

## Challenging times ahead offer value potential

*The auto industry is currently facing tough times. Short-term, trade wars and weak demand in China are burdening the sector. Mid-term, e-mobility and autonomous driving are changing the industry. Meanwhile, we estimate that H1 2019 marks an inflection point in profitability, with positive earnings momentum to return in H2 2019. While it is likely too early to buy into the sector, the extremely low valuation is, in our view, too attractive to ignore. With this report we are initiating coverage on 12 German automotive OEMs and suppliers. Our top picks are BMW (Buy, TP: EUR 91) and Stabilus (Buy, TP: EUR 80) while ElringKlinger is our least preferred stock (Sell, TP: EUR 5.50).*

### Sector highlights

There is no need to sugar coat the situation of the auto sector, cyclical concerns of peaking earnings, a structurally difficult transition towards e-mobility and autonomous driving, and rising macro fears including a hard Brexit, trade wars, and a potential sovereign debt crisis in Italy give plenty of reason to short the sector.

The valuation discount of the SXAP relative to the SXXP reflects these fears well. The 12m forward PE of the SXAP lost 36% relative to the SXXP since 2006. Meanwhile, earnings of the SXAP have grown by some 200% vs. 12% for the SXXP and balance sheets of automotive companies have been considerably deleveraged. Hence, we argue that the record valuation discount, especially to cyclical sectors, is unjustified. However, we would not expect investors to buy into the sector anticipating a re-rating and hence focus on stock picking.

Given weaker earnings momentum for suppliers vs. OEMs near-term, we argue that the current c.50% valuation discount of OEMs seems unjustified. Structurally we continue to see an advantage for suppliers.

In terms of market outlook, we forecast a challenging start into 2019. H1'19 should be characterized by reduced credit availability in China (clamp down on shadow banking system), higher interest rates in the US, and some remaining WLTP related burden in Europe.

We see an inflection point for car market growth in H2'19. Pent-up demand from WLTP related catch up effects should support volumes in Europe, while growth in China should return as credit limiting factors started in H2'18. Overall, we expect global light vehicle production (LVP) to grow by 1% y/y in 2019, following an expected flat 2018e.

### Top Picks

Our preferred OEM is **BMW**, as earnings momentum should return in FY 2019 following weak years, burdened by model cycle and e-mobility.

Our preferred supplier name is **Stabilus**. The company generates high capital returns and offers strong growth potential, independent of future Powertrain technologies or brand evolution.

The least preferred stock in our coverage universe is **ElringKlinger**, a capital intensive company, with high debt levels, deteriorating margins and a strong exposure to the internal combustion engine.

Sector

**Automobiles & parts**

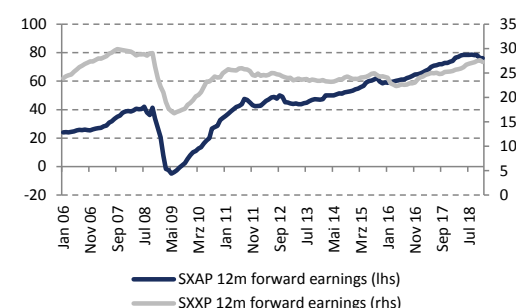
### SXAP vs. SXXP performance



### 12m forward PE SXAP relative to SXXP



### NTM earnings development SXAP & SXXP



### Top picks

Company	Rating	TP
BMW	Buy	EUR 91.0
Stabilus	Buy	EUR 80.0
ElringKlinger	Sell	EUR 5.50

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com

Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

## Exhibit 1: Coverage Overview 1

Name	Recommendation	Target Price	Last Price	Up/Downside	Market Cap (EURm)	Analyst
<b>OEMS</b>						
BMW	Buy	91.00	74.43	22%	48,886	Tim Schuldt, CFA
Daimler AG	Buy	57.00	50.45	13%	53,971	Tim Schuldt, CFA
Volkswagen	Hold	160.00	148.54	8%	74,463	Tim Schuldt, CFA
<b>Supplier</b>						
Continental	Buy	170.00	130.10	31%	26,020	Tim Schuldt, CFA
Elringklinger	Sell	5.50	7.59	-28%	481	Tim Schuldt, CFA
Leoni	Buy	34.00	28.34	20%	926	Tim Schuldt, CFA
Hella GmbH & Co. KGaA	Buy	44.00	36.08	22%	4,009	Manuel Tanzer, CFA
Norma Group	Hold	50.00	50.65	-1%	1,614	Tim Schuldt, CFA
PWO	Buy	36.00	26.80	34%	84	Tim Schuldt, CFA
Schaeffler	Buy	10.60	7.63	39%	5,080	Manuel Tanzer, CFA
SAF-Holland	Buy	14.20	12.58	13%	571	Tim Schuldt, CFA
Stabilus	Buy	80.00	60.65	32%	1,498	Manuel Tanzer, CFA

Source: Pareto Securities Research

Note, all prices in the report as of December 04, 2018 (closing)

## Exhibit 2: Coverage Overview 2

Name	PE (adj) 2018e	PE (adj) 2019e	Div. Yield 2018e	Div. Yield 2019e	P/B 2018e	P/B 2019e
<b>OEMS</b>						
BMW	6.9	7.0	5.5%	5.4%	0.81	0.78
Daimler AG	6.6	5.9	7.2%	8.3%	0.79	0.73
Volkswagen	5.5	5.1	3.6%	4.9%	0.62	0.57
<b>Average</b>	<b>6.3</b>	<b>6.0</b>	<b>5.5%</b>	<b>6.2%</b>	<b>0.74</b>	<b>0.69</b>
<b>Supplier</b>						
Continental	9.5	8.9	2.8%	3.0%	1.65	1.47
Elringklinger	11.5	7.1	6.6%	6.6%	0.55	0.53
Leoni	7.1	6.8	4.2%	4.1%	0.85	0.78
Hella GmbH & Co. KGaA	15.2	10.2	2.0%	4.8%	2.42	1.34
Norma Group	14.7	13.6	2.3%	2.5%	2.73	2.46
PWO	11.1	7.9	3.4%	4.7%	0.73	0.68
Schaeffler	5.5	5.1	6.6%	7.5%	1.72	1.40
SAF-Holland	9.5	7.3	3.8%	5.4%	1.74	1.52
Stabilus	16.4	12.8	1.4%	1.9%	4.12	3.07
<b>Average</b>	<b>11.1</b>	<b>8.9</b>	<b>3.7%</b>	<b>4.5%</b>	<b>1.83</b>	<b>1.47</b>

Source: Pareto Securities Research

### Global car market forecast – Expecting slow recovery in 2019

Our global car market forecast (Exhibit 3) is broadly based on the latest IHS figures and adjusted for our current market view. In general, car markets are sensitive to credit availability (a majority of car purchases needs to be financed), as well as disposable income. Notably, M2 money supply has proven to be a good leading indicator for car markets with a historic correlation of M2 and car market growth of some c.80%.

Despite a weak macro environment in H2'18, burdened by trade wars, a clamp down on the shadow banking system in China, and the new emission standard WLTP in Europe, we expect overall flat light vehicle production (LVP) for FY 2018e. We cautiously forecast a moderate increase in LVP in FY 2019e based on a backend loaded recovery in China (i.e. H1'19 will likely be down y/y with a strong H2'19) and gradually vanishing WLTP effects.

Limited credit availability and increasing cost of living in tier 3-6 cities in China as well as rising interest rates in the US argue for an overall weak market growth.

Notably, our forecasts do not take into account potential adverse effects from further US tariffs or a hard Brexit, nor do we include any market stimuli in China.

**Exhibit 3: Global car market forecast**

Country/ Region	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Europe	21,540.1	22,215.8	22,222.9	22,455.7	22,609.5	23,138.5	23,444.0	23,532.5	23,632.9	23,860.0
Greater China	27,368.9	28,012.9	27,277.5	27,413.9	29,141.0	30,507.7	31,565.0	32,313.1	33,018.2	33,698.6
Japan/Korea	12,914.1	13,263.7	13,149.2	13,132.4	12,693.7	12,505.5	12,638.7	12,727.3	12,659.0	12,748.6
Middle East/Africa	2,294.1	2,608.5	2,682.1	2,567.1	2,775.6	2,921.5	3,168.2	3,240.1	3,287.5	3,190.3
North America	17,836.7	17,064.2	17,017.2	17,017.2	16,830.7	17,422.5	17,613.5	17,743.9	17,659.6	17,785.6
South America	2,737.2	3,291.1	3,532.4	3,734.7	3,896.1	4,201.6	4,438.2	4,631.6	4,787.3	4,900.6
South Asia	8,428.8	8,698.7	9,227.7	9,691.9	10,183.5	10,993.5	11,638.4	12,255.4	13,237.6	13,972.8
Grand total	93,119.8	95,154.7	95,109.1	96,012.9	98,130.0	101,690.8	104,505.9	106,443.9	108,282.2	110,156.3

y/y										
Europe		3.1%	0.0%	1.0%	0.7%	2.3%	1.3%	0.4%	0.4%	1.0%
Greater China		2.4%	-2.6%	0.5%	6.3%	4.7%	3.5%	2.4%	2.2%	2.1%
Japan/Korea		2.7%	-0.9%	-0.1%	-3.3%	-1.5%	1.1%	0.7%	-0.5%	0.7%
Middle East/Africa		13.7%	2.8%	-4.3%	8.1%	5.3%	8.4%	2.3%	1.5%	-3.0%
North America		-4.3%	-0.3%	0.0%	-1.1%	3.5%	1.1%	0.7%	-0.5%	0.7%
South America		20.2%	7.3%	5.7%	4.3%	7.8%	5.6%	4.4%	3.4%	2.4%
South Asia		3.2%	6.1%	5.0%	5.1%	8.0%	5.9%	5.3%	8.0%	5.6%
Grand total		2.2%	0.0%	1.0%	2.2%	3.6%	2.8%	1.9%	1.7%	1.7%

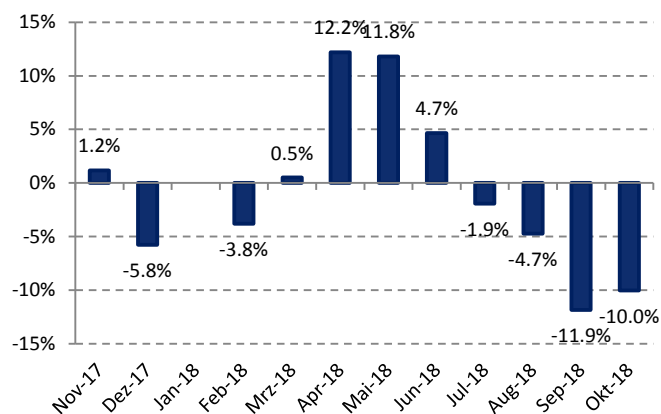
Source: Pareto Securities Research, IHS

In the following, we discuss our view on the three main car markets, China, Europe, and the US.

### China – Credit dry-up weighs on the market in 2018

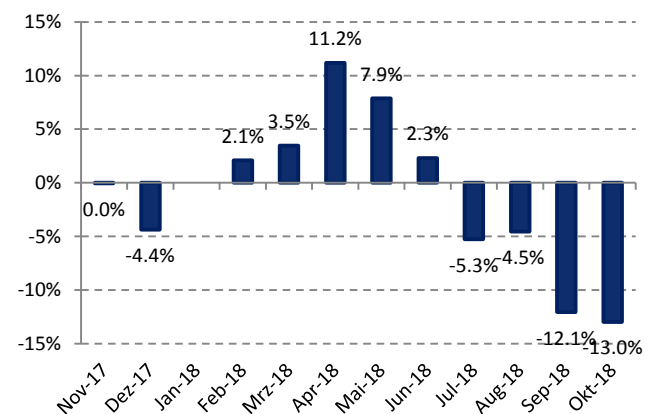
The Chinese passenger car market was off to a good start in 2018, showing a ytd sales increase of 4.7% y/y until end of June. In July, however, the market started to tumble (-5.3% y/y) and the downward trend accelerated further until October (-13.0% y/y). Expectations for Q4 remain sparse, with most of the suppliers in our coverage universe guiding for a double digit decline (PAS -10% y/y). For the full year 2018, we thus estimate a -2.6% y/y sales decline, which would mark the first weakening in China in the last 20 years.

Exhibit 4: Passenger car production China y/y



Source: Pareto Securities Research, CAAM

Exhibit 5: Passenger car sales China y/y

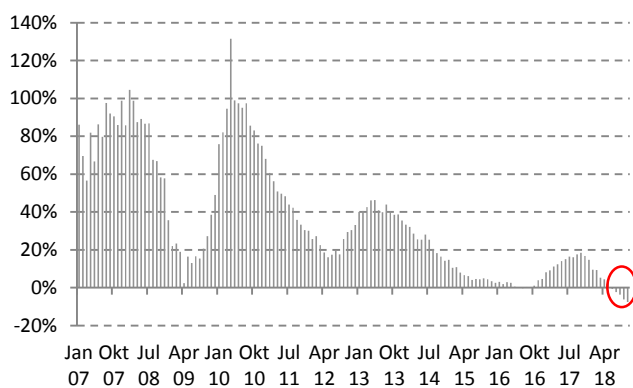


Source: Pareto Securities Research, CAAM

While for many analysts the most readily available explanation for the decline was US President Trump's trade war with China, which came into effect in July, we believe it fails to explain the continued solid growth momentum in the premium car market, while only the volume market collapsed.

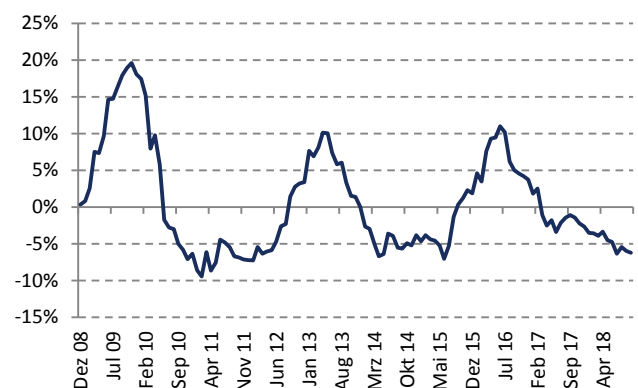
According to Bloomberg, another event coincided with the decline in the Chinese car market, namely the government's clampdown on the USD 10 trillion shadow banking system. June marked the start date for tighter supervision of P2P lending platforms (i.e. high interest loans provided by private persons via an online platform), one of the riskiest and least-regulated parts of the shadow banking system, accounting for c.USD 192bn in credit financing. As a result, the number of P2P lending platforms plummeted from more than 8,000 at the end of 2017 to 2,902 by the end of May, according to data from the People's Bank of China.<sup>1</sup> Market experts expect this trend to continue over the next 12 months until only c.200-300 platforms are left.

Exhibit 6: China shadow banking social financing y/y



Source: Pareto Securities Research, Bloomberg

Exhibit 7: China credit impulse y/y (new credit/GDP)



Source: Pareto Securities Research, Bloomberg

As P2P borrowers are mostly people with weak credit scores, P2P lending is frequently their only source to get credit. According to a J.D. Power survey amongst 9,000 Chinese, 40% said without access to credit they would have to delay their purchase decision. Based on data from wdjz.com (a platform tracking P2P lending in China) June'18 alone saw a decline in loan volume from P2P platforms of 29% y/y to USD 2.4bn. As a consequence, the drain of the shadow banking systems directly translated into lower car demand, explaining

<sup>1</sup> Notably, data on the matter is imprecise and differs greatly depending on the source.

the slump in car sales. Overall, we estimate that P2P platforms contributed some c.9% to new vehicle sales.

#### Exhibit 8: Estimated contribution of P2P lending to new car sales in China

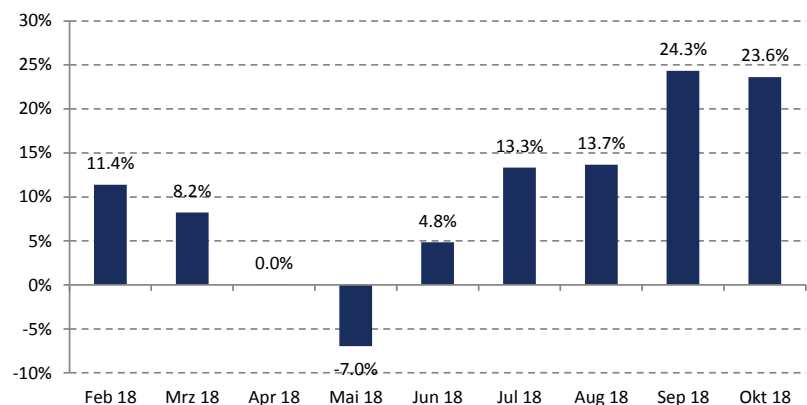
Description	Unit	2017	Comment
# of passenger cars sold in China	kunits	24,718	Passenger car sales
Avg. transaction volume	USD	21,750	Estimated based on Bloomberg data and US/EU market
Total passenger car market volume	USDm	537,617	
% financed	%	40%	Based on J.D. Power survey and Bloomberg data
Total financed volume	USDm	215,047	
Estimated annual P2P lending volume	USDm	40,000	Estimated based on figures from wdzj.com
% used for car financing	%	50%	Estimated
Contribution of P2P lending to new car sales	%	9.3%	

Source: Pareto Securities Research,  
Bloomberg, CAAM, J.D. Power

Note: car financing rate estimated; 25% usage for cars would result in a c.5% contribution

At the same time the P2P breakdown gives a compelling explanation why growth of the European premium OEMs such as BMW or Mercedes is relatively unscathed, as customers who can afford a luxury vehicle usually have access to proper financing sources or do not need financing at all.

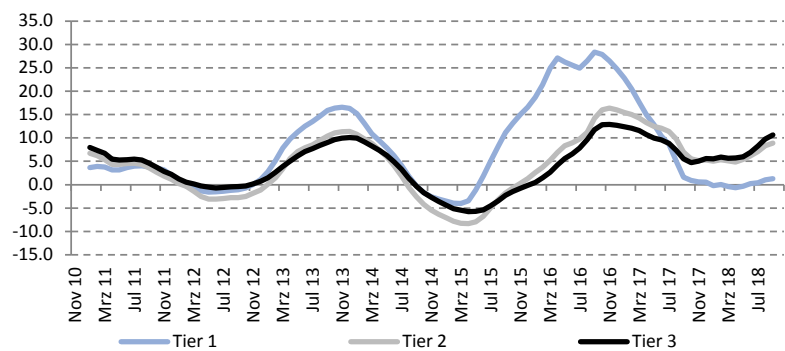
#### Exhibit 9: Market outperformance of German premium OEMs in China



Source: Pareto Securities Research,  
BMW, Daimler, CAAM

Combined sales growth (BMW, DAI) less market performance

Aside from the P2P breakdown, increasing housing prices in tier 3-6 cities are an issue. Tier 3-6 cities have been the main source of car market growth in China in recent years. However, while the housing market in tier 1-2 cities is mostly regulated, house prices in lower tier cities become an increasing burden for consumers, limiting disposable income and thus car demand.

**Exhibit 10: Development of newly built houses across city tier (y/y)**

Source: Pareto Securities Research, Factset

In October 2015, after 3 months of declining car sales, the Chinese government initiated a tax incentive program. While press reports, citing insiders of the National Development and Reform Commission (NDRC), about a return of the same incentive program came up in September 2018, news flow on the topic became sparse. The current circumstances also explain why the Chinese government has not initiated countermeasures yet to support the struggling car market. Consumers are not unwilling to buy, but rather lack the needed financing.

As a consequence, we would expect the market to remain weak over the next months. However, given that the P2P lending volume has already been drastically reduced, we would not expect a significant further weakening of the car market. We remain constructive on H2'19, as growth should return on a like for like basis (weak comparison base). Overall, we forecast 0.5% growth y/y. Any government actions that help to spur growth should support sales at an earlier stage, though we have not baked this into our forecast.

With respect to the current trade war between the US and China, we currently see only a limited volume impact, as prices remained mostly stable in China, with the OEMs mostly taking the tariff burden. This, in turn, has led to a significantly lower profitability for OEMs producing in the US and selling in China (e.g. BMW X-series, Daimler GLE/GLS). According to BMW and Daimler, the full year burden for each of them should amount to c.EUR 600m if the Chinese retaliation tariffs remain in place.

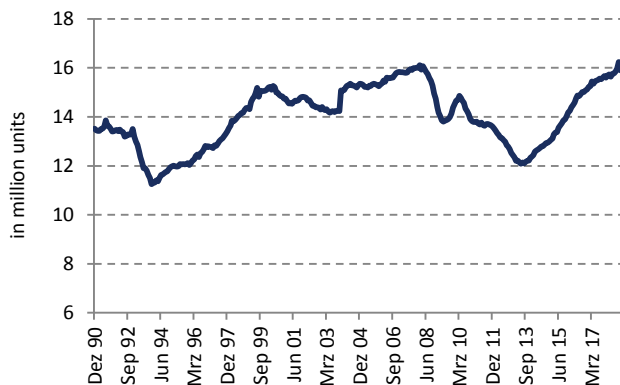
The long term outlook for the Chinese car market remains positive as overall car saturation in the country is still comparably low with c.150 cars per 1,000 inhabitants vs. on avg. >600 in western countries. Medium-term, China should remain the growth engine for global car sales over the next years accounting for c.40% of global growth on avg. over the next 7 years based on our estimates.

### Europe – WLTP burdens 2018, but potential tailwind for 2019

Growth in the European market was mostly driven by a catch up of southern European countries, while the main car nations UK, France and Germany have reached their pre-crisis level already. As car sales have been significantly below the normal level after the financial crisis, for several years, the European car parc has aged significantly. As a consequence, demand in Europe should still grow due to necessary replacements of old vehicles. Overall, the average car age in Europe has increased to 10.5 years, with a considerable age gap between the economically stronger countries (UK 7.9 years and Germany 9.3 years) and economically weaker countries like Italy (10.8 years), Spain (11.9 years), or Greece (15.0 years).

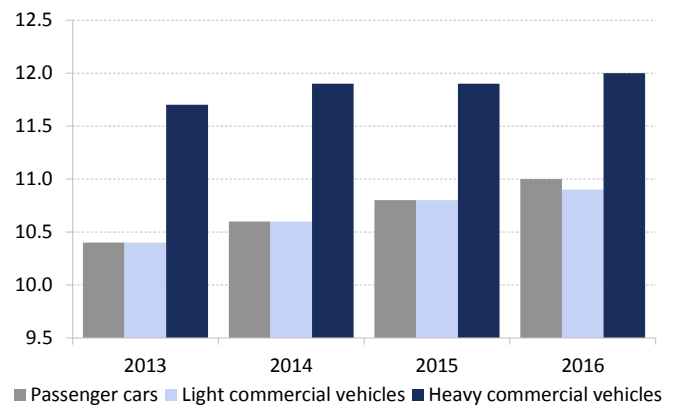
Notably, the southern European car markets are still below their pre-crisis level, i.e. still offer considerable growth potential.

**Exhibit 11: EU new car registrations (TTM)**



Source: Pareto Securities Research, ACEA

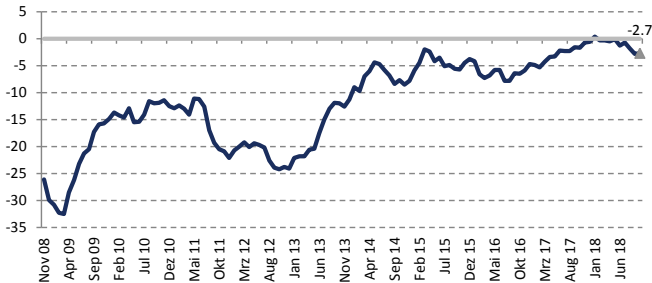
**Exhibit 12: Average age of car parc – EU 27**



Source: Pareto Securities Research, ACEA

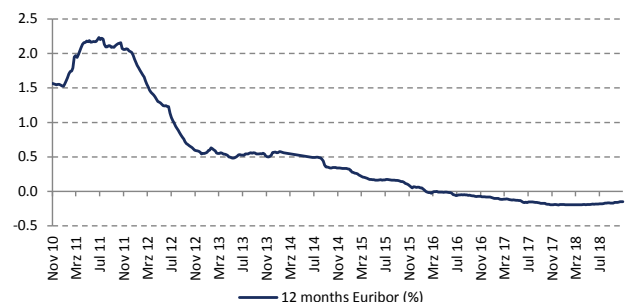
Macro-economic data also remains supportive. Consumer confidence in Europe continues to be healthy, while short term interest rates are still at a very low level. Assuming a continuing economic recovery we would thus expect a continuation of the growth trajectory for some more years – even though the annual sales level has reached a pre-crisis level in Europe.

**Exhibit 13: EU consumer confidence**



Source: Pareto Securities Research, Factset

**Exhibit 14: Euro zone: short term interest rates**



Source: Pareto Securities Research, Factset

In 2018, light vehicle production growth in the European market was characterized by a strong first half and a slump in the second half. The development can be explained by the introduction of the new emission regulation standard WLTP, which came into effect on September 1<sup>st</sup>. According to the regulation, cars that were produced before September 1<sup>st</sup> did not need a WLTP homologation in order to be compliant. Cars produced after September first, however, need a WLTP homologation for every available derivative. As a consequence, OEMs which foresaw that they could not reach WLTP compliance pre-produced cars until August and entered short-time work/ production shut-downs in September. Especially the largest car manufacturer VW could not get its entire fleet ready by September and hence had to considerably cut back on production. Until end of August, passenger car registrations were up by 6.4% compared to the prior year, however, in September registrations tanked by 23.5% and October saw another c.7% y/y decline according to ACEA data. While WLTP was initially expected to only burden Q3/Q4'18, the effects are now expected to drag into H1'19.

Though the situation should gradually improve with more and more models reaching compliance, especially the VW daughter Audi seems to still have ways

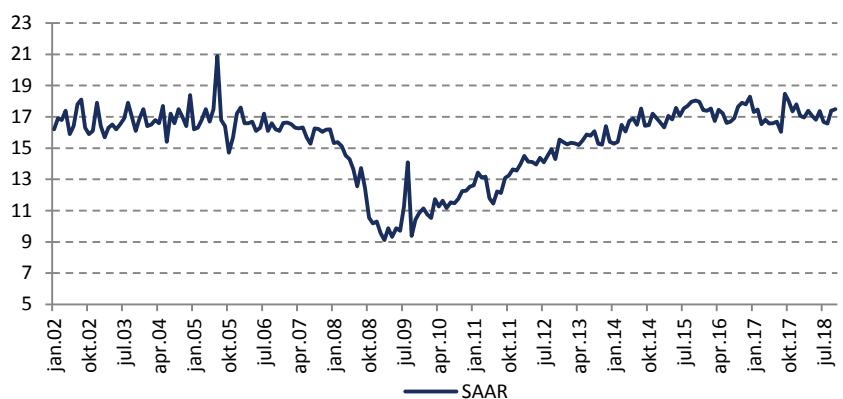
to go as a check of currently available models on Audi's website reveals. WLTP also had an adverse effect on OEMs that were "WLTP ready" since September 1<sup>st</sup>. BMW, for example, suffered from the more competitive price environment as competitors Daimler and Volkswagen, had to unload their pre-produced non WLTP compliant models at a steep discount. As BMW refused to match the lower prices of competitors with its compliant fleet, unit sales declined.

Overall, we expect a flat light vehicle production for 2018, implying a further y/y decline of production in November and December. For 2019, we expect 1% growth in LVP y/y, driven by fading WLTP headwinds (strong H1 comp base but weak H2) and potential catch-up effects from OEMs like Daimler and Audi. Major risks to our forecast include a hard Brexit, import tariffs to the US, and a sovereign debt crisis in Italy, all of which would severely cut into European production.

### USA – stagnating on a high level

After the financial crisis in 2008/2009, the light vehicle market in the US showed strong growth for several years until it reached the pre-crisis level of around 17m units in 2015.

**Exhibit 15: US Light Vehicle Sales (SAAR) – in million vehicles**



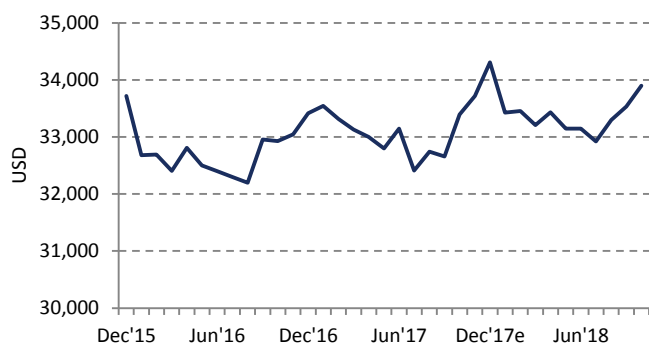
Source: Bloomberg, Pareto Securities Research

Since then, the market has hovered around the same level of roughly 17m units, which is in our view also a normal level for the mature US market.

Overall, the market situation appears to be relatively healthy over the last 2 years, with average transaction prices continuing to rise, while incentive spending as a percentage of the average transaction prices is relatively stable.

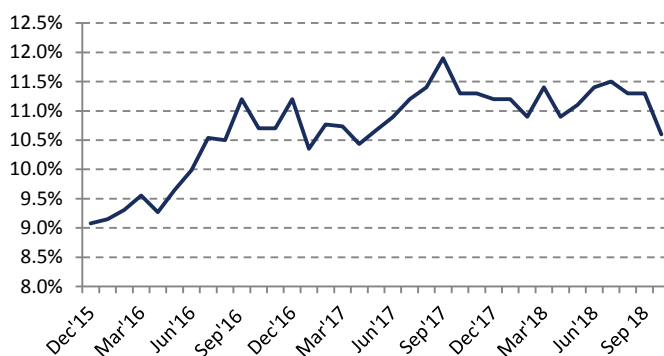


Exhibit 16: Average light vehicle transaction price



Source: ALG, Pareto Securities Research

Exhibit 17: Incentive spending as a % of transaction price

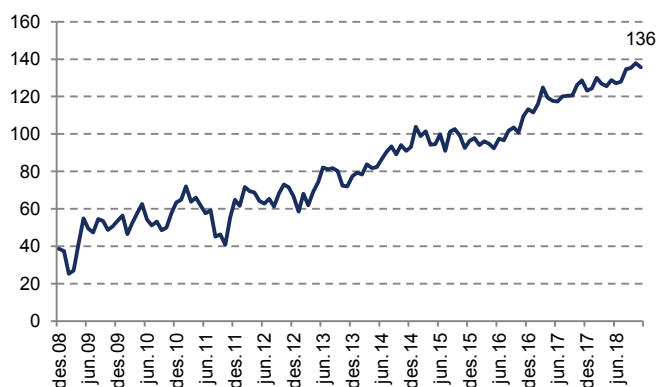


Source: ALG, Pareto Securities Research

We thus expect the OEMs to have room to defend the current sales level, even in case we should see a slight deterioration of the economic environment, which is in our view a realistic scenario.

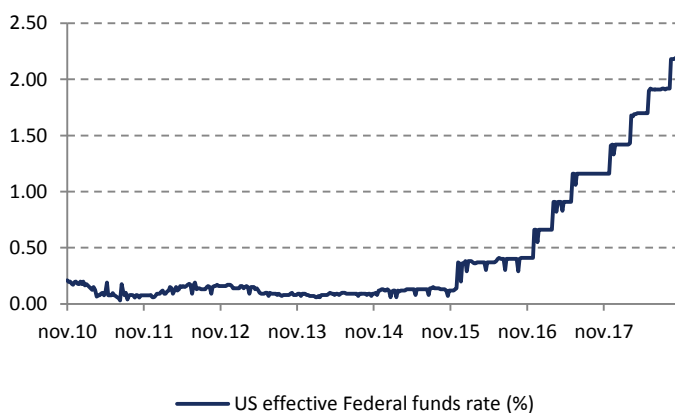
While Consumer confidence in the US remains high, we see the strong increase in short term interest rates as a burdening factor. Considering that the 90+% majority of all vehicle purchases in the US are financed or leased, a 200bp increase in financing rates is equivalent to a 6-8% price increase for a consumer that finances the car over a 3-5 year period.

Exhibit 18: Consumer confidence



Source: Pareto Securities Research

Exhibit 19: Short term interest rates



Source: Pareto Securities Research, Factset

Looking only at the leasing rate - which a lot of the US consumers do as they consider only what they can afford per month – the impact is even higher. On average, a 50bp increase in interest rates results in a 3% increase of the annual leasing rate, according to our calculations.

**Exhibit 20: Effect of interest rate on leasing rates**

Assumptions	
Vehicle Selling Price:	32,000
Leasing period:	3 years
Residual value:	60%

Interest Rate	Necessary leasing rate p.a.	Delta to 0.5%
0.5%	4,405	0%
1.0%	4,544	3%
1.5%	4,683	6%
2.0%	4,822	9%
2.5%	4,962	13%

*Source: Pareto Securities Research*

Overall, we thus expect a stable market development for North America in 2019, with light vehicle production of roughly 17.0m units.

## Sector valuation – Re-rating would be justified

There is no need to sugar coat the situation of the auto sector, cyclical concerns of peaking earnings, a structurally difficult transition towards e-mobility and autonomous driving, and rising macro fears including a hard Brexit, trade wars, rising interest rates in the US on the short end, and a potential sovereign debt crisis in Italy give plenty of reason to short the sector.

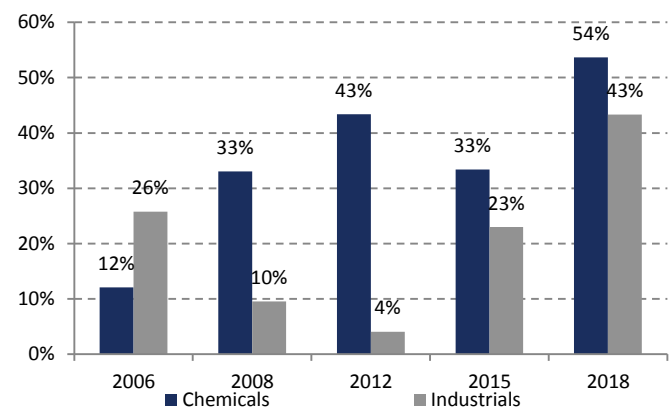
However, except for the technological change, all above arguments are valid for every cyclical sector and hence do not explain the high discount of the auto sector vs. the overall market (46%) but more importantly relative to other cyclical industries like industrials (43%) and chemicals (54%). If we were to adjust the SXAP for supplier multiples, the discount would be even more pronounced for OEMs on a standalone basis.

**Exhibit 21: SXAP/SXXP relative PE valuation**



Source: Pareto Securities Research, Factset

**Exhibit 22: SXAP/SX4P & SXNP valuation discount (PE FY1)**



Source: Pareto Securities Research, Factset

When looking at the earnings development of the auto sector in recent years vs. the overall market, however, one is presented with an entirely different picture (Exhibit 25). In fact when using January 2006 as the base, earnings per share in the SXAP increased by c.215%, while SXXP earnings per share only improved by 12% over the same time frame. Notably, 2006 was not a trough year in the auto cycle, i.e. the growth was not achieved relative to depressed earnings. In addition, one has to see the strong performance in the context of a market collapse in Russia and Brazil (2012/13), the Euro crisis with weak volumes in Europe in 2011 and 2012, a Diesel crisis, as well as weakness in the Chinese car market in 2015.

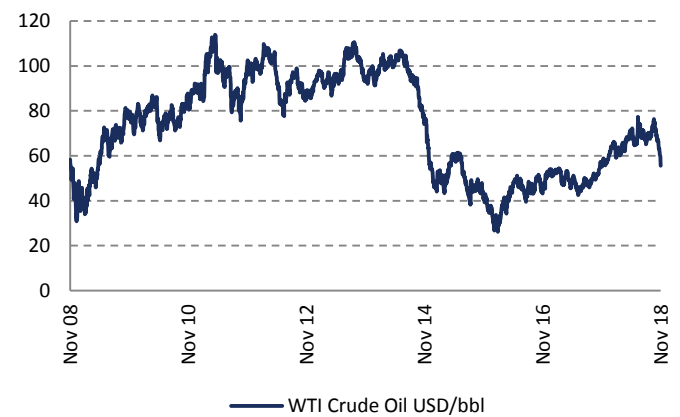
Earnings were mainly driven by strong growth in the high margin Chinese market, demand for larger cars (SUVs) and increasing content, and tailwind from declining raw material prices (Exhibit 23 & Exhibit 24) as well as favourable FX developments (OEMs).

Exhibit 23: Iron ore price development (USD/mt)



Source: Pareto Securities Research, Factset

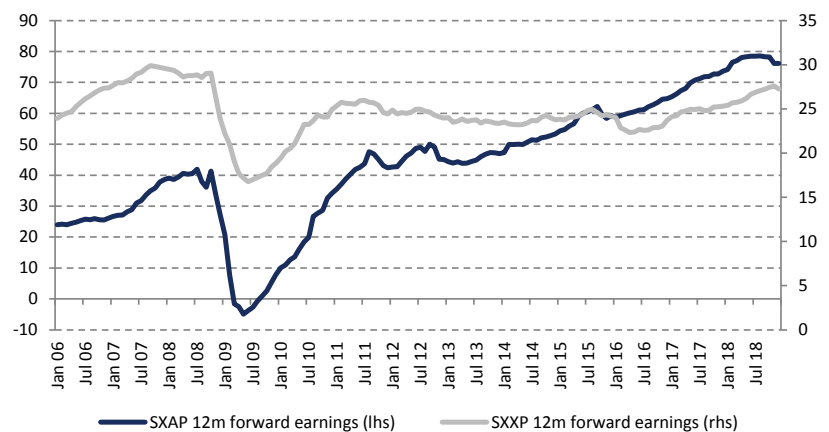
Exhibit 24: WTI (USD/bbl) price development



Source: Pareto Securities Research, Factset

Though we acknowledge that dependency on China reached a high level in the sector, structurally the market still offers significant potential with low car saturation rates. Furthermore, other cyclical industries like industrials would be hit just as hard from a Chinese downturn.

Exhibit 25: NTM earnings development SXAP &amp; SXXP



Source: Pareto Securities Research, Factset

Aside from the strong earnings growth, most OEMs and suppliers have healthier balance sheets than ever before. While the above would argue for a strong re-rating of the auto sector, the valuation gap reached a new post financial crisis low.

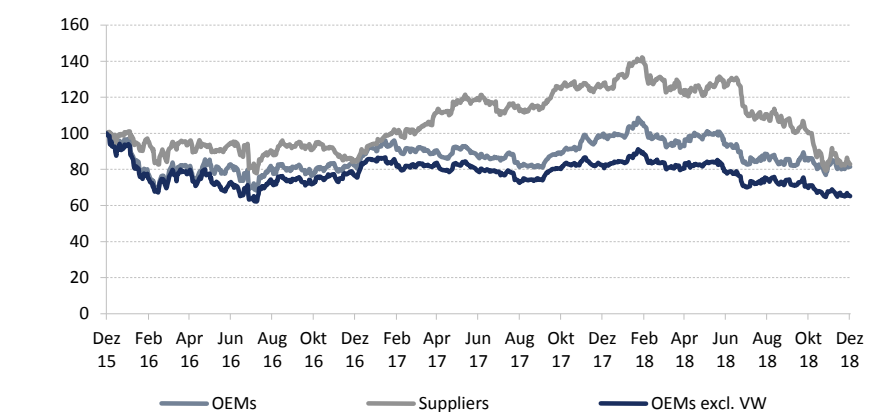
As a consequence, the only valid reason for the high valuation discount seems to be the technological challenge (e-mobility/ autonomous driving), which should even benefit some of the suppliers. While e-mobility is a burden for OEMs, we believe it is a very manageable challenge. Based on the above findings, we would argue that the high valuation discount is unwarranted for the sector, i.e. believe a re-rating would be due. However, with current disruptions and highly negative sentiment, we do not think that investors will buy into the sector in anticipation of a re-rating. Consequently, we focus on a relative stock picking approach.

## OEMs vs suppliers – We currently prefer OEMs

Until early 2018, investors clearly favoured suppliers over OEMs in the automotive sector. This preference was mainly related to the mid- to long-term structural challenges the sector is facing: e-mobility and autonomous driving. While both future mobility trends are considered a profitability risk for OEMs, the picture for suppliers is more heterogeneous with even some beneficiaries. Other risks such as an on-going anti-trust investigations or fines for the Diesel scandal also affected mainly the OEMs.

This preference for suppliers has led to a significant outperformance of supplier shares vs. OEM stocks, especially after VW's Diesel scandal became public in 2016 and had a contagious effect on the other OEMs.

### Exhibit 26: Performance of OEMs vs Suppliers



Source: Factset, Pareto Securities Research

Equal weighted sample of 3 German OEMs and 6 German suppliers

However, the positive share price development of suppliers was mainly driven by a multiple expansion rather than relatively better fundamentals vs. OEMs. Since early 2018 the picture has changed and suppliers have clearly underperformed relative to OEMs. However, the average supplier forward PE ratio has merely returned to the level of late 2015. Meanwhile, OEM multiples have also contracted, especially when adjusting for Volkswagen, whose multiple expansion from the depressed levels of 2015 (Diesel scandal) somewhat distorts that picture.

### Exhibit 27: PE FY1 – OEMs vs Suppliers



Source: Factset, Pareto Securities Research

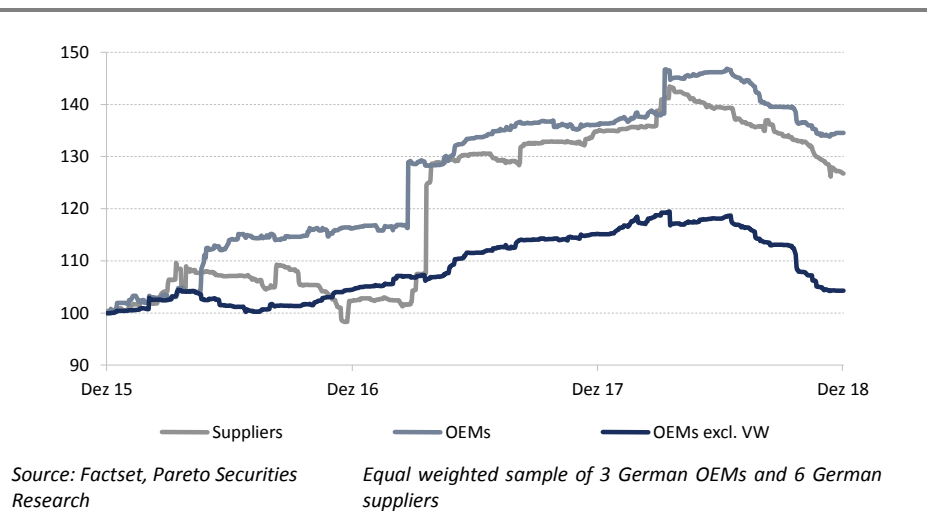
Equal weighted sample of 3 German OEMs and 6 German suppliers

While we consider our supplier coverage a great space for stock picking, we would expect the underperformance relative to OEMs to continue over the next 12 months for two main reasons:

- 1) While our supplier universe was valued at a similar PE as BMW and Daimler in 2015, they are still trading at a c.50% premium (FY 2019e) despite the recent contraction. We would thus argue that there is still room for normalization.
- 2) While EPS estimates have developed more positively for the suppliers than for BMW and Daimler (we are ignoring Volkswagen again due to the Diesel issue), the most recent earnings revision came with deeper cuts in supplier earnings forecasts relative to OEM earnings estimates. In our view, this is mainly related to the recent weakness in China, which has a stronger impact on the suppliers than the OEMs, according to our estimates.

As mentioned above, the weakness in China is, in our view, mainly related to a lack of financing for consumers with weak credit scores. The premium OEMs are thus hardly affected by the situation. Additionally, while the OEMs typically have the Chinese business consolidated at-equity, the suppliers usually own majority stakes in their Chinese subsidiaries. The impact on the net result is thus on average higher than for the OEMs.

#### Exhibit 28: EPS FY1 development – OEMs vs Suppliers



As a consequence, since early 2018, consensus expectations have come down disproportionately for the suppliers. Though we still expect the compound adjusted EBIT of our supplier peer group to increase by 7.9% y/y, the delta to the OEMs (7.6% y/y) is in our view too small to justify the current 50% valuation premium, or better yet the significant discount of OEMs relative to suppliers.

## Exhibit 29: Earnings momentum – OEMs vs Suppliers

Name	EBIT (adj) 2017	EBIT (adj) 2018e	EBIT (adj) 2019e	EBIT (adj) 2020e	CAGR 2017-20e	Chg. 2018e - 2019e
<b>OEMS</b>						
BMW	9,899	8,843	9,162	10,234	1.1%	3.6%
Daimler AG	14,283	12,188	13,611	14,210	-0.2%	11.7%
Volkswagen	17,040	17,363	18,543	19,002	3.7%	6.8%
<b>Total</b>	<b>41,222</b>	<b>38,395</b>	<b>41,316</b>	<b>43,446</b>	<b>1.8%</b>	<b>7.6%</b>
<b>Suppliers</b>						
Continental	4,576	4,055	4,413	5,144	4.0%	8.8%
Elringklinger	142	88	124	141	-0.3%	40.8%
Leoni	207	206	211	275	10.0%	2.3%
Hella GmbH & Co. KGaA*	550	581	572	610	3.5%	-1.6%
Norma Group	166	168	182	194	5.4%	8.0%
PWO	23	18	21	24	1.0%	14.0%
Schaeffler	1,584	1,436	1,546	1,726	2.9%	7.6%
Stabilus	138	149	162	169	7.2%	8.1%
<b>Total</b>	<b>7,385</b>	<b>6,701</b>	<b>7,229</b>	<b>8,283</b>	<b>3.9%</b>	<b>7.9%</b>

Source: Pareto Securities Research

Comparing our own estimates to consensus expectations, we also see slightly more downside for the suppliers than for OEMs.

Hence, we prefer the OEMs over the suppliers for the next 12 months. Longer-term, however, the argument in favour of the suppliers (beneficiaries of future mobility trends) remains intact and we do not think that OEMs will be able to entirely close the valuation gap.

## Exhibit 30: Pareto vs Consensus estimates

Name	EBIT (adj) 2018e Consensus	EBIT (adj) 2018e Pareto Sec est.	Delta	EBIT (adj) 2019e Consensus	EBIT (adj) 2019e Pareto Sec est.	Chg. 2018e - 2019e
<b>OEMS</b>						
BMW	8,948	8,843	-1.2%	9,285	9,162	-1.3%
Daimler AG	12,656	12,188	-3.7%	13,551	13,611	0.4%
Volkswagen	16,837	17,363	3.1%	19,006	18,543	-2.4%
<b>Total</b>	<b>38,441</b>	<b>38,395</b>	<b>-0.1%</b>	<b>41,842</b>	<b>41,316</b>	<b>-1.3%</b>
<b>Suppliers</b>						
Continental	4,101	4,055	-1.1%	4,478	4,413	-1.5%
Elringklinger	107	88	-17.9%	119	124	4.5%
Leoni	194	206	5.9%	206	211	2.2%
Hella GmbH & Co. KGaA*	581	581	0.0%	573	572	-0.3%
Norma Group	168	168	0.1%	184	182	-1.2%
Schaeffler	1,479	1,436	-3.0%	1,595	1,546	-3.1%
Stabilus	149	149	0.2%	160	162	1.3%
<b>Total</b>	<b>6,780</b>	<b>6,683</b>	<b>-1.4%</b>	<b>7,315</b>	<b>7,208</b>	<b>-1.5%</b>

Source: Pareto Securities Research

\*Hella 2018e refers to fiscal year 17/18 ending May 2018 (already reported)

### Implications of US tariffs for German OEMs

2018 has been a difficult year for the automotive sector thus far with the SXAP losing c.22% ytd. One key reason is the evolving trade war initiated by US President Trump, which comes on top of the structurally already challenging topics e-mobility and autonomous driving. Tariffs on steel and aluminium as well as Chinese goods in an amount of >USD 50bn have resulted in retaliation taxes from the EU, Mexico, Canada, and China. While designed to hit the US economy, the biggest losers of the Chinese tariffs are likely BMW and Daimler, as both are significant exporters of cars from the US to China. According to BMW and Daimler, the full year burden for each of them should amount to c.EUR 600m p.a. if the Chinese retaliation tariffs remain in place. Volkswagen, in turn, does not export from the US to China and is hence not impacted. The aforementioned figures are incorporated in our model and likely in consensus estimates. Consequently a reduction in the tariffs would act as a considerable catalyst for BMW and Daimler.

However, further clouds are on the horizon, as US president Donald Trump repeatedly threatened to introduce tariffs on car imports from Europe/ the world ex. Nafta. Based on an export volume of USD 43bn from the EU 27 (c.USD 20bn from Germany) to the US in 2017 and an incremental tax burden of 22.5% (assuming the final tariff would stand at 25%), we calculate a headwind for the car sector of roughly USD 9.6bn (c.USD 4.5bn for Germany).

**Exhibit 31: Car import value to the US by region**

Exporting region	2014	2015	2016	2017	CAGR
World	166,819	179,808	186,359	191,731	5%
NAFTA	77,621	79,877	85,630	89,429	5%
EU 27	38,992	44,742	42,067	42,810	3%
Germany	25,630	26,065	21,581	20,180	-8%
Italy	1,988	3,824	3,861	4,769	34%
France	245	238	170	179	-10%
Japan	14,573	17,276	16,068	15,732	3%
Mexico	34,766	37,942	40,822	46,919	11%
Canada	42,855	41,935	44,808	42,510	0%

Source: Pareto Securities Research, Department of Commerce

**Exhibit 32: Avg. value per imported car to the US by region**

Exporting region	2014	2015	2016	2017	CAGR
World	22,548	22,467	22,858	23,181	1%
NAFTA	19,804	19,781	20,572	20,940	2%
EU 27	39,854	37,558	36,940	36,908	-3%
Germany	41,576	41,582	39,678	41,051	0%
Italy	94,126	29,058	29,665	30,389	-31%
France	14,198	13,000	12,648	21,225	14%
Japan	9,532	10,760	9,412	9,116	-1%
Mexico	18,343	18,177	18,756	19,192	2%
Canada	21,172	21,497	22,562	23,280	3%

Source: Pareto Securities Research, Department of Commerce

In order to assess the impact on our OEM coverage, we look at the import rates into the US ex. NAFTA. Due to its specialized approach, producing SUVs for the global market exclusively in the US, BMW has the highest share of imports (ex. NAFTA) into the US with c.71%. Daimler follows with roughly 57% and VW imports about 45% from outside the NAFTA region. Notably, our numbers already take into account production shifts and new plant ramp-ups in Mexico (i.e. 3 series BMW in San Luis Potosi, Daimler compact class production in Aguascalientes). Porsche does not produce in North America and would be hit hardest by potential tariffs.



## Exhibit 33: US production overview of German OEMs

OEM	US capacity (units)	Location	Models	US sales 2017	US production 2017	Exports	Imports	Import rate	Imports ex. NAFTA	Import rate ex. NAFTA	Comments
BMW	450,000	Spartanburg	X3, X4, X5, X6	352,790	371,316	272,346	249,306	71%	249,306	71%	X3 production for China shifted to China (c.35,000 units); 3 Series production in San Luis Potosi, Mexico from 2019 could reduce ex. NAFTA imports to US by c.60k units. Two more models will be ramped up in Mexico to fill entire plant capacity of 150k units. Expansion of Spartanburg and engine plant planned for US.
DAI	350,000	Tuscaloosa	GLE, GLS, GLE Coupe, C-Class	375,311	286,000	125,000	214,311	57%	214,311	57%	Compact class (A/B/GLA etc) produced in Aguascalientes Mexico SOP 2018 (PAS 25k units GLA). US sales incl. Vans (c.35k units) and Smart (c.3k units)
VW Group				625,100	140,417	0	484,683	78%	281,000	45%	C.203,000 cars imported from Mexico
t/o VW	250,000	Chattanooga	VW Passat NMS VW Atlas	343,169	140,417	0	202,752	59%	56,709	17%	Chattanooga underutilized after USD 900m expansion in 2016
t/o Audi				226,511	0	0	226,511	100%	168,871	75%	Q5 produced in Mexico for global market (c.58k for the US Market)
t/o Porsche				55,420	0	0	55,420	100%	55,420	100%	Porsche exclusively imported from Europe

Source: Pareto Securities Research, company accounts

**BMW** operates its largest production facility in Spartanburg, South Carolina with a nominal capacity of some 450k units (production in 2017 was c.370k units). As it solely produces SUVs (X series) for the global market, c.73% of the production or ~270k units have been exported (t/o c.100k units to China). Only about 100k units have been produced and sold locally (i.e. in the US), with the remaining c.250k units imported. We estimate that the majority of imports came from Europe (c.59%), with the remainder from South Africa and Brazil. Notably, we estimate that European imports are set to decrease by some 30k units with the start of production for the 3 Series in San Luis Potosi, Mexico in 2019. The other c.30k 3 Series units sold in the US come from South Africa, but if need be, we expect that BMW would shift the entire production (for the US market) for the 3 series to Mexico. In our numbers we consequently adjusted for 60k units. As San Luis Potosi has a nominal capacity of some 150k units, BMW already announced to have two more models produced in Mexico, which would decrease the burden further.

Based on the above figures, and an average price per imported vehicle of c.USD 40,000, we calculate a total import volume from Europe to the US of c.USD 7.2bn for BMW. Notably, the assumed USD 40,000 per car are slightly below the avg. import value per car from Germany (USD 41,000 according to data from the Department of Commerce), as lower priced Minis are exported from the UK. Assuming a tariff increase from currently 2.5% to 25%, i.e. +22.5%, we calculate a gross EBIT impact of c.USD 1.7bn or c.USD 3,972 per BMW sold in the US in 2019. Longer-term, if San Luis Potosi is fully loaded, another 90k units can be produced in NAFTA, which would reduce the tariff burden further to c.2,500 USD per car sold in the US.

We note that a further planned expansion of the Spartanburg plant, as well as a potential change in the production strategy (i.e. more focus on local demand vs. SUV production for global market) would further reduce the burden for BMW in the future.

## Exhibit 34: BMW US tariff calculation

BMW	Unit	Figure	Comment
Total units sold US	Units	352,790	Based on 2017, incl. Mini (c.47k units)
Produced and sold in the US	Units	103,484	Production less reported export
Units imported to US	Units	249,306	
Adj. for 3 Series	Units	60,000	SOP in Mexico expected 2019; also assuming import stop from South Africa
Assumed price base for tariff	USD	40,000	Avg. for German exports to the US based on DoC
Estimated total import value (FY 2019)	USDm	7,572	After adjusting for 3 Series imports
Incremental tariff at 22.5%	USDm	1,704	Based on 22.5% incremental tariff; gross impact
Tariff per car sold in the US	USD	4,829	Adjusted for 3 Series
Adj. for full loading of San Luis Potosi	Units	90,000	90k units idle capacity for two more car models
Estimated total import value fully adjusted	USDm	3,972	Adjusting for full loading of San Luis Potosi (150k units)
Incremental tariff at 22.5%	USDm	894	Based on 22.5% incremental tariff; gross impact
Tariff per car sold in the US	USD	2,533	Fully adjusted for San Luis Potosi

Source: Pareto Securities Research, BMW, Department of Commerce

**Daimler** operates its second largest production plant in Tuscaloosa with a capacity of c.300,000 vehicles (c.286k units produced in 2017). The focus of production is SUVs (GLE, GLS), but also the C-Class is produced locally. We estimate that some 125,000 SUVs are exported (t/o c.55k units to China), which leaves c.160k units that are produced and sold locally. The c.215,000 remaining cars (incl. Smart and Vans) are imported. We assume that 20% of all Vans are imported from Europe (rest from Argentina or locally assembled) and c.90% of all cars, resulting in an overall 50% import rate from Europe. Adjusting for the production of compact cars in Mexico that started 2018 in Aguascalientes, we deduct a total of 25k GLAs from the European import volume to assess the tariff costs. Notably, Daimler's Mexican plant is a joint venture with Nissan and a nominal capacity of c.230k units. As each partners invested 50% in the plant, Daimler should have an additional c.90k units production capacity in Mexico ready for use.

We assume an avg. price per imported vehicle of USD 42,500, i.e. a USD 2,500 premium over BMW (avg. selling price for cars commands a USD 7,000 premium according to ALG). Based on our figures, we calculate an import volume of c.USD 8.0bn and a tariff (at 25% total) of USD 4,823 per Mercedes (incl. Vans) sold in the US. Fully adjusting for the estimated 90k units available capacity in Aguascalientes, we calculate a tariff per car of USD 2,530.

## Exhibit 35: Daimler US tariff calculation

Daimler	Unit	Figure	Comment
Total units sold US	Units	375,311	Based on 2017, incl. Vans and Smart
Produced and sold in the US	Units	161,000	# of sales of locally produced models
Units imported to US	Units	214,311	
Adj. for compact class	Units	25,000	SOP in Mexico 2018; Assuming 25k units GLA
Assumed price base for tariff	USD	42,500	Assumed USD 2,500 premium over BMW
Estimated total import value (FY 2019)	USDbn	8,046	
Incremental tariff at 22.5%	USDbn	1,810	Based on 22.5% incremental tariff; gross impact
Tariff per car sold in the US	USD	4,823	
Adj. for full loading of Aguascalientes	Units	90,000	Estimated 90k units idle capacity based on nominal capacity of 230k for the plant
Estimated total import value fully adjusted	USDm	4,221	Adjusting for full loading of Aguascalientes (15k units for Daimler)
Incremental tariff at 22.5%	USDm	950	Based on 22.5% incremental tariff; gross impact
Tariff per car sold in the US	USD	2,530	Fully adjusted for Aguascalientes

Source: Pareto Securities Research, Daimler, ALG, Department of Commerce

**VW Group** is the largest importer of cars to the US among the three German OEMs. Out of the three analysed brands, Audi, Porsche, and VW, only VW operates a production facility in Chattanooga, Tennessee. The plant capacity is estimated at 250,000 units, but is currently underutilized with a production of only c.140k units in 2017. VW builds only the Passat and the Atlas locally, however, imports some c.200k cars from Mexico (incl. Audi). We estimate that c.56k VW brand cars are imported from outside NAFTA, while Audi imports c.170k units and Porsche c.55k cars (i.e. 100%). VW does not export cars from the US to our knowledge.

For the calculation of the potential tariff headwind, we again analyse all three core brands separately. With regard to VW brand, we assume an avg. price per imported vehicle of USD 15,000. For Audi, we apply the same metrics as for BMW (USD 40k), while we estimate an avg. import value of USD 55,000 for Porsche. Based on our assumed import volumes and prices, we calculate a total import value of USD 10.4bn for the VW Group. At a 22.5% incremental tariff, we calculate a headwind of c.USD 2.4bn or USD 3,751 per car.

## Exhibit 36: VW US tariff calculation

VW Group	Unit	Figure	Comment
Total units sold US	Units	625,100	Based on 2017; c.227k units from Audi and 55.4k units Porsche
Produced and sold in the US	Units	140,417	Production less export
Units imported to US	Units	484,683	C.227k units from Audi and 55.4k units from Porsche
Adj. for production in Mexico	Units	203,000	c.58k Audi Q5 and 145k units VW
Assumed price base for tariff	USD	37,000	USD 15k for VW, USD 40k for Audi, and USD 55k for Porsche
Estimated total import value (FY 2019)	USD	10,422,271,000	
Incremental tariff at 22.5%	USD	2,345,010,975	Based on 22.5% incremental tariff; Gross impact
Tariff per car sold in the US	USD	3,751	

Source: Pareto Securities Research, Daimler, ALG, Department of Commerce

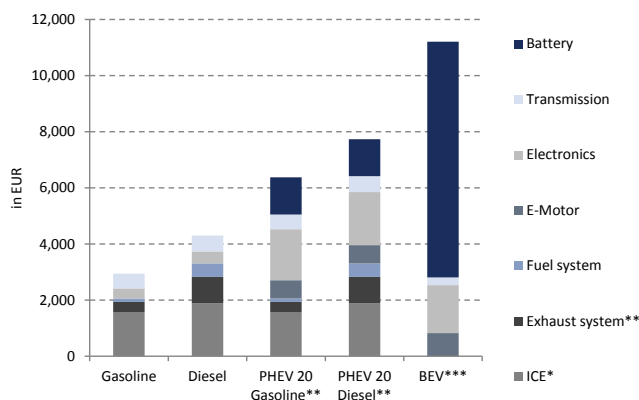
## E-Mobility – A challenge but not a game changer

Compared to most innovations in consumer electronics like flat screen TVs (higher screen resolution), digital cameras (readily available pictures), or smart phones (internet everywhere), Battery Electric Vehicles (BEVs) do not offer a significantly improved user experience. In fact, EVs offer a pretty similar driving experience when compared to traditional internal combustion engine cars (ICE), however, they are less convenient to operate due to the still underdeveloped infrastructure.

Consequently, BEVs hardly attract any buyers at the (necessary) higher retail price relative to ICE cars. Hence, the only scenario which could lead to a breakthrough of e-mobility, in our view, is that the technology becomes cost competitive – either by being cheaper to produce for the car manufacturers or by significantly lower total costs of ownership for the buyer (TCO).

Based on a comprehensive data sample for the European market, we modelled the direct manufacturing costs (DMC) of an ICE vehicle in comparison to an equivalent Plugin Hybrid Vehicle (PHEV) and BEV. As of 2016, an electric powertrain is still ~4-5x as expensive as an equivalent compact class gasoline powertrain (c.EUR 3,000), while a plug-in hybrid is about twice as expensive, according to our calculations. The main cost differentiator, in turn, is the traction battery, accounting for c.75% of the complete electric powertrain costs in a compact class BEV (Exhibit 37). As it is extremely difficult to predict the development of battery costs over the next few years, we work with scenarios that cover a variety of possible developments.

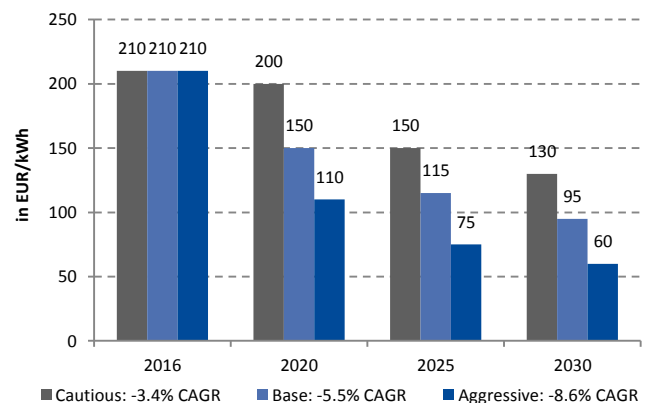
**Exhibit 37: Powertrain composition – compact car (DMC)**



Source: Pareto Securities Research, ICCT, FEV

\*incl. turbocharger, \*\*6.4kWh battery, \*\*\*40kWh battery

**Exhibit 38: Battery pack price development - cases**



Source: Pareto Securities Research

Our research shows that in the absence of government intervention, cost parity between combustion engine cars and electric vehicles (EV) would not be reached before 2030, a time frame too long for any OEM to invest in the technology.

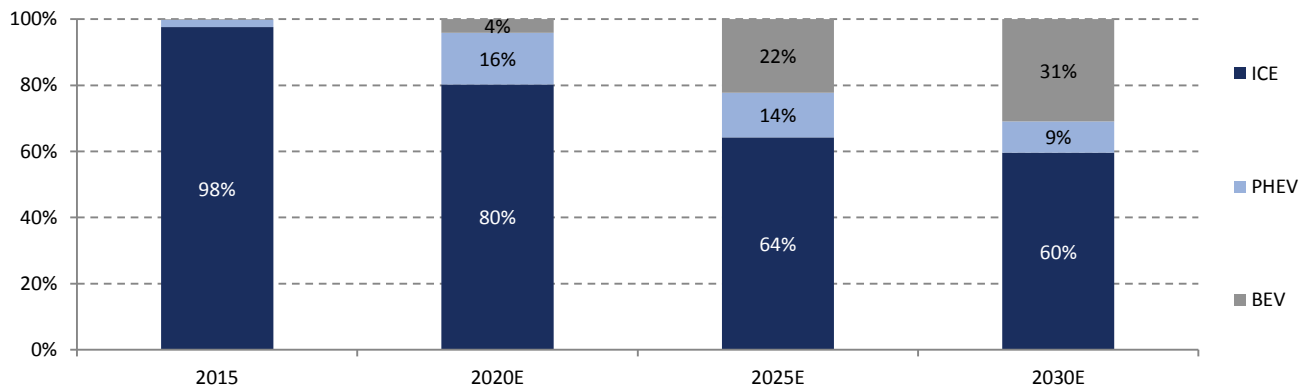
Ever stricter CO<sub>2</sub> regulation, however, adds a value to the CO<sub>2</sub> avoiding characteristic of battery electric vehicles (BEVs) and plugin hybrids (PHEVs), accelerating the cost competitiveness of e-mobility. Assuming economic rationality, OEMs will try to minimize the additional production costs, and thus number of EVs sold, needed to become CO<sub>2</sub> compliant.

Rational car buyers, in turn, would not base the purchase decision on the retail price alone but rather on total cost of ownership. BEVs have lower maintenance and fuel costs, combined with a likely rising residual value when compared with traditional cars. While we are aware that there is also an emotional component, which can significantly influence the outcome, when it comes to purchases, we base our forecast on quantitative measures only.

Overall, we expect a global e-mobility share of c.30% in 2030. PHEVs will play an important role as a bridge technology in our view, however, with improving

infrastructure and further declining battery costs, BEVs should be the car of choice for both OEMs and customers from a cost perspective.

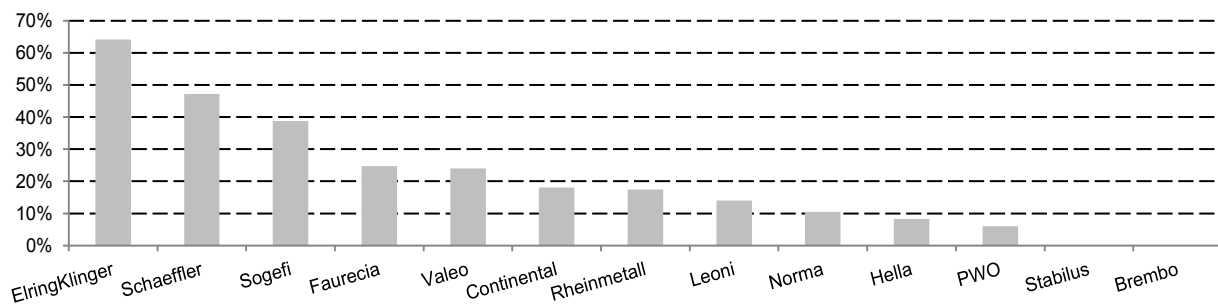
**Exhibit 39: Expected e-mobility development**



Source: Pareto Securities Research

Ultimately, the question we need to answer is: How does the transition towards e-mobility impact our automotive coverage universe?

**Exhibit 40: Direct powertrain exposure as % of group sales (2016)**



Source: Pareto Securities Research, company accounts

As for the suppliers, the picture is diverse. Overall, we expect that a rising share of e-mobility is net revenue negative for our supplier universe. However, our research identified **three structural winners** from the e-mobility transition, namely **Leoni, Hella, and Continental**. The **biggest losers** in our view are **ElringKlinger** and **Schaeffler**. Stabilus should be unaffected from the e-mobility transition. Our assessment is based on our e-mobility forecast and considers the direct powertrain exposure (i.e. ignoring headlamps, brakes, etc.) of each supplier as well as our estimate for e-powertrain exposure.

Intuitively, the initially rising share of PHEVs is positive for the supplier industry as a whole. Given that PHEVs are a combination of an ICE powertrain and an electric powertrain content per car and hence revenue potential can only increase.

Notably, our estimates merely reflect a status quo analysis, factoring in known development projects. M&A activity, the possible development of new products, market growth, or market share developments, were not part of our consideration. Importantly, our above analysis focused exclusively on the effects of e-mobility and did not take into account other relevant developments.

With respect to the **OEMs** it is difficult to point out a clear winner, as the transition will be initially **negative for all** of them, i.e. the question is more who loses the least. Among the premium OEMs, BMW and Daimler, we see BMW at an advantage as the company has much more experience with e-mobility. As of

2017, BMW is the global #4 in PHEV/BEV sales with a market share of c.8% (Tesla/BYD c.11%), according to IHS and company data. While Daimler has initiated its EQC offensive with first models coming in 2019, BMW will launch already its 2<sup>nd</sup> generation electric car “iNext” in 2021.

From a cost perspective, both premium OEMs have decided for a flexible approach, i.e. producing BEVs, PHEVs, and ICEs on the same manufacturing line. While this should clearly position the companies at a variable cost disadvantage, for BEVs, to pure EV producers like Tesla, we believe that the scale advantage should outweigh medium term (i.e. volumes independent of technology development guaranteed). The main risk, in our view, is a sudden sharp increase in e-mobility demand that would clearly burden the margin until a pure BEV factory is build up, which should take up to 4 years.

Volkswagen, as a player in the volume market, takes a different approach and voiced intent to build up a pure BEV plant in the US. In addition, the company plans to convert its existing ICE car manufacturing sites in Hannover and Emden into BEV plants. Given Volkswagen’s strategy to compete in low cost BEVs in the volume segment, a dedicated BEV factory seems to be the only feasible approach. Though initially the burden might be higher on VW’s margin, the company should be able to generate necessary scale in its BEV plant early on, which should place it at a clear cost advantage medium-term. The biggest risk is a slower than expected development of BEV volumes or low customer acceptance for VW’s BEVs.

Overall, while it will be a challenge, we do not consider e-mobility a game changer for the German automotive industry as they possess both the necessary funds and know-how to successfully compete in the market.

## Turning model cycle should revive earnings growth

*BMW has been showing low earnings growth and deteriorating margins for several years as a weak model cycle and start-up investments for E-Mobility have burdened the result. Starting with FY 2019 we expect the tide to turn and BMW to return to earnings growth, which should trigger a re-rating from the current depressed valuation level. Buy, target price EUR 91.*

### Investment Case

Over the last years, BMW showed weak earnings growth. The main reasons for the subpar development were a mature model portfolio accompanied by margin pressure in the Automotive division from rising R&D costs for green mobility. FY 2018e was additionally burdened by extra warranty costs and a difficult market environment, both of which will likely reduce the EBIT margin in the Automobile segment to a mere c.7.0%. However, we are confident that FY 2018e marks the margin trough as:

1) BMW will benefit from an extremely strong product cycle in the coming years. The company is currently launching its “profit champion” X5 and will renew the high volume 3 series in spring 2019. This should clearly support margins.

2) 2018 was burdened by extraordinary warranty costs of EUR 679m

3) H2'18 is adversely affected by the introduction of the new emission standard WLTP. Though BMW was not directly impacted (homologation was completed in time), pre-production and delays of competitors (Daimler/ VW) increased price pressure, which adversely affected volume at BMW as it did not compete on price. This should improve – if not reverse – in FY 2019.

The return of positive earnings momentum should in our view result in a re-rating of BMW, which is our most preferred OEM.

EURm	2016	2017	2018e	2019e	2020e
Revenues	94,163	98,678	97,614	103,555	106,409
EBITDA	14,384	14,721	13,919	14,547	15,768
EBIT	9,827	10,638	9,756	10,120	11,241
EPS	10.45	13.16	10.51	10.70	11.94
EPS adj	10.45	13.16	10.51	10.70	11.94
DPS	3.50	4.02	4.00	4.00	4.10
EV/EBITDA	2.3	2.5	1.9	1.8	1.3
EV/EBIT	3.4	3.4	2.7	2.6	1.9
P/E adj	7.7	6.4	6.9	7.0	6.2
P/B	1.12	1.03	0.81	0.78	0.72
ROE (%)	15.3	17.1	12.3	11.6	12.0
Div yield (%)	4.4	4.8	5.5	5.4	5.5
Net debt	(19,520)	(19,787)	(21,836)	(23,504)	(28,490)

Source: Pareto



Target price (EUR)	91
Share price (EUR)	74

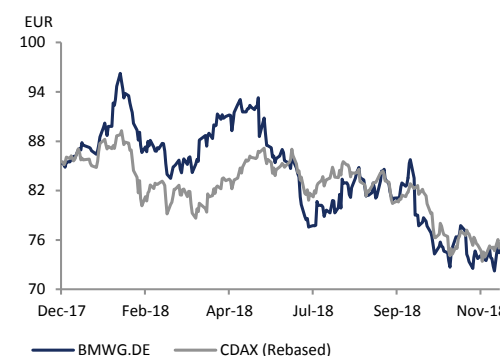
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	BMW.DE, BMW GR
Sector	Automobiles & parts
Shares fully diluted (m)	656.8
Market cap (EURm)	48,886
Net debt (EURm)	-21,836
Minority interests (EURm)	505
Enterprise value 18e (EURm)	26,097
Free float (%)	53

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Manufacturer of premium cars and motorcycles*

## Company profile

Bayerische Motorenwerke (BMW) is the world's leading premium car manufacturer. In FY 2017 the company sold 2.25m vehicles under its brands BMW, MINI and Rolls-Royce. Additionally, the company also operates a successful motorcycle business and provides financial services to its customers, which are mainly car buyers, leasing customers, and dealers.

*Target price of EUR 91*

## Valuation and recommendation

We value BMW based on a Sum of the Parts model. To value the industrial business, which comprises BMW Automobiles and the motorcycle segment, we have used a historical average EV/EBIT multiple. We further discounted this historical multiple by 10% in order to account for future challenges and uncertainties within the automotive industry. Overall, we apply an EV/EBIT multiple of 5.1x for FY 2019e.

For the financial services business we used 1x book value. Given that the division achieves a ROE significantly above its cost of capital (9M 2018: 9.0%) we consider this a conservative approach.

As for the net cash position, we assume that c.EUR 10bn (i.e. 40% of available net cash) are required for the financial services business to avoid an increase in credit cost. As a consequence, the money cannot be distributed to shareholders (without jeopardizing the value of the financial service business) and hence is not part of our valuation.

Our target price of EUR 91 Euro implies a target PE of 8.5x for FY 2019e. With an upside potential of 23% to our target price we rate BMW "Buy" and consider it the most preferred OEM within our universe.

*Turning model cycle should improve sales momentum*

## Upcoming triggers and drivers

Reporting of sales volumes are expected to show an increase in momentum, driven by the new models.

The guidance for FY 2019 is not expected to provide a meaningful trigger for the stock as BMW has already indicated that it will base its guidance on a worst case scenario for Brexit, tariffs etc. However, as this has already been flagged, a cautious guidance should not react in a weak share price development.

The main trigger is in our view the improving operating performance in FY 2019. Other potential triggers could be any positive outcome on geopolitical events such as the Brexit negotiations or the tariffs discussion with the US. A reduction of tariffs for vehicles imported from the US into China could e.g. have a positive impact of EUR 600m

**Next scheduled reporting:** Preliminary FY 2018 results likely in February 2019 (no date set yet). Final reporting incl. guidance for FY 2019e as well as an analyst conference are scheduled for March 2019.

## Risk to the investment case

In the short term, the main downside risk is in our view a further deterioration of the economic situation in China. Trade wars, stricter emission standards, and an on-going antitrust case could also have a negative effect on BMW. In the long-term, the shift to E-Mobility and the effects of autonomous driving on the premium car sector are further risks.



## BMW – Sum of the Parts valuation

	EURm	Comment
<b>Revenue (industrial)</b>	<b>91,205</b>	<b>FY 2019e</b>
EBIT (industrial)	7,089	FY 2019e
EBIT margin (industrial)	7.8%	
<b>EV / EBIT</b>	<b>5.1</b>	<b>Median 2000 - 2017 -10% for structural challenges</b>
(+) <b>Target EV</b>	<b>36,076</b>	
(-) Net debt	-14,103	FY 2019e
(-) Pension Provisions	3,252	FY 2019e
(-) Minorities	5,755	10x FY 2019e
(+) Value Financial Services	15,577	FY 2019e
(+) Peripheral Assets	7,669	8x FY 2019e
(-) Anti-trust risks and Diesel risk	4,340	
<b>Target market Cap</b>	<b>60,078</b>	
# of shares	657	
<b>Fair Value</b>	<b>91</b>	

Source: BMW, Pareto Securities Research

PROFIT & LOSS (fiscal year) (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Revenues	76,059	80,401	92,175	94,163	98,678	97,614	103,555	106,409
EBITDA	14,645	16,385	14,279	14,384	14,721	13,919	14,547	15,768
Depreciation & amortisation	(6,659)	(7,267)	(4,686)	(4,998)	(4,822)	(5,076)	(5,385)	(5,533)
EBIT	8,393	9,773	10,111	9,827	10,638	9,756	10,120	11,241
Net interest	(878)	(1,721)	(1,405)	(162)	37	(1)	(190)	(161)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	7,515	8,052	8,706	9,665	10,675	9,755	9,930	11,080
Taxes	(2,175)	(2,235)	(2,310)	(2,755)	(1,949)	(2,780)	(2,830)	(3,158)
Minority interest	(26)	(19)	(27)	(47)	(86)	(69)	(70)	(79)
Net profit	5,314	5,798	6,369	6,863	8,640	6,906	7,030	7,844
EPS reported	8.10	8.83	9.70	10.45	13.16	10.51	10.70	11.94
EPS adjusted	8.10	8.83	9.70	10.45	13.16	10.51	10.70	11.94
DPS	2.60	2.90	3.20	3.50	4.02	4.00	4.00	4.10
BALANCE SHEET (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Tangible non current assets	41,027	47,347	17,759	17,960	18,471	19,787	21,393	21,465
Other non-current assets	7,384	7,995	10,033	11,263	12,921	13,557	14,333	14,368
Other current assets	77,830	85,238	137,459	139,792	142,304	145,551	154,409	158,664
Cash & equivalents	12,127	14,223	16,911	19,520	19,787	21,836	23,504	28,490
Total assets	138,368	154,803	182,162	188,535	193,483	200,732	213,639	222,987
Total equity	35,643	37,437	42,764	47,363	54,548	58,880	63,352	68,648
Interest-bearing non-current debt	-	-	-	-	-	-	-	-
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	100,422	112,762	136,398	136,585	135,683	138,600	147,035	151,087
Total liabilities & equity	138,368	154,803	182,162	188,535	193,483	200,732	213,639	222,987
CASH FLOW (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Cash earnings	8,846	12,384	16,961	(17,007)	10,337	12,033	12,424	13,426
Change in working capital	604	(2,961)	(5,125)	28,471	511	(311)	(362)	(174)
Cash flow from investments	(7,488)	(5,836)	(7,524)	(5,432)	(6,544)	(7,028)	(7,767)	(5,640)
Cash flow from financing	(1,640)	(1,706)	(1,904)	(2,101)	(2,298)	(2,643)	(2,627)	(2,627)
Net cash flow	(1,200)	2,096	2,688	2,609	2,006	2,049	1,668	4,985
CAPITALIZATION & VALUATION (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Share price (EUR end)	84.6	92.0	103.3	80.4	84.7	72.2	74.4	74.4
Number of shares end period	656	656	656	656	657	657	657	657
Net interest bearing debt	(12,127)	(14,223)	(16,911)	(19,520)	(19,787)	(21,836)	(23,504)	(28,490)
Enterprise value	43,538	46,337	51,139	33,524	36,267	26,097	25,957	21,050
EV/Sales	0.6	0.6	0.6	0.4	0.4	0.3	0.3	0.2
EV/EBITDA	3.0	2.8	3.6	2.3	2.5	1.9	1.8	1.3
EV/EBIT	5.2	4.7	5.1	3.4	3.4	2.7	2.6	1.9
P/E reported	10.4	10.4	10.6	7.7	6.4	6.9	7.0	6.2
P/E adjusted	10.4	10.4	10.6	7.7	6.4	6.9	7.0	6.2
P/B	1.6	1.6	1.6	1.1	1.0	0.8	0.8	0.7
FINANCIAL ANALYSIS & CREDIT METRICS	2013	2014	2015	2016	2017	2018e	2019e	2020e
ROE adjusted (%)	16.1	15.9	15.9	15.2	17.0	12.2	11.5	11.9
Dividend yield (%)	3.1	3.2	3.1	4.4	4.8	5.5	5.4	5.5
EBITDA margin (%)	19.3	20.4	15.5	15.3	14.9	14.3	14.0	14.8
EBIT margin (%)	11.0	12.2	11.0	10.4	10.8	10.0	9.8	10.6
NIBD/EBITDA	(0.83)	(0.87)	(1.18)	(1.36)	(1.34)	(1.57)	(1.62)	(1.81)
EBITDA/Net interest	16.68	9.52	10.16	-	-	-	76.40	-

## Driving the automotive mega trends

*Continental has gone through a rough year with two profit warnings. As most of the issues in FY 2018 had a one-time character, we expect the company to improve earnings significantly in H2'19, which in our view should trigger a re-rating of the stock. Buy, Target Price EUR 170.*

### Investment Case

Continental has been a capital market's darling for many years. Decent organic growth paired with high margins, a cash generative business, a product portfolio well prepared for future challenges in the automotive industry, and not to forget a reliable communication policy, with a tendency to surprise to the upside.

FY 2018 has been different, as the company had to issue two profit warnings. While the profit warnings were a result of several independent issues, most of them were of a rather unsustainable nature. This includes some additional warranty costs, write-downs related to FX and raw material prices, as well as some ramp-up problems. While China should continue to burden in H1'19, we expect to see a significant earnings swing in H2'19. Adjusted EBIT should increase by 9% to EUR 4.4bn, with the adj. EBIT margin expected to rise by approximately 40bp to 9.5%. Earnings momentum should continue on into FY 2020e thereafter.

We remain convinced, that the business model of Continental remains intact and the mid-term outlook is bright. Continental has a strong position in products that are related to the automotive megatrends e-mobility and autonomous driving.

With earnings set to grow again and the upcoming IPO of the Powertrain division helping to properly value this unloved part of Continental, we expect multiples to expand again after the significant contraction seen in FY 2018. Continental is currently one of our preferred stocks amongst the automotive suppliers.

EURm	2016	2017	2018e	2019e	2020e
Revenues	40,550	44,010	44,641	46,235	48,879
EBITDA	6,057	6,679	5,785	6,211	7,240
EBIT	4,096	4,562	3,584	3,992	4,894
EPS	14.01	14.92	12.09	13.13	16.92
EPS adj	14.76	14.97	13.74	14.61	17.79
DPS	4.25	4.50	3.65	3.96	5.10
EV/EBITDA	7.3	7.8	5.7	5.1	4.2
EV/EBIT	10.8	11.4	9.1	7.9	6.1
P/E adj	12.4	15.0	9.5	8.9	7.3
P/B	2.57	3.15	1.65	1.47	1.28
ROE (%)	20.7	20.9	16.1	15.7	17.8
Div yield (%)	2.3	2.0	2.8	3.0	3.9
Net debt	2,818	2,209	1,776	696	(982)

Source: Pareto



Target price (EUR)	170
Share price (EUR)	130

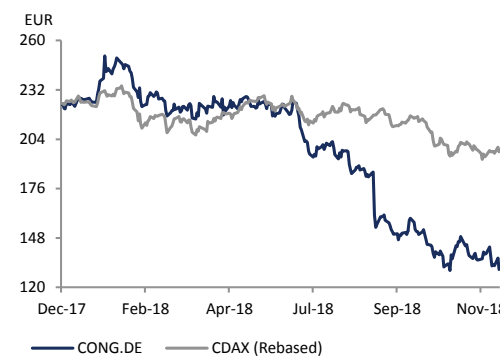
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	CONG.DE, CON GR
Sector	Automobiles & parts
Shares fully diluted (m)	200.0
Market cap (EURm)	26,020
Net debt (EURm)	6,170
Minority interests (EURm)	513
Enterprise value 18e (EURm)	32,703
Free float (%)	54

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*One of the leading automotive suppliers in the world*

## Company profile

Continental's originated from the rubber business, of which the tire business accounts for the biggest share. Today, Continental is among the top 3 tire manufacturers in Europe and North America by sales and one of the most profitable ones. Additionally, Conti has become one of the largest automotive suppliers worldwide, active in the areas of integrated safety technologies (Chassis & Safety), powertrain components as well as solutions and services for connecting, controlling, and operating vehicles (Interior).

## Valuation and recommendation

*Target price of EUR 170*

Due to the differences in business dynamics between its segments, we believe the most appropriate way to value Continental is a SOTP approach. Based on a mixture of peer multiples and segment DCFs, we calculate a fair value of EUR 170 for Continental.

For Chassis & Safety, Interior, and ContiTech we apply the avg. peer group multiple. With the respect to the Powertrain and Tire divisions, however, we believe that peer multiples alone fail to reflect the full fair value potential. As a consequence, we apply a c.15% premium to the Powertrain peer multiple, which is fully backed by our segment DCF. Conti's high Powertrain order backlog of c.1.6x over the last 5 years mechanically translates into a 7.4% sales growth CAGR even after assuming a weaker market development. Given additional margin improvement, we calculate an EBIT CAGR of c.13.7% until 2022, which is significantly ahead of peers and hence justifies a premium. Similarly, we use Pirelli's 8.8x EV/EBIT 2019 as best peer instead of the peer group's 8.2x average (i.e. a c.7% premium), which we believe is justified in light of Continental's superior capital returns in its tire division relative to its competitors. Notably, our segment DCF justifies an EV/EBIT'19 multiple of up to 11.2x for the tire business. We believe that the entire industry deserves a re-rating given attractive margin potential, relatively low cyclicalities, and structural growth trends (increase in VMT).

In light of the Powertrain IPO and potentially a later break-up of the company, a conglomerate discount seems unjustified.

## Upcoming triggers and drivers

Results for FY 2018 should provide security that the company has managed to reach its revised targets for FY 2018. We expect a rather cautious guidance for FY 2019 as China likely remains weak in H1. However, H2 should mark an inflection point in margin and show Continental's true earnings capacity. Finally, Powertrain will organize a capital market day in March/April, in which the IPO candidate (expected in summer 2019) will lay out its mid-term targets.

**Next scheduled reporting:** Preliminary FY 2018 results on January 14th 2019.

## Risk to the investment case

Short-term, a third profit warning caused by a continuing slump in the Chinese car market could severely hurt trust in the current management and would most likely result in a further deterioration of multiples.

A tougher competition in the tire market could result in margin pressure for Conti's cash cow business.

Longer term, Continental could fail to take a significant market position in products for the electrical powertrain, which would result in shrinking business volume in the Powertrain division (Conti plans to retain a 75% share).

## Continental – Sum of the Parts valuation

	Year end Dec (EUR m)	EBIT 2019e	EV/EBIT 2019	Value	per share	Comment
+	Chassis & Safety	820	8.7x	7,135	35.7	10.1x incl. NVIDIA
+	Powertrain	427	8.2x	3,488	17.4	Peer group. DCF implies 18.3x
+	Interior	805	8.4x	6,759	33.8	
=	<b>Automotive Group</b>	<b>2,052</b>	<b>8.5x</b>	<b>17,382</b>	<b>86.9</b>	
+	Tires	1,995	8.8x	17,552	87.8	Based on Pirelli multiple
+	ContiTech	497	10.8x	5,367	26.8	
=	<b>Rubber Group</b>	<b>2,491</b>	<b>9.2x</b>	<b>22,919</b>	<b>114.6</b>	
+	Eliminations	-131	8.9x	-1,162	-5.8	Group Average
=	<b>Sum of the parts</b>			<b>39,140</b>		
-	Net debt			696	-3.5	2019e
-	Minority interest			573	-2.9	Applied 10x PE 2018e
-	Pension liabilities			4,394	-22.0	2019e
+	Peripheral Assets			425	2.1	2019e
=	<b>Equity value</b>			<b>33,902</b>		
	# shares			200.0		
	<b>Fair value per share</b>			<b>170</b>		

Source: Pareto Securities Research

<b>PROFIT &amp; LOSS (fiscal year) (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Revenues	33,331	34,506	39,232	40,550	44,010	44,641	46,235	48,879
EBITDA	5,005	5,245	6,108	6,057	6,679	5,785	6,211	7,240
Depreciation & amortisation	(1,742)	(1,901)	(1,992)	(1,962)	(2,117)	(2,201)	(2,219)	(2,346)
EBIT	3,264	3,345	4,116	4,096	4,562	3,584	3,992	4,894
Net interest	(842)	(192)	(307)	(117)	(286)	(174)	(147)	(123)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	2,422	3,153	3,809	3,979	4,276	3,410	3,845	4,771
Taxes	(412)	(696)	(1,029)	(1,097)	(1,228)	(941)	(1,161)	(1,317)
Minority interest	(87)	(82)	(52)	(80)	(64)	(51)	(57)	(71)
Net profit	1,923	2,375	2,727	2,803	2,985	2,418	2,627	3,383
EPS reported	9.62	11.88	13.64	14.01	14.92	12.09	13.13	16.92
EPS adjusted	11.28	13.70	14.63	14.76	14.97	13.74	14.61	17.79
DPS	2.50	3.25	3.75	4.25	4.50	3.65	3.96	5.10
<b>BALANCE SHEET (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Tangible non current assets	7,728	8,446	9,539	10,538	11,202	12,051	12,689	13,317
Other non-current assets	6,826	6,821	8,360	8,767	9,043	9,118	9,174	9,229
Other current assets	10,203	11,666	14,207	14,736	15,314	15,624	16,051	16,760
Cash & equivalents	2,063	3,307	1,686	2,135	1,882	2,314	3,394	5,072
Total assets	26,821	30,241	33,791	36,175	37,441	39,107	41,308	44,379
Total equity	9,322	11,025	13,214	14,735	14,732	16,301	18,256	20,918
Interest-bearing non-current debt	6,637	6,430	5,245	4,952	4,090	4,090	4,090	4,090
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	8,471	9,303	11,800	12,096	14,225	14,322	14,568	14,977
Total liabilities & equity	24,430	26,757	30,259	31,783	33,046	34,713	36,914	39,985
<b>CASH FLOW (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Cash earnings	3,618	4,590	5,533	5,247	5,322	4,529	4,903	5,801
Change in working capital	104	(422)	(617)	(309)	(101)	(72)	(181)	(300)
Cash flow from investments	(1,981)	(2,045)	(2,179)	(3,167)	(3,468)	(3,125)	(2,913)	(3,031)
Cash flow from financing	(2,066)	(707)	(1,835)	(750)	(850)	(900)	(729)	(792)
Net cash flow	(436)	1,244	(1,621)	1,021	903	433	1,080	1,678
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Share price (EUR end)	159.4	175.6	224.6	183.7	225.1	130.1	130.1	130.1
Number of shares end period	200	200	200	200	200	200	200	200
Net interest bearing debt	4,574	3,123	3,559	2,818	2,209	1,776	696	(982)
Enterprise value	39,156	42,069	52,429	44,415	52,075	32,703	31,680	30,073
EV/Sales	1.2	1.2	1.3	1.1	1.2	0.7	0.7	0.6
EV/EBITDA	7.8	8.0	8.6	7.3	7.8	5.7	5.1	4.2
EV/EBIT	12.0	12.6	12.7	10.8	11.4	9.1	7.9	6.1
P/E reported	16.6	14.8	16.5	13.1	15.1	10.8	9.9	7.7
P/E adjusted	14.1	12.8	15.4	12.4	15.0	9.5	8.9	7.3
P/B	3.5	3.3	3.5	2.6	3.2	1.6	1.5	1.3
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
ROE adjusted (%)	24.4	26.9	24.1	21.1	20.3	17.7	16.9	18.2
Dividend yield (%)	1.6	1.9	1.7	2.3	2.0	2.8	3.0	3.9
EBITDA margin (%)	15.0	15.2	15.6	14.9	15.2	13.0	13.4	14.8
EBIT margin (%)	9.8	9.7	10.5	10.1	10.4	8.0	8.6	10.0
NIBD/EBITDA	0.91	0.60	0.58	0.47	0.33	0.31	0.11	(0.14)
EBITDA/Net interest	5.95	27.39	19.89	51.77	23.38	33.34	42.34	59.05

## Diversified automotive business model

*An investment in Daimler offers exposure to the world's leading premium car manufacturer as well as the no. 1 truck producer (incl. buses and vans) for a mere c.6x earnings. Following a tough Q3'18, which was burdened by WLTP related supply shortages at MBC, we expect a strong profitability rebound in Q4'18. Despite mid-term challenges, Daimler's valuation is too attractive to ignore and thus we initiate with a Buy rating and a TP EUR 57.*

### Investment case

Over the last years, Daimler has managed to successfully renew its entire model portfolio, fill existing gaps, and gain significant market share in China. Although the model cycle is in a relatively mature stage now, demand for Mercedes products remains strong.

In FY 2018 the company suffered from supply constraints related to WLTP, which should, however, be settled by the end of Q4 2018. While macro headwinds such as the US/ China trade conflict, with the associated negative impact on US produced cars, likely continue, we nonetheless expect group EBIT to rise by about 14% in FY 2019. This would mark the strongest yearly earnings increase since FY 2015. Our current estimates do not include any extraordinary costs for potential Diesel related fines or extra costs to support the retrofitting of SCR systems. We have, however, reflected these risks in our valuation with a EUR 7.5bn discount.

With respect to the model cycle, we see the inflection point in FY 2020. New models should allow for stronger earnings growth again.

Mid-term, an investment in Daimler offers more diversification with its Trucks and Vans business that is less prone to the specific risks of the automotive industry (autonomous driving and e-mobility).

EURm	2016	2017	2018e	2019e	2020e
Revenues	153,261	164,330	163,927	171,304	177,566
EBITDA	18,380	20,024	17,472	19,233	20,062
EBIT	12,902	14,348	11,625	13,211	13,860
EPS	7.97	9.53	7.25	8.32	8.76
EPS adj	8.85	9.48	7.62	8.59	8.99
DPS	3.25	3.65	3.65	4.19	4.41
EV/EBITDA	3.6	3.3	2.6	2.4	2.3
EV/EBIT	5.1	4.6	3.9	3.5	3.3
P/E adj	8.0	7.5	6.6	5.9	5.6
P/B	1.31	1.17	0.79	0.73	0.69
ROE (%)	15.3	16.6	11.7	12.5	12.3
Div yield (%)	4.6	5.2	7.2	8.3	8.7
Net debt	(19,737)	(16,597)	(15,483)	(15,914)	(16,265)

Source: Pareto



Target price (EUR)	57
Share price (EUR)	50

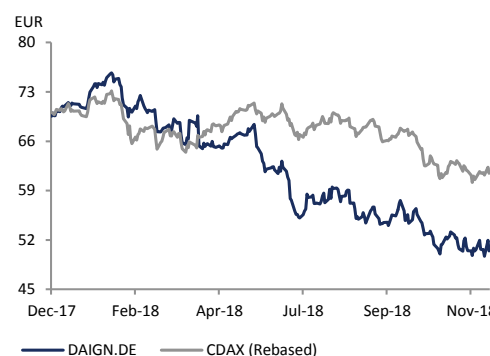
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	DAIGN.DE, DAI GR
Sector	Automobiles & parts
Shares fully diluted (m)	1,069.8
Market cap (EURm)	53,971
Net debt (EURm)	-9,716
Minority interests (EURm)	1,647
Enterprise value 18e (EURm)	45,903
Free float (%)	97

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Manufacturer of premium cars  
and commercial vehicles*

## Company profile

Daimler is one of the two world's leading producers of premium cars, which are sold under the brand names Mercedes-Benz and Smart. Additionally, the company is also the world's biggest truck manufacturer, with its products being sold under the brands Mercedes, Freightliner, and Western Star. Furthermore, the company produces medium sized commercial vehicles such as vans and buses. The portfolio is rounded off by a highly profitable financial services business.

## Valuation and recommendation

*Target price of EUR 57, Buy*

We value Daimler based on a Sum of the Parts model. To value Mercedes-Benz cars, we have applied an EV/EBIT target multiple of 5.1x in line with our target multiple for BMW. The target multiple is derived from BMW's historical average EV/EBIT multiple including a 10% discount to account for future challenges and uncertainties within the automotive industry.

We valued the truck and bus business relative to Volvo, which is in our view the closest comparable for Daimler Trucks. With regard to the other commercial vehicle division, we applied a 20% discount to Volvo's multiple as we see more e-mobility risks in this division than in the heavy commercial vehicles segments. For financial services we use 1x book value. Given that financial service achieve a ROE significantly above its cost of capital (pre-tax ROE in FY 2017 was 17.6%) we consider this a conservative approach.

As for the net cash position, we assume that 40% of available net cash are required for the financial services business to avoid a deterioration in credit cost. As a consequence, the money cannot be distributed to shareholders (without jeopardizing the value of the financial service business) and hence is not part of our valuation.

To account for future risks from Diesel related issues as well as the on-going anti-trust investigation, we have built-in a reserve of EUR 7.5bn into our valuation.

Finally and despite the fact that Daimler is currently moving towards a holding structure, which would also allow for (a partial) spin-off of businesses, we have applied a 10% conglomerate discount.

Our target price of EUR 57 Euro implies a target PE of 6.7x for FY 2019e. With an upside potential of 14% to our target price we rate Daimler with Buy as it is too cheap to ignore.

## Upcoming triggers and drivers

*Positive earnings momentum  
expected in FY 2019*

Short-term, positive sales momentum in the monthly unit sales reporting should increase confidence that the company's guidance is achievable, implying a strong Q4 with a strong improvement in margin. With respect to the FY 2019 guidance, we expect a positive wording for margin. Expected positive earnings momentum, in turn, should be reassuring for investors and bode well for the share price development.

Finally, updates on the new corporate structure might bring back speculations of a future (value accretive) truck IPO and hence trigger a short-term rally.

**Next scheduled reporting:** FY 2018 results on February 6<sup>th</sup>, 2019.

## Risk to the investment case

In the short-term, the main downside risk is in our view a deterioration of the economic situation in China. Trade wars, stricter emission standards, an on-going antitrust case as well as potential Diesel related costs could also adversely affect Daimler's results. In the long-run, the shift to E-Mobility and the effects of autonomous driving on the premium car sector are further risks.



## Daimler - Sum of the Parts valuation

	Year end Dec (EUR m)	Sales 2019e	EBIT 2019e	Value	EV/Sales	EV/EBIT	Comment
+	Mercedes Car Group	94,256	7,851	40,038	42%	5.1	BMW target multiple
+	Trucks	39,295	2,918	18,821	48%	6.5	Volvo
+	Vans	27,178	995	5,132	19%	5.2	Trucks - 20%
+	Buses	14,209	242	1,563	11%	6.5	Volvo
+	Financial Services	4,473	2,027	12,445			1x Book value (Q3 2018)
+	Eliminations	-8,106	-416	-2,313		5.6	Group Average
=	Sum of the parts			75,686			
+	Industrial net cash (debt)			9,549			2019e
-	Minority interest			-3,737			10x 2019e
-	OPEB			-5,900			Q3 2018
-	Diesel and Antitrust related risks			-7,450			
=	SOP Value before conglomerate discount			68,147			
-	Conglomerate Discount			-6,815			10%
=	SOP Value			61,333			
	# shares			1,068			
	<b>SOP Value per share</b>			<b>57</b>			

Source: Factset, Pareto Securities Research

PROFIT & LOSS (fiscal year) (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Revenues	117,982	129,872	149,467	153,261	164,330	163,927	171,304	177,566
EBITDA	15,877	15,716	18,502	18,380	20,024	17,472	19,233	20,062
Depreciation & amortisation	(5,062)	(4,964)	(5,316)	(5,478)	(5,676)	(5,846)	(6,022)	(6,202)
EBIT	10,815	10,752	13,186	12,902	14,348	11,625	13,211	13,860
Net interest	(4,021)	(1,476)	(906)	(328)	(381)	(352)	(324)	(298)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	6,794	9,276	12,280	12,574	13,967	11,273	12,887	13,562
Taxes	1,926	(1,986)	(3,569)	(3,790)	(3,437)	(3,157)	(3,608)	(3,797)
Minority interest	(1,878)	(328)	(287)	(258)	(339)	(356)	(374)	(392)
Net profit	6,842	6,962	8,424	8,526	10,191	7,761	8,905	9,372
EPS reported	6.40	6.51	7.87	7.97	9.53	7.25	8.32	8.76
EPS adjusted	4.51	6.11	8.30	8.85	9.48	7.62	8.59	8.99
DPS	2.25	2.45	3.25	3.25	3.65	3.65	4.19	4.41
BALANCE SHEET (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Tangible non current assets	21,779	23,182	24,322	26,381	27,981	30,376	32,940	35,624
Other non-current assets	18,009	16,669	18,904	19,095	21,774	22,859	24,021	25,237
Other current assets	114,896	132,831	155,360	177,775	189,253	192,013	193,832	195,377
Cash & equivalents	13,834	16,953	18,580	19,737	16,597	15,483	15,914	16,265
Total assets	168,518	189,635	217,166	242,988	255,605	260,731	266,707	272,502
Total equity	43,363	44,584	54,624	59,133	65,955	70,167	75,541	80,825
Interest-bearing non-current debt	-	-	-	-	-	-	-	-
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	116,531	132,245	153,879	174,821	183,883	184,797	185,399	185,910
Total liabilities & equity	168,518	189,635	217,166	242,988	255,605	260,731	266,707	272,502
CASH FLOW (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Cash earnings	10,678	4,285	8,789	10,478	11,196	10,271	12,866	13,900
Change in working capital	(365)	3,254	2,946	2,165	771	1,846	1,217	1,033
Cash flow from investments	(5,219)	(3,082)	(8,039)	(8,769)	(9,425)	(9,327)	(9,747)	(10,103)
Cash flow from financing	(2,351)	(2,407)	(2,621)	(3,477)	(3,477)	(3,905)	(3,905)	(4,480)
Net cash flow	2,326	3,119	1,627	1,157	(935)	(1,114)	432	350
CAPITALIZATION & VALUATION (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Share price (EUR end)	62.9	69.0	77.6	70.7	70.8	50.5	50.5	50.5
Number of shares end period	1,069	1,070	1,070	1,070	1,070	1,070	1,070	1,070
Net interest bearing debt	(13,834)	(16,953)	(18,580)	(19,737)	(16,597)	(15,483)	(15,914)	(16,265)
Enterprise value	62,701	70,556	74,141	66,136	66,203	45,903	45,845	45,887
EV/Sales	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3
EV/EBITDA	3.9	4.5	4.0	3.6	3.3	2.6	2.4	2.3
EV/EBIT	5.8	6.6	5.6	5.1	4.6	3.9	3.5	3.3
P/E reported	9.8	10.6	9.9	8.9	7.4	7.0	6.1	5.8
P/E adjusted	14.0	11.3	9.4	8.0	7.5	6.6	5.9	5.6
P/B	1.6	1.7	1.5	1.3	1.2	0.8	0.7	0.7
FINANCIAL ANALYSIS & CREDIT METRICS	2013	2014	2015	2016	2017	2018e	2019e	2020e
ROE adjusted (%)	10.8	14.9	17.9	16.6	16.2	12.0	12.6	12.3
Dividend yield (%)	3.6	3.6	4.2	4.6	5.2	7.2	8.3	8.7
EBITDA margin (%)	13.5	12.1	12.4	12.0	12.2	10.7	11.2	11.3
EBIT margin (%)	9.2	8.3	8.8	8.4	8.7	7.1	7.7	7.8
NIBD/EBITDA	(0.87)	(1.08)	(1.00)	(1.07)	(0.83)	(0.89)	(0.83)	(0.81)
EBITDA/Net interest	3.95	10.65	20.42	56.04	52.56	49.65	59.31	67.32

## Indebtedness is reaching an alarming level

*ElringKlinger is a market leading supplier of gaskets and other components to the car industry. C.90% of revenue is related to the internal combustion engine. While the company has managed to consistently show strong organic growth, margin pressure and high CAPEX have inflated debt to an alarming level. For FY 2018e we see another profit warning on the horizon. We initiate with Sell, TP EUR 5.50.*

### Investment Case

For years, ElringKlinger has shown strong organic growth (9.8% CAGR since 2007), however, margins have declined almost every year (from 20% to ~5.2% in 2018e). The drop in margin, combined with high investments to stem the strong top-line growth resulted in a negative FCF in 9 out of the last 10 years. As a consequence, LTM net debt / EBITDA (adj) has risen to more than 4.0x (incl. pensions), which is in our view a worrying level – especially in light of another negative FCF expected for FY 2019e.

To put the numbers into perspective, LVP showed a healthy 3.1% CAGR between 2007-2017, while margin pressure from the upcoming e-mobility transition is still limited.

Though ElringKlinger has been early to develop products for the battery and fuel cell, it remains to be seen if the company manages to win a significant market share in this young market. In the last 3 years at least ElringKlinger has not been able to report any orders with the established OEMs.

Given its current financial position, an automotive market downturn could result in significant financial stress for ElringKlinger.

EURm	2016	2017	2018e	2019e	2020e
Revenues	1,557	1,664	1,697	1,792	1,873
EBITDA	231	238	207	227	250
EBIT	136	137	106	120	137
EPS	1.24	1.10	0.86	1.03	1.24
EPS adj	1.29	1.15	0.66	1.07	1.29
DPS	0.50	0.50	0.50	0.50	0.56
EV/EBITDA	7.4	8.4	6.5	6.1	5.7
EV/EBIT	12.7	14.6	12.6	11.6	10.3
P/E adj	12.3	16.2	11.5	7.1	5.9
P/B	1.18	1.39	0.55	0.53	0.50
ROE (%)	9.4	8.2	6.3	7.3	8.4
Div yield (%)	3.1	2.7	6.6	6.6	7.4
Net debt	539	655	697	738	760

Source: Pareto



Target price (EUR)	5.5
Share price (EUR)	7.6

### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	ZILGN.DE, ZIL2 GR
Sector	Automobiles & parts
Shares fully diluted (m)	63.4
Market cap (EURm)	481
Net debt (EURm)	823
Minority interests (EURm)	40
Enterprise value 18e (EURm)	1,344
Free float (%)	48

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Manufacturer of gaskets and other*

## Company profile

ElringKlinger is a supplier to the automotive and truck industry. The company has a leading market position for cylinder-head and specialty gaskets and also develops, produces and sells plastic housing modules, shielding components for engine, transmission, exhaust systems and underbody, exhaust gas purification technology as well as battery and fuel cell components. The company has a world-wide presence.

We estimate that more than 90% of revenue is currently at risk by the transition to electrical cars.

## Valuation and recommendation

*Target price of EUR 5.5*

So far, we had valued ElringKlinger relative to a peer group. However, due to the low level of profitability, lower peer multiples and increased level of net indebtedness, the EV multiples do not provide a meaningful value at the moment. The reason is that they ignore the option like character, for a highly levered company such as ElringKlinger, of future multiple expansion or a recovery in earnings. PE multiples on the other hand are in our view also not a proper indicator as these unfairly favour highly indebted companies which ElringKlinger has become.

We are thus valuing the company based on a DCF model, which assumes a return to a 9.0% EBIT margin mid-term. Based on this analysis we derive a new target price of EUR 5.5.

## Upcoming triggers and drivers

After 9M, ElringKlinger has reached an EBIT margin ex ppa of 7.0% - at first glance the company thus looks on track to reach its FY guidance (7% ex. ppa). However, the results in the first nine months included positive one-time effects from the sale of subsidiaries of EUR 22.2m. Adjusting for these effects, the margin amounted to a mere 5.0%.

While admittedly the situation has improved in Q3 2018 (5.6% margin), it still appears to be very ambitious to achieve a 7% margin ex ppa in Q4. This is especially true considering the current car market situation in China, which has further deteriorated in October. In addition, Q4 is usually the weakest quarter of the year for ElringKlinger with a margin level that was on average roughly 170bp weaker than in Q3 over the last 5 years. Furthermore, the absolute adjusted EBIT saw a sequential Q3 to Q4 increase only in one out of the last five years.

Against this backdrop, we consider the targeted 7% margin as too ambitious and have expect an EBIT ex ppa margin in FY 2018 of only 6.4%. This implies an adj. EBIT margin of 5.3% in Q4.

**Next scheduled reporting:** FY 2018 results and analyst conference on March 27<sup>th</sup> 2019.

## Risk to the investment case

Upside risks could mainly result from a stronger than expected margin recovery, better than expected cash generation or the announcement of large scale orders in product areas which are not related to the combustion engine.

## DCF valuation

EUR m	Phase I					Phase II					Phase III
	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	
<b>Revenues</b>	<b>1,697</b>	<b>1,792</b>	<b>1,873</b>	<b>1,948</b>	<b>2,026</b>	<b>2,097</b>	<b>2,160</b>	<b>2,214</b>	<b>2,258</b>	<b>2,281</b>	
growth rate	2.0%	5.6%	4.5%	4.0%	4.0%	3.5%	3.0%	2.5%	2.0%	10%	
<b>EBIT</b>	<b>106</b>	<b>120</b>	<b>137</b>	<b>152</b>	<b>166</b>	<b>175</b>	<b>184</b>	<b>192</b>	<b>200</b>	<b>205</b>	
EBIT margin	6.3%	6.7%	7.3%	7.8%	8.2%	8.4%	8.5%	8.7%	8.8%	9.0%	
<b>Tax</b>	<b>-35.0</b>	<b>-39.6</b>	<b>-42.4</b>	<b>-47.1</b>	<b>-49.8</b>	<b>-52.6</b>	<b>-55.2</b>	<b>-57.6</b>	<b>-59.9</b>	<b>-61.6</b>	
Tax rate	33%	33%	31%	31%	30%	30%	30%	30%	30%	30%	
<b>Depr. &amp; Amort.</b>	<b>101.1</b>	<b>107.1</b>	<b>113.6</b>	<b>120.4</b>	<b>127.6</b>	<b>160.4</b>	<b>179.8</b>	<b>191.8</b>	<b>199.4</b>	<b>205.2</b>	
% of sales	6.0%	6.0%	6.1%	6.2%	6.3%	7.6%	8.3%	8.7%	8.8%	9.0%	
<b>Capex</b>	<b>-161.2</b>	<b>-170.3</b>	<b>-168.6</b>	<b>-175.3</b>	<b>-182.3</b>	<b>-188.7</b>	<b>-194.4</b>	<b>-199.2</b>	<b>-203.2</b>	<b>-205.2</b>	
% of sales	9.5%	9.5%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	
<b>Change in WC &amp; P</b>	<b>-40.7</b>	<b>-15.3</b>	<b>-18.1</b>	<b>-25.1</b>	<b>-26.1</b>	<b>-27.0</b>	<b>-27.8</b>	<b>-28.5</b>	<b>-29.1</b>	<b>-29.4</b>	
% of sales	2.4%	0.9%	10%	13%	13%	13%	13%	13%	13%	13%	
<b>Free Cash Flow</b>	<b>-29.6</b>	<b>2.0</b>	<b>21.3</b>	<b>24.8</b>	<b>35.5</b>	<b>67.4</b>	<b>86.4</b>	<b>98.5</b>	<b>106.8</b>	<b>114.3</b>	<b>1,696.3</b>
growth rate	nm	nm	nm	16.6%	42.9%	90.0%	28.2%	14.0%	8.4%	7.0%	10%
<b>Present Value FCF</b>	<b>-29.5</b>	<b>1.8</b>	<b>18.2</b>	<b>19.7</b>	<b>26.1</b>	<b>46.0</b>	<b>54.7</b>	<b>57.9</b>	<b>58.2</b>	<b>57.8</b>	<b>857.8</b>

<b>PV Phase I</b>	<b>36</b>	<b>Risk free rate</b>	3.50%	<b>Targ. equity ratio</b>	70%
<b>PV Phase II</b>	<b>275</b>	<b>Premium Equity</b>	5.00%	<b>Beta</b>	1.20
<b>PV Phase III</b>	<b>858</b>	<b>Premium Debt</b>	2.00%	<b>WACC</b>	7.81%

<b>Enterprise value</b>	<b>1,169</b>	<b>Sensitivity</b>	<b>Growth in phase III</b>				
- Net Debt	<b>655</b>		<b>0.0%</b>	<b>0.5%</b>	<b>1.0%</b>	<b>1.5%</b>	<b>2.0%</b>
- Pension Provisions	<b>126</b>	<b>7.02%</b>	6.1	7.3	8.6	10.1	12.0
- Minorities & Peripherals	<b>37</b>	<b>7.41%</b>	4.8	5.8	7.0	8.3	9.9
		<b>WACC 7.81%</b>	3.7	4.5	<b>5.5</b>	6.7	8.0
<b>Equity value</b>	<b>350</b>	<b>8.20%</b>	2.6	3.4	4.3	5.2	6.4
Number of shares	<b>63.4</b>	<b>8.59%</b>	1.7	2.4	3.1	4.0	5.0
Value per share (€)	<b>5.5</b>						

Source: Pareto Securities Research

<b>PROFIT &amp; LOSS (fiscal year) (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
<b>Revenues</b>	<b>1,175</b>	<b>1,326</b>	<b>1,507</b>	<b>1,557</b>	<b>1,664</b>	<b>1,697</b>	<b>1,792</b>	<b>1,873</b>
<b>EBITDA</b>	<b>212</b>	<b>227</b>	<b>215</b>	<b>231</b>	<b>238</b>	<b>207</b>	<b>227</b>	<b>250</b>
Depreciation & amortisation	(48)	(73)	(80)	(96)	(101)	(101)	(107)	(114)
<b>EBIT</b>	<b>165</b>	<b>154</b>	<b>135</b>	<b>136</b>	<b>137</b>	<b>106</b>	<b>120</b>	<b>137</b>
Net interest	(16)	(1)	(6)	(12)	(27)	(18)	(17)	(16)
Other financial items	-	-	-	-	-	-	-	-
<b>Profit before taxes</b>	<b>149</b>	<b>153</b>	<b>129</b>	<b>124</b>	<b>110</b>	<b>88</b>	<b>103</b>	<b>120</b>
Taxes	(38)	(42)	(33)	(41)	(36)	(30)	(34)	(37)
Minority interest	(6)	(5)	(4)	(4)	(4)	(3)	(4)	(4)
<b>Net profit</b>	<b>105</b>	<b>106</b>	<b>92</b>	<b>79</b>	<b>70</b>	<b>55</b>	<b>65</b>	<b>79</b>
EPS reported	1.66	1.67	1.45	1.24	1.10	0.86	1.03	1.24
<b>EPS adjusted</b>	<b>1.62</b>	<b>1.76</b>	<b>1.50</b>	<b>1.29</b>	<b>1.15</b>	<b>0.66</b>	<b>1.07</b>	<b>1.29</b>
DPS	0.50	0.55	0.55	0.50	0.50	0.50	0.50	0.56
<b>BALANCE SHEET (EURm)</b>								
Tangible non current assets	612	708	827	917	930	936	997	1,051
Other non-current assets	191	199	229	228	236	236	238	240
Other current assets	529	607	691	693	811	861	879	901
Cash & equivalents	63	69	49	39	45	4	(37)	(59)
<b>Total assets</b>	<b>1,395</b>	<b>1,583</b>	<b>1,796</b>	<b>1,878</b>	<b>2,022</b>	<b>2,037</b>	<b>2,078</b>	<b>2,133</b>
Total equity	705	775	856	886	890	916	953	1,004
Interest-bearing non-current debt	358	417	536	578	701	701	701	701
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	232	256	286	277	306	295	298	302
<b>Total liabilities &amp; equity</b>	<b>1,395</b>	<b>1,583</b>	<b>1,796</b>	<b>1,878</b>	<b>2,022</b>	<b>2,037</b>	<b>2,078</b>	<b>2,133</b>
<b>CASH FLOW (EURm)</b>								
Cash earnings	159	220	180	177	124	139	176	197
Change in working capital	(39)	(70)	(57)	(1)	(29)	(41)	(15)	(18)
Cash flow from investments	(116)	(147)	(173)	(190)	(193)	(108)	(170)	(169)
Cash flow from financing	(29)	(32)	(35)	(35)	(32)	(32)	(32)	(32)
Net cash flow	9	6	(20)	(10)	6	(41)	(41)	(22)
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>								
<b>Share price (EUR end)</b>	<b>29.6</b>	<b>28.8</b>	<b>23.5</b>	<b>15.9</b>	<b>18.7</b>	<b>7.6</b>	<b>7.6</b>	<b>7.6</b>
Number of shares end period	63	63	63	63	63	63	63	63
Net interest bearing debt	295	348	487	539	655	697	738	760
<b>Enterprise value</b>	<b>2,297</b>	<b>2,339</b>	<b>2,129</b>	<b>1,716</b>	<b>2,002</b>	<b>1,344</b>	<b>1,389</b>	<b>1,415</b>
EV/Sales	2.0	1.8	1.4	1.1	1.2	0.8	0.8	0.8
<b>EV/EBITDA</b>	<b>10.8</b>	<b>10.3</b>	<b>9.9</b>	<b>7.4</b>	<b>8.4</b>	<b>6.5</b>	<b>6.1</b>	<b>5.7</b>
EV/EBIT	13.9	15.2	15.8	12.7	14.6	12.6	11.6	10.3
P/E reported	17.8	17.3	16.3	12.8	16.9	8.8	7.4	6.1
<b>P/E adjusted</b>	<b>18.3</b>	<b>16.4</b>	<b>15.7</b>	<b>12.3</b>	<b>16.2</b>	<b>11.5</b>	<b>7.1</b>	<b>5.9</b>
P/B	2.8	2.5	1.8	1.2	1.4	0.5	0.5	0.5
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>								
ROE adjusted (%)	15.2	15.0	11.7	9.4	8.2	4.7	7.3	8.3
Dividend yield (%)	1.7	1.9	2.3	3.1	2.7	6.6	6.6	7.4
EBITDA margin (%)	18.1	17.1	14.3	14.8	14.3	12.2	12.7	13.4
EBIT margin (%)	14.0	11.6	9.0	8.7	8.3	6.3	6.7	7.3
NIBD/EBITDA	1.39	1.53	2.26	2.33	2.75	3.36	3.25	3.03
EBITDA/Net interest	13.54	-	34.43	20.11	8.74	11.41	13.16	15.26

## Automotive priced for no growth

*Hella is a top-line growth case that offers only limited margin potential, but sustainable improvements in cash generation. With its product portfolio geared to future mobility trends, we see the company on a good growth trajectory (3Y organic CAGR of 6.0%) that is fully backed by a strong order book. While macro risks have clearly increased, our analysis shows that Hella is already priced for ~0% automotive growth in the current fiscal year despite a very strong Q1. Solid Q2 results should thus help to return investor's trust in Hella's growth capabilities and hence trigger a re-rating. Our EUR 44 target price is based on a SOTP, Buy.*

### Investment case

Hella's growth engine (CAGR: 7.9% since FY 12/13, 6.0% organic until FY 20/21e) is fuelled by leading market positions in key growth products. As a smaller player in the global automotive supplier market, however, Hella has to achieve technological leadership through extensive cash R&D spending.

The high investments and smaller size relative to most competitors burden return on capital and leave only limited room for margin expansion. Margin expansion, in turn, is mostly achieved through the addition of higher value-added products. The positive correlation between the R&D ratio and gross margin in the past suggests that some margin expansion is still possible.

Increased cash focus by CFO Bernard Schaeferbarthold, has resulted in cash conversion improvement from an avg. 12% to 32% in FY 17/18. We expect the trend to continue.

Though Hella was off to a very good start with 10.3% organic growth y/y in Q1 2018/19e, macro fears seem to pressure the share price, which is valued for ~0% automotive growth in FY 18/19, implying a c.3.5% sales decline for the remaining 9 months. Even with current uncertainty, we believe that this outcome is rather unlikely and hence see a good entry opportunity into Hella's growth case.

EURm	2017	2018	2019e	2020e	2021e
Revenues	6,585	7,060	7,044	7,371	7,810
EBITDA	867	974	1,134	947	1,016
EBIT	507	574	818	610	658
EPS	3.08	3.50	5.74	3.80	4.15
EPS adj	3.35	3.54	3.52	3.80	4.15
DPS	0.93	1.05	1.72	1.14	1.24
EV/EBITDA	5.9	6.2	3.3	4.0	3.6
EV/EBIT	10.2	10.5	4.6	6.3	5.6
P/E adj	13.5	15.2	10.2	9.5	8.7
P/B	2.26	2.42	1.34	1.24	1.13
ROE (%)	16.3	16.6	23.3	13.6	13.6
Div yield (%)	2.1	2.0	4.8	3.2	3.4
Net debt	278	187	(134)	(163)	(289)

Source: Pareto



Target price (EUR)	44
Share price (EUR)	36

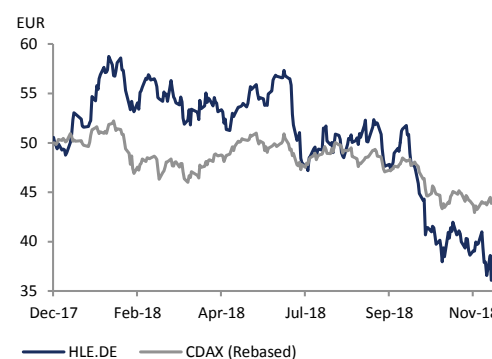
### Forecast changes

%	2019e	2020e	2021e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	HLE.DE, HLE GR
Sector	Automobiles & parts
Shares fully diluted (m)	111.1
Market cap (EURm)	4,009
Net debt (EURm)	-233
Minority interests (EURm)	5
Enterprise value 19e (EURm)	3,781
Free float (%)	37

### Performance



Source: Factset

### Analysts

Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com  
Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com

*Hella holds market leading positions in key growth technologies in lighting and electronics*

*Sum of the Parts analysis suggests a target price of EUR 44, Buy*

*Scenario analysis reveals that the Automotive segment is already priced for ~0% growth and hence risk reward is skewed to the upside*

*Q2 reporting should help to return investors' trust in Hella's growth capabilities despite macro uncertainties*

*Low visibility on Chinese market poses biggest threat; macro uncertainty high in general with potential hard Brexit also affecting FY 18/19*

## Company profile

HELLA KGaA Hueck & Co. engages in the development and manufacture of lighting technology and electronics components for the automotive industry. Through extensive R&D efforts, the company secures leading market positions in key growth technologies like LED lighting, battery mgmt., and ADAS. Hella operates through the segments Automotive (c.85%), Aftermarket (c.10%), and Special Applications (c.5%). In addition, the company has a significant JV network around the globe. Closest competitors in the lighting market are Valeo, Automotive Lighting, and Koito. The electronics market is mostly dominated by larger players (e.g. Bosch, Continental, Denso). Hella's **fiscal year ends on the 31<sup>st</sup> of May**. The company is family owned (60% pooled) and the shares are locked up until FY 2023/24 (another c.6% not locked and not pooled).

## Valuation and recommendation

We value Hella based on a Sum of the Parts, using global lighting, electronics, and aftermarket peers. For the Automotive segment, we further distinguished between lighting and electronics peers, which we equally weight (the sub-segments should have a similar EBIT contribution). We further apply a 5% discount to the Aftermarket multiple, as we expect slower growth in the division for Hella vs. that of peers. Despite Hella's lower ROIC vs. peers we do not apply a discount to the Automotive segment as growth perspectives are ahead of listed competitors. Most notably, we excluded at equity income from EBIT and valued it separately, using an appropriate peer P/E and P/B on JV income and JV book value, respectively. All data has been calendarized to match the calendar year 2019 in order to ensure maximum comparability to peers. Based on our above assumptions, we calculate a target price of EUR 44.

In order to account for the high macro uncertainty, we believe the best way to look at Hella's shares is through case scenarios. We focus on the Automotive segment (c.85% of sales and EBIT) only and provide two scenarios, aside from our base case: 1) 0% Automotive growth, 2) -5% Automotive segment decline. Notably, the covered scenarios focus on FY 18/19 and conservatively assume growth in line with our base case assumptions for the following years. We estimate the EBIT impact of our scenarios, based on an operating lvg. of c.17% on incremental sales to the upside (and deduct EUR 25m headwinds for raw material and ramp-ups) and c.25% to the downside.

## Upcoming triggers and drivers

After reporting a very strong Q1 with 10.3% organic growth, CFO Schaeferbarthold cautioned the market with respect to Q2 performance due to WLTP and China uncertainties. While the CFO meant to say "slower **growth** in Q2 and likely better H2 again" the market seemed to have understood "disastrous Q2 and H2 is uncertain". Given a strong ramp-up pipeline and Hella's strength with German OEMs that still perform well even in the currently weak Chinese market, we believe that Hella could surprise the market with a solid Q2 (Sep-Nov).

**Next scheduled reporting:** Q2/H1 FY 18/19 results on January 11<sup>th</sup>

## Risks to the investment case

News flow around the potential incentive program in China became sparse, making a fast market recovery increasingly unlikely (i.e. weak H1 expected). With Hella's fiscal year ending May the company would thus suffer from 11M of China weakness. While Hella's set-up allows for strong market outperformance the risk of project delays or cancellations with Chinese OEMs clearly increases, which could put the FY 18/19 guidance at risk. A potential hard Brexit would also fall into HLE's FY 18/19, most likely adversely affecting results.

Long-term, the future of head- and rear lights remains unclear for fully autonomous cars, while medium-term new competitors could erode margins.



## Sum of the Parts valuation

Segment	Adj. EBIT 2019e	Fair multiple 2019e	EV	Premium/Discount
Automotive	455.6	8.5x	3,865	0%
Aftermarket	47.9	9.2x	443	-5%
Special OE	44.8	8.5x	380	0%
Other	0.4	8.7x	3	
<b>Group</b>	<b>548.8</b>	<b>8.5x</b>	<b>4,691</b>	
<i>Net income JVs</i>	<i>45.1</i>	<i>7.3x</i>	<i>328</i>	
<i>BV of JVs</i>	<i>309.6</i>	<i>1.1x</i>	<i>340</i>	
<b>Market value of JVs</b>			<b>334</b>	
- Net debt (cash)			-134	
- Pension provisions			277	
- Minorities & Peripherals			5	
+ Other EV items			0	
<b>Equity Value</b>			<b>4,877</b>	
<i># of shares year end</i>			<i>111</i>	
<b>Fair value per share</b>			<b>43.9</b>	

Source: Factset, Hella, Pareto Securities Research

## Peer Group

	EV/Sales		EV/EBITDA		EV/EBIT		P / E		P / B		Growth CAGR		ROIC* 5Y hist.	3Y hist.	EBIT adj. (%)		
Automotive	2019	2020	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020	3Y EPS	3Y EBIT	2019	2020
Median	0.88x	0.78x	5.6x	4.8x	9.3x	8.5x	7.0x	13.3x	11.8x	10.4x	2.8x	1.9x	1.7x	6.6%	5.7%	19.2%	9.3%
Average	0.85x	0.77x	5.9x	5.2x	10.0x	9.2x	7.7x	12.6x	11.7x	9.9x	3.3x	2.2x	1.9x	10.2%	5.9%	19.6%	9.5%
Lighting																	
Valeo SA	0.50x	0.47x	4.1x	3.8x	8.7x	7.8x	6.9x	9.6x	8.0x	6.8x	3.0x	1.2x	1.0x	-4.7%	0.5%	22.3%	7.6%
OSRAM Licht AG	0.98x	0.92x	7.1x	6.0x	12.4x	12.3x	9.4x	16.9x	18.1x	13.8x	2.6x	1.5x	1.4x	-2.2%	1.3%	18.4%	12.7%
Stanley Electric Co., Ltd.	0.90x	0.79x	4.3x	3.7x	8.1x	7.0x	5.9x	13.8x	12.5x	11.4x	1.8x	1.4x	1.2x	11.5%	9.2%	13.8%	10.7%
Koito Manufacturing Co., Ltd.	0.88x	0.78x	5.1x	4.4x	7.8x	6.8x	5.9x	13.2x	12.5x	11.3x	2.6x	1.9x	1.7x	3.8%	6.8%	26.7%	11.1%
Median	0.89x	0.78x	4.7x	4.1x	8.4x	7.4x	6.4x	13.5x	12.5x	11.4x	2.6x	1.4x	1.3x	0.8%	4.0%	20.3%	10.9%
Average	0.82x	0.74x	5.1x	4.5x	9.3x	8.5x	7.0x	13.4x	12.8x	10.8x	2.5x	1.5x	1.3x	2.1%	4.4%	20.3%	10.5%
Electronics																	
Autoliv Inc.	0.99x	0.90x	6.5x	5.6x	10.2x	8.8x	7.5x	12.2x	10.8x	9.4x	3.0x	2.4x	2.0x	24.7%	9.9%	18.0%	9.0%
Aptiv PLC	1.50x	1.38x	8.9x	8.1x	13.2x	11.9x	10.6x	13.9x	12.8x	11.4x	5.7x	3.9x	3.3x	10.6%	10.0%	34.2%	14.5%
Visteon Corporation	0.87x	0.78x	7.9x	6.7x	11.2x	11.1x	7.5x	13.1x	12.4x	8.9x	9.3x	6.2x	5.2x	10.4%	7.3%	19.6%	7.5%
DENSO CORPORATION	0.72x	0.67x	5.5x	5.0x	10.3x	9.6x	8.5x	13.5x	11.1x	9.5x	1.2x	1.0x	1.0x	12.4%	6.1%	9.8%	7.4%
LEONI AG	0.33x	0.31x	4.5x	4.1x	8.8x	8.4x	7.3x	7.1x	6.6x	5.8x	1.6x	0.8x	0.7x	33.4%	3.9%	13.3%	3.7%
Median	0.87x	0.78x	6.5x	5.6x	10.3x	9.6x	7.5x	13.1x	11.1x	9.4x	3.0x	2.4x	2.0x	12.4%	7.3%	18.0%	7.6%
Average	0.88x	0.81x	6.7x	5.9x	10.7x	9.9x	8.3x	11.9x	10.7x	9.0x	4.2x	2.9x	2.4x	18.3%	7.4%	19.0%	8.5%
Aftermarket																	
Mekomen AB	0.79x	0.73x	7.9x	6.9x	16.3x	10.6x	9.2x	8.7x	7.4x	6.7x	1.5x	1.2x	1.1x	11.5%	20.8%	15.2%	9.9%
Pendragon PLC	0.11x	0.11x	4.0x	3.9x	6.9x	6.5x	6.0x	9.2x	8.4x	8.4x	0.9x	0.8x	0.7x	-3.5%	0.8%	16.0%	2.0%
Inter Cars S.A.	0.45x	0.39x	8.5x	7.8x	11.2x	9.7x	8.8x	11.4x	10.3x	10.1x	1.3x	1.2x	1.2x	9.6%	14.2%	17.3%	4.6%
Median	0.45x	0.39x	7.9x	6.9x	11.2x	9.7x	8.8x	9.2x	8.4x	8.4x	1.5x	1.2x	1.1x	9.6%	14.2%	16.0%	4.6%
Average	0.45x	0.41x	6.8x	6.2x	11.5x	8.9x	8.0x	9.8x	8.7x	8.4x	1.5x	1.1x	1.0x	5.8%	11.9%	16.1%	5.5%
JVs																	
Valeo SA	0.50x	0.47x	4.1x	3.8x	8.7x	7.8x	6.9x	9.6x	8.0x	6.8x	3.0x	1.2x	1.0x	-4.7%	0.5%	22.3%	7.6%
Faurecia SA	0.29x	0.26x	2.6x	2.2x	4.6x	4.3x	3.8x	6.4x	5.9x	5.4x	2.3x	1.1x	1.0x	11.0%	6.9%	24.0%	5.1%
DENSO CORPORATION	0.72x	0.67x	5.5x	5.0x	10.3x	9.6x	8.5x	13.5x	11.1x	9.5x	1.2x	1.0x	1.0x	12.4%	6.1%	9.8%	7.4%
Magna International Inc.	0.48x	0.46x	4.6x	4.4x	7.0x	6.5x	6.3x	7.1x	6.6x	6.0x	1.4x	1.2x	1.1x	11.7%	1.1%	23.9%	7.8%
Hyundai Mobis Co., Ltd	0.24x	0.20x	2.9x	2.3x	5.0x	3.6x	2.8x	8.3x	7.3x	6.7x	0.8x	0.5x	0.5x	18.2%	10.7%	11.4%	7.2%
Median	0.48x	0.46x	4.1x	3.8x	7.0x	6.5x	6.3x	8.3x	7.3x	6.7x	1.4x	1.1x	1.0x	11.7%	6.1%	22.3%	7.4%
Average	0.45x	0.41x	3.9x	3.5x	7.1x	6.4x	5.7x	9.0x	7.8x	6.9x	1.7x	1.0x	0.9x	9.7%	5.1%	18.3%	7.0%
HELLA GmbH & Co. KGaA	0.58x	0.55x	4.5x	4.2x	7.7x	7.1x	0.0x	10.7x	9.9x	0.0x	1.4x	1.3x	1.3x	7.3%	5.3%	15.9%	7.8%

Source: Factset, Pareto Securities Research

prices as of 04/12/2018

## Case scenarios

Scenario	Group Sales CY 2019*	Group EBIT CY 2019*	EBIT margin CY 2019*	Δ vs. base case		M multiple EV/EBIT*19	Equity value	Per share
				Sales	EBIT			
Base case	7,235	548.8	7.6%	0.0%	0.0%	8.5x	4,872.8	43.9
Scenario 1	6,841	466.3	6.8%	-5.4%	-15.0%	8.5x	4,676.6	37.5
Scenario 2	6,560	397.0	6.1%	-9.3%	-27.7%	8.5x	3,575.2	32.2

Source: Factset, Hella, Pareto Securities Research

## Pareto vs. consensus

	2019e			2020e			2021e		
	Pareto	Cons.	Delta	Pareto	Cons.	Delta	Pareto	Cons.	Delta
<b>Revenues</b>	<b>7,043.7</b>	<b>7,106.6</b>	<b>-0.9%</b>	<b>7,371.4</b>	<b>7,432.2</b>	<b>-0.8%</b>	<b>7,810.4</b>	<b>7,912.8</b>	<b>-1.3%</b>
<b>Adj. EBIT</b>	<b>571.5</b>	<b>573.0</b>	<b>-0.3%</b>	<b>609.8</b>	<b>603.0</b>	<b>1.1%</b>	<b>658.0</b>	<b>646.0</b>	<b>1.9%</b>

Source: Factset, Hella, Pareto Securities Research

Note: Deconsolidation of HellaNor c.EUR 65 sales at EUR 0 EBIT not fully reflected in consensus yet

PROFIT & LOSS (fiscal year) (EURm)	2014	2015	2016	2017	2018	2019e	2020e	2021e
Revenues	5,343	5,835	6,352	6,585	7,060	7,044	7,371	7,810
EBITDA	618	710	763	867	974	1,134	947	1,016
Depreciation & amortisation	(309)	(336)	(396)	(412)	(444)	(360)	(384)	(407)
EBIT	347	430	420	507	574	818	610	658
Net interest	(38)	(36)	(40)	(44)	(44)	(39)	(36)	(31)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	309	394	380	463	530	778	574	627
Taxes	(79)	(98)	(108)	(120)	(140)	(139)	(150)	(165)
Minority interest	(7)	(8)	(3)	(1)	(1)	(1)	(1)	(2)
Net profit	223	287	269	342	389	637	422	461
EPS reported	2.23	2.70	2.42	3.08	3.50	5.74	3.80	4.15
EPS adjusted	2.60	2.80	2.83	3.35	3.54	3.52	3.80	4.15
DPS	0.59	0.78	0.78	0.93	1.05	1.72	1.14	1.24
<b>BALANCE SHEET (EURm)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
Tangible non current assets	1,430	1,612	1,698	1,907	1,994	2,149	2,312	2,473
Other non-current assets	512	569	558	614	695	718	729	743
Other current assets	1,525	1,728	1,826	2,019	2,211	2,303	2,423	2,551
Cash & equivalents	992	1,008	914	1,098	1,021	1,342	871	997
Total assets	4,459	4,917	4,995	5,638	5,921	6,513	6,334	6,764
Total equity	1,342	1,910	1,979	2,226	2,478	3,000	3,233	3,569
Interest-bearing non-current debt	1,418	1,139	1,152	1,377	1,208	1,208	708	708
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	1,502	1,626	1,622	1,764	1,958	2,028	2,117	2,211
Total liabilities & equity	4,459	4,917	4,995	5,638	5,921	6,513	6,334	6,764
<b>CASH FLOW (EURm)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
Cash earnings	583	738	639	839	948	738	816	880
Change in working capital	(48)	(178)	(37)	(147)	(158)	(23)	(39)	(45)
Cash flow from investments	(647)	(523)	(532)	(636)	(634)	(158)	(557)	(582)
Cash flow from financing	285	(69)	(74)	138	(272)	(117)	(691)	(127)
Net cash flow	329	16	(94)	184	(77)	321	(471)	126
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
Share price (EUR end)		44.5	33.9	45.1	53.8	36.1	36.1	36.1
Number of shares end period	100	111	111	111	111	111	111	111
Net interest bearing debt	425	131	238	278	187	(134)	(163)	(289)
Enterprise value		4,942	3,866	5,159	6,007	3,781	3,813	3,698
EV/Sales		0.8	0.6	0.8	0.9	0.5	0.5	0.5
EV/EBITDA		7.0	5.1	5.9	6.2	3.3	4.0	3.6
EV/EBIT		11.5	9.2	10.2	10.5	4.6	6.3	5.6
P/E reported		16.5	14.0	14.7	15.4	6.3	9.5	8.7
P/E adjusted		15.9	12.0	13.5	15.2	10.2	9.5	8.7
P/B		2.6	1.9	2.3	2.4	1.3	1.2	1.1
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
ROE adjusted (%)	20.4	18.3	16.2	17.7	16.7	14.3	13.6	13.6
Dividend yield (%)		1.8	2.3	2.1	2.0	4.8	3.2	3.4
EBITDA margin (%)	11.6	12.2	12.0	13.2	13.8	16.1	12.9	13.0
EBIT margin (%)	6.5	7.4	6.6	7.7	8.1	11.6	8.3	8.4
NIBD/EBITDA	0.69	0.18	0.31	0.32	0.19	(0.12)	(0.17)	(0.28)
EBITDA/Net interest	17.75	20.23	20.73	20.57	22.21	22.50	26.66	32.79

## FY 2020 earnings swing seems underestimated by the market

*Following several years of very strong order intake, Leoni currently suffers from the start-up costs of these orders. While the market initially underestimated this dampening effect on FY 2019e earnings, it now seems to be too pessimistic for the expected earnings recovery in FY 2020. Buy, target price EUR 34.*

### Investment Case

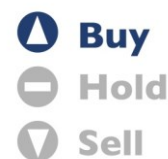
After a record order intake in FY 17 (2.3x book-to-bill in the Wiring Systems business), Leoni is currently in the ramp-up process for these orders, which naturally weighs on profitability. Though the margin in 2018 was already burdened, the peak of the ramp-up costs lies in FY 19. Overall we thus expect profitability in FY 19e to remain roughly flat vs. FY 18e, which was also burdened by a weak auto market in H2, especially in China and Europe.

While the market was slow to understand that the earnings burden from ramp-up costs would also last into FY 19, we believe that consensus still underestimates the positive earnings swing once the new orders reach their maximum profitability in 2020 (PAS >30% EBIT increase). It seems like the current situation rather brings back memories of 2014/15 for many investors, when a badly executed ramp-up significantly deteriorated the profitability of the company and led to several profit warnings. However, our research shows that the current margin pressure is justified in light of the strong orders, and there is no indication that things are going wrong again. Besides, none of the senior managers responsible for the 2015 ramp-ups are still in office today.

The new efficiency program "Value 21" should further help to improve profitability. While first results should be visible starting in FY 2019, the bulk should come in FY 2020ff.

EURm	2016	2017	2018e	2019e	2020e
Revenues	4,431	4,923	5,023	5,116	5,515
EBITDA	230	375	354	355	437
EBIT	79	225	196	197	261
EPS	0.33	4.44	3.80	3.84	5.27
EPS adj	2.09	4.05	4.02	4.14	5.59
DPS	0.50	1.40	1.18	1.17	1.61
EV/EBITDA	7.4	7.0	4.8	4.7	3.8
EV/EBIT	21.4	11.6	8.6	8.5	6.3
P/E adj	16.2	15.4	7.1	6.8	5.1
P/B	1.22	2.01	0.85	0.78	0.70
ROE (%)	1.1	15.1	11.8	11.0	13.8
Div yield (%)	1.5	2.2	4.2	4.1	5.7
Net debt	404	406	592	565	540

Source: Pareto



Target price (EUR)	34
Share price (EUR)	28

### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	LEOGN.DE, LEO GY
Sector	Automobiles & parts
Shares fully diluted (m)	32.7
Market cap (EURm)	926
Net debt (EURm)	763
Minority interests (EURm)	7
Enterprise value 18e (EURm)	1,696
Free float (%)	57

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Manufacturer of specialty cables and wires*

## Company profile

Leoni is a manufacturer of specialty cables and wires, which are used in many different applications. The largest end market for these is the automotive industry. Additionally, the company also develops and produces wiring systems for passenger cars and trucks.

While the production of wires and cables is a highly automated process with a large share of value stemming from raw materials (especially copper), the production of wiring systems is a highly labour intensive procedure, which is typically done in low cost locations such as Eastern Europe and North Africa or Mexico.

Leoni is one of the few automotive suppliers which are clear beneficiaries of the trend towards electric cars as those typically come with a higher content per vehicle, while the highly labour intensive products are unlikely to attract new competitors.

## Valuation and recommendation

*Target price of EUR 34.0*

We value Leoni based on an international peer group of automotive suppliers, focusing on companies with a low share of products that are affected by the e-mobility transition. We base our target price on the multiples for FY 2019 and FY 2020, which is in our view conservative as FY 2019 should mark the year when ramp-up costs for the new orders peak. Valuing Leoni solely based on FY 2020e estimates would result in a target price of 38.1, which is roughly 12% above our current target price of EUR 34.

Due to differences in the capital intensity within the peer group, we use PE and EV/EBIT multiples and refrain from using EV/EBITDA multiples.

Our target price of EUR 34.0 implies a target PE of 8.2 for FY 2019e and 6.1x for FY 2020e. With an upside potential of 17% to our target price we rate Leoni with Buy.

## Upcoming triggers and drivers

The guidance for FY 2018e of an EBIT of EUR 196m should be realistic and thus no trigger for the shares. The guidance for FY 2019, which will most likely be released in March 2019, should not hold any surprises either given that the company has already indicated that EBIT will most likely be up yoy, though not much. The fact that consensus EBIT still stands at roughly EUR 218m – which is too high in our view – is mainly a function of analysts not having updated their models yet, we believe. We have already included this in our forecasts.

The main trigger could in our view be the capital markets day in spring 2019, during which Leoni will present more details regarding its efficiency program “Value 21”. This should foster the market’s confidence in the strong earnings swing in FY 2020, and hence allow investors a fresh look at the stock.

**Next scheduled reporting:** FY 2018 results March 2019.

## Risk to the investment case

Short term, another profit warning caused by a continuing slump in the Chinese car market could severely hurt trust in the company and endanger the expected earnings swing in 2020. Additionally, ramp-up problems with the existing orders could also burden the results as well as confidence for the future.

## Leoni - Peer Group valuation

	EBIT margin 2019e	ROIC(EBIT) 2016	EBIT CAGR 2017 - 2020e	EPS CAGR 2017 - 2020e
DENSO CORPORATION	7.4%	9.4%	5%	11%
EringKlinger AG	6.4%	11.9%	-2%	1%
HELLA GmbH & Co. KGaA	11.7%	16.2%	5%	7%
Continental AG	9.1%	26.6%	1%	4%
Sumitomo Electric Industries, Ltd.	5.6%	8.9%	6%	6%
Valeo SA	6.0%	24.1%	1%	-5%
<b>Median</b>	<b>7.7%</b>	<b>16.2%</b>	<b>2.7%</b>	<b>3.9%</b>
<b>LEONI AG*</b>	<b>4.1%</b>	<b>7.5%</b>	<b>5%</b>	<b>11%</b>

Company	PE 2019e	PE 2020e	EV/EBIT 2019e	EV/EBIT 2020e
DENSO CORPORATION	12.0	11.1	8.4	7.5
EringKlinger AG	7.3	6.4	10.8	10.0
HELLA GmbH & Co. KGaA	9.1	8.5	6.3	5.8
Continental AG	8.7	7.7	6.1	5.4
Sumitomo Electric Industries, Ltd.	9.4	8.8	7.5	6.7
Valeo SA	7.8	6.6	6.4	5.6
<b>Median</b>	<b>8.9</b>	<b>8.1</b>	<b>7.0</b>	<b>6.3</b>
Forecasts Adjusted EPS / Adjusted EBIT	4.14	5.59	210.55	275.38
Forecasts Net debt (incl. pensions)			735	710
No. Shares at year end	32.7	32.7	32.7	32.7
<b>Fair value per share at peer median</b>	<b>36.9</b>	<b>45.3</b>	<b>22.3</b>	<b>30.9</b>
<b>Fair value / share (av.)</b>	<b>34</b>			

Source: Factset, Pareto Securities Research

<b>PROFIT &amp; LOSS (fiscal year) (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
<b>Revenues</b>	<b>3,918</b>	<b>4,103</b>	<b>4,503</b>	<b>4,431</b>	<b>4,923</b>	<b>5,023</b>	<b>5,116</b>	<b>5,515</b>
<b>EBITDA</b>	<b>302</b>	<b>310</b>	<b>287</b>	<b>230</b>	<b>375</b>	<b>354</b>	<b>355</b>	<b>437</b>
Depreciation & amortisation	(139)	(128)	(136)	(151)	(150)	(158)	(159)	(176)
<b>EBIT</b>	<b>163</b>	<b>183</b>	<b>151</b>	<b>79</b>	<b>225</b>	<b>196</b>	<b>197</b>	<b>261</b>
Net interest	(32)	(32)	(25)	(25)	(25)	(25)	(24)	(23)
Other financial items	-	-	-	-	-	-	-	-
<b>Profit before taxes</b>	<b>131</b>	<b>151</b>	<b>126</b>	<b>55</b>	<b>200</b>	<b>171</b>	<b>173</b>	<b>237</b>
Taxes	(26)	(35)	(49)	(43)	(56)	(48)	(48)	(66)
Minority interest	(0)	(0)	(0)	(1)	1	1	1	1
<b>Net profit</b>	<b>106</b>	<b>115</b>	<b>77</b>	<b>11</b>	<b>145</b>	<b>124</b>	<b>125</b>	<b>172</b>
EPS reported	3.23	3.51	2.36	0.33	4.44	3.80	3.84	5.27
<b>EPS adjusted</b>	<b>3.99</b>	<b>3.73</b>	<b>2.27</b>	<b>2.09</b>	<b>4.05</b>	<b>4.02</b>	<b>4.14</b>	<b>5.59</b>
DPS	1.00	1.20	1.00	0.50	1.40	1.18	1.17	1.61
<b>BALANCE SHEET (EURm)</b>								
Tangible non current assets	710	810	902	949	1,052	1,183	1,287	1,381
Other non-current assets	150	151	171	243	245	252	258	263
Other current assets	1,342	1,511	1,484	1,545	1,644	2,066	1,892	1,920
Cash & equivalents	198	232	280	209	185	167	169	172
<b>Total assets</b>	<b>2,400</b>	<b>2,704</b>	<b>2,837</b>	<b>2,946</b>	<b>3,126</b>	<b>3,667</b>	<b>3,606</b>	<b>3,736</b>
Total equity	828	918	996	916	1,024	1,101	1,187	1,319
Interest-bearing non-current debt	455	548	727	612	591	759	734	711
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	1,004	1,081	964	1,235	1,341	1,637	1,515	1,534
<b>Total liabilities &amp; equity</b>	<b>2,400</b>	<b>2,704</b>	<b>2,837</b>	<b>2,946</b>	<b>3,126</b>	<b>3,667</b>	<b>3,606</b>	<b>3,736</b>
<b>CASH FLOW (EURm)</b>								
Cash earnings	160	248	198	174	258	281	283	347
Change in working capital	27	(67)	30	1	(13)	(126)	52	(8)
Cash flow from investments	(154)	(220)	(248)	(203)	(234)	(295)	(269)	(276)
Cash flow from financing	(148)	61	139	(147)	(38)	121	(63)	(61)
Net cash flow	(118)	34	48	(71)	(24)	(19)	3	2
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>								
<b>Share price (EUR end)</b>	<b>54.3</b>	<b>49.4</b>	<b>36.4</b>	<b>33.8</b>	<b>62.4</b>	<b>28.3</b>	<b>28.3</b>	<b>28.3</b>
Number of shares end period	33	33	33	33	33	33	33	33
Net interest bearing debt	257	316	447	404	406	592	565	540
<b>Enterprise value</b>	<b>2,146</b>	<b>2,089</b>	<b>1,790</b>	<b>1,701</b>	<b>2,624</b>	<b>1,696</b>	<b>1,667</b>	<b>1,641</b>
EV/Sales	0.5	0.5	0.4	0.4	0.5	0.3	0.3	0.3
<b>EV/EBITDA</b>	<b>7.1</b>	<b>6.7</b>	<b>6.2</b>	<b>7.4</b>	<b>7.0</b>	<b>4.8</b>	<b>4.7</b>	<b>3.8</b>
EV/EBIT	13.2	11.4	11.8	21.4	11.6	8.6	8.5	6.3
P/E reported	16.8	14.1	15.4	-	14.1	7.5	7.4	5.4
<b>P/E adjusted</b>	<b>13.6</b>	<b>13.2</b>	<b>16.1</b>	<b>16.2</b>	<b>15.4</b>	<b>7.1</b>	<b>6.8</b>	<b>5.1</b>
P/B	2.1	1.8	1.2	1.2	2.0	0.8	0.8	0.7
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>								
ROE adjusted (%)	15.6	14.0	7.7	7.1	13.6	12.4	11.8	14.6
Dividend yield (%)	1.8	2.4	2.7	1.5	2.2	4.2	4.1	5.7
EBITDA margin (%)	7.7	7.6	6.4	5.2	7.6	7.0	6.9	7.9
EBIT margin (%)	4.2	4.4	3.4	1.8	4.6	3.9	3.8	4.7
NIBD/EBITDA	0.85	1.02	1.56	1.75	1.08	1.67	1.59	1.24
EBITDA/Net interest	9.53	9.70	11.35	9.37	14.93	14.09	14.68	18.74

## Premium asset at a premium price

***NORMA Group is manufacturer of joining technology products for the automotive industry and a variety of other applications. Its business is characterized by solid organic growth and strong margins, but this also at a premium price. Following two years of very strong growth we expect momentum to cool down in FY 2019 and consider the shares relatively fairly valued at the moment. We thus rate NORMA Group with Hold and a target price of EUR 50.***

### Investment Case

Following a year of weaker growth in FY 2016, NORMA Group has shown extremely strong organic growth in FY 2017 (8.6%) and 2018 (YTD: 9.7%). We expect this momentum to cool down to a more normal level in FY 2019e as it was partly driven by catch-up effects and strong cyclical growth in the US truck market.

At the same time the company has suffered in FY 2018 from slightly weaker margins, an effect that was mainly related to increased raw material costs. Adj. EBIT margin has thus guided to drop below the target of more than 17% for the first time in more than 5 years. We currently forecast an adj. EBIT margin of 16.2% in FY 2018e.

While price increases should compensate for the higher raw material costs in the coming quarters, we nonetheless expect the adj. EBITA margin to stay below the usual 17%+ level for another year.

Though we like Norma's stable organic growth business combined with high capital returns and the potential for value accretive acquisitions, we see this already fully reflected in consensus and the current share price. In the absence of visible triggers (e.g. significant M&A or unexpectedly high organic growth), we thus remain on "Hold" for the stock.

EURm	2016	2017	2018e	2019e	2020e
Revenues	895	1,017	1,090	1,138	1,175
EBITDA	175	196	204	222	237
EBIT	120	138	142	159	171
EPS	2.38	3.76	2.88	3.22	3.55
EPS adj	2.99	4.37	3.45	3.74	4.06
DPS	0.95	1.05	1.15	1.29	1.42
EV/EBITDA	9.7	10.9	9.4	8.4	7.7
EV/EBIT	14.1	15.5	13.6	11.8	10.6
P/E adj	13.6	12.8	14.7	13.6	12.5
P/B	2.68	3.35	2.73	2.46	2.22
ROE (%)	16.6	23.6	16.3	16.5	16.3
Div yield (%)	2.3	1.9	2.3	2.5	2.8
Net debt	390	333	298	245	182

Source: Pareto



Target price (EUR)	50
Share price (EUR)	51

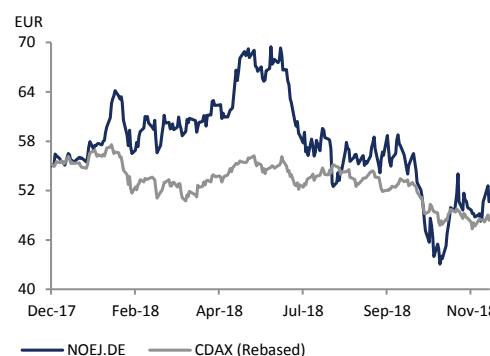
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	NOEJ.DE, NOEJ GR
Sector	Automobiles & parts
Shares fully diluted (m)	31.9
Market cap (EURm)	1,614
Net debt (EURm)	310
Minority interests (EURm)	3
Enterprise value 18e (EURm)	1,927
Free float (%)	100

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Norma is a leading manufacturer of joining technology products*

*Scale advantages for cheap parts than can cause high damage allows for premium margins*

*Target price of EUR 50*

*Market mainly focuses on organic growth, which we believe will cool down after a strong 2018. Consensus expectations should not be disappointed*

## Company profile

NORMA Group is a market leader in advanced and standardized connecting technology (joining, mounting, and fluid-handling technology). Products include clamps, joining elements, and fluid systems/connectors. NORMA sells its products through two distinct distribution channels: Engineered Joining Technology (products designed for the special requirements of Automotive OEMs) and Distribution Services (standardized branded products sold through multipliers).

Norma achieves high margins as a clear market leader (scale advantages) for inexpensive but crucial parts (expensive if they fail). Growth is mainly driven by green mobility and water scarcity in many regions.

## Valuation and recommendation

We value NORMA relative to automotive (EJT) and Water Technology peers. In order to derive our target price, we weighted the respective peer group multiples according to their estimated profit split (50% EJT/50% Water Technology).

In order to properly reflect Norma's strong market position in Engineered Joining Technology business, we use a sample of high quality automotive suppliers to the car and truck industry. We would consider Stabilus the single best peer as it also has a dominant market position in low-cost parts, providing sustainable high organic growth and margins.

For the Distribution Services business (50% share) we use international peers which also produce branded products for the DIY and gardening sector. These include for example Husqarna, which owns NORMA's European competitor in the Water business Gardena, and Fiscars.

Due to differences in the capital intensity within the peer group, we use PE and EV/EBIT multiples and refrain from using EV/EBITDA multiples.

Our target price of EUR 50.0 implies a target PE of 13.3x for FY 2019e as well as a target EV/EBIT ratio of 10.2x. With a slight downside potential of 2% to our target price we rate NORMA with a Hold recommendation.

## Upcoming triggers and drivers

As the margin level tends to be pretty stable on a high level of c.17% (2018 was an exception due to raw material price hikes), the market is mostly concerned with Norma's organic growth rate. Preliminary reporting for FY 2018 in February 2019 will, in our view, show a slowdown in the organic growth rate (from a high level), however, a gradual normalization in the margin. FY 2019 guidance for organic growth will likely be on the conservative side after the strong growth and the high base in FY 2018. We would expect a broad range of most likely 2-5% vs. consensus currently looking for c.5.2%. Consequently, in the absence of further visible events, we lack a meaningful trigger that could result in a re-rating for the shares.

**Next scheduled reporting:** Preliminary FY 2018 results in February 2019 (date not yet disclosed)

## Risk to the investment case

Upside risks include larger, value accretive, acquisitions, as well as a stronger than expected organic growth and a quicker than expected recovery of margin. Downside risks are mainly weaker than expected growth, further margin pressure and acquisitions deemed value destructive by the market.



## Norma - Peer Group valuation

Company	PE 2018e	PE 2019e	EV/EBIT 2018e	EV/EBIT 2019e	EV/EBITDA 2018e	EV/EBITDA 2019e
<b>Automotive Suppliers (50%)</b>						
Brembo S.p.A.	12.4	11.7	9.7	8.9	6.8	6.2
SAF-Holland	10.9	8.5	9.4	7.2	7.0	5.7
Stabilus SA	14.1	14.0	11.4	10.3	8.9	8.0
Autoliv Inc.	12.2	10.8	9.8	8.5	7.0	6.2
Aptiv PLC	13.9	12.8	12.8	11.8	9.4	8.6
<b>Average</b>	<b>12.7</b>	<b>11.6</b>	<b>10.6</b>	<b>9.3</b>	<b>7.8</b>	<b>6.9</b>
<b>Water Technology / Distribution Businesses (50%)</b>						
Husqarna	17.5	13.5	15.4	10.7	10.4	7.9
Toro Company	22.2	19.8	nm	nm	nm	nm
Fiskars Oyj Abp	15.9	15.3	10.8	11.5	7.7	8.0
Lindsay Corporation	53.1	29.7	nm	nm	nm	nm
<b>Median</b>	<b>19.9</b>	<b>17.5</b>	<b>13.1</b>	<b>11.1</b>	<b>9.0</b>	<b>8.0</b>
<b>Weighted Avg.</b>	<b>16.3</b>	<b>14.5</b>	<b>11.9</b>	<b>10.2</b>	<b>8.4</b>	<b>7.5</b>
<b>NORMA Group</b>	<b>14.7</b>	<b>13.6</b>	<b>11.4</b>	<b>10.3</b>	<b>9.4</b>	<b>8.4</b>
relativ	90.1%	93.2%	96.4%	100.8%	112.2%	113.0%
<b>Fair value</b>	<b>50</b>					

Source: Factset, Pareto Securities Research

PROFIT & LOSS (fiscal year) (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Revenues	636	695	890	895	1,017	1,090	1,138	1,175
EBITDA	126	132	177	175	196	204	222	237
Depreciation & amortisation	(26)	(34)	(52)	(55)	(58)	(62)	(64)	(66)
EBIT	100	98	125	120	138	142	159	171
Net interest	(16)	(14)	(17)	(15)	(16)	(16)	(14)	(11)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	84	83	108	105	122	127	145	159
Taxes	(28)	(29)	(34)	(29)	(2)	(35)	(42)	(46)
Minority interest	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Net profit	56	55	74	76	120	92	103	113
EPS reported	1.74	1.72	2.31	2.38	3.76	2.88	3.22	3.55
EPS adjusted	1.83	1.90	2.82	2.99	4.37	3.45	3.74	4.06
DPS	0.70	0.75	0.90	0.95	1.05	1.15	1.29	1.42
BALANCE SHEET (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Tangible non current assets	115	154	170	201	205	213	218	220
Other non-current assets	326	587	615	664	612	616	618	619
Other current assets	188	263	297	307	339	361	375	386
Cash & equivalents	194	84	100	166	155	190	243	306
Total assets	824	1,089	1,182	1,338	1,312	1,381	1,454	1,531
Total equity	320	368	430	484	534	593	659	731
Interest-bearing non-current debt	332	431	451	555	488	488	488	488
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	158	274	289	287	277	288	295	300
Total liabilities & equity	824	1,089	1,182	1,338	1,312	1,381	1,454	1,531
CASH FLOW (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Cash earnings	100	118	124	130	146	129	144	157
Change in working capital	5	(31)	(10)	7	(14)	(11)	(7)	(6)
Cash flow from investments	(21)	(33)	(45)	(134)	(71)	(49)	(48)	(47)
Cash flow from financing	(21)	(22)	(24)	(29)	(30)	(33)	(37)	(41)
Net cash flow	(1)	2	(4)	(0)	0	-	-	-
CAPITALIZATION & VALUATION (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Share price (EUR end)	36.1	39.6	51.2	40.6	56.0	50.7	50.7	50.7
Number of shares end period	32	32	32	32	32	32	32	32
Net interest bearing debt	138	347	351	390	333	298	245	182
Enterprise value	1,302	1,627	1,993	1,694	2,131	1,927	1,874	1,811
EV/Sales	2.0	2.3	2.2	1.9	2.1	1.8	1.6	1.5
EV/EBITDA	10.3	12.3	11.3	9.7	10.9	9.4	8.4	7.7
EV/EBIT	13.1	16.6	16.0	14.1	15.5	13.6	11.8	10.6
P/E reported	20.7	23.1	22.1	17.1	14.9	17.6	15.7	14.3
P/E adjusted	19.7	20.9	18.1	13.6	12.8	14.7	13.6	12.5
P/B	3.6	3.4	3.8	2.7	3.4	2.7	2.5	2.2
FINANCIAL ANALYSIS & CREDIT METRICS	2013	2014	2015	2016	2017	2018e	2019e	2020e
ROE adjusted (%)	19.2	17.6	22.5	20.8	27.4	19.5	19.0	18.6
Dividend yield (%)	1.9	1.9	1.8	2.3	1.9	2.3	2.5	2.8
EBITDA margin (%)	19.8	19.0	19.9	19.5	19.3	18.7	19.5	20.1
EBIT margin (%)	15.7	14.1	14.0	13.4	13.5	13.0	13.9	14.5
NIBD/EBITDA	1.09	2.63	1.99	2.23	1.70	1.46	1.10	0.77
EBITDA/Net interest	7.97	9.13	10.26	11.92	12.22	13.16	16.29	20.69

## Strong order book, low ICE exposure, high level of debt

*As a specialist for lightweight construction, PWO's business is largely independent of disruptions in the automotive sector, allowing a sustainable growth. Its products are used to increase a vehicle's efficiency. As such, PWO is even a beneficiary of the tightening CO<sub>2</sub> targets (both via the combustion engine and upcoming electro mobility), which is well reflected by its strong order book. The downside to the strong order book is a high level of capex in recent years, which led to a high level of debt. Buy, Target Price: EUR 36.0.*

### Investment case

In the last years, PWO has won a large number of new orders, mainly due to its products, which help to make the car lighter and thus more fuel efficient. This high order intake – in FYs 2015 and 2016 PWO showed a book-to-bill ratio of 1.6x - should result in strong revenue development in the coming years. For the period 2016 – 2021e we estimate a revenue CAGR of 5.0%.

The strong order situation required PWO to increase capacity. This increase of capacity has not only resulted in an increase of financial debt (NIBD incl. pensions / EBITDA 2018e: 4.0x), but also resulted in ramp up costs, which have burdened the profitability.

In FY 2018 PWO should finish the investment phase. We therefore expect profitability to increase over the next years as orders ramp up, ramp-up costs go down and the overall efficiency of the relatively new plants increases.

Short-term, the company suffers from significantly weaker demand in China and the US and increased raw material costs.

Driven by increased profitability and lower capex need, we expect PWO to generate significant FCF over the next years, which should allow the company to de-lever.

EURm	2016	2017	2018e	2019e	2020e
Revenues	410	461	475	490	506
EBITDA	45	45	43	48	53
EBIT	20	21	18	21	24
EPS	3.05	3.22	2.25	3.38	4.08
EPS adj	3.47	3.85	2.42	3.38	4.08
DPS	1.60	1.65	0.90	1.25	1.43
EV/EBITDA	6.8	7.3	6.3	5.6	4.9
EV/EBIT	15.4	15.9	15.2	12.8	10.8
P/E adj	11.5	12.1	11.1	7.9	6.6
P/B	1.17	1.28	0.73	0.68	0.64
ROE (%)	9.1	9.2	6.2	8.9	10.0
Div yield (%)	4.0	3.5	3.4	4.7	5.3
Net debt	124	126	130	130	122

Source: Pareto



Target price (EUR)	36
Share price (EUR)	27

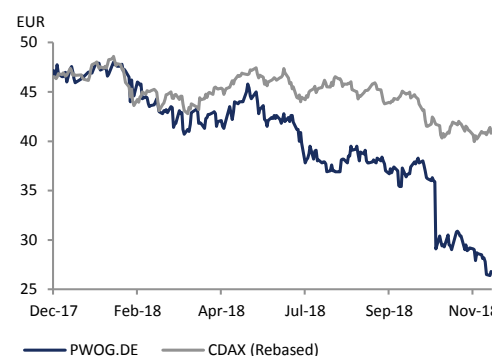
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	PWOG.DE, PWOG GR
Sector	Automobiles & parts
Shares fully diluted (m)	3.1
Market cap (EURm)	84
Net debt (EURm)	185
Minority interests (EURm)	0
Enterprise value 18e (EURm)	268
Free float (%)	47

### Performance



Source: Factset

**Pareto Securities AS has been paid by the issuer to produce this research report. This material is considered by Pareto Securities to qualify as an acceptable minor non-monetary benefit according to the EU MIFID 2 directive.**

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Manufacturer of metal components for the car industry*

## Company profile

Progress Werk Oberkirch (PWO) is an automotive supplier specialized in components and subsystems used in lightweight construction, responsible for safety and comfort. Main focus is on premium cars (PAS 55% of revenue).

The company operates along the whole value-chain, including the development of products, the manufacturing of necessary tools, and the production of high quality parts in high quantities.

The company's products have almost no exposure to the internal combustion engine or the conventional powertrain of the car and are thus not at risk through the upcoming electrification of the powertrain. Lightweight components on the other hand continue to gain importance as they are a means to reduce CO<sub>2</sub> emissions and to increase the reach of a battery electric car.

## Valuation and recommendation

We value PWO based on a DCF model, which we think is most appropriate as PWO has invested heavily in the last years to ramp up production, which should result in lower capex and a strengthening of FCF in the next years. A Peer Group model would however fail to adequately value this aspect of PWO's investment case.

Key assumptions in our DCF model are a sustainable EBIT margin of 5.8%, a perpetual growth rate of 2.0% as well as a WACC of 7.0%.

Our target price of EUR 36.0 implies a target PE of 10.6 for FY 2019e and 8.8x for FY 2020e. With an upside potential of 30% to our target price we rate PWO with a Buy recommendation.

## Upcoming triggers and drivers

After the recent profit warning, we consider the new guidance as realistic. While a positive surprise is thus possible, we would also not rule out a possible further negative surprise, depending on market conditions. What is important in our view is that PWO manages to keep its cash flow under control, which should however be possible given the already announced plan to cut the original capex budget to now only EUR 35m (from EUR 42m).

PWO has voided its mid-term targets with the recent profit warning and will most likely present new – but lower – targets with the FY 2018 reporting. Additionally, we expect the company to give more details on planned cost cutting measures.

**Next scheduled reporting:** Preliminary FY 2018 results on February 22<sup>nd</sup>, 2019.

## Risk to the investment case

Short term, another profit warning caused by a continuing slump in the Chinese car market could severely hurt trust in the company. The biggest risk is in our view the inflated debt level, which currently amounts to 3.1x NIBD / EBITDA (FY 2018e). Including pension provisions we would even see a NIBD / EBITDA level of around 4.0x. This is in our view a risky level if the automotive industry were to enter into a longer and more severe downturn.

*Target price of EUR 36*

*3.1x NIBD / EBITDA*

## Exhibit 41: DCF valuation

EUR m	Phase I					Phase II					Phase III
	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	
<b>Revenues</b>	<b>475</b>	<b>490</b>	<b>506</b>	<b>522</b>	<b>538</b>	<b>553</b>	<b>567</b>	<b>581</b>	<b>595</b>	<b>607</b>	
growth rate	3.0%	3.2%	3.3%	3.1%	3.0%	2.8%	2.6%	2.5%	2.3%	2.1%	
<b>EBIT</b>	<b>18</b>	<b>21</b>	<b>24</b>	<b>29</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>35</b>	
EBIT margin	3.7%	4.3%	4.8%	5.5%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	
<b>Tax</b>	<b>-7.1</b>	<b>-6.3</b>	<b>-7.2</b>	<b>-8.6</b>	<b>-11.3</b>	<b>-11.7</b>	<b>-12.0</b>	<b>-12.3</b>	<b>-12.6</b>	<b>-12.8</b>	
Tax rate	40%	30%	30%	30%	36%	36%	36%	36%	36%	36%	
<b>Depr. &amp; Amort.</b>	<b>25.0</b>	<b>27.0</b>	<b>28.9</b>	<b>31.3</b>	<b>32.3</b>	<b>32.4</b>	<b>32.8</b>	<b>33.5</b>	<b>34.1</b>	<b>34.8</b>	
% of sales	5.3%	5.5%	5.7%	6.0%	6.0%	5.9%	5.8%	5.8%	5.7%	5.7%	
<b>Capex</b>	<b>-34.2</b>	<b>-29.5</b>	<b>-28.9</b>	<b>-31.4</b>	<b>-32.3</b>	<b>-33.2</b>	<b>-34.1</b>	<b>-34.9</b>	<b>-35.7</b>	<b>-36.5</b>	
% of sales	7.2%	6.0%	5.7%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	
<b>Change in WC</b>	<b>2.3</b>	<b>-6.7</b>	<b>-2.3</b>	<b>-3.7</b>	<b>-3.7</b>	<b>-3.5</b>	<b>-3.4</b>	<b>-3.3</b>	<b>-3.2</b>	<b>-3.0</b>	
% of sales	-0.5%	14%	0.4%	0.7%	0.7%	0.6%	0.6%	0.6%	0.5%	0.5%	
<b>Chg. in other ass. /liab.</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	
% of sales	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Free Cash Flow</b>	<b>3.9</b>	<b>5.8</b>	<b>14.8</b>	<b>16.5</b>	<b>16.5</b>	<b>16.4</b>	<b>16.6</b>	<b>17.1</b>	<b>17.5</b>	<b>18.0</b>	<b>366.5</b>
growth rate	nm	47.3%	nm	117%	0.0%	-0.7%	14%	2.5%	2.9%	2.8%	2.0%
<b>Present Value FCF</b>	<b>3.9</b>	<b>5.4</b>	<b>12.9</b>	<b>13.4</b>	<b>12.5</b>	<b>11.6</b>	<b>11.0</b>	<b>10.6</b>	<b>10.2</b>	<b>9.8</b>	<b>198.4</b>

<b>PV Phase I</b>	<b>48</b>	<b>Risk free rate</b>	3.50%	<b>Targ. equity ratio</b>	60%
<b>PV Phase II</b>	<b>53</b>	<b>Premium Equity</b>	5.00%	<b>Beta</b>	1.3
<b>PV Phase III</b>	<b>198</b>	<b>Premium Debt</b>	1.00%	<b>WACC</b>	7.00%

<b>Enterprise value</b>	<b>300</b>	<b>Sensitivity</b>	<b>Growth in phase III</b>				
- Net Debt (Cash)	126		1.0%	1.5%	2.0%	2.5%	3.0%
- Pension Provisions	55	6.30%	37	44	52	63	77
- Minorities & Peripherals	0	6.65%	31	37	44	53	64
+ MV of financial assets		WACC 7.00%	25	30	36	44	53
- Paid-out dividends for last FY	5	7.35%	20	25	30	36	44
+/- Other EV items		7.70%	16	20	24	30	36
<b>Equity value</b>	<b>114</b>						
<b>Number of shares</b>	<b>3.1</b>						
<b>Value per share (€)</b>	<b>36</b>						

Source: Pareto Securities Research

PROFIT & LOSS (fiscal year) (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Revenues	377	381	405	410	461	475	490	506
EBITDA	43	39	43	45	45	43	48	53
Depreciation & amortisation	(21)	(22)	(25)	(25)	(24)	(25)	(27)	(29)
EBIT	22	17	18	20	21	18	21	24
Net interest	(6)	(6)	(6)	(5)	(6)	(6)	(6)	(6)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	17	11	12	14	15	12	15	18
Taxes	(4)	(3)	(5)	(5)	(5)	(5)	(5)	(5)
Minority interest	-	-	-	-	-	-	-	-
Net profit	13	7	8	10	10	7	11	13
EPS reported	4.20	2.34	2.41	3.05	3.22	2.25	3.38	4.08
EPS adjusted	4.24	2.86	2.18	3.47	3.85	2.42	3.38	4.08
DPS	1.80	1.45	1.55	1.60	1.65	0.90	1.25	1.43
<b>BALANCE SHEET (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Tangible non current assets	144	164	173	177	179	188	190	190
Other non-current assets	12	12	11	11	12	11	10	9
Other current assets	135	166	165	169	194	192	193	196
Cash & equivalents	8	5	4	2	9	3	(2)	(1)
Total assets	299	347	352	359	394	394	392	394
Total equity	102	96	103	107	113	115	123	132
Interest-bearing non-current debt	108	130	137	126	135	133	128	121
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	48	67	62	72	91	91	86	87
Total liabilities & equity	299	347	352	359	394	394	392	394
<b>CASH FLOW (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Cash earnings	34	38	21	46	35	32	38	42
Change in working capital	(8)	(19)	5	(4)	(2)	2	(7)	(2)
Cash flow from investments	(23)	(34)	(27)	(29)	(29)	(33)	(29)	(28)
Cash flow from financing	4	17	2	(15)	4	(7)	(8)	(11)
Net cash flow	0	(3)	(1)	(2)	7	(6)	(5)	1
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Share price (EUR end)	43.9	35.0	36.5	40.0	46.5	26.8	26.8	26.8
Number of shares end period	3	3	3	3	3	3	3	3
Net interest bearing debt	100	125	133	124	126	130	130	122
Enterprise value	278	288	297	304	326	268	269	261
EV/Sales	0.7	0.8	0.7	0.7	0.7	0.6	0.5	0.5
EV/EBITDA	6.5	7.4	6.9	6.8	7.3	6.3	5.6	4.9
EV/EBIT	12.5	17.3	16.4	15.4	15.9	15.2	12.8	10.8
P/E reported	10.4	15.0	15.1	13.1	14.4	11.9	7.9	6.6
P/E adjusted	10.4	12.2	16.7	11.5	12.1	11.1	7.9	6.6
P/B	1.3	1.1	1.1	1.2	1.3	0.7	0.7	0.6
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
ROE adjusted (%)	12.8	9.0	6.8	10.3	11.0	6.6	8.9	10.0
Dividend yield (%)	4.1	4.1	4.3	4.0	3.5	3.4	4.7	5.3
EBITDA margin (%)	11.4	10.2	10.6	10.9	9.8	9.0	9.8	10.5
EBIT margin (%)	5.9	4.4	4.5	4.8	4.5	3.7	4.3	4.8
NIBD/EBITDA	2.31	3.21	3.09	2.79	2.80	3.04	2.71	2.31
EBITDA/Net interest	7.64	6.43	7.47	8.25	7.72	7.13	8.02	9.01

## Self-help dominates cyclical concerns

*SAF-Holland is a supplier to the cyclical truck and trailer industry. At the moment, margins are under pressure as SAF suffers from excessive demand in the US. With the situation set to improve, cost cutting measures coming into effect and no imminent weakness of the market expected, we rate SAF-HOLLAND a Buy with a target price of EUR 14.2.*



Target price (EUR)	14.2
Share price (EUR)	12.6

### Investment Case

When the truck market declined strongly in FY 2016, SAF Holland took the decision to go forward with its plant consolidation in the US, a move they had already done successfully in Europe. However, the market rebounded quickly and much stronger than expected, which led to strong pressure on margins in the US.

After the trough in Q4 2017, earnings in the US have started to recover sequentially, which should result in strong yoy earnings growth in FY 2019. We expect this positive development to continue for at least two years as SAF should later on benefit also from the cost savings in the US, which were the goal of the plant consolidation. FOR FY 2019e we expect adj. EBIT to grow by 26% yoy to EUR 119m or 8.7% of revenue.

Cyclical concerns are from our view dominated by the self-help aspect of SAF's investment story. The US truck manufacturers are likely to be booked out for most of 2019 already and in the European trailer market there are currently no signs of weakness.

Medium-term, we see further growth opportunities. While the truck and trailer markets are generally growing markets, we see further room for growth for SAF. This includes an increase of the highly profitable after-market business, which typically follows the OE business with a time lag as well as new products such as an automated coupling system, which could significantly increase the value added of SAF-HOLLAND's products in a truck and trailer combination.

EURm	2016	2017	2018e	2019e	2020e
Revenues	1,042	1,139	1,306	1,365	1,309
EBITDA	101	97	108	139	140
EBIT	78	73	79	105	107
EPS	0.98	0.95	1.07	1.51	1.56
EPS adj	1.16	1.23	1.32	1.73	1.76
DPS	0.44	0.45	0.48	0.68	0.70
EV/EBITDA	7.5	9.8	7.2	5.4	5.0
EV/EBIT	9.7	13.1	9.9	7.1	6.6
P/E adj	11.8	14.6	9.5	7.3	7.1
P/B	2.06	2.71	1.74	1.52	1.37
ROE (%)	15.1	14.3	15.5	19.5	17.9
Div yield (%)	3.2	2.5	3.8	5.4	5.6
Net debt	99	106	174	144	100

Source: Pareto

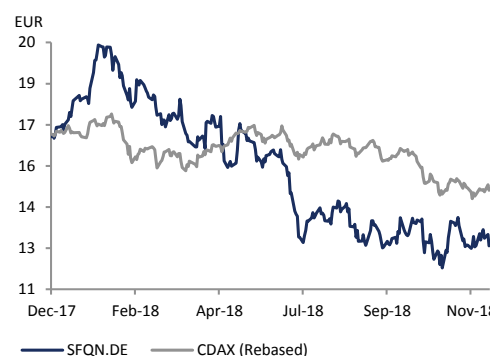
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	SFQN.DE, SFQ GR
Sector	Industrials
Shares fully diluted (m)	45.4
Market cap (EURm)	571
Net debt (EURm)	208
Minority interests (EURm)	1
Enterprise value 18e (EURm)	780
Free float (%)	100

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Manufacturer of truck and trailer components*

## Company profile

SAF-HOLLAND is one of the leading manufacturers of truck & trailer components. The company was established in 2006 by the merger of two industry leaders: SAF, Europe's Nr.2 producer of trailer axle systems, and Holland in the US. The company is specialized in trailer axle systems, fifth wheels, suspension systems, kingpins, landing gears and other parts. In addition SAF-HOLLAND maintains a global service network.

SAF operates in a structurally growing but cyclical industry, with the main drivers being demand for trucks and trailers. Key markets are Europe and North America, but also China and India are growing in importance. Main competitors are BPW, Jost and Hendrickson, with the closest listed comparable being the German Jost.

## Valuation and recommendation

*Target price of EUR 14.2*

We value SAF-Holland based on an international peer group of suppliers to the truck and trailer industry. We base our target price on the multiples for FY 2019, as we consider FY 2018 not an ideal comparison, given that SAF-HOLLAND is currently (and temporarily as we would argue) burdened by the strong demand in the US.

Due to differences in the capital intensity within the peer group, we use PE and EV/EBIT multiples and refrain from using EV/EBITDA multiples.

Our target price of EUR 14.2 implies a target PE of 8.2 for FY 2019e as well as target EV/EBIT ratio of 6.9. With an upside potential of 13% to our target price we rate SAF-HOLLAND with a Buy recommendation.

## Upcoming triggers and drivers

The next quarters should show a sequential margin improvement, driven by the recovery of the US business. We see three factors which should support this development:

1. With rising productivity of the plants, extra costs for overtime, specialty freight and other related issues should decrease
2. Price increases should mitigate the increased steel prices
3. Positive mix effects from a rebound in Aftermarket volume in 2019. As a consequence of the high demand in 2018, supply to the Aftermarket is currently restrained as products are needed for the OE clients. Given that Aftermarket products, according to our estimates, reach on average a 20 percentage points higher contribution margin, an Aftermarket rebound should come with a significant earnings improvement.

This should result in a return of yoy earnings growth from Q4 2018 onwards. For FY 2019e we expect adjusted EBIT to increase by 26% yoy to EUR 119m. The guidance for FY 2019 should most likely reflect this expected strong increase in margin, although we expect the company to remain somewhat cautious.

**Next scheduled reporting:** FY 2018 results in March 2019 (date not yet disclosed)

## Risks to the investment case

The main downside risk is in our view a cyclical downturn of the truck and trailer industry. Given that SAF is relatively divers with regard to regions and products we would expect a normal cyclicality to be buffered quite well, while a worldwide recession as seen in 2008/09 would clearly harm SAF a lot.



## SAF - Peer Group valuation

Company	EBIT margin 2018e	ROIC(EBIT) 2017	EBIT CAGR 2017 - 2020e	EPS CAGR 2017 - 2020e
WABCO Holdings Inc.	14.1%	27.9%	6%	nm
DEUTZ AG	4.6%	7.2%	38%	21%
JOST Werke AG	10.6%	20.7%	5%	
Meritor, Inc.	8.5%	30.5%	16%	17%
Continental AG	9.1%	27.2%	1%	4%
Dana Incorporated	8.2%	nm	12%	nm
<b>Average</b>	<b>9.2%</b>	<b>22.7%</b>	<b>13.0%</b>	<b>14.1%</b>
<b>SAF-HOLLAND S.A.*</b>	<b>7.3%</b>	<b>10.5%</b>	<b>10%</b>	<b>18%</b>

Company	PE 2018e	PE 2019e	EV/EBIT 2018e	EV/EBIT 2019e
WABCO Holdings Inc.	14.7	13.9	11.3	10.5
DEUTZ AG	12.9	10.3	9.8	7.3
JOST Werke AG	8.6	8.8	7.0	6.3
Meritor, Inc.	5.2	4.9	5.8	5.1
Continental AG	9.2	8.7	6.9	6.1
Dana Incorporated	4.9	4.4	5.1	4.7
<b>Median</b>	<b>9.2</b>	<b>8.5</b>	<b>7.6</b>	<b>6.7</b>
<b>SAF-HOLLAND S.A.</b>	<b>9.1</b>	<b>7.0</b>	<b>7.8</b>	<b>6.0</b>
relativ	98.8%	82.2%	102.4%	89.4%
<b>Fair value per share at peer median</b>	<b>12.2</b>	<b>14.7</b>	<b>11.4</b>	<b>13.6</b>
<b>Fair value / share (av.)</b>	<b>14.2</b>			

Source: Factset, Pareto Securities Research

<b>PROFIT &amp; LOSS (fiscal year) (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
<b>Revenues</b>	<b>857</b>	<b>960</b>	<b>1,061</b>	<b>1,042</b>	<b>1,139</b>	<b>1,306</b>	<b>1,365</b>	<b>1,309</b>
<b>EBITDA</b>	<b>67</b>	<b>80</b>	<b>103</b>	<b>101</b>	<b>97</b>	<b>108</b>	<b>139</b>	<b>140</b>
Depreciation & amortisation	(18)	(24)	(22)	(23)	(25)	(29)	(34)	(32)
<b>EBIT</b>	<b>49</b>	<b>57</b>	<b>82</b>	<b>78</b>	<b>73</b>	<b>79</b>	<b>105</b>	<b>107</b>
Net interest	(18)	(10)	(6)	(13)	(17)	(13)	(13)	(11)
Other financial items	-	-	-	-	-	-	-	-
<b>Profit before taxes</b>	<b>32</b>	<b>47</b>	<b>75</b>	<b>65</b>	<b>56</b>	<b>66</b>	<b>93</b>	<b>96</b>
Taxes	(7)	(14)	(24)	(21)	(15)	(18)	(25)	(26)
Minority interest	-	(0)	(0)	1	2	1	1	1
<b>Net profit</b>	<b>24</b>	<b>33</b>	<b>52</b>	<b>44</b>	<b>43</b>	<b>49</b>	<b>69</b>	<b>71</b>
EPS reported	0.54	0.72	1.14	0.98	0.95	1.07	1.51	1.56
<b>EPS adjusted</b>	<b>0.69</b>	<b>0.94</b>	<b>1.33</b>	<b>1.16</b>	<b>1.23</b>	<b>1.32</b>	<b>1.73</b>	<b>1.76</b>
DPS	0.27	0.32	0.40	0.44	0.45	0.48	0.68	0.70
<b>BALANCE SHEET (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Tangible non current assets	101	117	128	144	138	151	156	157
Other non-current assets	194	205	214	222	211	283	286	287
Other current assets	234	294	286	304	313	342	355	342
Cash & equivalents	24	44	261	345	337	269	299	343
<b>Total assets</b>	<b>553</b>	<b>659</b>	<b>889</b>	<b>1,015</b>	<b>998</b>	<b>1,044</b>	<b>1,096</b>	<b>1,129</b>
Total equity	222	249	288	305	303	330	376	415
Interest-bearing non-current debt	145	180	381	443	443	443	443	443
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	160	193	182	228	219	237	243	237
<b>Total liabilities &amp; equity</b>	<b>553</b>	<b>659</b>	<b>889</b>	<b>1,015</b>	<b>998</b>	<b>1,044</b>	<b>1,096</b>	<b>1,129</b>
<b>CASH FLOW (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Cash earnings	39	60	69	71	54	73	92	95
Change in working capital	8	(34)	(14)	4	(12)	(17)	(8)	7
Cash flow from investments	(14)	(21)	(22)	(24)	(27)	(105)	(33)	(27)
Cash flow from financing	-	(12)	(15)	(18)	(20)	(20)	(22)	(31)
Net cash flow	4	20	217	84	(7)	(68)	30	44
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
<b>Share price (EUR end)</b>	<b>10.8</b>	<b>11.1</b>	<b>12.5</b>	<b>13.6</b>	<b>17.9</b>	<b>12.6</b>	<b>12.6</b>	<b>12.6</b>
Number of shares end period	45	45	45	45	45	45	45	45
Net interest bearing debt	122	136	121	99	106	174	144	100
<b>Enterprise value</b>	<b>637</b>	<b>679</b>	<b>727</b>	<b>760</b>	<b>955</b>	<b>780</b>	<b>749</b>	<b>704</b>
EV/Sales	0.7	0.7	0.7	0.7	0.8	0.6	0.5	0.5
<b>EV/EBITDA</b>	<b>9.5</b>	<b>8.5</b>	<b>7.0</b>	<b>7.5</b>	<b>9.8</b>	<b>7.2</b>	<b>5.4</b>	<b>5.0</b>
EV/EBIT	12.9	12.0	8.9	9.7	13.1	9.9	7.1	6.6
P/E reported	20.1	15.4	11.0	14.0	19.0	11.7	8.3	8.0
<b>P/E adjusted</b>	<b>15.6</b>	<b>11.9</b>	<b>9.4</b>	<b>11.8</b>	<b>14.6</b>	<b>9.5</b>	<b>7.3</b>	<b>7.1</b>
P/B	2.2	2.0	2.0	2.1	2.7	1.7	1.5	1.4
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
ROE adjusted (%)	14.9	18.0	22.5	17.8	18.4	19.0	22.2	20.2
Dividend yield (%)	2.5	2.9	3.2	3.2	2.5	3.8	5.4	5.6
EBITDA margin (%)	7.8	8.4	9.7	9.7	8.5	8.3	10.2	10.7
EBIT margin (%)	5.8	5.9	7.7	7.5	6.4	6.0	7.7	8.2
NIBD/EBITDA	1.81	1.69	1.17	0.98	1.08	1.61	1.03	0.71
EBITDA/Net interest	3.80	8.28	16.61	7.49	5.90	8.29	11.15	12.48

## All eyes on 2019

*There is no need to sugar coat Schaeffler's situation. The company is highly dependent on the dying combustion engine and has to undergo a difficult transformation process in times of high macro uncertainty. While, it seems like the market has already priced the stock for the worst, sentiment risk remains high. Nevertheless, risk reward is skewed to the upside. Buy with TP EUR 10.6.*

### Investment case

Although Schaeffler's Automotive division is highly dependent on the combustion engine (c.42% of revenues), it is far from being a no growth business. The order book indicates unabated strong demand for its products with a btb ratio of 1.4x over the last 4 years (1.8x for H1'18). Growth stems from higher content in HEVs and cost efficient CO<sub>2</sub> reduction technology for combustion engines (i.e. outperforming global LVP). Even if we assume 100% BEV penetration by 2040, our model base case indicates a positive top-line CAGR.

With respect to the Automotive margin, 2019 could mark an inflection point, as ramp-up costs for planned record product starts in 2018 have already been incurred in H2'18, but sales did not come through due to project delays (no cancellations). If ramp-ups come through in 2019, we would expect to see a sizable positive earnings swing. While visibility remains low, we believe the market has already priced the shares for the worst (c.6% Auto margin implied in current peer valuation), i.e. risk reward is skewed to the upside.

With respect to e-mobility, intensifying competition and higher 3<sup>rd</sup> party content likely leads to lower margins. The shift is, however, neutral on capital returns as lower margins are offset by lower capex requirements.

The Industrial segment should achieve a stable margin after the sharp recovery in 2018, through cost discipline and spill-over effects from pricing.

EURm	2016	2017	2018e	2019e	2020e
Revenues	13,343	14,021	14,325	14,853	15,642
EBITDA	2,293	2,295	2,175	2,392	2,623
EBIT	1,556	1,528	1,366	1,546	1,726
EPS	1.29	1.47	1.32	1.51	1.71
EPS adj	1.50	1.55	1.39	1.51	1.71
DPS	0.50	0.55	0.50	0.57	0.65
EV/EBITDA	5.7	6.3	4.5	4.0	3.5
EV/EBIT	8.4	9.5	7.1	6.2	5.4
P/E adj	9.4	9.6	5.5	5.1	4.5
P/B	4.93	4.03	1.72	1.40	1.16
ROE (%)	50.9	45.2	32.5	30.5	28.4
Div yield (%)	3.6	3.7	6.6	7.5	8.5
Net debt	2,636	2,370	2,415	2,171	1,920

Source: Pareto



Target price (EUR)	10.6
Share price (EUR)	7.6

### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	SHA_P.DE, SHA GY
Sector	Automobiles & parts
Shares fully diluted (m)	666.0
Market cap (EURm)	5,080
Net debt (EURm)	4,539
Minority interests (EURm)	124
Enterprise value 18e (EURm)	9,744
Free float (%)	25

### Performance



Source: Factset

### Analysts

Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com  
Stefan Augustin  
+49 69 58997 430, stefan.augustin@paretosec.com

*Schaeffler is a leading system supplier for the automotive industry and the global #2 for industrial bearings*

*There are **no-cross holdings** between **Schaeffler** and **Continental***

*Our SOP returns a fair value per share of EUR 10.6*

*As there are no meaningful direct peers for the Aftermarket, we apply a 15% premium to the Automotive multiple (consistent with a segment DCF)*

*Record ramp-ups incurred costs in H2'18, but project delays burdened sales; should sales come through in FY19, the auto margin should see a considerable improvement*

*Current macro risk could put further pressure on SHA's auto margin*

*Company specific risks include a failure to deliver on cost savings...*

*...a faster than anticipated transition towards e-mobility ...*

*...and a further deterioration in the core auto margin*

## Company profile

The Schaeffler Group is a family-owned supplier for automotive and industrial manufacturers. The company operates through three segments: Automotive, Aftermarket, and Industrial. Under its brands INA and FAG, Schaeffler is a world leader for Industrial (#2) and Automotive (#1) bearings. The Automotive segment comprises of engine systems, transmission systems, chassis systems (independent of powertrain), and e-mobility. Schaeffler demands for many products (e.g. dual mass flywheels) market shares >20%. In 2008 Schaeffler took over Continental, but subsequently reduce its stake from 90% to 46%. Continental was separated from Schaeffler in 2015, but is still under the control of the Schaeffler family. There are no cross-holdings between SHA and CON.

## Valuation and recommendation

We value Schaeffler based on a SOTP approach (EBIT 2019), using comparable peers and hence we apply no discount to the multiple. For the ICE business (with massive ramp-down costs), we derive a value of c.EUR 4.5bn.

For the Aftermarket segment we apply a 15% premium to the Automotive multiple as no appropriate peers are available. Our results are consistent with an Aftermarket segment DCF assuming a terminal decline of 5.5%. Higher margins/capital returns and a more resilient business justify the premium. We use the six leading bearings peers for the Industrial segment.

We calculate a target price of EUR 10.6 per share, and rate the share a Buy.

## Upcoming triggers and drivers

The EBIT margin in 2018 was burdened by ramp-up costs for product starts in China. While costs have been incurred in H2'18, sales did not come through due to project delays (lack of contribution margin). We expect a mere c.6% EBIT margin for Q4'18 on the back of a weak China business. As projects have not been cancelled, we would expect a significant earnings swing in 2019 should projects materialize. While visibility on China is low, it seems that the market has priced Schaeffler for the worst (i.e. 6% Automotive margin for 2019) and hence, any positive news should trigger a re-rating, in our view. Consensus estimates for 2019 are likely too negative if the earnings swing materializes.

**Next scheduled reporting:** FY 2018 results on March 6<sup>th</sup>, 2019

## Risks to the investment case

Should (car) markets remain weak in 2019 (PAS +0.5% y/y China), we see an increased risk that ramp up projects with local Chinese OEMs will be cancelled. As a consequence, the negative margin momentum in automotive would continue. While this seems to be priced-in already, we remind the reader that a further souring sentiment would likely lead to additional pressure on the shares. The Industrial consensus, in turn, could prove too optimistic in the current macro environment.

We incorporate the guided operational improvements from the efficiency program "Agenda 4+1" of c.EUR 200m until 2022. Delays in the execution or shortfalls in terms of delivery would negatively impact our estimates.

A faster transition towards e-mobility than anticipated by us would skew our estimates to the downside as additional R&D and CAPEX needs would be required to cope with a faster transition.

A more rapid ICE business decline and pressure on the underlying ICE margin that is not related to e-mobility.

## Sum of the parts valuation

Segment	Adj. EBIT 2019 EURm	Applied multiple EV/EBIT	EV	per share
Automotive	831	6.8x	5,686	8.5
Aftermarket	344	7.9x	2,708	4.1
Industrial	370	8.5x	3,130	4.7
<b>Group</b>	<b>1,546</b>	<b>7.5x</b>	<b>11,524</b>	<b>17.3</b>
- Net debt (cash)			2,171	3.3
- Pension provisions			2,124	3.2
- Minorities & Peripherals			142	0.2
+ Other EV items			0	
<b>Equity Value</b>			<b>7,087</b>	
<b># of shares year end</b>			<b>666</b>	
<b>Fair value per share</b>			<b>10.6</b>	

Source: Factset, Pareto Securities Research

## Peer Group – Automotive &amp; Industrial

Automotive	EV/Sales 2019	EV/EBIT 2019	PE 2019	PB 2019	ROIC 5Y hist.	3Y EPS CAGR	3Y EBIT CAGR	EBIT adj. (%)
Delphi Technologies Plc	0.71x	7.3x	4.9x	2.8x	34.1%	-9.4%	5.1%	9.2%
BorgWarner Inc.	0.82x	6.4x	nm	1.6x	21.6%		8.0%	12.4%
Sogefi SPA	0.30x	5.6x	4.6x	0.7x	17.0%	7.3%	-0.1%	5.4%
Aisin Seiki Co Ltd	0.48x	7.4x	8.4x	0.8x	13.3%	8.0%	5.9%	6.0%
Exedy Corporation	0.49x	5.5x	nm	0.7x			9.3%	
JTEKT Corporation	0.53x	9.7x	9.4x	0.8x	12.0%	9.1%	4.1%	5.8%
<b>Median</b>	<b>0.51x</b>	<b>6.8x</b>	<b>6.6x</b>	<b>0.8x</b>	<b>17.0%</b>	<b>7.6%</b>	<b>5.5%</b>	<b>6.0%</b>
<b>Average</b>	<b>0.55x</b>	<b>7.0x</b>	<b>6.8x</b>	<b>1.2x</b>	<b>19.6%</b>	<b>3.7%</b>	<b>5.4%</b>	<b>7.8%</b>

Industry	EV/Sales 2019	EV/EBIT 2019	PE 2019	PB 2019	ROIC 5Y hist.	3Y EPS CAGR	3Y EBIT CAGR	EBIT adj. (%)
JTEKT Corporation	0.53x	9.7x	9.4x	0.8x	12.0%	9.1%	4.1%	5.8%
NSK Ltd.	0.56x	6.2x	9.9x	0.9x	13.2%	2.9%	1.7%	8.8%
Timken Company	1.18x	8.1x	nm		15.2%			10.2%
THK Co., Ltd.	0.77x	6.4x	11.1x	1.0x	8.3%	2.3%	6.9%	8.6%
NTN Corporation	0.68x	13.7x	9.5x	0.7x	8.7%	10.7%	2.1%	5.3%
SKF AB Class B	1.03x	8.8x	9.8x	1.8x	19.0%	6.0%	4.1%	11.2%
<b>Median</b>	<b>0.72x</b>	<b>8.5x</b>	<b>9.8x</b>	<b>0.9x</b>	<b>12.6%</b>	<b>6.0%</b>	<b>4.1%</b>	<b>8.7%</b>
<b>Average</b>	<b>0.79x</b>	<b>8.8x</b>	<b>9.9x</b>	<b>1.1x</b>	<b>12.8%</b>	<b>6.2%</b>	<b>3.8%</b>	<b>8.3%</b>

Source: Factset, Pareto Securities Research

Prices as of 04/12/2018

## Pareto vs. consensus

	2018e			2019e			2020e		
	Pareto	Cons.	Delta	Pareto	Cons.	Delta	Pareto	Cons.	Delta
<b>Revenues</b>	<b>14,325.4</b>	<b>14,417.8</b>	<b>-0.6%</b>	<b>14,852.7</b>	<b>14,998.5</b>	<b>-1.0%</b>	<b>15,642.4</b>	<b>15,583.4</b>	<b>0.4%</b>
t/o Automotive	9,115.5	9,205.0	-1.0%	9,557.3	9,637.0	-0.8%	10,147.5	10,058.9	0.9%
t/o Industrial	3,354.7	3,358.0	-0.1%	3,360.5	3,502.3	-4.0%	3,492.3	3,630.6	-3.8%
t/o Aftermarket	1,855.3	1,883.4	-1.5%	1,934.8	1,937.3	-0.1%	2,002.5	1,997.9	0.2%
<b>Adj. EBIT</b>	<b>1,435.8</b>	<b>1,479.5</b>	<b>-3.0%</b>	<b>1,545.5</b>	<b>1,595.5</b>	<b>-3.1%</b>	<b>1,726.1</b>	<b>1,699.9</b>	<b>1.5%</b>
t/o Automotive	738.4	807.8	-8.6%	831.5	873.7	-4.8%	964.0	933.0	3.3%
t/o Industrial	369.0	366.5	0.7%	369.7	405.0	-8.7%	401.6	431.7	-7.0%
t/o Aftermarket	328.4	333.0	-1.4%	344.4	349.7	-1.5%	360.5	363.0	-0.7%
<b>EPS</b>	<b>1.32</b>	<b>1.42</b>	<b>-7.3%</b>	<b>1.51</b>	<b>1.54</b>	<b>-1.8%</b>	<b>1.71</b>	<b>1.66</b>	<b>3.2%</b>
<b>EPS adj.</b>	<b>1.39</b>	<b>1.41</b>	<b>-1.4%</b>	<b>1.51</b>	<b>1.53</b>	<b>-1.0%</b>	<b>1.71</b>	<b>1.63</b>	<b>4.8%</b>

Source: Pareto Securities Research, Factset

<b>PROFIT &amp; LOSS (fiscal year) (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Revenues	-	12,124	13,179	13,343	14,021	14,325	14,853	15,642
EBITDA	-	2,172	2,096	2,293	2,295	2,175	2,392	2,623
Depreciation & amortisation	-	(649)	(694)	(737)	(767)	(809)	(846)	(897)
EBIT	-	1,523	1,402	1,556	1,528	1,366	1,546	1,726
Net interest	-	(619)	(547)	(341)	(192)	(131)	(133)	(129)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	-	904	855	1,215	1,336	1,235	1,412	1,597
Taxes	-	(242)	(250)	(343)	(339)	(340)	(388)	(439)
Minority interest	-	(8)	(14)	(13)	(17)	(17)	(18)	(19)
Net profit	-	654	591	859	980	878	1,006	1,139
EPS reported		1.30	0.96	1.29	1.47	1.32	1.51	1.71
EPS adjusted		1.51	1.49	1.50	1.55	1.39	1.51	1.71
DPS	-	-	0.50	0.50	0.55	0.50	0.57	0.65
<b>BALANCE SHEET (EURm)</b>								
Tangible non current assets	-	3,748	4,180	4,507	4,865	5,220	5,658	6,053
Other non-current assets	-	3,016	3,195	1,376	1,277	1,281	1,286	1,292
Other current assets	-	4,217	4,306	4,610	4,697	4,986	5,063	5,306
Cash & equivalents	-	636	799	1,071	698	653	897	748
Total assets	-	11,617	12,480	11,564	11,537	12,140	12,904	13,400
Total equity	-	258	1,568	1,997	2,548	3,082	3,772	4,548
Interest-bearing non-current debt	-	6,414	5,688	3,707	3,068	3,068	3,068	2,668
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	-	2,961	3,282	3,678	3,797	3,866	3,940	4,060
Total liabilities & equity	-	11,617	12,480	11,564	11,537	12,140	12,904	13,400
<b>CASH FLOW (EURm)</b>								
Cash earnings	-	779	1,256	1,854	1,747	1,693	1,827	2,065
Change in working capital	-	121	116	22	31	(208)	40	(133)
Cash flow from investments	-	(852)	(1,002)	(1,141)	(1,290)	(1,168)	(1,289)	(1,298)
Cash flow from financing	-	6,414	(167)	(2,310)	(969)	(361)	(334)	(782)
Net cash flow	-	636	163	272	(373)	(45)	244	(149)
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>								
Share price (EUR end)			16.3	14.1	14.8	7.6	7.6	7.6
Number of shares end period	-	-	666	666	666	666	666	666
Net interest bearing debt	-	5,778	4,889	2,636	2,370	2,415	2,171	1,920
Enterprise value			16,042	13,097	14,448	9,744	9,518	9,285
EV/Sales			1.2	1.0	1.0	0.7	0.6	0.6
EV/EBITDA			7.7	5.7	6.3	4.5	4.0	3.5
EV/EBIT			11.4	8.4	9.5	7.1	6.2	5.4
P/E reported			16.9	10.9	10.0	5.8	5.1	4.5
P/E adjusted			10.9	9.4	9.6	5.5	5.1	4.5
P/B			7.3	4.9	4.0	1.7	1.4	1.2
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>								
ROE adjusted (%)	-	592.4	100.2	56.0	45.3	33.0	29.3	27.4
Dividend yield (%)			3.1	3.6	3.7	6.6	7.5	8.5
EBITDA margin (%)	-	17.9	15.9	17.2	16.4	15.2	16.1	16.8
EBIT margin (%)	-	12.6	10.6	11.7	10.9	9.5	10.4	11.0
NIBD/EBITDA	-	2.66	2.33	1.15	1.03	1.11	0.91	0.73
EBITDA/Net interest	-	3.57	4.33	7.15	12.24	17.15	17.92	20.38

## Protected growth at attractive capital returns

*An investment in Stabilus offers high protected growth combined with above average capital returns. The company's strong competitive positioning (scale and IP) guards its high capital returns, while its electric tailgate system "Powerise" and its Industrial business offers strong growth potential. This growth stems from a demand for more comfort, which is independent of future Powertrain technologies or brand evolution, making it a safe bet on an uncertain future. We initiate with Buy, TP EUR 80.*

### Investment case

Stabilus' growth engine is fuelled by a demand for more comfort, which is independent of future powertrain technologies or brand evolution, increasing gas spring content per car and boosting the sale of the electric tailgate system "Powerise". Stabilus' main growth product (Powerise) offers significant market potential and is well suited for electric cars (e.g. Tesla Model X). The Industrial business (c.1/3 of sales), in turn, offers diversification at premium margins (2016 acquired SKF business generates c.25% EBIT margin), while not diluting growth. Over the medium-term, the company aims for avg. organic sales growth of 6%.

The strong growth is accompanied by highly attractive capital returns (PAS avg. RONIC of ~35% going forward). We attribute this to STM's one of a kind global automated production network for gas springs (proprietary intellectual property), combined with massive scale effects (near monopolistic market share in the Auto segment and dominant share in Industrial), both of which raise barriers to entry and hence protect the above average capital returns.

The unique combination of high, protected growth and attractive capital returns make Stabilus a scarce asset in the disruptive auto sector allowing a price premium.

EURm	2016	2017	2018e	2019e	2020e
Revenues	738	910	963	1,036	1,099
EBITDA	126	179	190	203	214
EBIT	77	118	132	144	154
EPS	2.21	3.21	3.74	4.23	4.54
EPS adj	3.06	3.60	4.34	4.74	4.99
DPS	0.50	0.80	1.00	1.15	1.40
EV/EBITDA	12.9	12.3	10.4	8.3	7.5
EV/EBIT	21.2	18.6	15.1	11.7	10.4
P/E adj	16.4	21.3	16.4	12.8	12.2
P/B	4.71	5.64	4.12	3.07	2.62
ROE (%)	28.3	26.5	24.2	22.8	21.1
Div yield (%)	1.0	1.0	1.4	1.9	2.3
Net debt	326	254	177	128	40

Source: Pareto



Target price (EUR)	80
Share price (EUR)	61

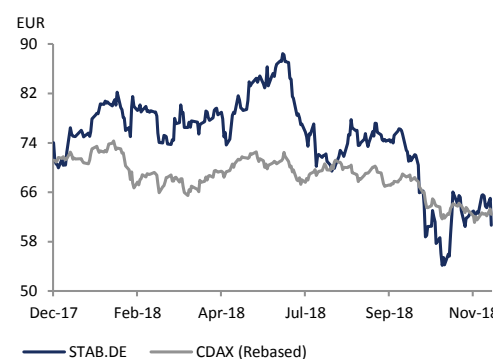
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	STAB.DE, STM GY
Sector	Automobiles & parts
Shares fully diluted (m)	24.7
Market cap (EURm)	1,498
Net debt (EURm)	229
Minority interests (EURm)	0
Enterprise value 18e (EURm)	1,985
Free float (%)	100

### Performance



Source: Factset

### Analysts

Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com  
Stefan Augustin  
+49 69 58997 430, stefan.augustin@paretosec.com



*Stabilus is the uncontested global market leader in gas springs*

*Target price of EUR 80 results 50/50 from DCF and peer group*

*An upwards revised guidance/ strong reporting, another industrial acquisition, and news flow on Powerise (model wins/ application in doors) should help to drive the stock*

*Dependency on Powerise is high  
Tariff risk as Powerise for NAFTA region is exclusively produced in Mexico*

## Company profile

Stabilus is a world leading supplier of pneumatic devices (gas springs, dampers, and an electric lifting system "Powerise"), all of which are used in automotive (c.65% of sales) and industrial (c.35% of sales) applications. In gas springs, STM controls a staggering c.70% market share in automotive and c.35% in industrial, which makes it ~15 times larger than its closest competitor in automotive and 2-3 times larger than the number two in the industrials business. Due to its strong kinematic know-how and close customer ties, STM soon thereafter established Powerise as the new industry norm and was able to rapidly gain share in the market for electric lifting devices. STM's FY ends in September.

## Valuation and recommendation

Our target price of EUR 80 is based on the average of a DCF (EUR 90) and a peer group valuation (EUR 70). For our DCF we apply a long-term growth rate of 2.0% and a WACC of 7.0%. Further core assumptions are:

- ▶ Terminal year D&A is fully adjusted for PP&A (i.e. excluded). Reported EBIT hence equals clean EBIT. We conservatively assume a terminal EBIT margin of 15%, although our research shows that underlying profitability could exceed even the 15.5% guided today.
- ▶ We continue to model a high RONIC (35% on avg.) as a result of Stabilus' high margin and capital efficient business model. The company guides for a top-line increase to growth CAPEX ratio of 3:1, which should be improved further as a consequence of the efficiency programme "STAR 2025". Contrary to our usual zero value adding growth assumption, our Stabilus model implicitly assumes a 20% RONIC in perpetuity (vs. avg. 70% in the last years).

Our group of peers consists of companies with a dominant market position in low-cost parts, providing capital returns and growth opportunities in line with STM. The direct competitors in the gas spring are excluded as they are mostly unlisted, too small, or the gas spring business accounts for only a marginal part of their overall business. ElringKlinger and Norma are the best fit companies from a pure product view with their dominant market positions in single products. Industrial peers include Atlas Copco and Assa Abloy. While business comparability is low, the financial metrics are a good match. In line with Stabilus estimated EBIT split being closer to 50/50 between Automotive and Industrial, we equally weight both peer groups.

## Upcoming triggers and drivers

Stabilus is well known for its conservative guidance in the market that was frequently revised upwards in recent years. We believe that this is also the case with the current guidance. Stabilus should conveniently reach the guided 15.5% margin (our research indicates that on a fully adjusted basis, the margin would have reached >16% in FY 17/18 already), while growth could be revised upwards with unabated Powerise growth in China and an additional line in Europe, proving current consensus as conservative. Another acquisition in the Industrial segment is on the horizon.

With the success story of the SKF subsidiary acquisition in mind, we believe that news flow on M&A could lead to a re-rating of the shares.

**Next scheduled reporting:** Q1 18/19 results on the 4<sup>th</sup> of February

## Risks to the investment case

Medium-term, the biggest risk in our view is that a potential new industry norm technology for Powerise is not developed by Stabilus.

While NAFTA treaty has been renegotiated, there is a risk to Stabilus stemming from limitations to ship from Mexico into the US as currently Powerise for the NAFTA region is solely produced in Mexico.



## DCF valuation

EUR m	2018e	2019e	Phase I 2020e	2021e	2022e	2023e	2024e	Phase II 2025e	2026e	2027e	Phase III
<b>Revenues</b>	<b>963</b>	<b>1,036</b>	<b>1,099</b>	<b>1,169</b>	<b>1,230</b>	<b>1,287</b>	<b>1,340</b>	<b>1,388</b>	<b>1,431</b>	<b>1,467</b>	
growth rate	5.8%	7.6%	6.1%	6.4%	5.2%	4.7%	4.1%	3.6%	3.1%	2.5%	
<b>EBIT rep.</b>	<b>131.9</b>	<b>144.0</b>	<b>154.3</b>	<b>167.7</b>	<b>176.0</b>	<b>185.7</b>	<b>194.9</b>	<b>205.6</b>	<b>212.2</b>	<b>220.6</b>	
EBIT margin	13.7%	13.9%	14.0%	14.3%	14.3%	14.4%	14.5%	14.8%	14.8%	15.0%	
<b>Tax</b>	<b>-34.3</b>	<b>-36.6</b>	<b>-39.2</b>	<b>-42.6</b>	<b>-44.7</b>	<b>-47.2</b>	<b>-49.5</b>	<b>-52.2</b>	<b>-53.9</b>	<b>-56.0</b>	
Tax rate	26.0%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	
<b>NOPAT</b>	<b>97.6</b>	<b>107.4</b>	<b>115.1</b>	<b>125.1</b>	<b>131.3</b>	<b>138.5</b>	<b>145.4</b>	<b>153.4</b>	<b>158.3</b>	<b>164.6</b>	
RONIC (%)		98.1%	18.2%	60.2%	31.1%	37.7%	35.4%	44.7%	30.3%	42.1%	
<b>Depr. &amp; Amort.</b>	<b>58.3</b>	<b>58.9</b>	<b>59.7</b>	<b>58.5</b>	<b>60.2</b>	<b>61.3</b>	<b>61.9</b>	<b>59.5</b>	<b>57.7</b>	<b>53.8</b>	
% of sales	6.1%	5.7%	5.4%	5.0%	4.9%	4.8%	4.6%	4.3%	4.0%	3.7%	
<b>Capex</b>	<b>-45.3</b>	<b>-70.4</b>	<b>-53.8</b>	<b>-57.3</b>	<b>-59.0</b>	<b>-60.5</b>	<b>-60.3</b>	<b>-59.7</b>	<b>-59.4</b>	<b>-65.3</b>	
% of sales	4.7%	6.8%	4.9%	4.9%	4.8%	4.7%	4.5%	4.3%	4.2%	4.5%	
<b>Change in WC &amp; operating provisions</b>	<b>-5.5</b>	<b>-12.9</b>	<b>-7.4</b>	<b>-8.3</b>	<b>-7.1</b>	<b>-7.5</b>	<b>-7.8</b>	<b>-8.1</b>	<b>-8.3</b>	<b>-5.9</b>	
% of sales	0.6%	1.2%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.4%	
<b>Free Cash Flow</b>	<b>105.1</b>	<b>83.1</b>	<b>113.5</b>	<b>118.1</b>	<b>125.4</b>	<b>131.9</b>	<b>139.2</b>	<b>145.2</b>	<b>148.4</b>	<b>147.2</b>	<b>2,991.2</b>
growth rate		-20.9%	36.6%	4.0%	6.1%	5.2%	5.5%	4.3%	2.2%	-0.8%	2.0%
<b>Present Value FCF</b>	<b>105.1</b>	<b>78.6</b>	<b>100.3</b>	<b>97.5</b>	<b>96.7</b>	<b>95.1</b>	<b>93.7</b>	<b>91.4</b>	<b>87.3</b>	<b>80.9</b>	<b>1,644.0</b>

<b>PV Phase I</b>	<b>478</b>	<b>Risk free rate</b>	3.50%	<b>Targ. equity ratio</b>	70%
<b>PV Phase II</b>	<b>448</b>	<b>Premium Equity</b>	5.00%	<b>Beta</b>	1.05
<b>PV Phase III</b>	<b>1,644</b>	<b>Premium Debt</b>	0.50%	<b>WACC</b>	7.0%

<b>Enterprise value</b>	<b>2,571</b>	<b>Sensitivity</b>	<b>Growth in phase III</b>				
- Net Debt (Cash)	<b>254</b>		<b>1.0%</b>	<b>1.5%</b>	<b>2.0%</b>	<b>2.5%</b>	<b>3.0%</b>
- Pension Provisions	<b>53</b>	<b>6.0%</b>	97.4	105.7	116.1	129.4	147.2
- Minorities & Peripherals	<b>0</b>	<b>6.5%</b>	87.5	94.1	102.1	112.1	124.9
+ MV of financial assets	<b>0</b>	<b>WACC 7.0%</b>	79.2	84.5	90.8	98.6	108.2
- Paid-out dividends for last FY	<b>20</b>	<b>7.5%</b>	72.3	76.6	81.6	87.7	95.2
+/- Other EV items		<b>8.0%</b>	66.3	69.8	74.0	78.9	84.8

<b>Equity value</b>	<b>2,244</b>
<b>Number of shares</b>	<b>24.7</b>
<b>Value per share (€)</b>	<b>90.8</b>

Source: Factset, Stabilus, Pareto

## Peer Group

Company	Weight	Price	FX	EV/Sales 2019e	EV/EBIT 2019e	PE 2019e	EBIT CAGR 3Y forecast	EPS CAGR 3Y forecast	ROIC** 5Y* hist. avg.	ROE 5Y* hist. avg.	EBIT adj. (%) 3Y* hist. avg.	Dividend Yield 2018e
ElringKlinger AG	13%	7.6	EUR	0.80x	12.0x	7.3x	-1.9%	0.8%	14.5%	12.1%	8.9%	4.5%
Brembo S.p.A.	13%	9.9	EUR	1.19x	9.4x	11.7x	2.8%	3.8%	26.6%	27.7%	13.5%	2.4%
NORMA Group SE	25%	50.7	EUR	1.68x	10.4x	13.3x	5.0%	7.9%	17.5%	18.6%	16.5%	2.2%
ASSA ABLOY AB Class B	25%	169.3	SEK	2.35x	14.5x	18.3x	7.6%	8.8%	19.6%	17.9%	16.2%	2.0%
Atlas Copco AB Class A	25%	223.2	SEK	2.85x	12.9x	17.1x	-3.6%	10.5%	28.8%	28.2%	20.3%	3.0%
<b>Average</b>				<b>1.77x</b>	<b>11.8x</b>	<b>13.5x</b>	<b>2.0%</b>	<b>6.4%</b>	<b>21.4%</b>	<b>20.9%</b>	<b>15.1%</b>	<b>2.8%</b>
<b>Median</b>				<b>1.68x</b>	<b>12.0x</b>	<b>13.3x</b>	<b>2.8%</b>	<b>7.9%</b>	<b>19.6%</b>	<b>18.6%</b>	<b>16.2%</b>	<b>2.4%</b>
<b>Weighted average</b>	<b>100%</b>			<b>1.97x</b>	<b>12.1x</b>	<b>14.5x</b>	<b>2.4%</b>	<b>7.4%</b>	<b>21.6%</b>	<b>21.2%</b>	<b>16.1%</b>	<b>2.7%</b>
<b>Stabilus SA</b>		<b>60.7</b>	<b>EUR</b>	<b>1.60x</b>	<b>10.3x</b>	<b>12.6x</b>	<b>7.2%</b>	<b>11.4%</b>	<b>20.3%</b>	<b>13.3%</b>	<b>13.7%</b>	<b>1.7%</b>
Implied premium/(discount)				-19%	-15%	-13%						
Fair premium/(discount)												
Fair multiple				2.0x	12.1x	14.5x						
<b>Fair Value per share</b>				<b>75.0</b>	<b>71.7</b>	<b>68.9</b>						
Premium/(discount) to current share price				24%	18%	14%						

Source: Factset, Pareto

prices as of 04/12/2018

## Pareto vs. consensus

	Pareto	2019e Cons.	Delta	Pareto	2020e Cons.	Delta
<b>Revenues</b>	<b>1,036.0</b>	<b>1,027.3</b>	<b>0.8%</b>	<b>1,098.9</b>	<b>1,084.9</b>	<b>1.3%</b>
<b>Adj. EBIT</b>	<b>161.5</b>	<b>159.5</b>	<b>1.3%</b>	<b>169.5</b>	<b>169.1</b>	<b>0.2%</b>

Source: Factset, Stabilus, Pareto

<b>PROFIT &amp; LOSS (fiscal year) (EURm)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
<b>Revenues</b>	<b>460</b>	<b>507</b>	<b>611</b>	<b>738</b>	<b>910</b>	<b>963</b>	<b>1,036</b>	<b>1,099</b>
<b>EBITDA</b>	<b>76</b>	<b>71</b>	<b>99</b>	<b>126</b>	<b>179</b>	<b>190</b>	<b>203</b>	<b>214</b>
Depreciation & amortisation	(41)	(40)	(44)	(49)	(61)	(58)	(59)	(60)
<b>EBIT</b>	<b>35</b>	<b>31</b>	<b>56</b>	<b>77</b>	<b>118</b>	<b>132</b>	<b>144</b>	<b>154</b>
Net interest	(41)	(21)	(25)	(11)	(7)	(7)	(4)	(4)
Other financial items	-	-	-	-	-	-	-	-
<b>Profit before taxes</b>	<b>(6)</b>	<b>10</b>	<b>31</b>	<b>66</b>	<b>111</b>	<b>125</b>	<b>140</b>	<b>150</b>
Taxes	(10)	0	(14)	(18)	(32)	(32)	(36)	(38)
Minority interest	0	0	(0)	(0)	0	-	-	-
<b>Net profit</b>	<b>(16)</b>	<b>10</b>	<b>17</b>	<b>48</b>	<b>79</b>	<b>92</b>	<b>104</b>	<b>112</b>
EPS reported	(0.90)	0.54	0.82	2.21	3.21	3.74	4.23	4.54
<b>EPS adjusted</b>	<b>0.07</b>	<b>1.84</b>	<b>1.53</b>	<b>3.06</b>	<b>3.60</b>	<b>4.34</b>	<b>4.74</b>	<b>4.99</b>
DPS	-	-	-	0.50	0.80	1.00	1.15	1.40
<b>BALANCE SHEET (EURm)</b>								
<b>Tangible non current assets</b>	<b>116</b>	<b>120</b>	<b>134</b>	<b>168</b>	<b>170</b>	<b>179</b>	<b>206</b>	<b>216</b>
Other non-current assets	304	222	218	493	463	442	427	411
Other current assets	147	145	151	202	229	246	266	280
Cash & equivalents	22	33	39	75	68	143	182	260
<b>Total assets</b>	<b>589</b>	<b>520</b>	<b>542</b>	<b>937</b>	<b>930</b>	<b>1,010</b>	<b>1,081</b>	<b>1,167</b>
Total equity	83	76	77	263	336	427	489	573
Interest-bearing non-current debt	323	262	264	401	322	320	310	300
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	184	182	202	273	272	264	282	230
<b>Total liabilities &amp; equity</b>	<b>625</b>	<b>569</b>	<b>590</b>	<b>996</b>	<b>983</b>	<b>1,063</b>	<b>1,142</b>	<b>1,167</b>
<b>CASH FLOW (EURm)</b>								
Cash earnings		41	55	142	133	151	175	178
Change in working capital		17	(1)	(38)	(19)	(7)	(14)	(8)
Cash flow from investments	(113)	(36)	(51)	(349)	(44)	(45)	(70)	(54)
Cash flow from financing		(60)	1	137	(91)	(20)	(35)	(38)
Net cash flow		12	6	36	(7)	79	56	78
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>								
<b>Share price (EUR end)</b>		<b>24.7</b>	<b>32.3</b>	<b>50.1</b>	<b>76.8</b>	<b>71.1</b>	<b>60.7</b>	<b>60.7</b>
Number of shares end period	18	21	21	25	25	25	25	25
Net interest bearing debt	301	229	224	326	254	177	128	40
<b>Enterprise value</b>		<b>789</b>	<b>941</b>	<b>1,622</b>	<b>2,204</b>	<b>1,985</b>	<b>1,687</b>	<b>1,602</b>
EV/Sales		1.6	1.5	2.2	2.4	2.1	1.6	1.5
<b>EV/EBITDA</b>		<b>11.1</b>	<b>9.5</b>	<b>12.9</b>	<b>12.3</b>	<b>10.4</b>	<b>8.3</b>	<b>7.5</b>
EV/EBIT		25.3	16.9	21.2	18.6	15.1	11.7	10.4
P/E reported		45.9	39.4	22.6	23.9	19.0	14.3	13.3
<b>P/E adjusted</b>		<b>13.4</b>	<b>21.0</b>	<b>16.4</b>	<b>21.3</b>	<b>16.4</b>	<b>12.8</b>	<b>12.2</b>
P/B		6.7	8.7	4.7	5.6	4.1	3.1	2.6
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>								
ROE adjusted (%)		43.4	41.5	39.0	29.7	28.1	25.6	23.2
Dividend yield (%)		-	-	1.0	1.0	1.4	1.9	2.3
EBITDA margin (%)	16.5	14.1	16.3	17.1	19.7	19.8	19.6	19.5
EBIT margin (%)	7.6	6.1	9.1	10.4	13.0	13.7	13.9	14.0
NIBD/EBITDA	3.97	3.21	2.25	2.59	1.41	0.93	0.63	0.19
EBITDA/Net interest	2.12	4.34	4.37	12.45	24.01	26.57	50.83	55.92

## Returning to normality

*After the Diesel crisis, which started in FY 2015, VW has reacted quickly and used the window of opportunity to reduce costs and improve efficiency. However, new challenges are arising and we expect the workers council to become more demanding again after the company is now in sounder waters. Hold, Target Price EUR 160.*

### Investment Case

When the Diesel crisis hit VW in 2015, the company and especially the VW brand under Dr. Diess made use of the situation to cut costs. In a normal situation this would have been very difficult against the strong workers council.

As customers have either been forgiving or already forgotten about the Diesel scam, unit sales have rebounded strongly since the crisis. The leaner cost structure, in turn, enabled the company to achieve near new record margins in FY 2017 already, against an industry trend of decreasing margins due to e-mobility upfront investments. More efficiency gains are still to come, which is why some bulls argue that earnings should continue to grow materially over the next years.

While the bulls might be right short-term, we believe that they chose to ignore VW's special situation. Government and the workers council have a very strong influence in the company and make sure that the workers and the region get what they think is a fair share of the savings. This pattern was observable multiple times in the history of Volkswagen and we would bet it will be no different this time.

That said, we see Volkswagen generally well positioned to master the challenges of the automotive industry. The company has an extremely strong brand portfolio and the largest potential for economies of scale of all European OEMs. Additionally, its strong market share in China is another great asset. But all this seems to be priced in already.

EURm	2016	2017	2018e	2019e	2020e
Revenues	217,267	230,682	237,853	247,240	257,037
EBITDA	21,434	28,766	32,110	33,625	34,681
EBIT	10,600	17,300	19,082	21,748	22,216
EPS	8.33	22.65	24.76	29.08	29.76
EPS adj	18.83	27.15	27.04	29.08	29.76
DPS	2.00	3.96	5.42	7.27	8.93
EV/EBITDA	3.1	3.3	2.5	2.2	1.9
EV/EBIT	6.4	5.4	4.2	3.3	2.9
P/E adj	7.1	6.1	5.5	5.1	5.0
P/B	0.72	0.77	0.62	0.57	0.52
ROE (%)	4.8	11.3	10.9	11.6	10.9
Div yield (%)	1.5	2.4	3.6	4.9	6.0
Net debt	(27,180)	(22,378)	(28,470)	(35,551)	(44,090)

Source: Pareto



Target price (EUR)	160
Share price (EUR)	149

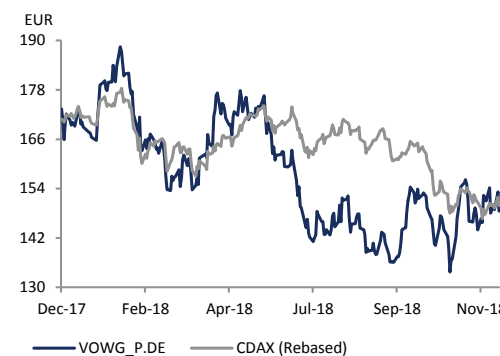
### Forecast changes

%	2018e	2019e	2020e
Revenues	NM	NM	NM
EBITDA	NM	NM	NM
EBIT adj	NM	NM	NM
EPS reported	NM	NM	NM
EPS adj	NM	NM	NM

Source: Pareto

Ticker	VOWG_P.DE, VOW3 GR
Sector	Automobiles & parts
Shares fully diluted (m)	501.3
Market cap (EURm)	74,463
Net debt (EURm)	4,260
Minority interests (EURm)	575
Enterprise value 18e (EURm)	79,298
Free float (%)	43

### Performance



Source: Factset

### Analysts

Tim Schuldt, CFA  
+49 69 58997 433, tim.schuldt@paretosec.com  
Manuel Tanzer, CFA  
+49 69 58997 418, manuel.tanzer@paretosec.com

*Manufacturer of cars and commercial vehicles*

*Target price of EUR 160*

*China and Diesel related risks the main threats*

## Company profile

Volkswagen is one of the top 3 car manufacturers world-wide, with the product portfolio ranging from volume brands such as Seat and Skoda, over mid-level brand Volkswagen to premium cars such as Audi, Porsche, and Bugatti. Additionally, the company manufactures commercial vehicles, which are sold under the brands Scania, MAN and Volkswagen. Finally Volkswagen also provides financial services to its customers.

## Valuation and recommendation

We value Volkswagen based on a Sum of the parts model. To value the premium car divisions, we have applied an EV/EBIT target multiple of 5.1x in line with our target multiple for BMW. The target multiple is derived from BMW's historical average EV/EBIT multiple including a 10% discount to account for future challenges and uncertainties within the automotive industry. For the volume brands as well as light commercial vehicles we have applied a 20% discount to premium car multiple.

We valued the truck divisions relative to Volvo, which is in our view the closest comparable. For Power Engineering we have used Wärtsilä's multiple.

For financial services we use 1x book value. Given that financial services achieves a ROE roughly in line with its cost of equity we consider this as fair, in contrast to Daimler and BMW, which achieve significantly higher returns.

For the Chinese JVs we used a PE ratio of 8x.

For the cash position, we assume that 40% of available net cash is required for the financial services business to avoid a deteriorating credit score and thus increased costs. As a consequence, the money cannot be distributed to shareholders (without jeopardizing the value of the financial service business) and hence is not part of our valuation. Pensions have been considered at book value. Additionally, we have deducted the value of VW's outstanding hybrid bonds, which are shown as equity but should be considered debt from a shareholder perspective. To account for future cash outs and risks from Diesel related issues as well as the on-going anti-trust investigation, we have built-in a reserve of EUR 11.5bn into our valuation.

Finally, despite the fact that Volkswagen is currently preparing an IPO of its truck business (Traton), we have applied a 15% conglomerate discount.

## Upcoming triggers and drivers

FY 2018 reporting will likely show that the company managed to reach the upper end of its guided EBIT margin range of 6.5% to 7.5%. The outlook for FY 2019 is, however, likely to be relatively muted – mainly due to the conservative guidance policy of Volkswagen. We expect adj. EBIT to grow by 7% to EUR 18.5bn.

**Next scheduled reporting:** Most likely preliminary FY 2018 results in February 2019 (no date available yet). Final reporting incl. guidance for FY 2019 and an analyst conference are on the 12<sup>th</sup> of March, 2019.

## Risk to the investment case

In the short-term, the main downside risk is in our view a further deterioration in China. Trade wars, stricter emission standards, an on-going antitrust case as well as potential costs for supporting the retrofit of SCR systems might also have a negative effect on Volkswagen. Additionally, Volkswagen continues to face several legal cases which are related to the Diesel scandal. Notably, a EUR 11.5bn risk discount has already been baked into our target price. In the long term, the shift to E-Mobility and the effects of autonomous driving on the premium car sector are further risks.

## VW – Peer Group valuation

	Sales 19e	EBIT 19e	Value	EV/Sales	EV/EBIT	Comment
Premium Car Divisions	91,834	9,684	49,387		5.1	Target multiple BMW
Volume light vehicle divisions	126,075	6,580	26,844		4.1	20% discount to premium cars
Truck divisions	24,843	1,917	12,362		6.5	Volvo
MAN Power Engineering	3,483	188	2,404		12.8	Wärtsilä
Financial Services	33,764	2,534	27,624			1x book value
Others / Consolidation	-32,759	-2,359	-11,685		5.0	
<b>Target EV</b>			<b>106,936</b>			
Net cash/debt			21,331			FY 2019e
Hybrid bonds incl in equity			-11,010			
Payment obligations from MAN			-3,771			
Pension Provisions			-32,730			FY 2019e
Minorities			-753			10x FY 2019e
At-equity JVs			25,637			8x 2019e result
Cash-out Diesel 2018ff			-4,000			
Anti-trust & further Diesel risks			-7,500			Risks from existing Diesel issue, anti trust case and further Diesel costs
<b>Target market Cap</b>			<b>94,140</b>			
# of shares			501			
<b>SoP per share excl. conglomerate discount</b>			<b>188</b>			
Conglomerate discount			-28			
<b>SoP per share</b>			<b>160</b>			

Source: Factset, Pareto Securities Research

PROFIT & LOSS (fiscal year) (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Revenues	197,007	202,457	213,323	217,267	230,682	237,853	247,240	257,037
EBITDA	23,216	27,399	24,147	21,434	28,766	32,110	33,625	34,681
Depreciation & amortisation	(11,545)	(14,702)	(28,216)	(14,331)	(14,948)	(16,382)	(15,082)	(15,679)
EBIT	15,967	17,879	1,145	10,600	17,300	19,082	21,748	22,216
Net interest	(7,127)	(7,073)	(6,833)	(4,275)	(3,388)	(1,366)	(1,436)	(1,436)
Other financial items	-	-	-	-	-	-	-	-
Profit before taxes	8,840	10,806	(5,688)	6,325	13,912	17,716	20,312	20,780
Taxes	305	263	4,328	(1,912)	(2,275)	(4,960)	(5,383)	(5,507)
Minority interest	(79)	(222)	(222)	(235)	(284)	(346)	(349)	(353)
Net profit	9,066	10,847	(1,582)	4,178	11,353	12,411	14,580	14,921
EPS reported	18.65	21.87	(3.16)	8.33	22.65	24.76	29.08	29.76
EPS adjusted	18.65	21.87	20.43	18.83	27.15	27.04	29.08	29.76
DPS	4.00	4.80	0.11	2.00	3.96	5.42	7.27	8.93
BALANCE SHEET (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Tangible non current assets	64,648	73,754	50,171	54,033	55,243	55,056	55,666	56,212
Other non-current assets	76,114	78,305	73,529	72,723	73,410	74,322	75,591	76,830
Other current assets	183,571	201,718	233,713	255,796	271,162	272,834	275,022	277,305
Cash & equivalents	-	17,639	24,522	27,180	22,378	28,470	35,551	44,090
Total assets	324,333	371,416	381,935	409,732	422,193	430,681	441,830	454,437
Total equity	90,037	85,148	80,710	92,910	109,078	119,849	132,061	143,689
Interest-bearing non-current debt	-	-	-	-	-	-	-	-
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	234,296	256,462	273,690	289,287	280,385	278,101	277,039	278,018
Total liabilities & equity	324,333	371,416	381,935	409,732	422,193	430,681	441,830	454,437
CASH FLOW (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Cash earnings	18,653	11,837	61,952	25,479	5,401	24,228	25,510	28,343
Change in working capital	1,733	7,656	(38,156)	(5,208)	6,285	955	1,250	1,305
Cash flow from investments	(18,424)	(5,836)	(7,524)	(7,367)	(19,404)	(16,100)	(16,000)	(16,500)
Cash flow from financing	(1,701)	(1,984)	(2,406)	(55)	2,630	(2,991)	(3,679)	(4,609)
Net cash flow	-	17,639	6,883	12,849	(5,088)	6,092	7,081	8,538
CAPITALIZATION & VALUATION (EURm)	2013	2014	2015	2016	2017	2018e	2019e	2020e
Share price (EUR end)	204.2	184.7	133.8	133.4	166.5	148.5	148.5	148.5
Number of shares end period	486	496	501	501	501	501	501	501
Net interest bearing debt	-	(17,639)	(24,522)	(27,180)	(22,378)	(28,470)	(35,551)	(44,090)
Enterprise value	101,541	103,966	70,271	67,424	94,022	79,298	72,566	64,380
EV/Sales	0.5	0.5	0.3	0.3	0.4	0.3	0.3	0.3
EV/EBITDA	4.4	3.8	2.9	3.1	3.3	2.5	2.2	1.9
EV/EBIT	6.4	5.8	61.4	6.4	5.4	4.2	3.3	2.9
P/E reported	10.9	8.4	-	16.0	7.3	6.0	5.1	5.0
P/E adjusted	10.9	8.4	6.5	7.1	6.1	5.5	5.1	5.0
P/B	1.1	1.1	0.8	0.7	0.8	0.6	0.6	0.5
FINANCIAL ANALYSIS & CREDIT METRICS	2013	2014	2015	2016	2017	2018e	2019e	2020e
ROE adjusted (%)	10.6	12.4	12.4	10.9	13.5	11.8	11.6	10.8
Dividend yield (%)	2.0	2.6	0.1	1.5	2.4	3.6	4.9	6.0
EBITDA margin (%)	11.8	13.5	11.3	9.9	12.5	13.5	13.6	13.5
EBIT margin (%)	8.1	8.8	0.5	4.9	7.5	8.0	8.8	8.6
NIBD/EBITDA	-	(0.64)	(1.02)	(1.27)	(0.78)	(0.89)	(1.06)	(1.27)
EBITDA/Net interest	3.26	3.87	3.53	5.01	8.49	23.51	23.42	24.15

Notes

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## Appendix A

Disclosure requirements pursuant to the Norwegian Securities Trading Regulations section 3-10 (2) and section 3-11 (1), letters a-b

The below list shows companies where Pareto Securities AS - together with affiliated companies and/or persons – own a portion of the shares exceeding 5 % of the total share capital in any company where a recommendation has been produced or distributed by Pareto Securities AS.

Companies	No. of shares	Holdings in %	Companies	No. of shares	Holdings in %
Helgeland Sparebank	1,988,203	9.53%	SpareBank 1Østfold Akersl	1,129,560	9.12%
Pareto Bank ASA	10,839,382	18.49%	Sparebanken Vest	4,506,060	7.63%

Pareto Securities AS or its affiliates own as determined in accordance with Section 13(d) of the US Exchange Act, 1 % or more of the equity securities of:

Companies	No. of shares	Holdings in %	Companies	No. of shares	Holdings in %
Helgeland Sparebank	1,988,203	9.53%	SpareBank 1SMN	1,879,292	1.45%
NHST Media Group AS	21,475	1.85%	SpareBank 1Østfold Akersl	1,129,560	9.12%
Pareto Bank ASA	10,839,382	18.49%	Sparebanken Møre	311,739	3.15%
Selvaag Bolig ASA	2,179,147	2.32%	Sparebanken Sør	460,589	2.94%
SpareBank 1BV	1,549,440	2.46%	Sparebanken Vest	4,506,060	7.63%
SpareBank 1Nord-Norge	1,129,459	1.12%			

Pareto Securities AS may hold financial instruments in companies where a recommendation has been produced or distributed by Pareto Securities AS in connection with rendering investment services, including Market Making.

Please find below an overview of material interests in shares held by employees in Pareto Securities AS, in companies where a recommendation has been produced or distributed by Pareto Securities AS. "By material interest" means holdings exceeding a value of NOK 50 000.

Company	Analyst holdings*	Total holdings	Company	Analyst holdings*	Total holdings	Company	Analyst holdings*	Total holdings
AF Gruppen	0	1,675	Golden Ocean Group	0	1,824	Prosafe	0	5,984
Aker	0	514	Grieg Seafood	0	770	Protector Forsikring	0	14,285
Aker BP	0	860	Helgeland Sparebank	0	1,700	REC Silicon	0	159,908
Aker Solutions	0	2,085	Höegh LNG	0	8,703	SailMar	0	130
AKVA Group	0	1,500	Ice Group AS	0	55,500	Sandnes Sparebank	0	18,032
Archer	0	73,520	Jæren Sparebank	0	500	Scatec Solar	0	35,635
Atea	0	450	Komplett Bank	0	99,357	Seadrill	0	6,615
Austevoll Seafood	0	5,780	Kongsberg Gruppen	0	4,010	Selvaag Bolig	0	10,000
Avance Gas	0	34,201	Lerøy Seafood	0	33,795	SpareBank 1BV	0	10,000
Axactor	0	21,647	Marine Harvest	0	1,864	SpareBank 1Nord-Norge	0	30,000
Bonheur	0	44,509	Monobank	0	1,355,000	SpareBank 1SMN	0	16,590
Borr Drilling	0	4,415	NEXT Biometrics	0	1,730	SpareBank 1SR-Bank	0	39,187
BWLPG	0	5,569	Nordic Semiconductor	0	6,000	SpareBank 1Østlandet	0	2,891
DNB	0	35,822	Norsk Hydro	0	112,501	Sparebanken Møre	0	6,550
DNO	0	24,392	Northern Drilling	0	2,099	Sparebanken Sør	0	43,280
DOF	0	138,498	Norwegian Air Shuttle	0	3,172	Sparebanken Øst	0	3,000
Entra	0	14,362	Norwegian Property	0	150,000	Storebrand	0	5,005
Equinor	0	10,266	Ocean Yield	0	31,967	Subsea 7	0	7,351
Europris	0	14,510	Odjell Drilling	0	8,731	Telenor	0	2,272
Faroe Petroleum	9,600	9,600	Orkla	0	23,746	TGS-NOPEC	0	2,000
Flex LNG	0	13,352	Panoro Energy	0	5,670	XXL	0	7,270
Frontline	0	13,943	Pareto Bank	0	963,509	Yara International	0	19,079
Gjensidige Forsikring	0	8,547	Petroleum Geo-Services	0	57,884	Zenterio	0	78,865

This overview is updated monthly (last updated 21.11.2018).

\*Analyst holdings refer to positions held by the Pareto Securities AS analyst covering the company.

## Appendix B

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letters e-f, ref the Securities Trading Act Section 3-10

Overview over issuers of financial instruments where Pareto Securities AS have prepared or distributed investment recommendation, where Pareto Securities AS have been lead manager/co-lead manager or have rendered publicly known not immaterial investment banking services over the previous 12 months:

Africa Energy	Floatel	Okea AS
Akva Group	Fortum	Pandion Energy
Arnarlix	Genel Energy	Pareto Bank
Atlantic Sapphire AS	Gfinity Plc	Petro Matad Limited
Avida Holding AB	Gulf Keystone Petroleum	Petrolat LLC
Bank Norwegian	Hertha BSC GmbH	Pioneer Public Properties Finland Oy
Borealis Finance	Hunter Group	Point Resources AS
Borr Drilling Limited	Idavang A/S	Quant AB
Brado AB	Instabank	Sakthi Global Auto Holdings
Camanchaca	Komplett Bank	Sand Hill Petroleum
DNO ASA	McDermott International	SAS
DOF ASA	MMA Offshore	Scatec Solar
Echo Energy	Monobank ASA	Scorpio Tankers
Eco Atlantic Oil and Gas	Nemaska Lithium	Shamran
Eidesvik Offshore	Northern Drilling	Siccar Point Energy
Eland Oil & Gas	Northmill Group AB	SL Bidco
Embarcadero Maritime II LLC	Norwegian Air Shuttle	SpareBank 1 Buskerud-Vestfold
Faroe Petroleum	Ocean Yield	Sparebanken Vest
FFS Bidco	Odfjell	Union Maritime Limited
Filo Mining Corp	Odfjell Drilling	Zwipe AS
Flex LNG		

*This overview is updated monthly (this overview is for the period 31.10.2017 – 31.10.2018).*

## Appendix C

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11(4)

### Distribution of recommendations

Recommendation	% distribution
Buy	76%
Hold	20%
Sell	4%

### Distribution of recommendations (transactions\*)

Recommendation	% distribution
Buy	100%
Hold	0%
Sell	0%

\* Companies under coverage with which Pareto Securities Group has on-going or completed public investment banking services in the previous 12 months

This overview is updated monthly (last updated 21.11.2018).

## Appendix D

This section applies to research reports prepared by Pareto Securities AB.

### Disclosure of positions in financial instruments

The beneficial holding of the Pareto Group is 1 % or more of the total share capital of the following companies included in Pareto Securities AB's research coverage universe: None

The Pareto Group has material holdings of other financial instruments than shares issued by the following companies included in Pareto Securities AB's research coverage universe: None

### Disclosure of assignments and mandates

Overview over issuers of financial instruments where Pareto Securities AB has prepared or distributed investment recommendation, where Pareto Securities AB has been lead manager or co-lead manager or has rendered publicly known not immaterial investment banking services over the previous twelve months:

Aspire	Green Landscaping Holding	Powercell	Sedana Medical
Cibus Nordic Real Estate	Lehto Group	Magnolia Bostad	ShamM aran Petroleum
Climeon	Organoclick	Scibase	Vostok New Ventures

Members of the Pareto Group provide market making or other liquidity providing services to the following companies included in Pareto Securities AB's research coverage universe:

Africa Oil	Cavotec	Isofol Medical	ShamM aran Petroleum
BlackPearl Resources Inc	Cibus Nordic Real Estate	Saltängen Property Invest	Tethys Oil
Byggmästare Anders J Ahlström	Delarka Holding	SciBase Holding	Vostok Emerging Finance
Byggpartner i Dalarna	International Petroleum Corporation	Sedana Medical	

Members of the Pareto Group have entered into agreements concerning the inclusion of the company in question in Pareto Securities AB's research coverage universe with the following companies: None  
This overview is updated monthly (last updated 14.09.2018).

## Appendix E

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letter d, ref the Securities Trading Act Section 3-10

### Designated Sponsor

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Aixtron *	Gesco *	MOBOTIX AG	SMT Scharf AG *
Baywa	GFT Technologies *	MTU Aero Engines	Surteco Group *
Biotest *	Gigaset *	OVH Holding AG	Syzygy AG *
Brenntag	Heidelberg Pharma *	Procredit Holding *	TAKKT AG
CORESTATE Capital Holding S.A.	Hypoport AG	PSI SOFTWARE AG *	Vapiano
Daldrup & Soehne *	Intershop Communications AG	PWO *	va-Q-tec *
Demire	Logwin *	RIB Software *	Viscom *
Epigenomics AG*	Manz AG *	S&T AG *	windeln.de
Euromicron AG *	MAX Automation SE *	Schaltbau Holding AG	
Eyemaxx Real Estate	Merkur Bank	SCOUT24	

\* The designated sponsor services include a contractually agreed provision of research services.

## Appendix F

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letter g, ref the Securities Trading Act Section 3-10

### Sponsored Research

Pareto Securities has entered into an agreement with these companies about the preparation of research reports and—in return—receives compensation.

Adler Modemaerkte	Hypoport AG	OHB SE	Vapiano
Baywa	Intershop Communications AG	OVH Holding AG	
BB Biotech	Merkur Bank	Schaltbau Holding AG	
Eyemaxx Real Estate	MOBOTIX AG	Siegfried Holding AG	

This overview is updated monthly (last updated 05.12.2018).