group and Daimler AG is being reasoned as a mean to reach Europe's largest charging network for electric vehicles. On the other hand, the Financial Services had also some alteration, such as the investment and reorganization of the *moovel Group* (totally owned by Daimler) operations in North America, where *GlobeSherpa* merged into *RideScout* and then was renamed *moovel* North America, strengthening Daimler incidence in the US market. Daimler's subsidiary *mytaxi* and *Hailo* also joined forces, increasing the geographical activities of these apps, accounting with more than 50 cities and where Daimler detains 69% of the merger. The chauffeur *Blacklane* service also had Daimler's stake increased to 31%, which is a service that embraces more than 250 cities and 500 airports. Last, but not least, *Athlon* that is a leader among mobility solutions in what concerns leasing and management will now be ahead of the European fleet sector.

2.3 Daimler and the Capital Markets

Figure 9. Daimler performance versus indices;



Source: Reuters;

The overall tendency for the global stock market in the year 2016 was rather volatile. Needless to state that the investor's behaviour was influenced by certain events: Firstly, both the economic situation in China and the United States were causing some uncertainty; Then, on top of that, comes the Brexit referendum which not only had an effect on the investors' risk profile, but also put a damper on the share's prices; Lastly with USA controversial elections the markets' performance was jeopardized once again. All this events had a significant impact in the worldwide market indices, hence in the overall performance of Daimler's shares. Indeed as a whole, throughout the year, its price had a downfall of 9%. While most indices, regardless the uncertainty experienced, have had a positive performance over the year. In this account Daimler's share price peak was of €73.64 and its lowest €51.97. Eventually this decreased Daimler's share weight inside these major indices, as a result the market capitalization fell from €83.0 billion in 2015 to €75.7 billion in 2016. Given that by the end of the year 2015 the share quotation showed €77.58 whereas in 2016 it pointed out a lower value of €70.72.

Table I. Daimler AG and indices prices;

	2016 (end)	2015 (end)	2016/2015 (%)
Daimler AG	70.72€	77.58€	-9%
DAX 30	11,481€	10,743€	+7%
Dow Jones Euro STOXX 50	3,291€	3,268€	+1%
Nikkei	19,114€	19,034€	+0%

Source: Daimler Annual Report 2016;

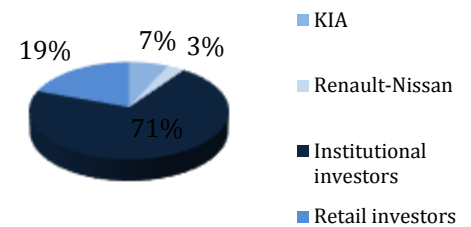
2.4 Shareholder Structure

Daimler's broad shareholders can count with almost one million shareholders, and its trend through the underlying year was to grow, notably in private investors. Accounting with 6.8% of the total of 1,069,837,447 shares outstanding it is KIA (Kuwait Investment Authority), followed by BlackRock Inc. NY with 5.18% and finally the Renault-Nissan Alliance that holds 3.1%. Hence, besides Kia and the Renault-Nissan, Institutional investors detain approximately 71% of Daimler's, leaving 19.5% for Retail Investors. Two thirds of these holders are within European territory, while one quarter concerns US investors. Still in what concerns the shareholders comes the dividend policy, in fact, Daimler's goal aims to distribute roughly 40% of the net profit that the shareholders ought to receive. In the 2016 meeting that accounted with more than half of Daimler's equity capital it was reasoned that the dividend payment should be €3.25 per share, which is the highest value that has been proposed throughout all the company's lifespan.

2.5 Daimler's Performance

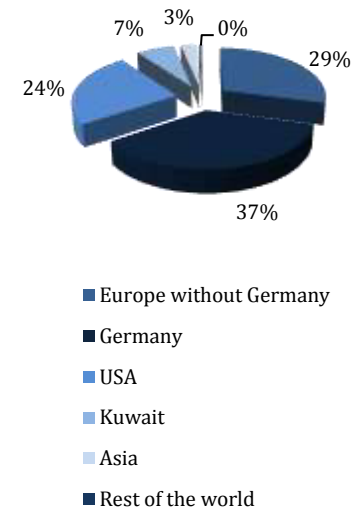
Concerning the Daimler Group operating performance, there was a general decrease in the company's EBIT, as it fell from €13.2 billion to €12.9 in 2016. Nonetheless this 2% change was not felt throughout all segments. Indeed one can reason from Table II. in the Appendix that only Daimler Trucks had

Figure 10. Daimler AG Shareholder structure;



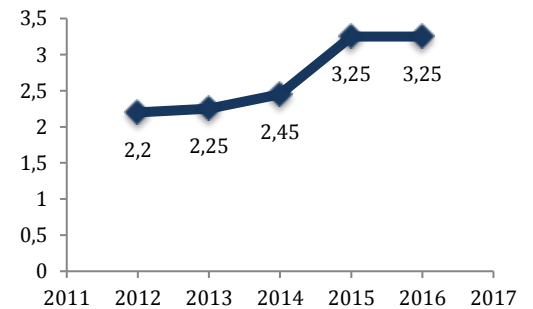
Source: Daimler Annual Report 2016;

Figure 11. Daimler AG Shareholder regions;



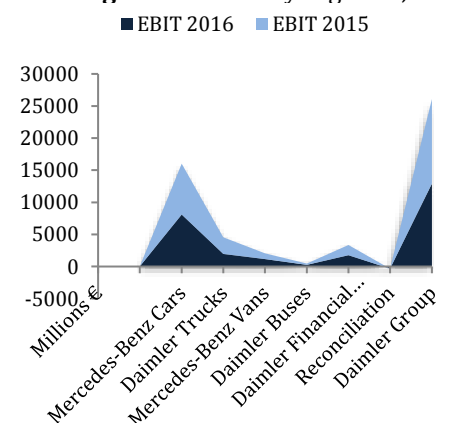
Source: Daimler Annual Report 2016;

Figure 12. Daimler AG Dividend policy;



Source: Daimler Annual Report 2016;

Figure 13. EBIT by segment;



Source: Daimler Annual Report 2016;

a downsized of 24‰ in comparison with the previous year. In fact, it had a 1‰ fell regarding the return on sales ratio, as it stood only in 5,9‰ in 2016. This negative impact was correlated with three variables: High competition within the European market; €91 million in workforce expenses related with the Brazilian region; and finally, a cut in the number of unit sales among Middle East, Latin America and the NAFTA region. Additionally the “reconciliation” also had an important role in diminishing the EBIT. This part embraces the gains and/or losses that might happen within intra group transaction and, also, at a corporate level. Hence it will affect all the segments performance in order to have the Group EBIT. In this context one may state that although there was a gain respecting Renault-Nissan contributions, this one was not enough to balance all the expenses that happened during 2016, Table V. from the Appendix. On the other hand, all the remaining Daimler Group divisions had positive variations during 2016, whether one is underlining Daimler Buses, which is the one that as a minor influence in the global operating performance, or even Mercedes-Benz Cars that correspond to more a less three quarter of the total EBIT. In addition Table III. from the Appendix gives us insight about the return on sales (ROS) of most of the segments from 2014 to nowadays, allowing us to study how this ratio behaved, thus how was the operating efficiency managed throughout. Daimler Financial Services performance may be seen through ROE, which is showed in Table IV. From there one may infer that the tendency of Daimler’s Financial Service ROE is to decrease, as it has been slightly doing it for the past three years. Nevertheless, also shown in Table II there is another kind of EBIT, this one takes in account special items. This type of EBIT embraces two approaches as not only does it try to exclude uncommon events, but also capture factors that might be relevant in the EBIT comparison between the previous and the reporting year, for that in Table V. it is discriminated many events that had a significant impact between the years 2014/2015 and 2015/2016. In this context Daimler increased its EBIT for special items, which reflects a 3% positive change. Moving forward, concerning now the statement of income,

generally its trend was to increase, regardless being revenues or expenses. In fact the overall revenue, given the high demand on the Mercedes-Benz Cars and Vans and, also, the contract volume regarding Daimler's Financial Services lead to a positive impact in 2016's revenue. Consequently, cost of sales also suffered gains, as material expenses accrued. Nonetheless, other expenses followed this expense behaviour such as selling expenses, administrative expenses, operating expenses, among others, which can be checked in the following Table XI from the Appendix. However all this was balanced by the positive income that was also received during this period, therefore Net Profit had a smooth growth as well. Moreover, Daimler's financial capability is reflected in its Free cash flow of the industrial business, thus as it can be seen in the Appendix Table VII., although it fell slightly with €0.1 million in the reporting year, one must look first to cash-flows operating, investing and financing variations. Indeed the cash provided for operating and financing activities had a major increase due to leasing and sales financing, but also given the working capital growth and less cash allocated to pension funds. Besides this, investing activities had its cash demand increased, taking in account the overall acquisitions that were made throughout the year. Nevertheless, the cash and cash equivalent by the end of the underlying year also had an €1.0 billion increase. From the same Table, one can still review Daimler's financial position. The historical trend was seen in the reporting year also, therefore the overall assets had their value accrued, not only because cash and cash equivalent, but also other variables had a hand in that growth, such as intangible assets, property, plant and equipment, inventories or even debt securities other assets like deferred taxes. Regarding the group's equity and liabilities, the first one saw its value increase in the reporting year and for that one can see the equity ratio variations throughout all the years. On the other hand, many variables concerning Daimler's liabilities also increased, such as provisions, trade payables or even financial and other kind of liabilities. As a consequence the company credit rating stood stable for short term credit in 2016 and, ultimately, it increased its

ranking within Standard & Poor's and Moody's investors service underlining long-term credit rating, which reflects the overall performance and stability within Daimler's operations.

3. Industry Overview

3.1 Automotive Markets

Despite the constant mutation within the automotive market demands and, moreover, the relatively weak economy that was felt throughout 2016, due to mainly geopolitical altercations, there are some premises that support and describe this industry, not only nowadays but also in the years to come. Henceforth today's economy is being tailored with: sustainability policies; technological innovation; consumer preferences; and, finally, the presence of emerging markets. All these ultimately will lead to the car electrification, the autonomous driving and, ultimately a world that is connected and offers a diverse mobility to its consumers. This industry trend since the year 2000 has been to increase its production along the year, with the exception of the economic crisis period, specifically the years 2008 and 2009, where the passenger car production fell. In 2016 alone the passenger car production reached 72.11 million units, nonetheless this value is expected to keep on increasing. The estimation for 2017 just in passenger cars underlines 77.7 million units. For the reporting year the region that contributed the most to its success was the Asian market, whether one is pointing out car production or car commercialization this region, which accounts with 34% of the total car production worldwide, due to its economic growth and tax incentives had a major role in both unit sales and production. Another region that also had a positive behaviour in 2016 was the Western Europe, mainly because France, German and Italy. Thus one can assume that no matter the overall volatility that was felt throughout it did not have a major impact in the automotive industry development. On the other hand, South America and the NAFTA region had an overall negative behaviour regarding car demand. Nevertheless the US market had less of a negative response given the SUV and pickup segment, which reduced its impact globally.

Although one is underlining passenger cars, regardless the segment one is approaching, such as trucks, buses or vans, their behaviour tended to be similar to what was previously stated.

3.2 Porter's 5 forces

Porter's five forces allow us to infer the intensity of that competition through the five force's degrees, thus showing how attractive the industry really is (appendix 19. Table XXVII). Daimler a well-established company, within a market where there are many barriers to entrance, whether one is underlining capital amount, market behaviour or legal ones. The threat of substitutes within this industry is indeed high, given customers' demands and choice availability for fulfilling the wish of a means of transportation and/or the status of wearing a brand. Not only is Daimler within a competitive triangle. But also there exists a significant competition in what concerns the overall car segments. On the other hand, suppliers tend to be dependant in one manufacturer, whereas these last ones usually end up having more than one supplier. Ultimately, there are many substitutes from where potential clients can choose.

3.3 S.W.O.T. Analysis

This segment will point out an internal and external analysis, given Daimler strengths, weaknesses, threats and opportunities (appendix 20. Table XXVIII). With a highly diversified offer, like trucks, vans, buses, cars and financial services, but also within every specific segment, Daimler shows a variability that culminates in its recognition and allows it to find synergies, share resources and minimize costs. Present in more than 20 countries globally, this enterprise is acknowledged for being a step-forward regarding vehicles specifications. Nevertheless, although premium has been trendy in automotive market being a player in this segment comes with a price, for instances, after sales servicing costs. Moreover, the automotive market is divided with a lot of players, who are gradually picking into developing markets, like China, for instances, as they represent a potential strategic opportunity. Nonetheless Daimler is also attentive in other section, such as financial services investments and acquisitions, which

demonstrate its market awareness, given the overall tendencies. Moreover focusing on developing futuristic technology, efficient car engines, hybrid/electric products, is also key for being an innovative pioneer. Lastly, the great competitiveness with the numerous players within this market, turn it into somewhat threatening. Also exterior events might affect the automotive industry, as economy is rather volatile and environment concerns are correlated with fuel prices uncertainty. Henceforth all this possibilities and adaptability demands a constant and gradual financing in order to keep on being a top player.

4. Valuation

4.1 Assumptions

Daimler's valuation was forecasted for 6 years, from 2017 to 2022. In order to analyse the company's behaviour throughout the forecasted period one may look to its balance sheet, financial statement and cash flow statement shown in the appendixes: Table VIII, XI and XIV. In addition there is also the common size balance sheet and cash flow statement and the assumptions made for each variable within these statements, which can be seen in the appendixes: Table XV/XII, and X/XII, respectively. Ultimately it was computed the key financial ratios for the underlined period, where one can check not only profitability, liquidity and efficiency ratios, but also the tendency for Daimlers capital structure.

So that the assumptions could reflect a reliable forecast for this valuation, it was taken in account a ten-year summary, shown in the appendix 6. Table VII. Nonetheless in order to study accurately the variables variations two scenarios were opened: One where the crisis years were included and another where they were excluded from computations such as averages, maximum and minimum values. This happened due to the fact that the crisis years made some unrealistic and unsustainable variations, nevertheless, in order to have a more realistic overall scenario, instead of an optimistic or pessimistic one, both of them were used for the assumptions, something that is discriminated in the assumptions' appendixes mentioned

above. Ultimately the key financial ratios were calculated using the forecasted values where, for instances, ratios like gross profit margin and EBITDA margin, that reflect proportions between revenue and the cost of goods sold and operating expenses, respectively, tend to increase. But, on the other hand, ROA slightly decreased through time, which is mostly explained by the upcoming large amount of PPE investments and, also, the leasing tendency for the automotive market clientele that will end up increasing Daimler's assets.

4.2 Discounted Cash-Flow Valuation

The first method used is de DCF as not only it is a method that relies on the FCFE, reducing potential subjective accounting policies, but also, given the right assumptions it is rather insensitive in what concerns non-economic or short-term market events. In this context, some variables need to be computed so that one can come up with a WACC value. A brief description is mentioned below, though the assumptions can also be seen on the appendix 17.1. Table XX. :

- **Beta:** Also known as the systematic risk, it is a part of the CAPM model and evaluates a stock's volatility. In this case it was computed through an average between DAX and Daimler's stock variation for 1, 3 and 5 years. The value 0,73 just proves that Daimler's stock volatility tends to be less volatile than the market (*Amadeus Database*);
- **Risk free rate:** A theoretically zero risk rate, also inherent to CAPM that reflects the minimum one investor might receive in any investment and, in this case, the Germany 10 years treasury bund with a rate of 0,37% was taken in account;
- **Country risk premium:** Composed by the additional risk related with investing in a foreign country instead of the domestic. Given that Daimler is within Germany which has a ranking of AAA, this risk is merely of 0,07%;
- **Equity risk premium:** Basically reflects the excess value that investing in the stock market gives over the risk free rate. Damodaran's estimation for Germany is 6,81%;
- **Cost of equity:** The Capital asset pricing model (CAPM): $R_E = R_F + \beta * MRP + R_C$ was used

to compute this variable, that reflects the return that investors demand while investing in a certain firm and, for Daimler, the value is 5,72%;

- **Terminal growth rate:** It corresponds to the future behaviour of the enterprise's growth or decline. Usually one may take inflation or GDP in account for assuming this rate, thus in this valuation the rate used is the average European Union expected inflation for the forecasted years (appendix 15. Table XVI.). Hence a down to earth assumption of value of 1,8%.
- **Marginal tax rate:** As stated not only by Damodaran but also by PWC estimation the corporate tax rate that Daimler's profit before taxes is subjected is of 30%;
- **Capital structure:** For extrapolating this variable forecasted values were used throughout the underlying period and, moreover, they were compounded with the automotive industry average equity ratio given the past 10 years, as it might embrace Daimler's potential financing behaviour. This lead to the terminal value of Debt = 67,20% and Equity = 32,80%;
- **Cost of debt:** There are many ways of computing this rate, which reflects basically the current borrowing rate. Thus it will point out both the company's default risk and the interest rate levels in the market. For estimating this value an average default spread was created between the bonds issued by Daimler and the 6 months Euribor 2017 as a benchmark. Added to the previous value is the average 6 months Euribor between 2008 and 2017, as it might behave accordingly to its historical values (appendix 17.2. Table XXI.);
- **WACC:** This value is shown in the appendix 17.4. Table XXIII, together with the above variables' variations. This rate usually underlines a company's financing capital source;

Afterwards so that the forecasted FCFE were achieved some variables were taken in account, such as: The EBIT minus the MTR plus the already computed D&A; On the other hand, reducing the previous value, the capital expenditures value that embraces all the R&D forecasted cost plus and other expenses and, simultaneously, for the net working capital it was used the average historical need (year change) for the past ten years, roughly plus 8% every year. From

this point the terminal value, its present value and the NPV of the FCFE were computed using the perpetuity WACC and the terminal growth rate, in order to reach an enterprise value. Moreover, given the net debt (short and long term liabilities less cash and cash equivalents for 2017) one could come up with the equity value and then the 2017 target price given the number of shares outstanding. Through the DCF Daimler's target price is 85,30€, a value that allow us to infer that it is undervalued given the 2016's 70,72€ (appendix 17.5. Table XXIV.).

4.3 Relative Valuation

The second tool used for Daimler's valuation is the comparables' approach. Its pertinence grows as it allows us to look into Daimler and extrapolating its rightful value taking in account its peers. As no two companies are exactly the same, despite being in the same industry, while doing this valuation one must try to compare similar businesses so that the comparison is both reliable and effective. In this sense some steps were taken in order to achieve this objective:

1st) Daimler segmentation: Although Daimler is tailored with different distinct segments, there is one that account with more than half of its revenue, which is the *car segment* (where *Mercedes-Benz* is the top brand). Thus the enterprises chosen as inputs for the relative valuation must have this as their primordial activity;

2nd) Peers selection: Within this stage one may look into appendix 16.1. Table XVII. Firstly, the filter was taken from Statista database on OEM (original equipment manufacturers), where a list of the "Top 12 world car brands" was pointed out. From this point forward three filters were underlined in order to achieve the best Daimler peers. In a first stage the enterprises 2016's market share were analysed. For that an interval between 2% to 5,5% market share was taken in account, given that Daimler has 2,5% of the automotive industry. Next, one compared the number of units sold in the reporting year, while Daimler had 2.327.799 units sold for *Mercedes-Benz*. In this context another interval was created so that it would only embrace firms that accounted with a standard deviation of 500.000 units given Mercedes' Benz value.

Ultimately, the growth tendency of the underlying companies were analysed, where the only demand was for the respective enterprise to reflect a positive growth in 2016, likewise Daimler did and its overall tendency throughout the years. From this selection 7 peers were chosen;

3rd) Multiples selection: In this section, shown in appendix 16.2. Table XVIII, and having already the most adjusted peers selected it was used four kinds of enterprise multiples. As they are, identically to what is stated in the literature review, less biased and more accurate. Thus the multiples used are: “EV/Sales”; “EV/EBITDA”; “EV/EBIT”; and, “EV/Net Debt”. They were computed both for the year 2015 and for 2016, where we could check the mean and median respectively and then calculate the proper value to be used in the valuation section. Additionally, while computing the multiples for each company it was possible to evaluate that some peers’ multiples reflected some biased and uncharacteristic values, as the companies in question had some unstable earnings and did not really match the overall valuation, therefore they were excluded for the final values posted in the appendix 16.3. Table XXV.

4rd) Valuation: Lastly the average between both years mean multiples were computed, in order to have a compounded historical parameter forecast, without those values that reflected biased multiples and would, consequently bias the valuation too. Thus, and after using the EBITDA and Net Debt with forecasted values for 2017 one achieves the market equity, that when divided by Daimler’s shares outstanding generates the target price. The average target price is 77,94€, thus higher than the last price of 2016 of 70,72€, hence reflecting a slightly undervaluation, thus corroborating the outcome that was previously stated through the DCF.

4.4 Sensitivity Analysis

The sensitivity analysis, that allows to study the impact of certain variable on a dependent one, was made in order to check not only the stock’s value sensitivity to WACC and growth rate variations, as it is shown in the appendix 18.1. Table XXV, but also the WACC sensitiveness to the cost of equity and the after tax cost of debt, reflected in the appendix 18.2. Table XXVI. In

the first test the WACC varied between 4% and 5% together with a growth rate variation from 1,5% to 2%, which translates into a growth near Germany's GDP. For this scenario the WACC and the growth rate affect Daimler's price in an inverse matter, that being said, the lowest the cost of capital and the highest the growth the better for the biggest the stock value is. The context where Daimler's stock is almost at the edge of being less than its last value in 2016 is where the cost of value reaches 4,5% and has the highest potential growth. On the other hand, cost of equity and the after tax cost of debt varied from 5% to 6,5% and 3% to 5,5%, respectively. This permit us to infer how the WACC might vary given these variables and, ultimately, correspond that variation to the first table in order to check how positive the scenarios can be for Daimler's price given the cost of capital sensitiveness.

Positive Scenarios (Price target)		Growth rate					
		1,50%	1,60%	1,70%	1,80%	1,90%	2,00%
WACC	4,50%						76,19 €
	4,40%					77,57 €	86,79 €
	4,30%				78,96 €	88,23 €	98,31 €
	4,20%		71,76 €	80,36 €	89,68 €	99,82 €	110,87 €
	4,10%	73,11 €	81,77 €	91,14 €	101,34 €	112,45 €	124,63 €
	4,00%	83,19 €	92,62 €	102,87 €	114,05 €	126,30 €	139,77 €
Table XXVIV. – Price target positive outcomes;						Source: Estimations	

The above table is just an illustration of the appendix previously stated within this section. It ought to underline the scenarios where, although a change has been made, whether in WACC or growth rate, the price target remained above the benchmark of 70,72€. Hence it is possible to infer that given the total growth rate variation of 1,5% to 2%, there is always a context where the stock value reflects a Daimler undervaluation. Again, regardless the growth rate, this tendency tends to decrease when the cost of capital increases.

5. Conclusion

This equity research can be divided in three major parts. The literature review, where the potential methodologies that one can use to evaluate a company's value are analysed. In this context the final conclusion is that there is not a correct answer for carrying on a valuation. Each model has its particularities, hence a reliable valuation is mostly dependent on the information assessment and consequently on the assumptions that will tailor the forecast accuracy. Luckily Daimler does provide a vast historical data from where extrapolation can be made. A second part of this paper is Daimler's description, and also the industry overview. From where one can observe that the automotive industry has suffered, in the past, with the economic crisis and will suffer, in the near future, with all the mutation intrinsic to the market regarding the technological and environmental demands. Nonetheless Daimler has often come out strong concerning its ability to generate profit and dividends to its shareholders. Ultimately the third part embraces the valuation. Two methods were pointed out, from where the same conclusion was taken, Daimler is indeed undervalued. With a last price of 70,72€ in 2016, and having both DCF – 85,30€ and Relative valuation – 77,94€ with a superior value, allowing us to infer that the overall tendency given the company's historical behaviour is a future strong prospectus. As stated in the sensitivity analysis made for the DCF valuation, the market value will vary as other variables do. Whether one underlines variables that will directly or indirectly impact the stock's price. In this sense, a valuation is always subject to a certain degree of subjectivity, however given the market's movements, Daimler's progress and adaptability, and these forecast assumptions, the recommendation is a Strongly Buy.

6. Acronyms

Free Cash Flow to the Firm (FCFF)

Weighted Average Cost of Capital (WACC)

Discounted Cash flow (DCF)

The Cost of Equity (R_E)

The Risk-free Rate (R_F)

The Beta (β)

The Equity Risk Premium (ERP)

The Market Risk Premium (MRP)

The Country Risk Premium (CRP)

The Cost of Debt (R_D)

Adjusted Present Value (APV)

Excess Return Models (ERM) Economic

Value Added (EVA)

Dividend Discount Model (DDM)

Free Cash Flow to the Equity (FCFE)

Price to Earning Ratio (PER)

Price to Book Ratio (PBR)

Book Value (BV)

Liquidation Value (LV)

Substantial Value (SV)

Terminal Value (TV)

Enterprise Value (EV)

Capital Asset Market Pricing (CAPM)

Earnings Per Share (EPS)

Property, Plant & Equipment (PPE)

Depreciation & Amortization (D&A)

Marginal Tax Rate (MTR)

Research & Development (R&D)

Gross Domestic Product (GDP)

7. References

7.1 Bibliography

- Baker, M., & S.Ruback, R. (1999). "Estimating Industry Multiples". Harvard University.
- Copeland, T. E., & Keenan, P. T. (1998). "Making Real Options Real". The Mckinsey Quarterly, Number 3, p128-141.
- Damodaran, A. (2012). "Equity Risk Premiums (ERP): Determinants, Estimation and Implications" - The 2012 Edition. Managing and Measuring Risk, p343-455.
- Damodaran, A., 2002. "Investment valuation: tools and techniques for determining the value of any asset", 2nd edition. Edition. New York: John Wiley & Sons Inc, Vol. 666.
- Damodaran, A. (2006). "Valuation Approaches and Metrics: A Survey of the Theory and Evidence". Stern School of Business, p693-784.
- Damodaran, A. (2008). "What is the riskfree rate? A Search for the Basic Building Block. Stern School of Business", New York University.
- Fernández, P. (2007). "Company Valuation Methods. The Most Common Errors in Valuations". IESE Business School - University of Navarra, Research paper no449.
- Fernández, P. (2009). "The Equity Premium in 100 Textbooks". IESE Business School.
- Fernández, P. (2001), "Valuation using multiples: how do analysts reach their conclusions?" Research Paper, IESE Business School, p1-13.
- Fernández, P. (2001), "Valuing real options: Frequently Made Errors", J. Financial Economics.
- Foushee, S., Koller, T., and Mehta, A. (2012), "Why bad multiples happen to good companies?", Corporate finance practice.
- Goedhart, M. and Haden, P. (2003), "Emerging markets aren't as risky as you think", The Mckinsey quarterly, Special edition.
- Goedhart, M., Koller, T., & Wessels, D. (2005). "The Right Role for Multiples in Valuations". McKinsey on Finance.
- Goedhart, M., Koller, T., & Wessels, D, (2015). "Valuation: Measuring and Managing the Value of Companies", 6th ed. McKinsey & Company.
- Kim, M., & Ritter, J. R. (1999). "Valuing IPOs". Journal of Financial Economics 53(3), p409-437.

Korteweg, A. (2007). "The Costs of Financial Distress across Industries". Graduate School of Business, University of Chicago.

Lie, E., & Lie, H. J. (2002). "Multiples Used to Estimate Corporate Value". *Financial Analysts Journal*, 58(2), p44-54.

Liu, J., Nissim, D. and Thomas, J. (2002), "Equity Valuation using multiples", *Journal of Accounting Research*, 40.1, p135-172.

Liu, J., Nissim, D., & Thomas, J. (2007). "Is Cash Flow King in Valuations?", *Financial Analysts Journal*, 63.2, p56-68.

Luehrman, T. A. (1997), "Using APV: a better tool for valuing operations", *Harvard Business Review*, 75.3, p145-154.

Luehrman, T.A. (1997), "What's it worth? A general manager's guide to valuation", *Harvard Business Review*, 75.3, p132-142.

Pinto, J., (2010). "Equity asset valuation". CFA Institute Investment series.

Rosenberg, B., & Rudd, A. (1998). "The Corporate Uses of Beta." , *The revolution in corporate finance*, Basil Blackwell, University of California, Berkeley .

Stowe, J., Robinson, T., Pinto, J. and McLeavey. D. (2010), "Equity asset valuation" New Jersey: John Wiley & Sons Inc, CFA Institute Investment Series.

Vélez-Pareja, I., & Tham, J. (2001). "Firm valuation: Free Cash Flow or Cash Flow to Equity?"

Young, M., Sullivan, P., Holt, W., 1999. "All roads lead to Rome: an integrated approach to valuation models", *Goldman Sachs Investment Research*, p1-32.

7.2 Sitography

<http://www.reuters.com/finance/stocks/chart?symbol=DAIGn.DE> 06/06/2017

<https://www.strategyand.pwc.com/trends/2016-auto-industry-trends> 06/06/2017

<https://assets.kpmg.com/content/dam/kpmg/pdf/2016/01/gaes-2016.pdf> 06/06/2017

<https://www.statista.com/statistics/262747/worldwide-automobile-production-since-2000/> 06/06/2017

<http://dasauto-skema.blogspot.pt/2013/11/a-porters-five-forces-analysis-of.html> 06/06/17

<http://focus2move.com/world-cars-brand-ranking-2016/> 06/06/2017

Appendix

1. Table II. – EBIT & EBIT adjusted for special items for Daimler's segments:

In millions of euros	EBIT			EBIT adjusted for special items		
	2016	2015	16/15 % Change	2016	2015	16/15 % Change
Mercedes-Benz Cars	8 112	7 926	2	8 927	8 343	7
Daimler Trucks	1 948	2 576	-24	2 053	2 742	-25
Mercedes-Benz Vans	1 170	880	33	1 302	952	37
Daimler Buses	249	214	16	258	202	28
Daimler Financial Services	1 739	1 619	7	1 739	1 619	7
Reconciliation	-316¹	-29	.	-36	-29	.
Daimler Group	12 902	13 186	-2	14 243	13 829	3

¹ – Table III
Source: Daimler Annual Report 2016

2. Table III. – Return on Sales: Evaluating firm's operational efficiency;

In millions of euros	2016	2015	2014	16/15 % Change
	Mercedes-Benz Cars			
Revenue	89 284	83 809	73 584	7
EBIT	8 112	7 926	5 853	2
Return on sales (in %)	9,1	9,5	8	.
Unit sales	2 197 956	2 001 438	1 722 561	10
Daimler Trucks				
Revenue	33 187	37 578	32 389	-12
EBIT	1 948	2 576	1 878	-24
Return on sales (in %)	5,9	6,9	5,8	.
Unit sales	415 108	502 478	495 668	-17
Mercedes-Benz Vans				
Revenue	12 835	11 473	9 968	12
EBIT	1 170	880	682	33
Return on sales (in %)	9,1	7,7	6,8	.
Unit sales	359 096	321 017	294 594	12
Daimler Buses				
Revenue	4 176	4,113	4 218	2
EBIT	249	214	197	16
Return on sales (in %)	6	5,2	4,7	.
Unit sales	26 226	28 081	33 162	-7

Source: Daimler Annual Report 2016 & 2015

3. Table IV. – Return on Equity: Daimler Financial Services;

In millions of EUR	2016	2015	2014	Change 16/15	Change 15/14
New business	61 810	57 891	47 912	+7%	+21%
Contract volume (end of period)	132 565	116 727	98 967	+14%	+18%
Revenue	20 660	18 962	15 991	+9%	+19%
EBIT	1 739	1 619	1 387	+7%	+17%
Return on equity (%)	17,4%	18,3%	19,4%	.	.

Source: Daimler Annual Report 2016 & 2015

4. Table V. – Special Items that affect EBIT;

Mercedes-Benz Cars	2016	2015	2014
Restructuring of own dealer network	-33	-64	-81
Relocation of headquarters of MBUSA	-	-19	-
Sale of real estate in the United States	-	87	-
Expenses in connection with Takata airbags	-480	-300	-
Public-sector levies related to prior periods	-	-121	-
Profit/loss in connection with remeasurement of inventories	-238	-	-
Settlement in connection with patent dispute	-64	-	-
Impairment of investments in the area of alternative drive systems	-	-	-30
Daimler Trucks			
Workforce adjustments	-91	-58	-149
Restructuring of own dealer network	-14	-47	-16
Sale of Atlantis Foundries	-	-61	-
Impairment of investment in Kamaz	-	-	-30
Mercedes-Benz Vans			
Restructuring of own dealer network	-11	-29	-17
Relocation of headquarters of MBUSA	-	-3	-
Expenses in connection with Takata airbags	-83	-40	-
Workforce adjustments in Germany	-38	-	-
Reversal of impairment of investment in FBAC	-	-	61
Daimler Buses			
Restructuring of own dealer network	0	-4	-2
Sale of investment in New MCI Holdings Inc.	-	16	-
Workforce adjustments	-9	-	-
Business repositioning	-	-	-12
Reconciliation			
Expenses related to legal proceedings	-400	-	-
Impairment of investment in BAIC Motor	-244	-	-
Losses from currency transactions (not allocated to business operations)	-241	-	-
Contribution of shares of Renault and Nissan to pension plan assets	605	-	-
Measurement of put option for Rolls-Royce Power Systems Holding	-	-	-118
Sale of shares in Rolls-Royce Power Systems Holding	-	-	1006

Sale of Tesla shares and hedge of Tesla share price - - -124

Remeasurement of Tesla shares - - 718

Expenses related to EU antitrust proceedings - - -600

Source: Daimler Annual Report 2016 & 2015

5. Table VI. – Daimler historical stock and rating variations;

In millions of euros	2012	2013	2014	2015	2016
From the stock exchanges					
Share price at year-end (€)	41,32	62,9	68,97	77,58	70,72
Average shares outstanding (in millions)	1 066,80	1 068,80	1 069,80	1 069,80	1 069,80
Ratings (Credit rating, long-term)					
Standard & Poor's	A-	A-	A-	A-	A
Moody's	A3	A3	A3	A3	A25
Fitch	A-	A-	A-	A-	A-
DBRS	A (low)	A (low)	A (low)	A (low)	A (low)

Source: Daimler Annual Report 2016

6. Table VII. – Daimler's historical balance, income and cash flow statements;

In million of euros	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	€ Variation									
From the statements of income										
Revenue	101 569	98 469	78 924	97 761	106 540	114 297	117 982	132 372	152 159	156 000
Personnel expenses	20 256	15 066	13 928	16 454	17 424	18 002	18 753	19 607	20 949	21 141
Research and development expenditure	4 148	4 442	4 181	4 849	5 634	5 644	5 489	5 680	6 564	7 572
EBIT	8 710	2 730	-1 513	7 274	8 755	8 820	10 815	10 285	13 203	12 615
Operating margin (%)	8,6	2,8	-1,9	7,4	8,2	7,7	9,2	8,3	8,8	8,4
Profit (loss) before income taxes	9 181	2 795	-2 298	6 628	8 449	8 116	10 139	10 173	12 744	12 574

Net operating profit (loss)	4 123	1 370	-2 102	5 120	6 240	7 302	9 173	7 678	9 007	9 007
Net profit (loss)	3 985	1 414	-2 644	4 674	6 029	6 830	8 720	7 290	8 711	8 784
Net profit (loss) per share	3,83	1,41	-2,63	4,28	5,32	6,02	6,4	6,51	7,87	7,97
Total dividend	1 928	556	0	1971	2 346	2 349	2 407	2 621	3 477	3 477
Dividend per share	2	0,6	0	1,85	2,2	2,2	2,25	2,45	3,25	3,25
From the statements of financial position										
Property, plant and equipment	14 650	16 087	15 965	17 593	19 180	20 599	21 779	23 182	24 322	26 381
Leased equipment	19 638	18 672	18 532	19 925	22 811	26 058	28 160	33 050	38 942	46 942
Other non-current assets	39 686	42 077	40 044	41 309	45 023	48 947	48 138	56 258	62 055	67 613
Inventories	14 086	16 805	12 845	14 544	17 081	17 720	17 349	20 864	23 760	25 384
Liquid assets	15 631	6 912	9 800	10 903	9 576	10 996	11 053	9 667	9 936	10 981
Other current assets	31 403	31 672	31 635	31 556	34 461	38 742	42 039	46 614	58 151	65 687
<i>Total assets</i>	135 094	132 225	128 821	135 830	148 132	163 062	168 518	189 635	217 166	242 988
<i>Shareholders' equity</i>	38 230	32 730	31 827	37 953	41 337	39 330	43 363	44 584	54 624	59 133
Thereof share capital	2 766	2 768	3 045	3 058	3 060	3 063	3 069	3 070	3 070	3 070
Equity ratio Group (%)	26,9	24,3	24,7	26,5	26,3	22,7	24,3	22,1	23,6	22,9
Equity ratio industrial business (%)	43,7	42,7	42,6	45,8	46,4	39,8	43,4	40,8	44,2	44,7
<i>Non-current liabilities</i>	47 998	47 313	49 456	44 738	51 940	65 016	66 047	78 077	85 461	99 398
<i>Current liabilities</i>	48 866	52 182	47 538	53 139	54 855	58 716	59 108	66 974	77 081	84 457
Net liquidity industrial business	12 912	3 106	7 285	11 938	11 981	11 508	13 834	16 953	18 580	19 737
Net assets (average)	39 187	31 466	31 778	29 338	31 426	37 521	40 648	40 779	44 796	47 054
From the statements of cash flows										
Investments in property, plant and equipment	4 247	3 559	2 423	3 653	4 158	4 827	4 975	4 844	5 075	5 889
Depreciation and amortization	4 146	3 023	3 264	3 364	3 575	4 067	4 368	4 999	5 384	5 478
Cash provided by (used for)										
Operating activities	7 146	-786	10 961	8 544	-696	-1 100	3 285	-1 274	222	3711
Investing activities	26 479	-4 812	-8 950	-313	-6 537	-8 864	-6 829	-2 709	-9 722	-14 666
Financing activities	-25204	-2915	1057	-7551	5842	11506	3855	2274	9631	12009
Free cash flow of the industrial business	7 637	-3 915	2 706	5 432	989	1452	4 842	5 479	3 960	3 874
Source: Daimler Annual Report 2016										

7. Table VIII. – Balance Sheet Statement (Daimler AG);

In million of euros

	H2014	H2015	H2016	F2017	F2018	F2019	F2020	F2021	F2022
Assets									
Intangible assets	9 367	10 069	12 098	13 151	14 294	15 537	16 889	18 358	19 954
Property, plant and equipment	23 182	24 322	26 381	28 761	31 355	34 184	37 267	40 629	44 294
Equipment on operating leases	33 050	38 942	46 942	54 181	62 535	72 178	83 308	96 155	110 982
Equity-method investments	2 294	3 633	4 098	4 303	4 518	4 744	4 981	5 230	5 492
Receivables FS	34 910	38 359	42 881	45 367	47 998	50 781	53 725	56 840	60 136
Marketable debt securities	1 374	1 148	1 100	1 100	1 100	1 100	1 100	1 100	1 100
Other financial assets	3 634	4 908	2 899	2 899	2 899	2 899	2 899	2 899	2 899
Deferred tax assets	4 124	3 284	3 870	3 870	3 870	3 870	3 870	3 870	3 870
Other assets	555	654	667	667	667	667	667	667	667
Total non-current assets	112 490	125 319	140 936	154 298	169 236	185 960	204 706	225 747	249 393
Inventories	20 864	23 760	25 384	27 925	30 721	33 796	37 180	40 902	44 997
Trade receivables	8 634	9 054	10 614	10 614	10 614	10 614	10 614	10 614	10 614
Receivables from FS	26 769	35 155	37 626	43 205	49 612	56 969	65 417	75 117	86 256
Cash and cash equivalents	9 667	9 936	10 981	10 981	10 981	10 981	10 981	10 981	10 981
Marketable debt securities	5 260	7 125	9 648	9 648	9 648	9 648	9 648	9 648	9 648
Other financial assets	2 353	2 546	2 837	2 837	2 837	2 837	2 837	2 837	2 837
Other assets	3 598	4 271	4 962	5 357	5 783	6 244	6 741	7 277	7 857
Total current assets	77 145	91 847	102 052	110 568	120 197	131 089	143 417	157 377	173 190
Total assets	189 635	217 166	242 988	264 866	289 433	317 049	348 124	383 124	422 583
Equity and liabilities									
Share capital	3 070	3 070	3 070	3 107	3 145	3 183	3 221	3 260	3 300
Capital reserves	11 906	11 917	11 744	11 744	11 744	11 744	11 744	11 744	11 744
Retained earnings	28 487	36 991	40 794	40 861	41 232	41 564	41 841	42 052	42 198
Other reserves	202	1 583	2 342	2 342	2 342	2 342	2 342	2 342	2 342
Equity shareholders Daimler AG	43 665	53 561	57 950	62 671	67 770	73 275	79 220	85 639	92 571
Non-controlling interests	919	1 063	1 183	1 183	1 183	1 183	1 183	1 183	1 183
Total equity	44 584	54 624	59 133	63 854	68 953	74 458	80 403	86 822	93 754
Provisions for pensions	12 806	8 663	9 034	9 034	9 034	9 034	9 034	9 034	9 034
Provisions for income taxes	851	875	966	966	966	966	966	966	966
Provisions for other risks	6 712	6 120	6 632	6 632	6 632	6 632	6 632	6 632	6 632
Financing liabilities	50 399	59 831	70 398	82 031	95 025	109 540	125 754	143 865	164 096
Other financial liabilities	2 644	2 876	3 327	3 327	3 327	3 327	3 327	3 327	3 327
Deferred tax liabilities	1 070	2 215	3 467	3 467	3 467	3 467	3 467	3 467	3 467
Deferred income	3 581	4 851	5 559	5 559	5 559	5 559	5 559	5 559	5 559
Other liabilities	14	30	15	15	15	15	15	15	15
Total non-current liabilities	78 077	85 461	99 398	111 031	124 025	138 540	154 754	172 865	193 096
Trade payables	10 178	10 548	11 567	11 567	11 567	11 567	11 567	11 567	11 567
Provisions for income taxes	757	777	751	751	751	751	751	751	751
Provisions for other risks	7 267	9 710	9 427	9 427	9 427	9 427	9 427	9 427	9 427
Financing liabilities	36 290	41 311	47 288	47 288	47 288	47 288	47 288	47 288	47 288
Other financial liabilities	8 062	9 484	9 542	9 542	9 542	9 542	9 542	9 542	9 542
Deferred income	2 413	2 888	3 444	3 444	3 444	3 444	3 444	3 444	3 444
Other liabilities	2 007	2 363	2 438	2 438	2 438	2 438	2 438	2 438	2 438
Total current liabilities	66 974	77 081	84 457	89 981	96 455	104 051	112 967	123 437	135 733
Total equity and liabilities	189 635	217 166	242 988	264 866	289 433	317 049	348 124	383 124	422 583

Source: Daimler Annual Report 2016 and estimations

8. Table XV. – Common-size Balance Sheet Statement (Daimler AG);

%	H2014	H2015	H2016	F2017	F2018	F2019	F2020	F2021	F2022
Assets									
Intangible assets	4,94%	4,64%	4,98%	4,96%	4,94%	4,90%	4,85%	4,79%	4,72%
Property, plant and equipment	12,22%	11,20%	10,86%	10,86%	10,83%	10,78%	10,71%	10,60%	10,48%
Equipment on operating leases	17,43%	17,93%	19,32%	20,46%	21,61%	22,77%	23,93%	25,10%	26,26%
Equity-method investments	1,21%	1,67%	1,69%	1,62%	1,56%	1,50%	1,43%	1,37%	1,30%
Receivables from FS	18,41%	17,66%	17,65%	17,13%	16,58%	16,02%	15,43%	14,84%	14,23%
Marketable debt securities	0,72%	0,53%	0,45%	0,42%	0,38%	0,35%	0,32%	0,29%	0,26%
Other financial assets	1,92%	2,26%	1,19%	1,09%	1,00%	0,91%	0,83%	0,76%	0,69%
Deferred tax assets	2,17%	1,51%	1,59%	1,46%	1,34%	1,22%	1,11%	1,01%	0,92%
Other assets	0,29%	0,30%	0,27%	0,25%	0,23%	0,21%	0,19%	0,17%	0,16%
Total non-current assets	59,32%	57,71%	58,00%	58,26%	58,47%	58,65%	58,80%	58,92%	59,02%
Inventories	11,00%	10,94%	10,45%	10,54%	10,61%	10,66%	10,68%	10,68%	10,65%
Trade receivables	4,55%	4,17%	4,37%	4,01%	3,67%	3,35%	3,05%	2,77%	2,51%
Receivables from FS	14,12%	16,19%	15,48%	16,31%	17,14%	17,97%	18,79%	19,61%	20,41%
Cash and cash equivalents	5,10%	4,58%	4,52%	4,15%	3,79%	3,46%	3,15%	2,87%	2,60%
Marketable debt securities	2,77%	3,28%	3,97%	3,64%	3,33%	3,04%	2,77%	2,52%	2,28%
Other financial assets	1,24%	1,17%	1,17%	1,07%	0,98%	0,89%	0,81%	0,74%	0,67%
Other assets	1,90%	1,97%	2,04%	2,02%	2,00%	1,97%	1,94%	1,90%	1,86%
Total current assets	40,68%	42,29%	42,00%	41,74%	41,53%	41,35%	41,20%	41,08%	40,98%
Total assets (%)	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00
Equity and liabilities									
Share capital	1,62%	1,41%	1,26%	1,17%	1,09%	1,00%	0,93%	0,85%	0,78%
Capital reserves	6,28%	5,49%	4,83%	4,43%	4,06%	3,70%	3,37%	3,07%	2,78%
Retained earnings	15,02%	17,03%	16,79%	15,43%	14,25%	13,11%	12,02%	10,98%	9,99%
Other reserves	0,11%	0,73%	0,96%	0,88%	0,81%	0,74%	0,67%	0,61%	0,55%
Equity shareholders Daimler AG	23,03%	24,66%	23,85%	23,66%	23,41%	23,11%	22,76%	22,35%	21,91%
Non-controlling interests	0,48%	0,49%	0,49%	0,45%	0,41%	0,37%	0,34%	0,31%	0,28%
Total equity	23,51%	25,15%	24,34%	24,11%	23,82%	23,48%	23,10%	22,66%	22,19%
Provisions for pensions	6,75%	3,99%	3,72%	3,41%	3,12%	2,85%	2,60%	2,36%	2,14%
Provisions for income taxes	0,45%	0,40%	0,40%	0,36%	0,33%	0,30%	0,28%	0,25%	0,23%
Provisions for other risks	3,54%	2,82%	2,73%	2,50%	2,29%	2,09%	1,91%	1,73%	1,57%
Financing liabilities	26,58%	27,55%	28,97%	30,97%	32,83%	34,55%	36,12%	37,55%	38,83%
Other financial liabilities	1,39%	1,32%	1,37%	1,26%	1,15%	1,05%	0,96%	0,87%	0,79%
Deferred tax liabilities	0,56%	1,02%	1,43%	1,31%	1,20%	1,09%	1,00%	0,90%	0,82%
Deferred income	1,89%	2,23%	2,29%	2,10%	1,92%	1,75%	1,60%	1,45%	1,32%
Other liabilities	0,01%	0,01%	0,01%	0,01%	0,01%	0,00%	0,00%	0,00%	0,00%
Total non-current liabilities	41,17%	39,35%	40,91%	41,92%	42,85%	43,70%	44,45%	45,12%	45,69%
Trade payables	5,37%	4,86%	4,76%	4,37%	4,00%	3,65%	3,32%	3,02%	2,74%
Provisions for income taxes	0,40%	0,36%	0,31%	0,28%	0,26%	0,24%	0,22%	0,20%	0,18%
Provisions for other risks	3,83%	4,47%	3,88%	3,56%	3,26%	2,97%	2,71%	2,46%	2,23%
Financing liabilities	19,14%	19,02%	19,46%	17,85%	16,34%	14,92%	13,58%	12,34%	11,19%
Other financial liabilities	4,25%	4,37%	3,93%	3,60%	3,30%	3,01%	2,74%	2,49%	2,26%
Deferred income	1,27%	1,33%	1,42%	1,30%	1,19%	1,09%	0,99%	0,90%	0,81%
Other liabilities	1,06%	1,09%	1,00%	0,92%	0,84%	0,77%	0,70%	0,64%	0,58%
Total current liabilities	35,32%	35,49%	34,76%	33,97%	33,33%	32,82%	32,45%	32,22%	32,12%
Total equity and liabilities (%)	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00

Source: Daimler Annual Report 2016 and estimations

9. Table X. – Balance Sheet Assumptions (Daimler AG);

	F2017	F2018	F2019	F2020	F2021	F2022	
Assets							
Intangible assets	8,70%	8,70%	8,70%	8,70%	8,70%	8,70%	Based on a 6 years historical average for non-current assets, reflecting a positive scenario (excluding crisis);
Property, plant and equipment	9,02%	9,02%	9,02%	9,02%	9,02%	9,02%	Based on the maximum historical 6 year variation that happened in PPE, within a positive scenario (excluding crisis)
Equipment on operating leases	15,42%	15,42%	15,42%	15,42%	15,42%	15,42%	Based on a 10 years historical average for leased equipment, given a negative scenario (crisis included);
Equity-method investments	5%	5%	5%	5%	5%	5%	Based on a 10 years historical average for non-current assets, within a negative scenario (crisis included);
Receivables from FS	5,80%	5,80%	5,80%	5,80%	5,80%	5,80%	Based on a 10 years historical average for non-current assets, within a negative scenario (crisis included);
Marketable debt securities	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Other financial assets	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Deferred tax assets	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Total non-current assets	9,48%	9,68%	9,88%	10,08%	10,28%	10,47%	-----
Inventories	10,01%	10,01%	10,01%	10,01%	10,01%	10,01%	Based on a 6 years historical average for inventories given a positive scenario (excluding crisis);
Trade receivables	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Receivables from FS	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Cash and cash equivalents	14,83%	14,83%	14,83%	14,83%	14,83%	14,83%	Based on the maximum historical 6 year liquid asset change within a positive scenario (excluding crisis);
Marketable debt securities	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Other financial assets	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Total current assets	7,96%	7,96%	7,96%	7,96%	7,96%	7,96%	-----
Total assets	8,84%	8,96%	9,07%	9,19%	9,30%	9,42%	-----
Equity and liabilities							
Share capital	1,21%	1,21%	1,21%	1,21%	1,21%	1,21%	Based on a 10 year historical average for share capital within a negative scenario (crisis included);
Capital reserves	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Retained earnings	2%	2%	2%	2%	2%	2%	Based on the historical common size percentage of retained Earnings variation throughout the years;
Other reserves	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Equity shareholders	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Daimler AG							
Non-controlling interests	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Total equity	7,98%	7,98%	7,98%	7,98%	7,98%	7,98%	Based on a 6 year historical average for total equity given a positive scenario (crisis excluded);
Provisions for pensions	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Financing liabilities	17%	16%	15%	15%	14%	14%	Based on the total non-current liabilities variation embraced with the maximum change felt throughout the whole 10 years;
Other financial liabilities	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Deferred tax liabilities	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Total non-current liabilities	11,70%	11,70%	11,70%	11,70%	11,70%	11,70%	Based on the 10 year historical average between the positive and negative scenario;
Trade payables	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Provisions for income taxes	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
Total current liabilities	6,54%	7,20%	7,88%	8,57%	9,27%	9,96%	Based on a 10 year historical average for total current liabilities within a negative scenario (crisis included);
Total equity and liabilities	9,00%	9,28%	9,54%	9,80%	10,05%	10,30%	-----

10. Table XI. – Income Statement (Daimler AG);

In millions of euros	H2014	H2015	H2016	F2017	F2018	F2019	F2020	F2021	F2022
Revenue	132 372	152 159	156 000	159 938	163 975	168 115	172 358	176 709	181 170
Cost of sales	-99 189	-115 325	-118 559	-120 693	-122 866	-125 077	-127 329	-129 620	-131 954
Gross profit	33 183	36 834	37 441	39 245	41 110	43 037	45 030	47 089	49 216
Selling expenses	-11 534	-12 147	-12 226	-12 446	-12 658	-12 873	-13 105	-13 354	-13 607
General administrative expenses	-3 329	-3 363	-3 419	-3 481	-3 540	-3 600	-3 665	-3 734	-3 805
Research and non-capitalized costs	-4 532	-4 760	-5 257	-5 678	-6 132	-6 623	-7 153	-7 725	-8 344
Other operating income	1 759	2 114	2 350	2 392	2 433	2 474	2 519	2 567	2 615
Other operating expense	-1 160	-555	-1 298	-1 354	-1 412	-1 472	-1 535	-1 601	-1 669
Profit/loss on equity method investments, net	897	464	502	502	502	502	502	502	502
EBITDA	15 284	18 587	18 093	19 181	20 304	21 446	22 593	23 743	24 908
Amortization and depreciation	-4999	-5384	-5478	-6507	-7110	-7789	-8552	-9412	-10 381
EBIT	10 285	13 203	12 615	12 675	13 194	13 658	14 042	14 332	14 527
Other financial income/expense	458	-27	275	280	285	290	295	300	306
Interest income	145	170	230	234	238	242	247	251	256
Interest expense	-715	-602	-546	-544	-542	-540	-538	-536	-533
Profit before income taxes	10 173	12 744	12 574	12 645	13 175	13 650	14 045	14 348	14 556
Income taxes	-2 883	-4 033	-3 790	-3 793	-3 952	-4 095	-4 213	-4 304	-4 366
Net profit	7 290	8 711	8 784	8 851	9 222	9 554	9 831	10 042	10 188
Attributable to non-controlling interests	328	287	258	260	271	281	289	295	299
Attributable to shareholders of Daimler AG	6 962	8 424	8 526	8 591	8 951	9 273	9 542	9 747	9 888
Earnings per share (in euros)									
Attributable to shareholders of Daimler AG	6,51	7,87	7,97	8,27	8,62	8,93	9,19	9,39	9,52

Source: Daimler Annual Report 2016 and estimations

11. Table XII. – Common-size Income Statement (Daimler AG);

%	H2014	H2015	H2016	F2017	F2018	F2019	F2020	F2021	F2022
Revenue	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%
Cost of sales	-74,93%	-75,79%	-76,00%	-75,46%	-74,93%	-74,40%	-73,87%	-73,35%	-72,83%
Gross profit	25,07%	24,21%	24,00%	24,54%	25,07%	25,60%	26,13%	26,65%	27,17%
Selling expenses	-8,71%	-7,98%	-7,84%	-7,78%	-7,72%	-7,66%	-7,60%	-7,56%	-7,51%
General administrative expenses	-2,51%	-2,21%	-2,19%	-2,18%	-2,16%	-2,14%	-2,13%	-2,11%	-2,10%
Research and non-capitalized costs	-3,42%	-3,13%	-3,37%	-3,55%	-3,74%	-3,94%	-4,15%	-4,37%	-4,61%
Other operating income	1,33%	1,39%	1,51%	1,50%	1,48%	1,47%	1,46%	1,45%	1,44%
Other operating expense	-0,88%	-0,36%	-0,83%	-0,85%	-0,86%	-0,88%	-0,89%	-0,91%	-0,92%
Profit/loss on equity method investments	0,68%	0,30%	0,32%	0,31%	0,31%	0,30%	0,29%	0,28%	0,28%
EBITDA	11,55%	12,22%	11,60%	11,99%	12,38%	12,76%	13,11%	13,44%	13,75%
Amortization and depreciation	-3,78%	-3,54%	-3,51%	-4,07%	-4,34%	-4,63%	-4,96%	-5,33%	-5,73%
EBIT	7,77%	8,68%	8,09%	7,92%	8,05%	8,12%	8,15%	8,11%	8,02%
Other financial income/expense, net	0,35%	-0,02%	0,18%	0,18%	0,17%	0,17%	0,17%	0,17%	0,17%
Interest income	0,11%	0,11%	0,15%	0,15%	0,15%	0,14%	0,14%	0,14%	0,14%
Interest expense	-0,54%	-0,40%	-0,35%	-0,34%	-0,33%	-0,32%	-0,31%	-0,30%	-0,29%
Profit before income taxes	7,69%	8,38%	8,06%	7,91%	8,03%	8,12%	8,15%	8,12%	8,03%
Income taxes	-2,18%	-2,65%	-2,43%	-2,37%	-2,41%	-2,44%	-2,44%	-2,44%	-2,41%
Net profit	5,51%	5,72%	5,63%	5,53%	5,62%	5,68%	5,70%	5,68%	5,62%
Attributable to non-controlling interests	0,25%	0,19%	0,17%	0,16%	0,17%	0,17%	0,17%	0,17%	0,17%
Attributable to shareholders of Daimler AG	5,26%	5,54%	5,47%	5,37%	5,46%	5,52%	5,54%	5,52%	5,46%

Source: Daimler Annual Report 2016 and estimations

12. Table XIII. – Income Statement Assumptions (Daimler AG);

	F2017	F2018	F2019	F2020	F2021	F2022	
Revenue	2,52%	2,52%	2,52%	2,52%	2,52%	2,52%	Based on the historical minimum value change through 6 years, crisis years cut off;
Cost of sales	1,80%	1,70%	1,70%	1,80%	1,90%	1,90%	
Gross profit	4,82%	4,75%	4,69%	4,63%	4,57%	4,52%	
Selling expenses	1,80%	1,70%	1,70%	1,80%	1,90%	1,90%	Adjusted for expected inflation;
General administrative expenses	1,80%	1,70%	1,70%	1,80%	1,90%	1,90%	Adjusted for expected inflation;
Research and non-capitalized costs	8,00%	8,00%	8,00%	8,00%	8,00%	8,00%	Based on a 6 year historical average for this variable, thus given a positive scenario;
Other operating income	1,80%	1,70%	1,70%	1,80%	1,90%	1,90%	Adjusted for expected inflation;
Other operating expense	4,28%	4,28%	4,28%	4,28%	4,28%	4,28%	Based on a 6 year historical average for personal expenses, crisis years cut off;
Profit/loss on equity method investments	0%	0%	0%	0%	0%	0%	Equal to 2016 nominal value;
EBITDA	6,01%	5,85%	5,63%	5,35%	5,09%	4,91%	
Amortization and depreciation	2,46%	2,46%	2,46%	2,46%	2,46%	2,46%	Based on a 3 year historical average for this variable, within a positive scenario;
EBIT	0,47%	4,09%	3,52%	2,81%	2,07%	1,36%	
Other financial income/expense, net	1,80%	1,70%	1,70%	1,80%	1,90%	1,90%	Adjusted for expected inflation;
Interest income	1,80%	1,70%	1,70%	1,80%	1,90%	1,90%	Adjusted for expected inflation;
Interest expense	0,39%	0,39%	0,39%	0,39%	0,39%	0,39%	Average of the 3 prior years' interest expense over the total debt;
Profit before income taxes	0,56%	4,19%	3,60%	2,90%	2,15%	1,45%	
Income taxes	30%	30%	30%	30%	30%	30%	Accordingly to PWC corporate and trade tax rate for German companies, taking in account the municipal rate for Daimler AG;
Net profit	0,76%	4,19%	3,60%	2,90%	2,15%	1,45%	

13. Table XIV. – Cash-flow Statement (Daimler AG);

In million of euros	H2014	H2015	H2016	F2017	F2018	F2019	F2020	F2021	F2022
Profit before income taxes	10 173	12 744	12 574	12 644	13 174	13 649	14 044	14 346	14 554
Depreciation and amortization/impairments	4 999	5 384	5 478	6 507	7 110	7 789	8 552	9 412	10 381
Other non-cash expense and income	-850	-450	-1 064	-1 064	-1 064	-1 064	-1 064	-1 064	-1 064
Gains (-)/losses (+) on disposals of assets	-1 053	-229	-46	-46	-46	-46	-46	-46	-46
Change in operating assets and liabilities									
Inventories	-2 768	-2 613	-1 272	-1 399	-1 539	-1 694	-1 863	-2 050	-2 255
Trade receivables	-606	-205	-962	-962	-962	-962	-962	-962	-962
Trade payables	853	142	757	757	757	757	757	757	757
Receivables from financial services	-8 065	-10 251	-6 848	-6 451	-6 077	-5 725	-5 393	-5 080	-4 785
Vehicles on operating leases	-2 819	-3 924	-4 209	-4 858	-5 607	-6 472	-7 470	-8 622	-9 951
Other operating assets and liabilities	1 032	2 197	2 253	2 253	2 253	2 253	2 253	2 253	2 253
Income taxes paid/refunded	-2 170	-2 573	-2 950	-3 793	-3 952	-4 095	-4 213	-4 304	-4 366
Cash used for operating activities	-1 274	222	3 711	3 587	4 046	4 391	4 595	4 641	4 515
Additions to property, plant and equipment	-4 844	-5 075	-5 889	-6 420	-6 999	-7 631	-8 319	-9 070	-9 888
Additions to intangible assets	-1 463	-2 261	-2 944	-3 200	-3 478	-3 781	-4 110	-4 467	-4 856
Proceeds from disposals of PPE and intangible assets	209	495	366	367	368	369	370	371	372
Acquisition of Athlon Car Lease International B.V.	-172	-	-3 650	0	0	0	0	0	0
Investments in shareholdings	3 098	-1 223	-334	0	0	0	0	0	0
Proceeds from disposals of shareholdings	-3 341	39	79	79	79	79	79	79	79
Acquisition of marketable debt securities	3 834	-4 101	-7 724	-8 824	-9 924	-11 024	-12 124	-13 224	-14 324
Proceeds from sales of marketable debt securities	-30	2 443	5 394	6 177	6 947	7 717	8 487	9 257	10 027
Other	-2 709	-39	36	0	0	0	0	0	0

Cash used for investing activities	2 129	-9 722	-14 666	-12 189	-13 376	-14 640	-15 987	-17 425	-18 962
Change in short-term financing liabilities	37 354	36	503	0	0	0	0	0	0
Additions to long-term financing liabilities	-34 650	54 332	50 723	56 659	63 290	70 697	78 971	88 213	98 537
Repayment of long-term financing liabilities	-2 407	-41 904	-35 463	-45 327	-50 632	-56 558	-63 177	-70 571	-78 830
Dividend paid to shareholders of Daimler AG	-158	-2 621	-3 477	-3 504	-3 650	-3 782	-3 891	-3 975	-4 033
Dividends paid to non-controlling interests	42	-274	-201	-203	-211	-219	-225	-230	-233
Proceeds from the issue of share capital	-26	89	65	65	65	65	65	65	65
Acquisition of treasury shares	-10	-27	-38	-38	-38	-38	-38	-38	-38
Acquisition of non-controlling interests in subsidiaries	-	-	-103	0	0	0	0	0	0
Internal equity and financing transactions	2 274	-	-	0	0	0	0	0	0
Cash used for financing activities	323	9 631	12 009	7 653	8 824	10 166	11 705	13 465	15 469
Net increase in cash and cash equivalents	11 053	269	1 045	-948	-506	-83	313	681	1 023
Cash and cash equivalents at beginning of period	9 667	9 667	9 936	10 981	10 033	9 527	9 444	9 757	10 437
Cash and cash equivalents at end of period		9 936	10 981	10 033	9 527	9 444	9 757	10 437	11 460

Source: Daimler Annual Report 2016 and estimations

14. Table XV. – Key Financial Ratios (Daimler AG);

	Units	H2014	H2015	H2016	F2017	F2018	F2019	F2020	F2021	F2022
Profitability ratios										
Gross profit margin	%	25,07%	24,21%	24,00%	24,54%	25,07%	25,60%	26,13%	26,65%	27,17%
EBITDA margin	%	11,55%	12,22%	11,60%	11,99%	12,38%	12,76%	13,11%	13,44%	13,75%
EBIT margin	%	7,77%	8,68%	8,09%	7,92%	8,05%	8,12%	8,15%	8,11%	8,02%
Net profit margin	%	5,51%	5,72%	5,63%	5,53%	5,62%	5,68%	5,70%	5,68%	5,62%
ROA	%	3,84%	4,01%	3,61%	3,34%	3,19%	3,01%	2,82%	2,62%	2,41%
ROE	%	16,35%	15,95%	14,85%	13,86%	13,37%	12,83%	12,23%	11,57%	10,87%
Efficiency ratios										
Receivables turnover	times	7,48	7,65	6,75	6,27	5,75	5,26	4,80	4,37	3,97
Days sales outstanding (DSO)	days	48,81	47,74	54,08	58,23	63,46	69,37	76,03	83,53	91,97
Inventory turnover	times	6,34	6,82	6,35	6,00	5,59	5,21	4,86	4,53	4,22
Days inventory outstanding (DIO)	days	57,53	53,52	57,49	60,83	65,27	70,04	75,15	80,64	86,53
Payables turnover	times	4,3	4,96	4,57	4,10	4,18	4,25	4,33	4,40	4,48
Days payable outstanding (DPO)	days	85,5	73,5	79,8	89,0	87,4	85,9	84,4	82,9	81,4
Operating cycle	days	53,17	50,63	55,78	59,53	64,37	69,71	75,59	82,09	89,25
Cash cycle conversion	days	46,22	41,39	45,20	49,51	50,60	51,86	53,32	54,98	56,88
Fixed asset turnover	times	6,05	6,57	5,90	5,29	4,82	4,38	3,99	3,62	3,29
Total asset turnover	times	1,40	0,98	0,90	0,85	0,80	0,75	0,70	0,65	0,61
Liquidity ratios										
Current ratio	times	1,15	1,19	1,21	1,23	1,25	1,26	1,27	1,27	1,28
Quick ratio	times	0,84	0,88	0,91	0,92	0,93	0,94	0,94	0,94	0,94
Capital structure										
Debt ratio	times	0,76	0,75	0,76	0,76	0,76	0,77	0,77	0,77	0,78
Financial leverage	times	3,25	2,98	3,11	3,15	3,20	3,26	3,33	3,41	3,51
Interest coverage ratio	times	14,38	21,93	23,10	23,29	24,32	25,26	26,05	26,67	27,12

Source: Daimler Annual Report 2016 and estimations

15. Table XVI. – European Union Inflation rate;

F2017	F2018	F2019	F2020	F2021	F2022
1,80%	1,70%	1,70%	1,80%	1,90%	1,90%

Source: PWC – Global economy projections

16.1. Table XVII. – Peers Selection;

Top 12 World Car Brands					Peers Selection			
Rank 2017	Brand	Sales Units.	Variation 2016	Share 2016	Market Share (2% - 5,5%)	Sales (DA-500<Dag<DA+500)	Growth Tendency	Peer?
1	Toyota	8 476 885	0,80%	9,20%	0	0	1	Bad
2	Volkswagen	6 535 093	1,70%	7,10%	0	0	1	Bad
3	Ford	6 234 726	2,30%	6,80%	0	0	1	Bad
4	Nissan	4 954 002	4,70%	5,40%	1	0	1	Good
5	Hyundai	4 864 222	-0,50%	5,30%	1	0	0	Bad
6	Honda	4 774 696	6,60%	5,20%	1	0	1	Good
7	Kia	3 314 716	4,40%	3,60%	1	0	1	Good
8	Renault	2 412 720	13,80%	2,60%	1	1	1	Good
9	Mercedes	2 327 799	10,50%	2,50%		1		
10	Peugeot	2 024 006	0,10%	2,20%	1	1	1	Good
11	BMW	1 985 219	2,20%	2,20%	1	1	1	Good
12	Audi	1 885 207	3,70%	2,00%	1	1	1	Good

Source: Statista

16.2. Table XVIII. – Multiples Selection;

Automotive Manufacturer Industry	Multiples of Sample Firms							
	EV/Sales		EV/EBITDA		EV/EBIT		EV/Net Debt	
	N-1	N	N-1	N	N-1	N	N-1	N
Mercedes	1,36	1,33	10,96	11,26	15,43	16,15	1,82	1,59
Nissan	2,61	2,88	56,75	50,24	132,02	115,37	8,24	8,26
Honda	9,00	9,28	-526,59	288,95	-176,65	1073,89	9,16	8,74
Kia	4,17	3,53	6862,61	3691,75	-9131,00	118523,39	31,54	21,66
Renault	1,77	1,57	16,30	13,19	36,46	24,36	1,74	1,45
Peugeot	0,58	0,59	7,16	6,15	16,33	11,96	1,24	1,80
BMW	1,90	1,86	9,83	10,00	18,23	18,64	1,47	1,44
Audi	0,88	0,87	6,86	8,28	10,63	16,85	2,27	2,11

1st Quartile	1,33	1,22	7,09	7,75	14,91	15,63	1,61	1,62
Median	1,90	1,86	8,50	9,14	17,28	17,74	2,27	2,11
Mean	2,99	2,94	10,04	9,40	20,42	17,95	7,95	6,49
3rd Quartile	3,39	3,21	11,45	10,80	22,79	20,07	8,70	8,50

Source: Amadeus Database & Estimations

16.3 Table XIX. – Multiples Valuation;

Multiples Valuation				
Automotive Manufacturer Industry	EV/Sales	EV/EBITDA	EV/EBIT	EV/Net Debt
Multiples	1,85	17,25	18,51	1,69
Enterprise Value (€/000)	295 865 663 €	330 856 320 €	234 554 375 €	232 364 386 €
EBITDA (€/000)	19 181 259 €	19 181 259 €	19 181 259 €	19 181 259 €
Net Debt (€/000)	190 030 380 €	190 030 380 €	190 030 380 €	190 030 380 €
Market Equity (€/000)	105 835 282 €	140 825 939 €	44 523 995 €	42 334 005 €
Target Price	99 €	132 €	42 €	40 €
Average target price			77,94 €	
Price at the end of 2016			70,72 €	

Source: Estimations

17.1. Table XX. – Weighted Average Cost of Capital Assumptions;

WACC

	Value	Assumptions
Beta	0,78	Average of the correlations between DAX and Daimler AG stock value for 1, 3 and 5 years;
Risk free rate	0,37%	Equal to the 10 year Germany treasury bund as in 09/01/2017;
Country risk premium	0,07%	With a rating of AAA Germany's default risk is almost null, thus the CRP being 0%;
Equity risk premium	6,81%	Aswarth Damodaran's computations at January 2017;
Terminal growth rate	1,80%	The growth rate used matched the average expected inflation rate for the forecasted period;
Marginal tax rate	30%	Reflects the corporate tax rate for German corporations, given PWC and Aswarth Damodaran estimations;
Cost of debt	5,00%	Given Daimler's bond outstanding spread plus the average 6 months Euribor, which reflects Daimler's borrow rate;
Capital Structure	E - 32,80%; D - 67,20%	Compounded the ten year summary within the automotive industry equity ratio plus the forecasted debt and equity;

17.2. Table XXI. – Cost of Debt;

Bonds	Yield	Coupon	Spread	Euribor 6 months	
DE000A1TNJ97	0,20%	2,00%	2,27%	Benchmark - 2017	-0,27%
US233835AQ08	3,72%	8,50%	8,77%	2016	-0,04%
DE000A1PGWA5	0,37%	2,38%	2,65%	2015	0,17%
DE000A1R0691	0,42%	2,38%	2,65%	2014	0,39%
DE000A1R04X6	0,22%	2,25%	2,52%	2013	0,32%
DE000A2GSCX1	0%	2,13%	2,40%	2012	1,61%
Average Spread			3,80%	2011	1,22%
				2010	1,00%
				2009	2,95%
				2008	4,70%
				Average 6m Euribor	1,20%
Cost of Debt	5,00%				

Source: <https://www.daimler.com/investors/refinancing/bonds/bonds-overview/> & Euribor 6 months rate;

17.3. Table XXII. – Discounted Cash-Flow Analysis;

Discounted Cash flow Analysis

	F2017	F2018	F2019	F2020	F2021	F2022	Terminal
EBIT (1-MTR)	8 872 224 334 €	9 235 460 827 €	9 560 302 097 €	9 829 058 869 €	10 032 198 027 €	10 169 023 131 €	10 169 023 131 €
Capex	7 031 328 310 €	7 543 710 293 €	8 094 942 838 €	8 688 042 886 €	9 326 264 872 €	10 013 119 568 €	10 013 119 568 €
D&A	6 506 653 133 €	7 110 170 342 €	7 788 587 925 €	8 551 963 289 €	9 411 772 301 €	10 381 115 351 €	10 381 115 351 €
Net increase in WC	1 957 232 612 €	2 114 031 740 €	2 283 392 465 €	2 466 321 129 €	2 663 904 697 €	2 877 317 212 €	2 877 317 212 €
FCFF	6 390 316 545 €	6 687 889 135 €	6 970 554 719 €	7 226 658 143 €	7 453 800 759 €	7 659 701 703 €	7 659 701 703 €

Source: Estimations

17.4. Table XXIII. – Discounted Cash-Flow Analysis;

%	Discounted Cash flow Analysis						
	F2017	F2018	F2019	F2020	F2021	F2022	Terminal
Cost of equity							
Risk free rate	0,37%	0,37%	0,37%	0,37%	0,37%	0,37%	0,37%
Country risk premium	0,07%	0,07%	0,07%	0,07%	0,07%	0,07%	0,07%
Market risk premium	6,81%	6,81%	6,81%	6,81%	6,81%	6,81%	6,81%
Beta levered	78%	78%	78%	78%	78%	78%	78%
Cost of equity	5,72%	5,72%	5,72%	5,72%	5,72%	5,72%	5,72%
Cost of debt							
Cost of debt	5,00%	5,00%	5,00%	5,00%	5,00%	5,00%	5,00%
Marginal tax rate	30%	30%	30%	30%	30%	30%	30%
After tax cost of debt	3,50%	3,50%	3,50%	3,50%	3,50%	3,50%	3,50%
WACC							
Weight of equity	33,76%	33,62%	33,45%	33,25%	33,04%	32,80%	32,80%
Weight of debt	66,24%	66,38%	66,55%	66,75%	66,96%	67,20%	67,20%
WACC	4,25%	4,25%	4,24%	4,24%	4,24%	4,23%	4,23%

Source: Estimations

17.5. Table XXIV. – Discounted Cash-Flow Analysis;

	Enterprise value		Price target
Terminal growth rate	1,80%	Enterprise value	281 287 595 192 €
Perpetuity wacc	4,24%	Net Debt	190 030 380 442 €
Terminal value	313 934 641 358 €	Value of equity	91 257 214 751 €
PV of terminal value	244 700 716 912 €	No. Of Shares outstanding	1 069 837 447 €
NPV of FCFE	35 586 878 280 €	Price at the end of 2017	85,30 €
Enterprise value	281 287 595 192 €	Price at the end of 2016	70,72 €

Source: Estimations

18.1. – Table XXV. – Sensitivity analysis WACC & Growth variation for price;

		Weighted Average Cost of Capital										
		4%	4,10%	4,20%	4,30%	4,40%	4,50%	4,60%	4,70%	4,80%	4,90%	5,00%
Growth Rate	1,50%	83,19 €	73,11 €	63,79 €	55,13 €	47,07 €	39,54 €	32,50 €	25,90 €	19,70 €	13,87 €	8,37 €
	1,60%	92,62 €	81,77 €	71,76 €	62,48 €	53,88 €	45,86 €	38,38 €	31,38 €	24,82 €	18,66 €	12,86 €
	1,70%	102,87 €	91,14 €	80,36 €	70,41 €	61,19 €	52,63 €	44,66 €	37,23 €	30,27 €	23,75 €	17,62 €
	1,80%	114,05 €	101,34 €	89,68 €	78,96 €	69,07 €	59,90 €	51,39 €	43,47 €	36,08 €	29,16 €	22,68 €
	1,90%	126,30 €	112,45 €	99,82 €	88,23 €	77,57 €	67,74 €	58,63 €	50,17 €	42,29 €	34,94 €	28,06 €
	2,00%	139,77 €	124,63 €	110,87 €	98,31 €	86,79 €	76,19 €	66,41 €	57,36 €	48,95 €	41,12 €	33,81 €
	Source: Estimations											

18.2. – Table XXVI. – Sensitivity analysis after tax C_D & C_E variation for WACC;

		After Tax Cost of Debt										
		3%	3,25%	3,50%	3,75%	4,00%	4,25%	4,50%	4,75%	5,00%	5,25%	5,50%
Cost of Equity	5%	3,66%	3,82%	3,99%	4,16%	4,33%	4,50%	4,66%	4,83%	5,00%	5,17%	5,34%
	5,25%	3,74%	3,91%	4,07%	4,24%	4,41%	4,58%	4,75%	4,91%	5,08%	5,25%	5,42%
	5,50%	3,82%	3,99%	4,16%	4,32%	4,49%	4,66%	4,83%	5,00%	5,16%	5,33%	5,50%
	5,75%	3,90%	4,07%	4,24%	4,41%	4,57%	4,74%	4,91%	5,08%	5,25%	5,41%	5,58%
	6,00%	3,98%	4,15%	4,32%	4,49%	4,66%	4,82%	4,99%	5,16%	5,33%	5,50%	5,66%
	6,25%	4,07%	4,23%	4,40%	4,57%	4,74%	4,91%	5,07%	5,24%	5,41%	5,58%	5,75%
	6,50%	4,15%	4,32%	4,48%	4,65%	4,82%	4,99%	5,16%	5,32%	5,49%	5,66%	5,83%
Source: Estimations												

19. - Table XXVII - Porter's five forces

Porter's 5 forces

<p>Threat of new entrants: Low</p>	<ul style="list-style-type: none"> ▪ Daimler is a well-established company within the automotive market, thus has a huge brand recognition and customer loyalty, as it is indeed experienced within this industry. In this sense, the entrance of a new company that would face and threat Daimler or any car manufacturer brand and their target and medium-premium segment is rather unlikely. Besides this, there are many barriers to enter this industry: Large amount of capital is required which culminates in great sunk costs; Fierce competition, where for instances if a new company would come with an innovative idea, chances are that the current brands would take them down easily given their reputation; It is a market where having a recognised brand is crucial, as within the same segment the only differences tend to be design and engineering quality; Legal barriers such as import taxes that is used by governments in order to protect their home markets; Lastly, one is underlining the medium premium segment, whose customers that are not only looking for a means of transportation but also for a way of self-expression, making new entrants less threatening.
<p>Threat of new substitutes Medium-High</p>	<ul style="list-style-type: none"> ▪ The threat of substitutes within this industry is rather high, this happens as the automotive customers are looking for both or one of these two things: A means of transportation and/or the status of wearing a brand. In this context, for the first need this market is full of car brands from all segments, such as high luxury brand, non-luxury brands and where Mercedes-Benz is, medium luxury brands that will most certainly fulfil customers needs. In addition to all these there is another kind of market, the used cars market that can also play a role in the substitution threat. On the other hand, regarding the costumer's status, which is relatively more subjective, but accounts with differentiated products like watches, high-fabricated houses, among other luxury goods that while being completely different products will become part of this need. Ultimately, besides this blurred substitutes, premium motorbike brands can also be a suitable variables.
<p>Rivalry between existing firms High</p>	<ul style="list-style-type: none"> ▪ There exists a significant competition in what concerns the overall premium car segment as a consequence the need of having a strategic communication is mandatory in order to perceive that using a certain brand comes with a higher value. Additionally, although the concentration within this segment is not that high, Mercedes-Benz is inside a fierce competitive triangle together with Audi and BMW. This rivalry has grown with the appearance of emerging markets, where all companies try not only to compete with cost production, but also with the product performance, technology, innovation and price. Moreover, non-premium brand have now made a footprint in the luxury segment, like Toyota's Lexus, especially in the Asian markets. This industry as also enormous sunk costs, which makes companies wanting to stay harder in the market regardless their performance, but at the end of the day as a consequence of augmenting its competition level.
<p>Suppliers' bargain power Low-Medium</p>	<ul style="list-style-type: none"> ▪ A supplier in this industry is unpowered in what concerns a forward integration, indeed due to the car manufacturers companies being globalized and large entities, suppliers tend to be dependant in one manufacturer, whereas these last ones usually end up having more than one supplier. This lack of threat increased with emerging markets, where a window of lower costs in production was opened. Nevertheless, medium and high luxury car brands have slightly different concerns within their product specifications, consequently not all suppliers are suitable for them, which increases this last ones power and the car manufacturers switching costs as well

Customers' bargain power
Medium-High

- Regarding brand variety within this industry, one may infer that indeed customers have a significant bargaining power, as there are many substitutes from where potential customers can choose. Regardless this aspect, customers tend to be loyal to brands in the more luxurious segments and, in addition, most customers are not constantly buying cars, thus the sales process and customer decision has a large period implicit, meaning that the individual customers behaviour will be diluted given this time. Still, car manufactures need to have a continuous improvement in their products and follow market trends as only then will they be competing in order to be top of mind.

20 – Table XXVIII. – SWOT Analysis;

SWOT Analysis

Strengths

- **Portfolio variety:** Daimler has a highly diversified offer, whether one is underlining the overall segments, like trucks, vans, buses, cars and financial services, but also within a specific segment, such as cars, its offer ranges between sedan, SUV and sports cars, helping in a direct competition against other players inside this industry
- **Financial Stability:** When one looks into all the segments that Daimler works on, with all their inherent brands that account with an enormous recognition allow Daimler to find synergies, share resources and minimizing costs;
- **High top of mind awareness:** Daimler alongside with Audi and BMW constitute the German big trio regarding luxurious car producers, thus being a global leader in the automotive industry and having a strong brand value;
- **Worldwide footprint:** Not only is Daimler distributed with facilities in more than 20 countries globally, but it is also trying to make a stand in the emerging markets as well
- **Innovative pioneer:** This enterprise is acknowledged for its ability to come up with new ideas in what concerns combustion engines and cars' safety features. Likewise, in 2014 McLaren Mercedes won the constructors championship top team in F1.

Weaknesses

- **Servicing costs:** Being in a premium segment comes with a price as when customers plan their investments decision, they might look into after sales servicing costs which, for instances, within Mercedes-Benz is rather superior in comparison with other players;
- **High competition:** As the automotive industry has a high degree of competitiveness, consequently it will limit Daimler's capability to grow its market share and, on the other hand, makes essential great expenses in advertising & marketing, Research & Development in order to create brand awareness to their potential customers;

Opportunities

- **Emerging markets:** Acknowledging on the on hand that the NAFTA region and the European markets are the ones that support this industry, gradually developing markets, like China and India for instances, represent a potential strategic opportunity, as their overall lifestyle and economy are shifting;
- **Premium demand:** The premium automotive market has been growing, especially due to changes in the economic environment;
- **Strategic alliances & acquisitions:** Markets are shifting nevertheless, the presence of certain partnerships and/or ownerships, like Daimler's financial services that point out a different way of transportation demonstrate Daimler's awareness to market demands and mutation.

- **Technological innovation:** Daimler can use one of its strengths in order to keep up with car production trends, hence there can be a focus on developing futuristic technology, efficient car engines, hybrid/electric products, trying to keep up with a worldwide leadership.
- **Numerous players:** As stated the presence of high quality brands within with great competitiveness might make Daimler's mission a little bit harder;
- **Volatile economy:** The reporting year, for instances, was a great example of economic uncertainty concerning specifically political altercation, all this might affect the automotive industry and customers priorities towards it;
- **Government intervention:** Environment concerns, like global warming, that point out lower toxic emission may support measures like shifting personal transportation to public transportation, will definitely make fuel prices uncertain and increase the implementation of regulations to control vehicles specification and movements.