

<b>Buy</b>  <b>CHF 90.00</b>  Price CHF 56.80 <b>Upside 58.5 %</b>	<b>Value Indicators:</b> CHF DCF: 90.05 FCF-Value Potential 21e: 77.61	<b>Share data:</b> Bloomberg: KTM1 GR Reuters: KTM1.VI ISIN: AT0000KTM102	<b>Description:</b> Europe's largest manufacturer of sports motorcycles.
	<b>Market Snapshot:</b> CHF m Market cap: 1,280 No. of shares (m): 23 EV: 2,282 Freefloat MC: 486 Ø Trad. Vol. (30d): 328.54 th	<b>Shareholders:</b> Freefloat 38.0 % Pierer Industrie AG 62.0 % Remaining management 1.1 %	<b>Risk Profile (WRe):</b> 2019e Beta: 1.4 Price / Book: 3.4 x Equity Ratio: 41 % Net Fin. Debt / EBITDA: 1.4 x Net Debt / EBITDA: 1.5 x

## Taking a fresh look at Europe's leading motorcycle company; Initiation with Buy

We initiate our coverage of KTM Industries, a leading European motorcycle manufacturer with a **BUY recommendation and a PT of CHF 90**. KTM Industries AG (KTM1) is a parent company with majority stakes in leading brands, including KTM, Husqvarna Motorcycles, WP Suspensions and Raymon, which, together, create a vertically integrated supply chain with which KTM1 ensures production of all critical and performance-related components for motorcycles. KTM1 is primarily a growth story, based on the following factors:

- A growth story:** Historically, KTM1 chalked up an incredible growth rate of ~15.6% CAGR in motorcycle unit sales for the 1993-2018 time period. We are fairly confident that the company can prolong its growth as it is maintaining its high level of innovation and has a shorter time-to-market cycle than competitors. It can generate synergies with the Husqvarna brand, boost street model sales in emerging markets via partnerships, and increase market share globally. Additionally, the new common 48-volt electric two-wheeler platform with which KTM1 and Bajaj will start production in 2022e will target a new market segment with significant growth potential. We anticipate sales CAGR of ~7% 18-21e and a CAGR of ~5% for 22e-32e.
- Sustained high level of growth in market share:** Off-road is KTM1's legacy business and, in Europe, it holds a market share of ~70%. The company has also delivered sustainable market share gains in the on-road segment. Today, KTM Industries is one of the market leaders in Europe and has a strong footprint in the USA (market share 12% and 9% respectively) with the clear goal of further increases. As KTM1 has created a unique vertical supply chain which ensures production of all critical and performance-related components in-house, it has a clear competitive advantage over its peers.
- ROCE is set to improve:** Our model reflects stable profitability and slower growth in capital employed. The result will be a decent improvement in returns on capital employed. Nevertheless while KTM1's strong market position is fundamentally based on its technological leadership which continually requires heavy investment in new innovations, we also identified economies of scale and network effects resulting from a larger company with strong ties to established players in emerging markets (Bajaj & CF Moto).
- Investment case is based on exponential FCF generation:** In the past, KTM Industries lacked FCF generation owing to high capex requirements which served as a basis for high growth. However, we expect Capex/sales to dramatically trend down from its current high level. Constant absolute capex of 150-160m in 19e-21e in connection with further revenue growth will bring FCF/sales to 3.8% in 2021e up from -0.1% in 2018 and further improve with a larger share of licence fee income from Bajaj to >5% in the long run.
- Valuation requires deep analysis:** Based on our DCF model, we initiate our coverage with a **BUY rating and a price target of CHF 90 per share**. Strong investment in growth in the past has had a massive, and distorting, influence on historical financial metrics. However we expect the magnitude of this impact to weaken as soon as in 2019e, which should cast a whole new light on the company, its FCF generation and, consequently, valuation.

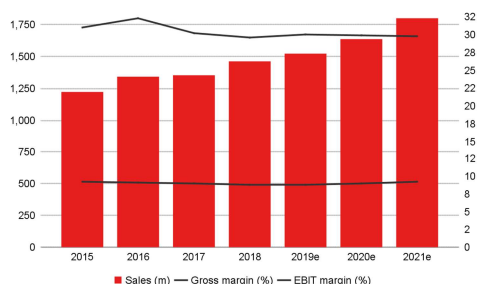


<b>Rel. Performance vs CDAX:</b>	
1 month:	-4.5 %
6 months:	-19.7 %
Year to date:	-18.1 %
Trailing 12 months:	-12.4 %

<b>Company events:</b>	
27.06.19	Warburg Highlights
26.08.19	HY1

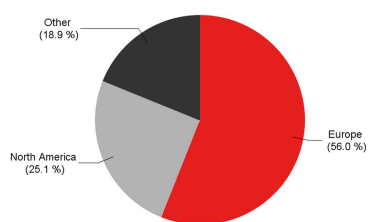
FY End: 31.12. in EUR m	CAGR (18-21e)	2015	2016	2017	2018	2019e	2020e	2021e
<b>Sales</b>	7.2 %	1,224	1,343	1,354	1,462	1,523	1,636	1,799
Change Sales yoy		n.a.	9.8 %	0.8 %	8.0 %	4.1 %	7.4 %	10.0 %
Gross profit margin		31.0 %	32.3 %	30.2 %	29.6 %	30.0 %	29.9 %	29.8 %
<b>EBITDA</b>	10.8 %	178	198	194	211	242	262	287
Margin		14.6 %	14.8 %	14.3 %	14.4 %	15.9 %	16.0 %	16.0 %
<b>EBIT</b>	8.7 %	113	122	122	129	134	147	166
Margin		9.2 %	9.1 %	9.0 %	8.8 %	8.8 %	9.0 %	9.2 %
<b>Net income</b>	-3.0 %	30	52	45	67	42	50	61
<b>EPS</b>	-3.0 %	1.33	2.30	1.98	2.99	1.88	2.20	2.73
<b>EPS adj.</b>	14.5 %	1.33	2.30	1.77	1.82	1.88	2.20	2.73
<b>DPS</b>	0.0 %	0.03	0.03	0.30	0.30	0.30	0.30	0.30
Dividend Yield		0.1 %	0.1 %	0.6 %	0.5 %	0.6 %	0.6 %	0.6 %
<b>FCFPS</b>		-1.16	1.05	-0.77	-4.35	3.93	1.67	1.97
<b>EV / Sales</b>		1.2 x	1.3 x	1.6 x	1.6 x	1.3 x	1.3 x	1.1 x
<b>EV / EBITDA</b>		8.5 x	8.9 x	10.9 x	10.9 x	8.5 x	7.9 x	7.2 x
<b>EV / EBIT</b>		13.5 x	14.4 x	17.4 x	17.9 x	15.3 x	14.0 x	12.5 x
<b>P / E</b>		18.5 x	15.7 x	26.0 x	20.8 x	27.1 x	23.1 x	18.6 x
<b>P / E adj.</b>		18.5 x	15.7 x	29.1 x	34.1 x	27.1 x	23.1 x	18.6 x
<b>FCF Potential Yield</b>		6.1 %	6.3 %	4.8 %	6.2 %	6.7 %	7.1 %	7.7 %
<b>Net Debt</b>		408	388	399	348	358	341	317
<b>ROE</b>		30.5 %	22.0 %	15.1 %	21.9 %	13.4 %	14.0 %	15.3 %
<b>ROCE (NOPAT)</b>		20.5 %	12.2 %	10.0 %	10.7 %	10.7 %	10.9 %	11.6 %
<b>Guidance:</b>		Revenue growth 1-5%; EBIT Margin 8-10%; FCF/sales 3-5%						

## Sales & margin development in EUR m



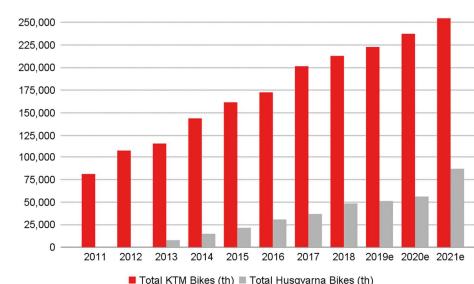
Source: Warburg Research

## Sales by regions 2018; in %



Source: Warburg Research

## Motorcycles unit sales by brand in units



Source: Warburg Research

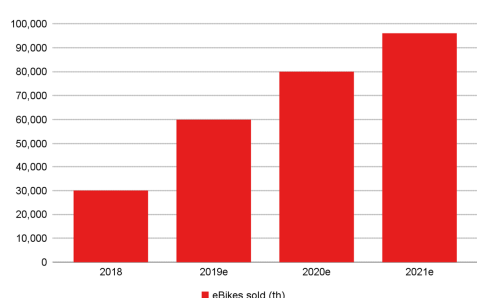
## Company Background

- KTM Industries AG, is the biggest European motorcycle manufacturer and a global leader in off-road motorcycles. The company operates under the two brands KTM and Husqvarna Motorcycles which are marketed separately.
- Racing plays an important role in generating new sales and winning new customers in both segments. In motorcycle racing, the driver is the hero and the brand is associated with the face of the winning driver.
- According to KTM, wins can be translated 1-to-1 into off-road sales, while this effect is less pronounced for street motorcycles.
- Besides motorcycles, KTM Industries has set ambitious sales targets for its eBike JV (PEXCO) of more than 60K units and roughly EUR 75-85m sales for 2019e already, while only targeting the DACH markets in a first step.

## Competitive Quality

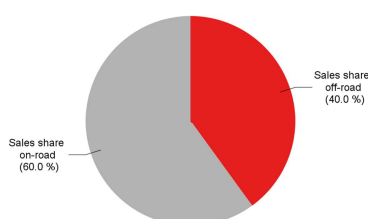
- KTM Industries is the market leader in Europe and has a strong footprint in USA (market share 12% and 9% respectively). Despite that, off-road is KTM's legacy business where it benefits from a 70% market share in Europe.
- Customers look for quality and brands, which KTM can offer as its products offer technically differentiated product features. A substantial amount of time and capital is needed to achieve the technology level of KTM.
- Even stricter emission regulation disadvantages smaller players and new entrants and serve as a barrier to entry.
- KTM is the industry leader in R&D spending, which enables it to defend its existing product offering and quickly understand new trends.
- KTM created a unique vertical supply chain which ensures production of all critical and performance related components in house.

## eBike unit sales development in units



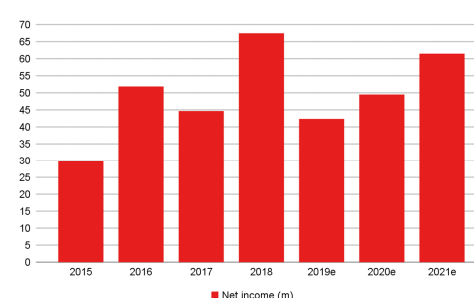
Source: Warburg Research

## Sales share on/off-road 2018; in %



Source: Warburg Research

## Net income development in EUR m



Source: Warburg Research

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## Summary of Investment Case

### Investment triggers

- The valuation for KTM seems stretched at a first glance (>20x earnings) but a comprehensive analysis is revealing. Firstly, we acknowledge the competitive quality and decent growth prospects. Secondly, we see strong fundamental upside potential resulting from a normalisation of capex/sales and, as a consequence, leverage of FCF.
- We were expecting a minimum of ~10% EPS accretion following a potential share transaction of Bajaj Auto International Holdings BV. Bajaj currently holds 48% of KTM AG (KTM Industries holds 52%) but was expected to transfer its stake to KTM Industries via the existing authorised capital of the company (max 50% increase). However, in an ad-hoc release dated June 2, 2019, KTM reported that these considerations are no longer being pursued any further for the time being. Nevertheless, we take a look at the possible implications.

### Valuation

- **DCF:** Our DCF-based price target of CHF 90 implies a PE multiple 2021e of 30x and seems a bit high. However, historic financial metrics are massively distorted by strong investment in growth which we expect to phase out in the next couple of years. We expect the top line to grow at a CAGR of ~7% and the EBIT margin to remain stable at ~9% for 19e-21e. However, during the transitional phase, sales CAGR is anticipated to be ~5% and EBIT margins are anticipated to come down to 8% in 2032.
- **FCF Value Potential:** Keeping maintenance capex at 5% of sales and WC constant, leaves us with a value of CHF 78 for 2021e.
- **Peers:** We benchmark KTM with multiples of peer companies active in the motorcycle industry. However, comparability is limited as most major motorcycle competitors are either part of large automotive group or conglomerates with the motorcycle business only contributing a very small share (Honda, Suzuki, Kawasaki, BMW, Ducati). Many smaller competitors are privately-owned for which neither historic data nor forecasts are available (Triumph). Others are focused on markets in which KTM is not present (Hero MotoCorp in India, Bajaj with three-wheelers in India and Africa) or, to a large extent, serve a different market segment (Piaggio/Scooters, Polaris/Snowmobiles).

### Growth

- KTM is without doubt a successful growth story. Historically, KTM boosted motorcycle unit sales at an incredible ~15.6% CAGR for the 1993-2018 time period from 7k units in 1993 to 261.5k in 2018. We are pretty confident that growth will continue as the company maintains its high rate of innovation and its shorter time-to-market cycle than competitors. It can also increase synergies with the Husqvarna brand, boost street model sales in emerging markets via partnerships, and increase market share globally.
- More specifically, we expect the company to boost corporate KTM brand unit sales to ~200k and Husqvarna to ~80k in 2022e. Furthermore, we anticipate unit sales to rocket on the back of the Bajaj cooperation to ~70k KTM brand and ~55k Husqvarna brand by 2022e. Beginning in 2022e, the common 48-volt electric two-wheeler platform will provide for additional growth potential.
- Regionally, we expect stronger relative growth in emerging markets as a result of the Bajaj & CF Moto cooperation. India is expected to be the most important future market. In absolute terms, however, most growth is still expected in Europe and North America.

### Competitive quality

- KTM Industries is the market leader in Europe and it has a strong footprint in the USA (market share 12% and 9% respectively). Despite that, off-road is KTM's legacy business and it benefits from a 70% market share in Europe.
- Customers are seeking quality and brand-names. KTM can meet this demand and its products clearly offer features with technical differentiation. Additionally, a substantial amount of time and capital is needed to reach the technology level of KTM.
- Even stricter emission regulation puts smaller players and new entrants at a disadvantage and serves as a barrier to entry. As KTM is the industry leader in R&D spending, the company can defend its existing product offering and quickly adapt to new trends. KTM created a unique vertical supply chain which ensures production of all critical and performance-related components in-house.

### Warburg versus consensus

- There is only one other sell-side analyst covering KTM Industries. We are roughly in line for 2019e-20e. However, in 2021e we are below consensus as we assume that the other analyst modelled a full consolidation of the PEXCO JV.

Company Overview

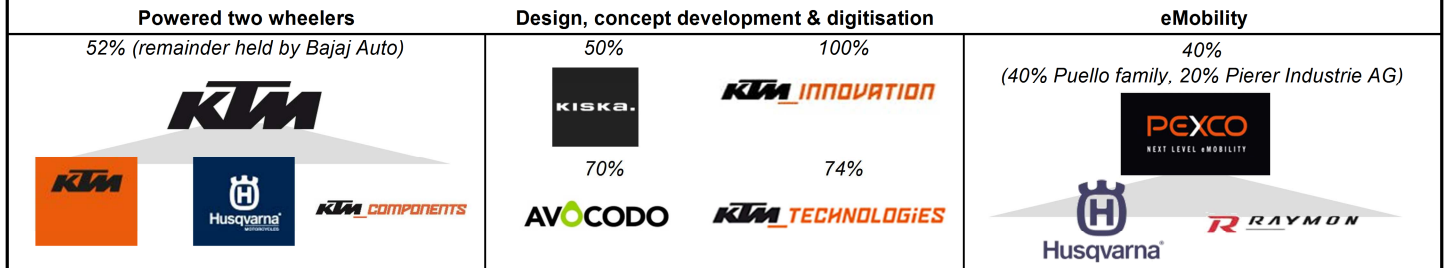
# KTM INDUSTRIES AG

The KTM Industries Group is the largest European motorcycle manufacturer with a focus on highly innovative sports motorcycles and e-mobility. KTM Industries' brand portfolio include KTM, Husqvarna, WP, Pexco and R Raymon.

Revenue 2018 1,559.6	Units sold 2018 261,454	EBITDA margin 2018 16.2%	EBIT margin 2018 10.3%	Revenue guidance 2019 1-5%	EBIT guidance 8-10%
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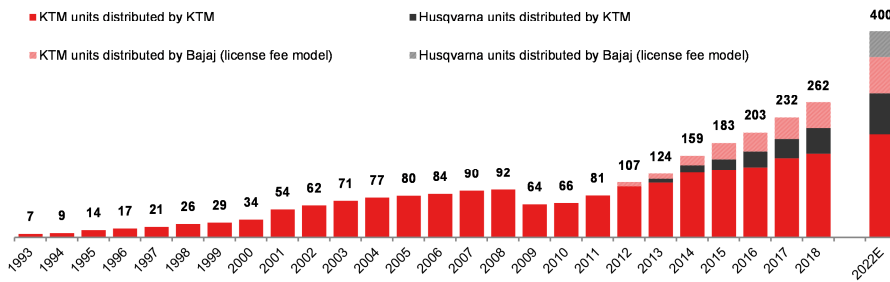
Group Structure

## KTM INDUSTRIES AG

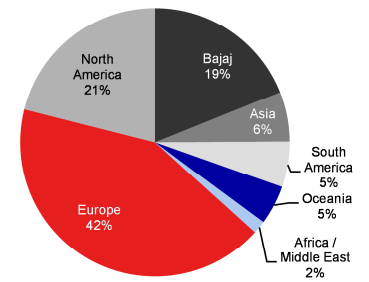


Motorcycles

Motorcycles group sales (in '000 units)



Regional split (unit sales)



Adressable market KTM / Husqvarna

Region	India	China	North America	Europe	Rest of the world
Size (in '000)	2,033 33.9%	1,100 18.3%	430 7.2%	580 9.7%	1,857 31.0%
Market share WRe	Off-road: n.a. Street: ~2%	n.a. <1%	~50% ~9%	~80% ~12%	
Competitors	HERO, HONDA, TVS, BAJAJ	Haojue, LIFAN, LONCIN	HARLEY-DAVIDSON, HONDA, YAMAHA, Kawasaki	BMW Motorcycles, HONDA, YAMAHA, Kawasaki	ITALIKA, HONDA, BAJAJ, TVS

E-bikes

Market development Europe (in m units)

Year	Units
2015	1.5
2016	1.7
2017	2.2
2018	2.6

2019 Guidance

Expected unit sales Pexco: **60,000+ units**

Expected Pexco revenue: **> EUR 75m**

Full consolidated planned for 2020/21

International Roll-out Pexco

Note: all numbers as of 31 December 2018 and including Pankl

### Company Overview

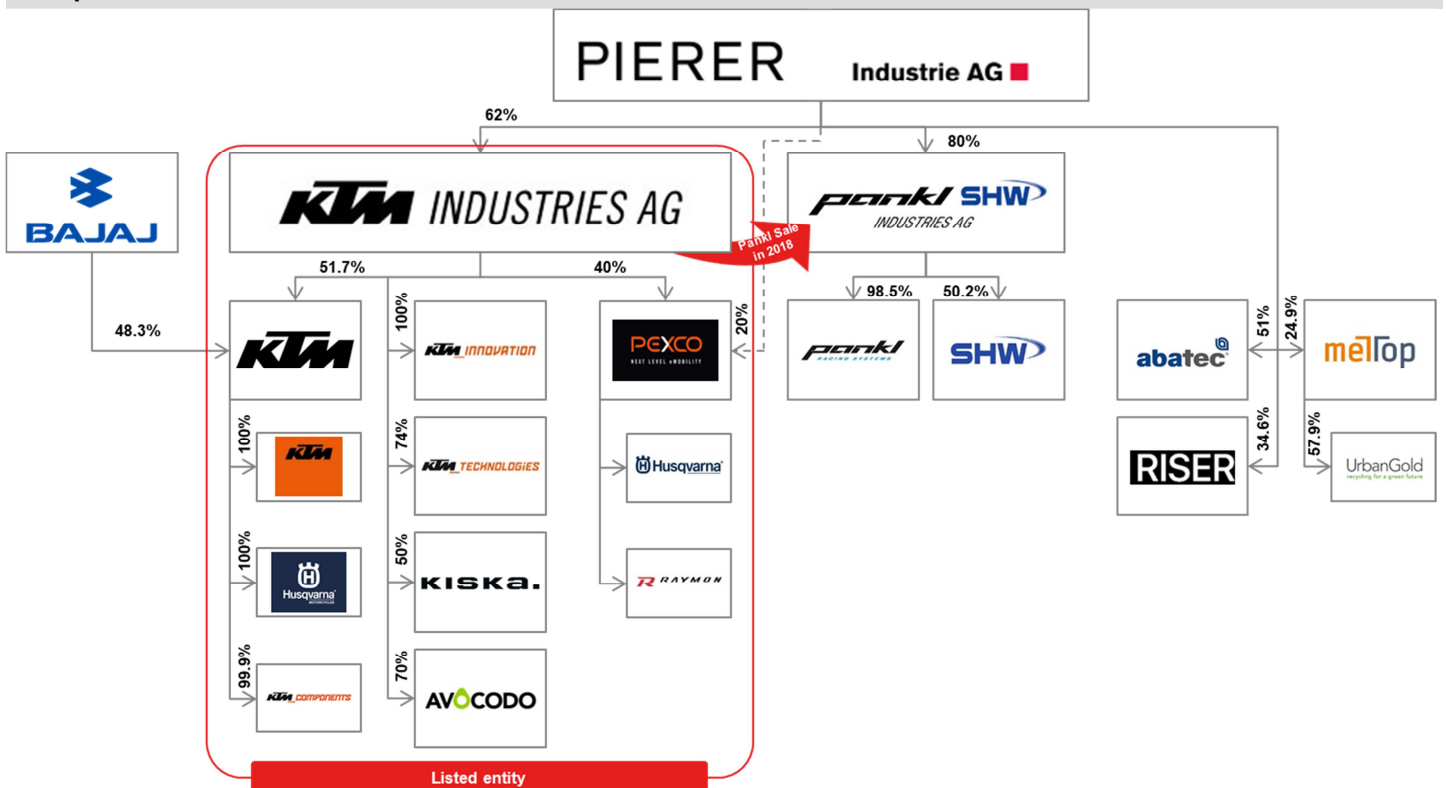
The focus of our note is **KTM Industries AG (KTM)**.

KTM Industries AG (formerly known as CROSS Industries) is a global motorcycle manufacturer and the biggest in Europe with the well-known brands KTM, Husqvarna Motorcycles and WP, which all are among the technology and market leaders in their respective segments. KTM focuses on highly innovative sport motorcycles and electro mobility. **KTM Industries** is divided into the three main areas Powered Two Wheelers, Design and Concept development and eMobility. The company, headquartered in Wels, Austria, had more than 4,200 employees in December 2018. KTM Industries is listed on the SIX Swiss exchange as the trading volume in Switzerland is higher than in Vienna. The majority shareholder with 62% of the shares is Pierer Industrie AG, an Austrian industrial investment group that is fully owned by Pierer Konzerngesellschaft mbH (Mr. Stefan Pierer). The remaining 38.12% is in free float.

Pierer Industrie AG is also the owner of the Pankl SHW Industries Group. In 2018, KTM Industries sold Pankl to Pierer Industrie AG Group.

- Pankl Racing Systems AG, based in Kapfenberg (Austria), is a leading international manufacturer of high-tech mechanical systems for dynamic components in the global niche markets of motor racing, luxury/high performance cars and aerospace.
- The German SHW AG is an automotive supplier and offers effective solutions in the fields of pumps, engine components and lightweight composite brake discs.
- Pierer Industrie AG has further shareholdings in abatec group AG, Riser GmbH and in METTOP GmbH.

### Group structure



Source: Pierer Industrie AG, Warburg Research



**KTM AG is the main revenues and earnings driver**

Christmas 1991: While the competition was on Christmas vacation, Stefan Pierer (35 years old at the time) bought the motorcycle business of the insolvent KTM for the equivalent of almost EUR 4m. He focused on the off-road niche and soon sent a team to the Paris-Dakar, a relentless desert rally, but also the ultimate endurance test for the product. In 2001 KTM won the race for the first time and has done so every year since.

KTM introduced its first street motorcycle in the mid-1990s and acquired Husqvarna Motorcycles in 2013. Husqvarna also originated as a pure off-road motorcycle manufacturer under the umbrella of the BMW group. Through the acquisition the company overtook BMW in terms of the number of units sold. At the same time Pierer & KTM were able to copy the platform strategy of carmakers. The rally-proven engines of KTM also migrated to the Husqvarna's, and development costs were scaled. "KTM and Husqvarna are competitors on the track and for customers" said Pierer in a newspaper interview, and continued "Everything else is family".

In a next step, Husqvarna launched its urban street lines in 2017 to utilize the platform strategy for street models. KTM has a reputation for being highly authentic. As a manufacturer of premium products, KTM aims to manufacture products that are innovative, in line with market requirements, safe and of high quality. A key success factor is the development and manufacturing of the engine by KTM AG, which gives the motorcycle an immediate association with authenticity.

Today, KTM Industries owns 51.7% of KTM AG, which is the parent company to the KTM and Husqvarna Motorcycles brands as well as KTM Components. In 2007 Mr. Pierer started a partnership with Bajaj Auto Limited (through the holding company Bajaj Auto International Holdings BV). The deal was as follows: KTM shared its four stroke knowledge, ABS and direct injection expertise with Bajaj. In exchange, KTM gained access to the largest two-wheeler market worldwide and to production at a fraction of the costs in Europe. Today, ~48% of KTM AG is owned by the Indian two-wheeler and three-wheeler manufacturing company.

**KTM Components (WP) a leading supplier of high performance motorcycle parts**



The company is specialised in the production of lightweight and high-strength titanium, aluminium or steel-alloy components. It mainly focuses on chassis (suspensions & frames) and engine components (exhausts & radiators) for the motorcycle and power sports industry. The most relevant product in terms of share of sales is suspension (WRe: ~50%). We estimate that the associated companies, KTM and Husqvarna are KTM Components most important customers accounting for >90% of sales. While KTM Components currently also supplies external customers, we anticipate that it will exclusively produce for KTM Industries in future.

**Design and Concept development**

In the area of Design and Concept development, KTM Industries included the independent design studio KISKA (In 2018, KTM Industries increased its stake in KISKA from 26% to 50%), the concept engineers from KTM Technologies (74% share) and the innovation manager from KTM Innovations (100% share) which operate within various technology fields such as artificial intelligence, big data, blockchain and business modeling.

**PEXCO as the door-opener for eMobility...**



In 2017, KTM Industries entered a JV agreement with the German Puello family, to create the PEXCO JV with 40%-ownership by KTM Industries. The increased traffic and congestion in many big cities and metropolitan areas and the more restrictive emission (exhaust, CO2, noise) standards will trigger a gradual shift from ICE (internal combustion engine) vehicles to EVs (electric vehicles) in the next decades. We regard the strategic step as valuable as KTM Industries has acquired a vehicle which is able to take a leading role in the development of electric bikes.



## **...but the e-story has just started**

In addition to efforts in eBikes, KTM Industries and Bajaj have already decided to initiate a serial production project for powered two-wheeler electric vehicles in the power range of 3 to 10 kW (48 volt) at the level of KTM AG. This platform will support different product variants – scooters, mopeds, small mopeds, under the brands of both partners. This opens a new market segment for KTM as those products will be in competition with scooters and low displacement motorcycles ranging up to 125ccm.

## Competitive Quality



- KTM is the market leader in Europe and the market leader in the global off-road segment.
- The street motorcycle market is characterised by high pricing pressure, and strong established competitors like BMW, Harley Davidson, Honda or Kawasaki.
- Substantial amount of time and capital is required to reach the technology level of KTM and offer a comparably strong brand.

### European market leader in sport motorcycles



Force	Degree	Factors to consider
<b>Threat of substitutes</b>	<b>Medium</b>	<ul style="list-style-type: none"> <li>▪ Cars, scooters and public transport, especially in emerging markets, are becoming a relevant substitute with increasing disposable income.</li> <li>▪ E-bikes are an increasing competition; however, KTM also addresses this market.</li> <li>▪ Generally, KTM is the industry leader in R&amp;D spending, thereby defending its existing product offering and quickly incorporating new trends.</li> </ul>



<b>Rivalry</b>	<b>Medium</b>	<ul style="list-style-type: none"> <li>▪ KTM is the market leader in Europe &amp; in the off-road segment (50% global market share).</li> <li>▪ The street motorcycle market is characterised by high pricing pressure, and strong established competitors like BMW, Harley Davidson, Honda or Kawasaki.</li> <li>▪ Globally and especially in Asia, Japanese manufacturers have a far greater market share.</li> <li>▪ On average, KTM's product innovation cycle is one year shorter than competitors'.</li> </ul>
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<b>Bargaining power of suppliers</b>	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ KTM uses suppliers of raw materials (aluminium, steel, copper, zinc, rubber and plastics) rather than for pre-manufactured products.</li> <li>▪ KTM created a unique vertical supply chain which ensures production of all critical and performance related components in house.</li> </ul>
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<b>Bargaining power of buyers</b>	<b>High</b>	<ul style="list-style-type: none"> <li>▪ Customers are seeking quality and brand-names. KTM can clearly offer product features with technical differentiation. However, switching costs are non-existent and product lifecycles are relatively short (3-5 years).</li> </ul>
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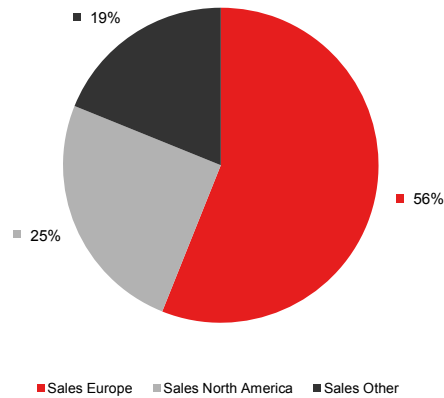


<b>Threat of new entrants</b>	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ Substantial amount of time and capital is required to reach the technology level of KTM to be able to offer comparably strong brands.</li> <li>▪ Even stricter emission regulation negatively affects smaller players and new entrants.</li> <li>▪ Key to success in the aftermarkets and the PG&amp;A business is a dense service &amp; dealer network which is expensive to establish.</li> </ul>
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**KTMI's strong position in Europe**

**KTMI's geographic sales distribution (2018)**

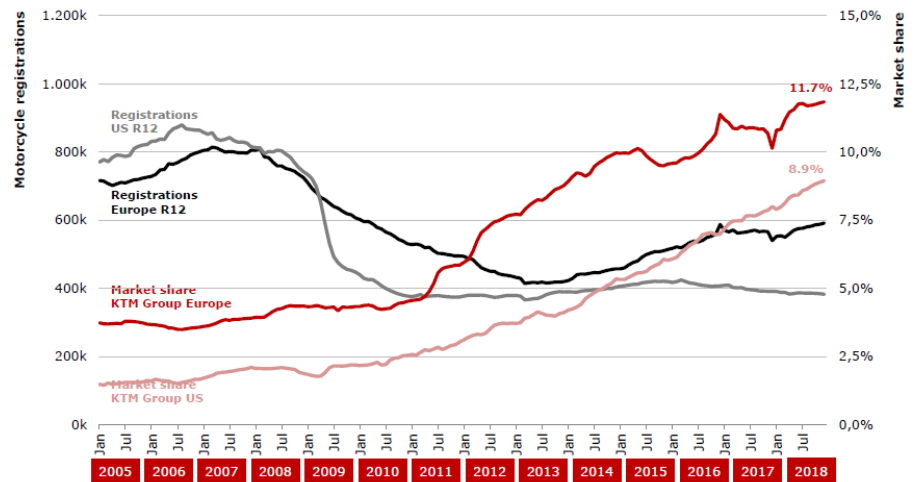


Source: KTM Industries, Warburg Research

In terms of geographic sales distribution, Europe (56%) is by far the largest regional contributor. Here, the company claims it had a **market share of 11.7%** at the end of 2018. Sales in Europe grew by 14.4% which compares to registration growth of 21.5% yoy. The second-largest region is North America with approximately 25% of sales and a **market share of 8.9%**. Sales in NA decreased by 4.4% while registrations in the US grew at 8.5% yoy.

The reason for the differing development of registrations and revenues is explained by the high share of off-road vehicles sold by KTM AG (40% off-road vs. 60% on-road) which are not mandatorily registered in Europe.

**KTMI's market share development**



Source: KTM Industries, Warburg Research

According to the company, KTM Industries continued to gain market share in the US. These gains are mainly driven by the addition of Husqvarna to the KTM platform and are achieved despite the ongoing decline of the US market. Overall, KTM and Husqvarna combined finished 2018 with an all-time high market share, both in Europe and in the US.

In Q1/19 KTMI reported a strong market development and further market share gains in its core markets. Contrary to estimates at the beginning of the year, the retail market in Europe has developed very well. The European market as a whole grew by around 20% in the first quarter. KTMI increased its market share to 12.3% with a registration increase of 22%. In addition to the outstanding increase in sales in India



(+30%), the remaining markets were in line with expectations.

In Europe, KTM is the market leader. In the street segment, Japanese peers are the strongest competitors for KTM globally. However, during the last decades KTM clearly outperformed them and successfully gained market share. In the United States, Harley Davidson is –in addition to Japanese peers- a major competitor in the touring segment, making up around half of the motorcycle registrations with over 600ccm. The American motorcycle maker, however, has lost market share within its domestic market for a few consecutive years – in contrast to KTM.

We think the key reasons for KTM's massive gain in market share from 2011 onwards are:

- High investment in R&D and product development after 2008 when most peers drastically reduced investment spending.
- KTM focus on street models. The street to off-road ratio changed from 30/70 in 2008 to 60/40 in 2018 despite an ongoing increase in units sold in the off-road segment.
- KTM also introduced KTM finance (with various bank partners) which provides consumer loans and leasing for motorcycle purchases.
- KTM Industries follows a clear B2B strategy. Unlike its peers, KTM only sells its bikes through dealers with which the company cultivates a longstanding partnership. As KTM, in a first step, only sells “standard” products, dealers have the opportunity to earn an extra margin by selling add-on parts in the aftermarket.

**Street motorcycles are becoming increasingly important for KTM**

While KTM has its origins in off-road, the street segment is becoming increasingly important. The focus is on design as well as an even higher share of electronics which ensures better performance, new functionalities, more comfort and better safety.

KTM's models also offer features like ABS for which the company was the development partner of Bosch. As a first mover, KTM's motorcycles are also expected to be equipped with a variety of new technologies, including interconnectivity/vehicle-to-vehicle communication, which are likely to further boost future sales. This technology, based on sensors in vehicles or attached to a driver vest or helmet, could improve safety and make motorcycles visible to everybody on the road.

The higher focus on technological innovation and electronics also leads to much higher R&D spending and the street segment generally has lower margins.

**Bajaj Auto partnership at a glance**

Success in emerging markets and in the street segment depends on the company's partnership with Bajaj Auto. While >60% of KTM's motorcycles are still produced in Austria the partnership is beneficial for both parties. KTM provided Bajaj with technological expertise and subsequently gained access to its very efficient production and a distribution partner for the Indian & Indonesian market. We regard this as a smart strategic move as it enables asset light scaling of KTM & Husqvarna Motorcycle products. The production shift to Bajaj will free up capacity in the Mattighofen plant and will enable KTM to increase total production without further capacity expansion investments.

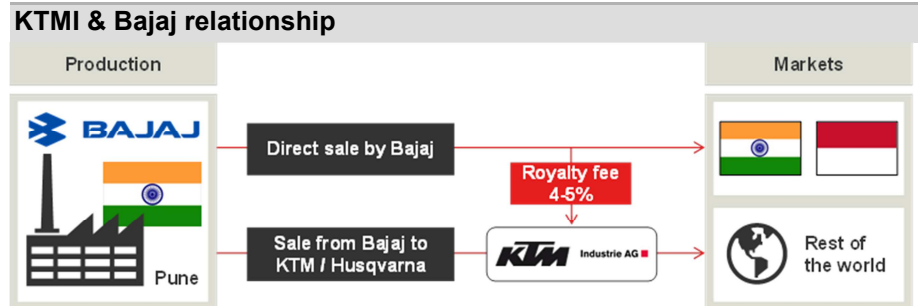
**Royalty fees**

The strategic partnership with Bajaj is based on a license fee model. For every USD sales from Bajaj KTM earns a fee. License fees for KTM stand at 4.0% in 2018 and will gradually be increased to 5.0% from 2019e onwards as new models are introduced. For Husqvarna Motorcycles, the license fee also amounts to 5.0%.



While the license fee is recorded under revenues (**WRe**: EUR 2.5-3m in 2018), it drops straight to EBIT and is therefore supportive for profitability.

KTMI pays Swedish Husqvarna group a similar 1.5% royalty fee for using the “Husqvarna Motorcycles” brand name which is booked in selling and racing expenses. We note that the license agreement for the Husqvarna brand is valid until 2037.



Source: Warburg Research

The risk stemming from this partnership is limited in our opinion. Bajaj (Bajaj Auto International Holdings) owns ~48% of KTM AG shares, aligning Bajaj’s efforts with the success of KTMI. Bajaj is a tightly held family business where decisions are mainly made by Bajaj family members, significantly streamlining the decision making process.

**KTMI’s home turf is off-road**



Off-road is KTMI’s legacy business. In this area, it benefits from a global market share of 50% and an even better 70% market share in Europe, according to the company. Such a strong position in off-road can also help KTMI with brand recognition when expanding even more into the street segment in Europe.

In the overall off-road segment, KTMI is among the leading motorcycle manufacturers especially because of its pioneering role in integrating electric engine starters, its reliable engines and its lightweight construction.

This segment is also known for shorter replacement cycles (~3 years) than for street motorcycles (~3-5 years) which lead to more frequent purchases and steadier sales volume.

The shorter replacement cycles (where the price has no time to decrease) have led to higher margins in the off-road segment. For example, the enduro segment generates the highest margins as it offers many special features for customers to choose from and is more complex to produce.

With a greater number of models than its competitors, KTM and Husqvarna are leading brands in the enduro segment. In this segment, it is particularly important to be able to offer a broad range of models to the customers.

At the same time, however, KTMI’s prices are generally slightly higher than those of its Japanese competition placing KTMI in a more premium segment.

Success in racing competitions, such as the Dakar Rally, is a crucial driver of off-road motorcycle sales. These motorsports events have a huge reach across the world and are an excellent marketing platform for motorcycle producers.

According to KTM Industries, winning a prestigious race has a direct impact on motorcycle sales. Its constant success in motorsport in the past explains KTMI’s increasing sales even in markets like Europe or the United States where sales growth was rather flat.

EXPLORER



### High barriers to entry for new competitors

To enter the motorcycle manufacturing market, a substantial amount of time and capital is required to reach the technology level of KTM and its comparably strong brand offer. We think this is especially true for premium products where customers have a high brand loyalty.

Another barrier to entry is its access to a broad dealer / distribution network. This is mainly B2B business which takes time to develop. KTM claims it had access to 2,078 KTM and 744 Husqvarna dealers at the end of 2018 (including India) of which >200 were dual brand dealers.

### EURO 5 will be introduced in 2020

With the introduction of the new emission standard EURO 5 in 2020, a consolidation among manufacturers is expected as even stricter emission regulation negatively affects smaller players and new entrants. We think that especially players with lower unit sales (see units ranking) will struggle to cope with increasing regulatory pressure.

### KTM's relative position (Registrations Europe & US, >120cc)

	Units ranking by brand			
	2017	2018	Diff. to PY	Change
HARLEY-DAVIDSON	191,730	177,465	-14,265	-7.44%
HONDA	146,121	159,570	13,449	9.20%
YAMAHA	139,641	132,588	-7,053	-5.05%
KAWASAKI	100,613	110,845	10,232	10.17%
BMW	97,713	93,714	-3,999	-4.09%
<b>KTM</b>	<b>78,950</b>	<b>87,297</b>	<b>8,347</b>	<b>10.57%</b>
SUZUKI	52,097	55,285	3,188	6.12%
TRIUMPH	45,548	42,188	-3,360	-7.38%
DUCATI	39,388	36,865	-2,523	-6.41%
<b>HUSQVARNA</b>	<b>19,003</b>	<b>23,993</b>	<b>4,990</b>	<b>26.26%</b>
BENELLI	4,010	9,244	5,234	130.52%
APRILIA	6,948	9,106	2,158	31.06%
MOTO GUZZI	6,194	6,281	87	1.40%
BETA	4,420	4,594	174	3.94%
SHERCO	1,882	2,067	185	9.83%
GAS GAS	1,587	1,828	241	15.19%
MV AGUSTA	1,478	1,258	-220	-14.88%

KTM and Husqvarna among the biggest motorcycle manufacturers

Source: KTM Industries (Europe US)

NAKED



### High vertical integration: key components are developed internally

As costs for materials represent the largest cost item by far (WRe: 60%) managing the supplier base is crucial. However, KTM Industries manages its components with a high level of vertical integration, which limits the competitiveness of suppliers dramatically. We estimate that the 10 largest suppliers account for approximately 50% of KTM's AG purchase volume but roughly two-thirds is sourced from group subsidiaries or strategic partner entities (KTM Components, Pankl, Kiska, or Bajaj).

While KTM single-sources some components from suppliers outside the group (Bosch, Brembo, Akrapovič, etc.) the business relationships are long-standing. Discussion with management made clear that trust is a high priority for the company and, as a result, we regard the risk as limited.

### Motorcycle substitutes vs. KTM positioning

In the following, we would like to highlight some considerations regarding potential substitutes for motorcycles in the long run.

- Obviously, cars, scooters and public transport are relevant substitutes especially in

SUPER MOTO



emerging markets in light of a broad-based increase in disposable income and more investments into public transportation.

- Additionally, E-bikes are increasingly meeting the need for inner-city transportation; however, KTM also addresses this market with the PEXCO JV and its e-mobility strategy/product portfolio.
- Generally, KTM is the industry leader in R&D spending, thereby defending its existing product offering and quickly assimilating new trends.

#### How cyclical is the motorcycle industry?

The graph on page 11 (market share development) also highlights the cyclical pattern of motorcycle markets which are tied to general economic development. Following the financial crisis 2008/09 registration figures in Europe and in the US plunged for some years. Even KTM could not escape this harsh decline unscathed. In 2009 KTM unit sales decreased by >30% and EBIT was negative. However, while the market has not yet returned to pre-crisis production levels, KTM returned to its pre-crisis level in 2012 and has outperformed the market by far since then.

#### Strategy

Our impression is that KTM and its management is highly innovative and is constantly striving for the next technological improvement. In the following, we highlight some key strategic advantages:

- The biggest assets of KTM Industries are its strong and widely known brands KTM and Husqvarna Motorcycles (second-oldest motorcycle brand worldwide). The company incorporated racing in its “DNA” and as a result it continuously strives for. Consequently, the company is able to charge premium prices (5-10% higher than the competition).
- The dual brand strategy is a competitive advantage as it enables the company to capitalise on a modular platform production for KTM and Husqvarna. Both use similar engines, frames and the majority of components (**WRe**: ~80% are common parts). This could lead to up to significant cost reduction as the development of a new engine can cost up to EUR 25-30m.
- Generally KTM profits from its shorter time-to-market cycle (on average 1 year faster than peers) which is a result of lean production and shorter decision-making paths than other brands which are embedded in huge conglomerates.
- Worth mentioning is that the CEO and the rest of the management shares the boat with minority investors and bears the same risks.
- KTM Industries claims to have an export share of ~98%. The company clearly aims for further internationalisation through partnerships (Bajaj, CFMoto).
- As KTM manufactures the majority of motorcycles in Mattighofen, its highly qualified employees are another major asset. With a 23% gender quota, KTM is also a leading employer of women in the industry. While the average age of employees is ~35 years, we regard this as a sign of incorporating speed and a desire for innovation into the organisation.

## Analysis of return on capital

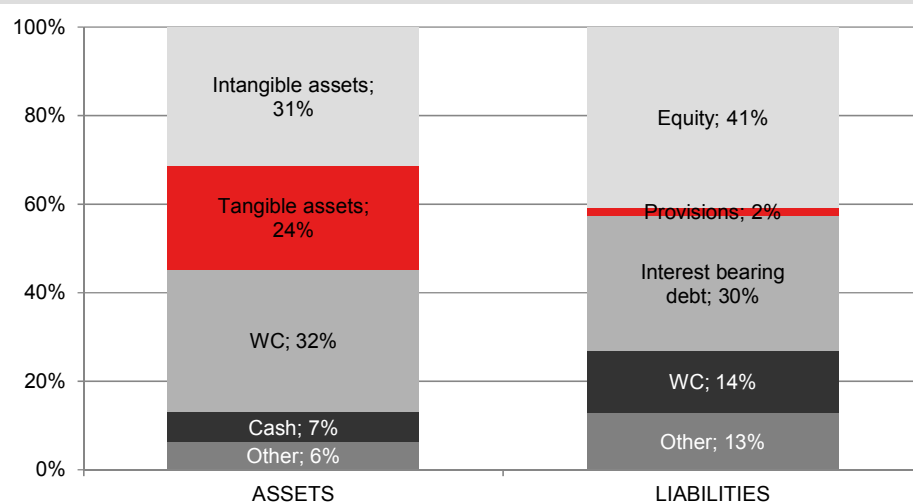
- In 2018, KTM's high investment ratio weighed on CF generation. However, we anticipate the ratio will decrease based on lower investments in tangible assets combined with increasing top-line development.
- We see the potential to improve working capital management by reducing inventory which was extraordinarily high at the end of 2018.
- With increasing unit volume distributed by Bajaj and CFMoto and correspondingly higher royalty fee income, the stage is set for a boost in returns.

FY 2015 & 2016 somehow distorted by the Pankl sale

## Capital employed

In June 2018, KTM industries sold all its shares in Pankl Racing System for a purchase price of EUR 130.5m to the Pierer Industrie Group. As KTM provided the financial details for 2018 and 2017 on the basis of the stand-alone entity excluding Pankl, we built our (P&L) model accordingly showing the Pankl business as discontinued operations.

### KTMI's Balance Sheet



Source: KTM Industries, Warburg Research

## High level of intangibles due to the strong KTM brand and high R&D capitalisation

KTMI has some 31.2% (EUR 326.6m) of its total assets allocated to intangibles, of which the majority (291.9m) are customers, brand values and development costs, which also includes the "KTM" brand worth EUR 61.1m. The remainder (30.4m) is attributable to concession, industrial property rights as well as the resulting licenses and a small share (4.3m) of advanced payments.

High level of intangibles reflect capitalised R&D

In 2018 development costs were capitalised at EUR 81.1m which compares to total research and development costs of EUR 126.5m and results in a capitalisation ratio of 64% after 58% in FY 2017. While we acknowledge this fairly high ratio, we regard it to be adequate as this is almost no basic research but is totally product driven and therefore has to be capitalised. In addition, KTM has clearly built a strong market position based on its technological leadership.

Goodwill of EUR 96.2m is recognised which translates into 7.1% of total assets. The company's superior track record without write-offs on intangibles strengthens credibility in our assumption that this will be sustained during our forecast period.

As a manufacturing company, PPE is a major item. However, it is relatively stable at ~22% of total assets for the last three years. Not surprisingly, for FY 2018, the largest parts of the total 283.4m are attributable to buildings (144.3m) and technical plant and



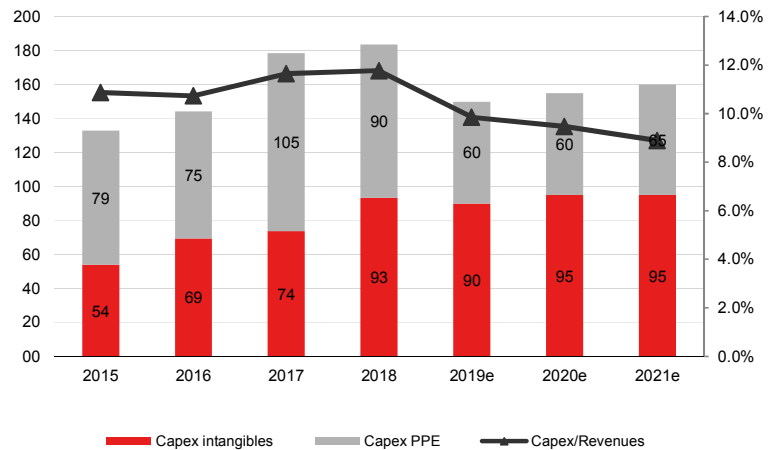
machinery (71.5m). We estimate the production capacity in the Mattighofen plant at approximately 200k units p.a. Given the company's sales target of ~400k units in 2022 and a scheduled production capacity of ~200k from Bajaj and ~20k from CFMoto we do not anticipate a need for further investment.

**Capex reflects major capitalised R&D costs**

**Investment and D&A**

KTMI spent EUR 183.6m on capex in FY 2018. Interestingly, the larger part (93.5m) was invested in intangibles, thereof EUR 81m in customers, brand values, development costs. This is in line with the trend in recent years as the ratio of investment in intangibles to sales increased from 4.4% in 2015 up to 6.0% in 2018. Additionally, KTMI classifies EUR ~25m as capex in PPE which also is an integral part of R&D investment.

**KTMI's investments**



Source: KTM Industries, Warburg Research

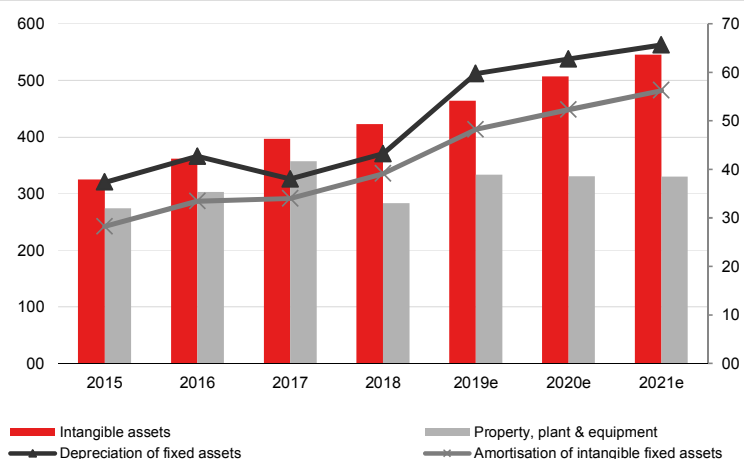
An investment ratio of 11.8% is clearly not what investors want to see as this is burdening FCF and the resulting high D&A will clearly weigh on margins going forward. On the other hand, we observed lower PPE investments in 2018 (90.1m vs. 104.7m in FY 2017 whereof ~25m are R&D tooling investments) as the intensive investment programme in production sites has come to an end. According to KTMI, investment in facilities totalled EUR 250m while product investments amounted to EUR 645m respectively since 2009.

For our forecast period we estimate EUR 160m of total capex which is at the upper end of the management guidance of EUR 150-160m. We anticipate that the larger share will be invested in intangibles as KTMI aims to stay at the forefront of technological leadership. In total this will reduce the investment rate from 11.8% in 2018 to ~9% in 2021e which in turn will boost FCF and serve as the basis for higher valuations. In other words, we regard the capex cycle to be in investors' favour.

In line with an increase in investments in intangibles we observed a stronger increase in amortization of intangible fixed assets which we model to grow at a CAGR of ~13% from 2018 to 2021e. The spike in 2019e is also explained by IFRS 16. We want to highlight that amortization will remain at a high level as KTMI generally amortizes its off-road models over a 3-year horizon and its on-road models over a 3-5 year horizon.

As the investment programme in PPE came to an end in 2018, we model a slightly slower pace (excluding IFRS 16) of growth in the depreciation of fixed assets than in the last few years

**KTMI's D&A**



Source: KTM Industries, Warburg Research

**WC management leaves some room for upside**

**Working capital management**

Working capital amounted to EUR 435.9m (32.2% of total assets) as of the end of FY 2018 and thus represents the largest item on KTMI's balance sheet. However, KTMI mentions in a presentation that due to a parts delivery interruption, inventory was about 50-55m higher than normal per FY2018.

**KTMI's working capital management**

KTMI-Industries- Working Capital Management	2015	2016	2017	2018	2019e	2020e	2021e
Net Working Capital	242.1	243.0	238.8	245.3	231.0	249.1	274.1
Days Inventory on Hand (DOH)	72	67	65	68	68	65	65
Days Sales Outstanding (DSO)	33	32	29	32	36	35	34
Days Payable Outstanding (DPO)	33	33	37	43	47	46	46
<b>Cash-Conversion-Cycle</b>	<b>72</b>	<b>66</b>	<b>57</b>	<b>57</b>	<b>57</b>	<b>54</b>	<b>53</b>

Note: Computed metrics are based on average balance sheet values from 2016 onwards.

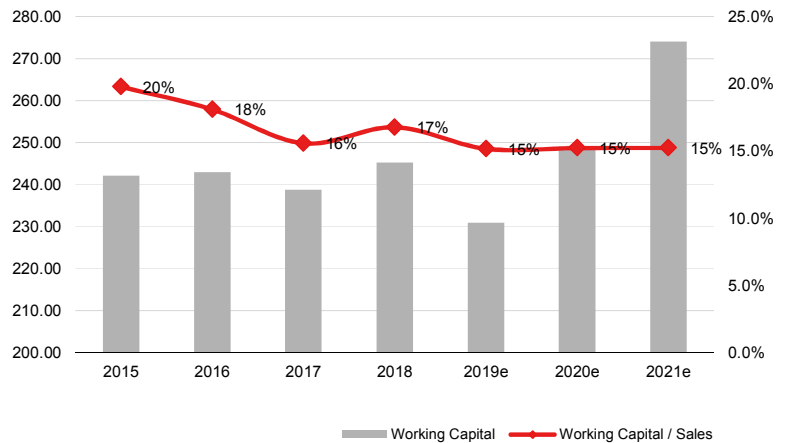
Source: KTM Industries, Warburg Research

On the positive side WC/sales decreased from 19.8% in 2015 to 16.8% in 2018 mainly on the back of an extension in days payable outstanding (from 33 to 46) which we mainly attribute to the deconsolidation of Pankl. However, a further breakdown clearly highlights that the main driver of WC was the high inventory level KTMI carried on its balance sheet.

For the time being, our model factors in a EUR 50m improvement in inventories and a slightly higher inventory turnover. We forecast a working capital/sales ratio of ~15% in 2019e – 2021e as the new acquisition of the Australian distributor increased the WC/Sales ratio by ~3% according to KTMI.

Nevertheless we see potential to decrease the ratio if a larger than expected part of unit sales will come from Bajaj as this working capital is not on KTMI's balance sheet.

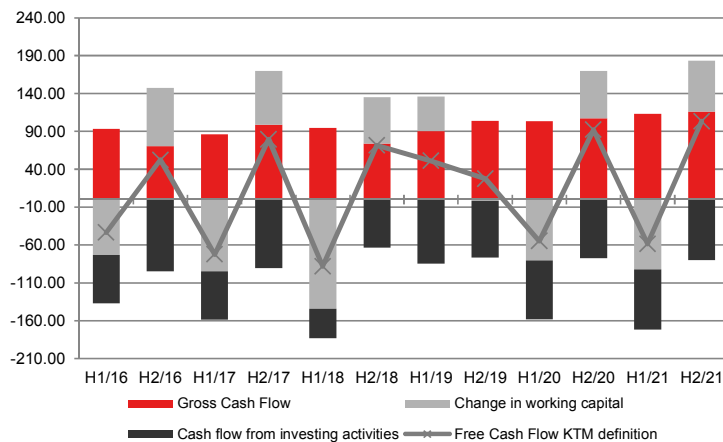
**KTMI's working capital management**



Source: KTM Industries, Warburg Research

As the following graph shows, the seasonality of working capital also has high implications for the free cash flow. While the build-up in the first half of the year draws down FCF, a normalization of WC leads to stronger cash generation towards the end of the year. This year we expect a decrease in the inventory level already in H1 2019.

**KTMI's FCF generation shows a seasonal pattern**



Source: KTM Industries, Warburg Research

**Solid financial position**

In 2018 KTMI undertook a raft of capital measures affecting equity:

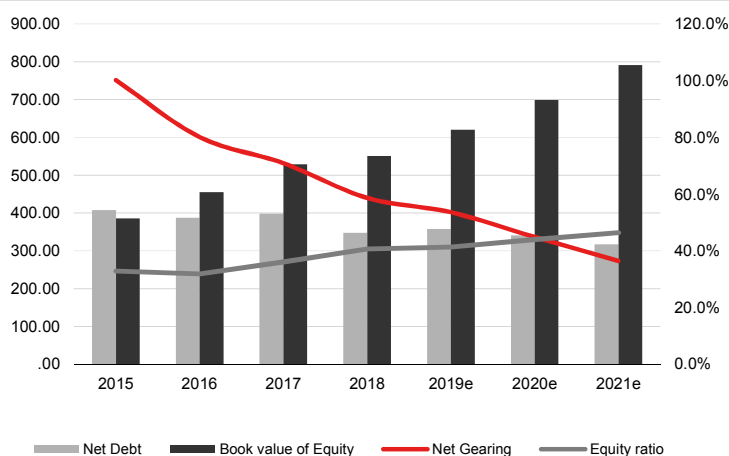
- Repayment of a EUR 60m (hybrid) perpetual bond.
- The proper reduction of the company's share capital from EUR 225,386,740 to EUR 22,538,674 by combining shares at a ratio of 10:1 for the purpose of transferring EUR 202,848,066 to an unappropriated reserve was resolved.
- Conservative dividend payment of EUR 6.8m (payout ratio of ~10%).

Before 2015 (not included in our model) the company had to cope with strong growth and as a result required additional funding to finance investments, net working capital and to increase stakes in both WP and Pankl Racing Systems. The corresponding expansion of the balance sheet led to a temporary decrease in the equity ratio.

**Financial position will further improve**

In a similar fashion, gearing stood at >100% in 2015 but steadily declined thereafter to reach a level of 58.7% in 2018. Following the Pankl sale to Pierer Industrie Group last year which improved financial metrics, we expect the trend to resume and estimate a gearing of ~36.5% in 2021e (also affected by IFRS 16).

**KTMI's balance sheet quality**



Source: KTM Industries, Warburg Research

For net debt/EBITDA, the company is targeting 1.0-1.2x in 2019e & 2020e and <1.0x for 2021e (before IFRS 16). Solid EBITDA growth and CF generation should help to lower the ratio to 1.1x in 2021e, in line with the target.

While we know from the footnotes that some loan agreements include financial covenants regarding the equity ratio (min 30%) and the dynamic debt level (net financial debt to EBITDA ratio), where non-compliance would lead to a premature repayment of the financial liabilities, we do not think that this will become an issue for KTMI.

Based on our planning, KTMI can finance its future growth from internally generated funds and does not require additional external financing, especially in light of the very conservative dividend payments in the last couple of years.

**Provisions**

Provisions are not a major issue for KTMI as management has been following a prudent and consistent provisioning approach over the last four years. Net additions are on average 0.8% of sales (mainly comprised of guarantee & warranty provisions) which we regard as a reasonable amount and totally in line with peers.

The same is true for liabilities for employee benefits which on average amount to <2% of sales and total assets. We have not detected any anomalies regarding volatile changes in accounting assumptions and regard the absolute level of minor importance.

**KTMI follows a prudent & consistent provisioning approach**

**KTMI's development of provisions**

Provisions	2015	2016	2017	2018
<b>Additions</b>	<b>9.7</b>	<b>16.0</b>	<b>11.6</b>	<b>14.2</b>
thereof guarantee & warranty	8.4	9.7	10.7	11.8
thereof for legal action	0.6	0.7	0.1	0.3
thereof other provisions	0.6	5.6	0.8	2.1
<i>in % of sales</i>	<i>0.8%</i>	<i>1.2%</i>	<i>0.8%</i>	<i>0.9%</i>
<b>Dissolutions</b>	<b>-0.4</b>	<b>-0.5</b>	<b>-4.8</b>	<b>-0.5</b>
<b>Net Additions</b>	<b>9.3</b>	<b>15.5</b>	<b>6.8</b>	<b>13.7</b>
<i>in % of sales</i>	<i>0.8%</i>	<i>1.2%</i>	<i>0.5%</i>	<i>0.9%</i>
<b>Utilization</b>	<b>7.4</b>	<b>9.0</b>	<b>11.6</b>	<b>10.7</b>
thereof guarantee & warranty	6.7	8.2	9.7	10.5
thereof for legal action	0.1	0.3	0.3	0.1
thereof other provisions	0.6	0.5	1.5	0.1
<i>in % of sales</i>	<i>0.6%</i>	<i>0.7%</i>	<i>0.8%</i>	<i>0.7%</i>
<i>in % net Additions</i>	<i>79.7%</i>	<i>58.0%</i>	<i>170.7%</i>	<i>78.1%</i>
<b>Liabilities for employee benefits</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Severance payments	17.8	19.8	20.3	20.1
Anniversary bonuses	3.1	3.7	3.7	4.9
	<b>20.9</b>	<b>23.5</b>	<b>24.0</b>	<b>25.0</b>
<i>in % of sales</i>	<i>1.7%</i>	<i>1.8%</i>	<i>1.6%</i>	<i>1.6%</i>
<i>in % of total assets</i>	<i>1.8%</i>	<i>1.7%</i>	<i>1.6%</i>	<i>1.8%</i>

Source: KTM Industries, Warburg Research

**Capital turn**

In total, KTMI historically delivered a relatively stable cap turn in the range of 1.5x-1.7x. We are confident that KTMI can improve this number with slightly lower growth in capital employed for our explicit forecast horizon. Going forward, a higher production level by Bajaj and corresponding fee income will work as leverage as capital will not be on KTMI's balance sheet.

**KTMI's capital intensity**

Capital Intensity	2015	2016	2017	2018	2019e	2020e	2021e
Sales (incl. Pankl)	1,223.6	1,343.0	1,533.0	1,559.6	1,522.7	1,635.8	1,799.2
PP&E	274.5	303.2	357.3	283.4	333.6	330.9	330.3
PP&E turnover	4.5 x	4.4 x	4.3 x	5.5 x	4.6 x	4.9 x	5.4 x
Capital employed	795.0	843.1	927.5	899.1	977.9	1,039.9	1,108.6
Average Capital employed	795.0	819.0	885.3	913.3	938.5	1,008.9	1,074.2
Capital employed turnover	1.5 x	1.6 x	1.7 x	1.7 x	1.6 x	1.6 x	1.7 x

Note: Computed metrics are based on average balance sheet values from 2016 onwards.

Source: KTM Industries, Warburg Research

### Operating profitability

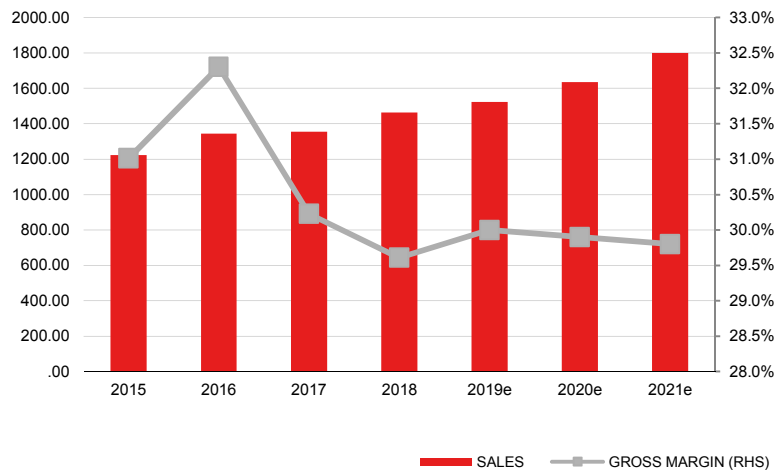
Generally, there are three distribution streams:

- Wholesale via independent dealers carefully chosen by KTM
- “Direct” to consumer through JVs which are accounted as at-equity holdings (CFMoto etc.)
- Royalty fees from Bajaj

### KTMI historically delivered relatively stable margins

There has been a relatively stable gross margin trend over the past four years. As the years 2017 & 2018 do not include Pankl, the effect on gross margin is visible as it is slightly lower after the deconsolidation.

#### KTMI’s gross margin/pricing



Gross margin influenced by street models

Source: KTM Industries, Warburg Research

While we observed a declining trend in gross margins from 2016 to 2017, the main cause was an extraordinary positive effect from the USD in 2016. Generally, we anticipate the following influences on gross margin:

- We estimate that the strongest contribution to gross profit comes from off-road models (declining share of total unit sales) and
- big motorcycles such as the Super Duke (stable share of total unit sales).
- We estimate that street motorcycles offer a lower gross margin (~30% compared to ~35% in off-road)
- However, the rising share of Husqvarna models will somewhat offset the rising share of street motorcycles as the HVQ price is slightly higher.
- Increasing share of licence fee from Bajaj which feeds straight into EBIT.
- As sales of vehicle accessories from “KTM Power Parts” and driver equipment from “KTM Power Wear” enjoy an exceptionally high priority in the group. We expect positive influence of Parts, Garments & Accessories (PG&A) on the gross margin.

Considering KTMI’s meticulous approach to increasing production efficiency, we are confident that management would be able to offset any additional unexpected headwinds to the gross profit line. However, the rising share of street motorcycles will weigh on gross margin and we therefore forecast a slight decline in gross margin of 30% for 2019e to 29.8% in 2021e.

**Operating margins**

<b>KTMI's profitability development</b>							
in % of Sales	2015	2016	2017	2018	2019e	2020e	2021e
<b>Sales</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Cost of sales	69.0%	67.7%	69.8%	70.4%	70.0%	70.1%	70.2%
<b>Gross profit</b>	<b>31.0%</b>	<b>32.3%</b>	<b>30.2%</b>	<b>29.6%</b>	<b>30.0%</b>	<b>29.9%</b>	<b>29.8%</b>
Research and development	2.4%	3.0%	2.5%	1.9%	2.0%	2.2%	2.3%
Sales and marketing	12.2%	12.6%	12.2%	11.8%	12.0%	12.0%	12.0%
General and administration	5.6%	6.0%	4.5%	4.9%	4.8%	4.8%	4.8%
Other operating income	0.3%	0.4%	0.3%	0.0%	0.5%	0.5%	0.5%
Other operating expenses	1.8%	2.1%	2.3%	2.0%	2.9%	2.5%	2.1%
<b>EBITDA</b>	<b>14.6%</b>	<b>14.8%</b>	<b>14.3%</b>	<b>14.4%</b>	<b>15.9%</b>	<b>16.0%</b>	<b>16.0%</b>
Depreciation of fixed assets	3.1%	3.2%	2.8%	3.0%	3.9%	3.8%	3.6%
<b>EBITA</b>	<b>11.5%</b>	<b>11.6%</b>	<b>11.5%</b>	<b>11.5%</b>	<b>12.0%</b>	<b>12.2%</b>	<b>12.3%</b>
Amortisation of intangible fixed assets	2.3%	2.5%	2.5%	2.7%	3.2%	3.2%	3.1%
Impairment charges and amortisation of goodwill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
At-equity earnings	0.0%	0.0%	0.0%	-0.3%	0.0%	0.1%	0.1%
<b>EBIT</b>	<b>9.2%</b>	<b>9.1%</b>	<b>9.0%</b>	<b>8.8%</b>	<b>8.8%</b>	<b>9.0%</b>	<b>9.2%</b>

Source: KTM Industries, Warburg Research

The lower gross margin due to the Pankl sale was equalized by lower fixed costs which decreased significantly (**WRe**: ~24m or 1.5% of sales) and boosted EBIT margins driven by lower general and administrative expenses.

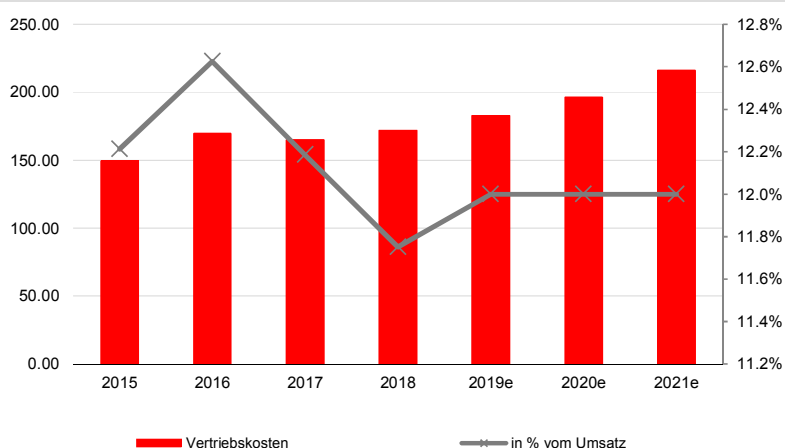
Going forward, as already mentioned, the production shift to Bajaj will free up capacity in the Mattighofen plant and will enable KTMI to increase total production. However, for 2019e-2021e we anticipate only gradual improvements as utilization will be a bit lower during this period. However lower utilisation in the course of the transfer of capacity will help to reduce the overtime levels accumulated in the last few years.

**Selling and racing expenses**

Racing plays an important role in generating new sales and gaining new customers. In motorcycle racing, the driver is the hero and the brand is has a stronger association with the winner than in the automobile market. According to KTMI, wins are reflected 1-to-1 in off-road sales. This effect can also be seen in street motorcycles but is less pronounced. Moto GP is mandatory for brand building - particularly in Asia where off-road does not play a role.

In off-road, the company capitalises on its exposure in racing competitions. Moto-cross bikes in challenges and races today are next year's production models.

**KTMI's racing spending**



Source: KTM Industries, Warburg Research

The company spends some 4-4.5% of sales on sports events. While 2.5% are for off-road (40%) activities, the remaining 60% are spent in on road-racing. For road-racing 80-90% is marketing and just 10-20% will be included in the next series production model. In off-road, 40% of expenses will normally be recovered through sponsorship.

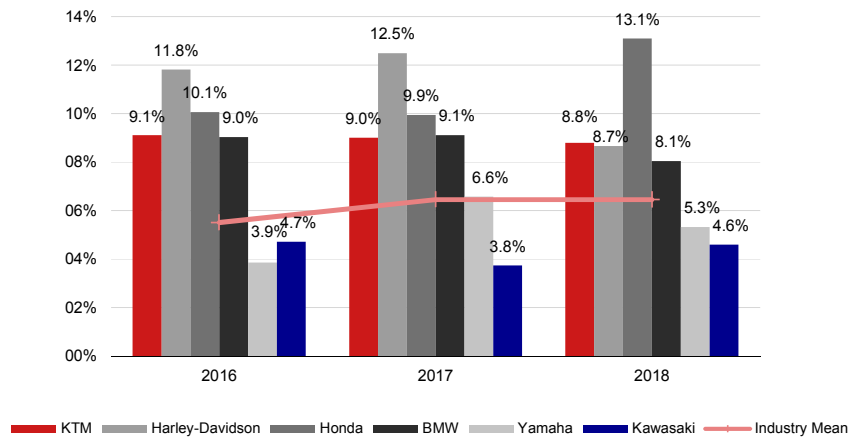
Consequently, the marketing budget is relatively large and grew at a CAGR of 4.8% from 2015-2018. We expect this trend to stabilise at ~12% of sales from 2019e-2021e.

**Peer margin benchmarking**

Our predicted improvement in EBIT margins is not only backed by the Husqvarna model rollout but also an additional peer comparison makes us confident that KTM can close the gap to Harley-Davidson and Honda which are also regarded as premium manufacturers. Some things to consider when benchmarking.

- KTM is on average 10-15% more expensive than its Japanese competitors and also posts a higher gross margin.
- Harley is the role-model in the Parts, Garments & Accessories (PG&A) business. The company capitalises on its PG&A sales which offers decent margins.
- Honda has a completely different product mix with a lot of small powered two wheelers posting decent margins.
- KTM includes the at-equity result (which was negative in 2018) and thus, benchmarking could be slightly distorted.

**KTM's EBIT margin vs. peers**



Source: Company reports, Warburg Research



## Returns

### Returns are in line with management's target

Driven by slightly improving profitability and slower growth in capital employed, our ROCE forecasts reflect the positive trend from last year. ROCE is anticipated to expand from 10.7% in 2018 to 11.6% in 2021e.

KTM's ROCEs							
	2015	2016	2017	2018	2019e	2020e	2021e
+Equity	386.6	454.9	528.6	550.8	620.1	698.9	791.1
+Pensions	20.9	23.5	24.0	25.0	25.0	27.0	29.0
+Financial liabilities	522.6	648.2	544.0	412.6	474.6	466.6	458.6
-Liquid assets	135.1	283.6	169.1	89.3	141.9	152.6	170.1
<b>=Capital employed</b>	<b>795.0</b>	<b>843.1</b>	<b>927.5</b>	<b>899.1</b>	<b>977.9</b>	<b>1039.9</b>	<b>1108.6</b>
yoy		6%	10%	-3%	9%	6%	7%
Capital turn	1.5 x	1.6 x	1.7 x	1.7 x	1.6 x	1.6 x	1.6 x
EBIT	112.9	122.32	121.9	128.73	134.0	147.22	165.5
EBIT MARGIN	9.2%	9.1%	9.0%	8.8%	8.8%	9.0%	9.2%
Tax Rate	27.8%	18.5%	27.6%	24.2%	25.0%	25.0%	25.0%
<b>NOPAT</b>	<b>81.5</b>	<b>99.7</b>	<b>88.2</b>	<b>97.6</b>	<b>100.5</b>	<b>110.4</b>	<b>124.1</b>
avg. CE	795.0	819.0	885.3	913.3	938.5	1,008.9	1,074.2
<b>ROCE (NOPAT)</b>	<b>10.3%</b>	<b>12.2%</b>	<b>10.0%</b>	<b>10.7%</b>	<b>10.7%</b>	<b>10.9%</b>	<b>11.6%</b>
WACC	6.47%	6.47%	6.47%	6.47%	6.47%	6.47%	6.47%
	1.6 x	1.9 x	1.5 x	1.7 x	1.7 x	1.7 x	1.8 x

Note: Computed metrics are based on average balance sheet values from 2016 onwards.

Source: KTM Industries, Warburg Research

**ROIC to remain in narrow range,  
in line with company target**

This is in line with the management ROIC target of 10-12% which is calculated as follows.

KTM's ROIC							
	2015	2016	2017	2018	2019e	2020e	2021e
+PPE	274.5	303.2	357.3	283.4	333.6	330.9	330.3
+Goodwill	117.7	117.7	117.1	96.2	96.2	96.2	96.2
+Other Intangibles	207.8	244.3	279.6	326.6	368.3	411.0	449.8
+Net Working Capital	242.1	243.0	238.8	245.3	231.0	249.1	274.1
<b>=Invested Capital</b>	<b>842.1</b>	<b>908.2</b>	<b>992.8</b>	<b>951.4</b>	<b>1029.1</b>	<b>1087.2</b>	<b>1150.4</b>
yoy		8%	9%	-4%	8%	6%	6%
Capital turn	1.5 x	1.5 x	1.5 x	1.6 x	1.5 x	1.5 x	1.6 x
EBIT	112.9	122.3	121.9	128.7	134.0	147.2	165.5
EBIT MARGIN	9.2%	9.1%	9.0%	8.8%	8.8%	9.0%	9.2%
Tax Rate	27.8%	18.5%	27.6%	24.2%	25.0%	25.0%	25.0%
<b>NOPAT</b>	<b>81.5</b>	<b>99.7</b>	<b>88.2</b>	<b>97.6</b>	<b>100.5</b>	<b>110.4</b>	<b>124.1</b>
avg. IC	842.1	875.2	950.5	972.1	990.3	1,058.2	1,118.8
<b>ROIC (NOPAT)</b>	<b>9.7%</b>	<b>11.4%</b>	<b>9.3%</b>	<b>10.0%</b>	<b>10.1%</b>	<b>10.4%</b>	<b>11.1%</b>
WACC	6.47%	6.47%	6.47%	6.47%	6.47%	6.47%	6.47%
	1.5 x	1.8 x	1.4 x	1.6 x	1.6 x	1.6 x	1.7 x

Note: Computed metrics are based on average balance sheet values from 2016 onwards.

Source: KTM Industries, Warburg Research

**Bajaj cooperation  
will boost returns**

## Conclusion

- Historically, ROCEs were at a 4Y average of 10.8%.
- We see potential to improve working capital management by reducing inventory. However, we took a conservative modelling approach and do not factor in a major inventory reduction in 2020e and 2021e.
- Especially a higher than expected number of motorcycles sold via the Bajaj cooperation would significantly improve returns as no additional capital requirements are necessary for KTM Industries.

## Growth / Financials

- There is no doubt that KTM is a growth story, with the largest growth in absolute terms, expected from Europe and North America
- India is seen as the most important future market where the Bajaj cooperation will lead to an asset-light geographic expansion.
- Margin development will be positively affected by a larger portion of license fee income and Husqvarna motorcycles.

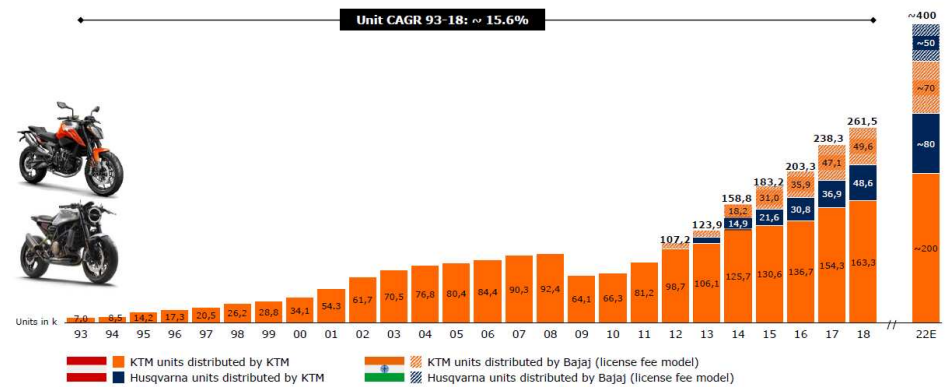
A powered two-wheeler growth story

### KTM is a worldwide growth story

KTM is without doubt a successful growth story. Historically, KTM boosted motorcycle unit sales at an incredible CAGR of ~15.6% for the 1993-2018 time period from 7k units in 1993 to 261.5k in 2018.

We are pretty confident that the company will maintain its growth as it keeps its higher innovation rate, has a shorter time-to-market cycle than competitors, lift synergies with the Husqvarna brand, boost street model sales in emerging markets via partnerships and increase market share globally.

### KTM's motorcycle growth



Source: KTM Industries, Warburg Research



### Brands

The KTM brand accounts for the biggest share of group revenue (**WR**: ~80%). It started as an off-road-only motorcycle manufacturer and later became an innovative manufacturer of street motorcycles. Innovation at KTM is visible, in an expanding product portfolio and in a high technological standard of the offered motorcycles (e.g. ABS). The KTM brand stands for adventure and driving on the edge. "Ready to Race"

Husqvarna is the second brand and combines long tradition with performance. Acquired from BMW in 2013, it already had success as a complementary brand to KTM. With Husqvarna, KTM Industries targets a completely different customer group. Husqvarna targets a more relaxed driving style than KTM. It also targets beginner motorcycle drivers. The eMobility strategy also concentrates on the Husqvarna brand, which we regard as a clever strategic step as there is a greater public awareness of the brand even beyond the world of motorcycles (lawnmowers, etc.). With brand values of "PIONEERING, PREMIUM, and SWEDISH ROOTS," the spirit of the past is evoked, but innovation and future-thinking are highlighted. We estimate the contribution of Husqvarna to group revenue is less significant (**WR**: ~20%), but likely to rise steadily.

### BRAND VALUES

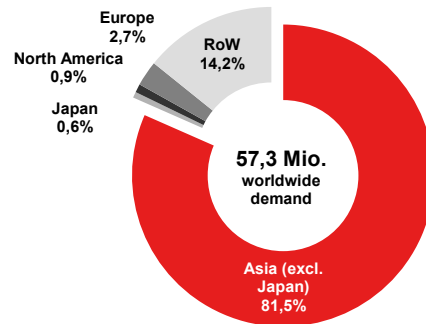


**Global motorcycle markets**

According to Yamaha, more than 57 million two-wheelers were sold globally in 2018. Depending on the regions and age groups, two-wheelers are used as a means of transportation or as a leisure vehicle. This section describes the regional differences in the global two-wheeler market with a particular focus on motorcycles, which defined as two-wheelers with more than 120ccm are in this report.

Over the course of the next six to seven years, the global motorcycle market is expected to grow at a CAGR of around 4.40%, reaching total sales of about USD 145 billion in 2025.

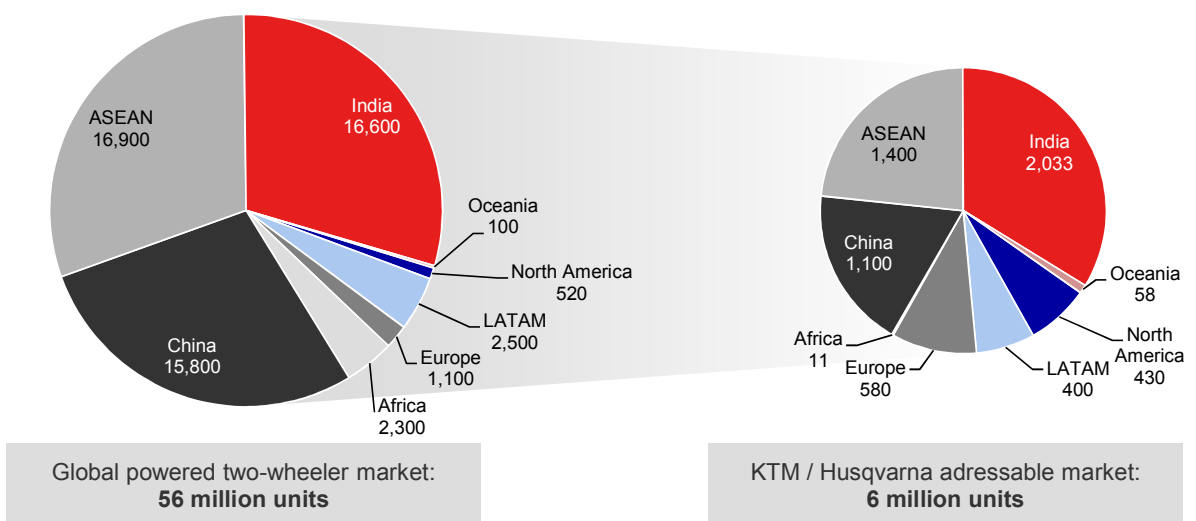
**Global two-wheeler demand (2018)**



Source: Yamaha, Warburg Research

KTM Industries estimates the global powered two-wheeler market (~28m motorcycles and ~28m scooters) at ~56 million units. Thereof, KTM targets a share of ~11% or 6 million units which the company defines as motorcycles >120cc & selling at a manufacturer suggested retail price of > EUR 2,500.

**Global powered two-wheeler market vs. addressable market**

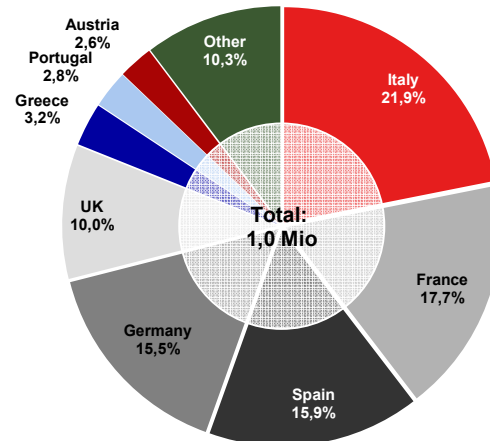


Source: KTM Industries, Warburg Research

**Europe**

With slightly over a million units in two-wheeler sales in 2018, Europe accounts for about 2-3% of global annual sales. The biggest markets, are Italy, France, Spain, Germany and the United Kingdom, representing over 80% of the European market. Illustrated by its annual registrations, the European motorcycle market struggled in the years after the financial crisis, reaching its trough in 2013. Since then, a slight upward trend can be seen but the number of registrations has not yet reached pre-crisis levels. KTM's market share surged in Europe in the post-crisis years. In 2018, KTM and Husqvarna together reached a market share of 11.7%, according to KTM Industries.

**Europe motorcycle registrations by country (2018)**

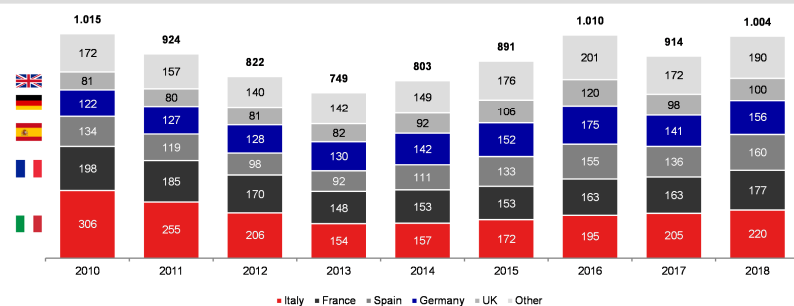


Source: ACEM, Warburg Research

In Europe, the birthplace of motorcycles, motorcycles are firmly anchored in the culture. Motorsports are especially popular. More than half of the MotoGP racing series, the world's premier championship in motorcycle racing, are held in Europe. The European motorcycle market is characterized by the use of motorcycles by riders across all age groups for commuting and recreation, including countryside or circuit racing and touring. The vast majority of motorcycles sold in Europe, however, are used for recreational purposes.

As opposed to Asian countries, motorcycles in Europe are mostly used in leisure time. Still, the composition between off-road and street use differs in European countries. In the UK for instance, there is almost no demand for off-road motorcycles, while they are more popular in Southern Europe. According to company information, KTM Industries has a market share of 70% in the off-road motorcycle market. This strong market position and name recognition is benefitting the company in its plan to further expand the street segment in Europe.

**Europe motorcycle registrations by selected countries (2010-2018)**

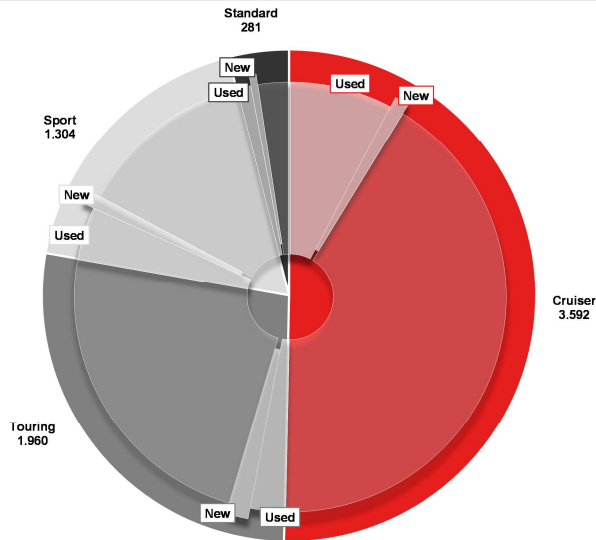


Source: ACEM, Warburg Research

**North America**

The image of motorcycling in North America is associated with cruisers with low-riding seats and long bodies on long straight open roads. This picture is also reflected in the numbers: street motorcycles make up around 75% of the U.S. motorcycle market. Within the street segment, half of the registered motorcycles are cruisers, 27% are touring bikes and almost 20% are sport motorcycles. Still, there is also considerable demand for off-road motorcycles used on mountainous terrains for sports or recreational purposes, which accounts for almost 20% of the market. The remaining part of the total U.S. motorcycle market comprises dual bikes.

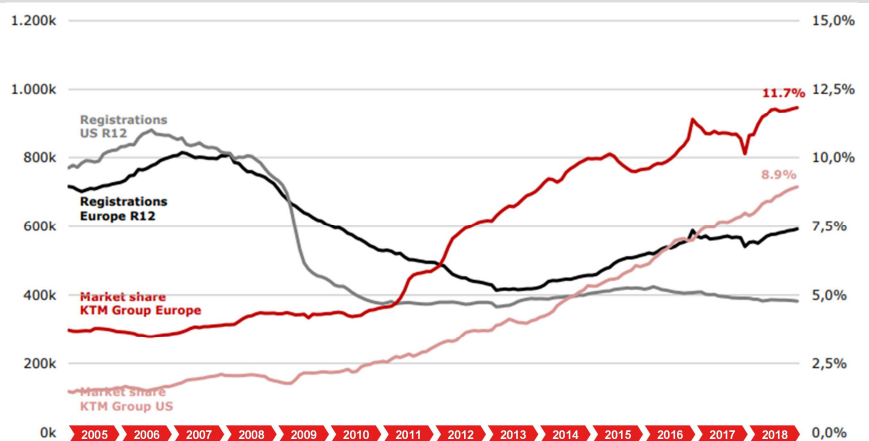
**U.S. motorcycle registrations by type (2017) [in '000 units]**



Source: IHS Markit, IIHS, Warburg Research

As a consequence of the financial crisis in 2008, motorcycle registrations plunged in the United States. At the same time, however, KTM's U.S. market share rose and almost quadrupled from 2008 until 2018. Today, KTM claims to have a market share of about 9% in the U.S. Thanks to the strong brand recognition of both KTM and Husqvarna in the off-road segment, the group has been able to gain market share in the street segment – primarily from Harley Davidson which is struggling to offer attractive products to the younger generation. KTM's clear goal is to gain further market share from Harley with Husqvarna street models.

**Motorcycle registrations and KTM market share in Europe and the U.S.**

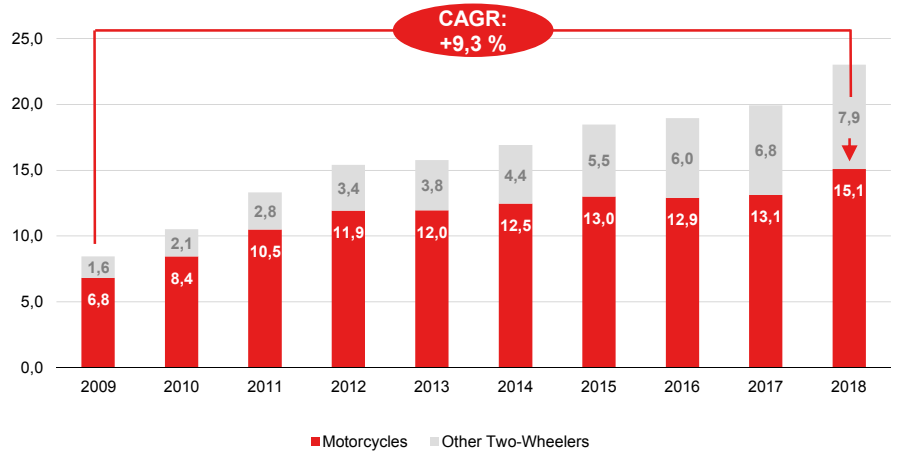


Source: KTM Industries, National data providers, Warburg Research

India

With about 22 million units sold in 2018, India is the world's largest two-wheeler market. Over the last 10 years, there has been a steady increase in sales of both motorcycles and scooters with a higher growth rate in the scooter category. Still, motorcycle unit sales rose from 2009 to 2018 at a CAGR of almost 10% and are expected to continue this trend, given the growing Indian population outlook. After a slight decrease in 2016 and small growth in 2017, motorcycle sales increased by approximately 15% in 2018.

Two-wheeler sales in India (2009-2018) [in million units] – incl. exports

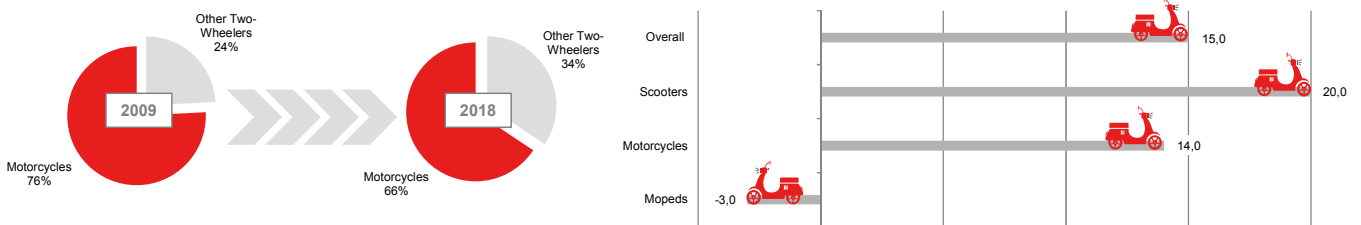


Source: Bajaj, Warburg Research

While motorcycle unit sales between 2009 and 2018 increased at a CAGR of 9.3%, other two-wheelers had a CAGR of as much as 19.1% in the same period. The share of scooter sales in the total two-wheeler market in India increased from around a quarter to around a third from 2009 to 2018.

However, KTM motorcycle sales are likely to be unaffected by this trend since scooters tend to compete with entry-level or commuting motorcycles. KTM, on the other hand, is more focused on high-end motorcycles at this point in time. However it also offers entry-level KTM motorcycles. It is launching Husqvarna motorcycles in India and will grow in the lower displacement segments by introducing e-motorcycles. Still, both brands are placed in the premium segment, giving KTM enough room for growth. In 2018 alone, Indian motorcycle sales rose by 14%, which is in line with the overall two-wheeler industry.

Sales of motorcycles and other two-wheelers in India (2009-2018) and FY 18 two-wheeler growth [%]



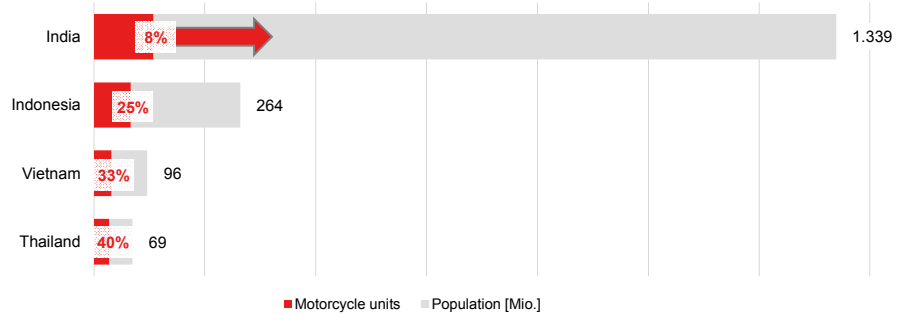
Source: Bajaj, SIAM, Warburg Research

Contrary to South East Asian countries, India's two-wheeler market is far from its saturation point. Two-wheeler penetration in Indian households is only at a level of 47%, which is low compared to Thailand, Vietnam and Indonesia where around nine out of 10 households own a two-wheeler.

A similar picture is presented by the number of two-wheelers as a percentage of the

population in Asian countries. This amounts to 25-40% in Thailand, Vietnam and Indonesia. In India however, only 8% of the population owns a two-wheeler, leaving plenty of potential for higher motorcycle penetration.

**Two-wheeler market penetration in selected Asian countries (2017)**



Source: Honda, United Nations, Warburg Research

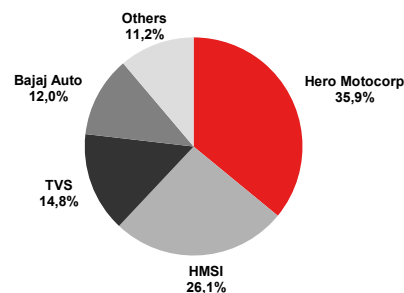
The market penetration rate of motorcycles has shown an upward trend in recent years and is expected to continue rising. Moreover, the total Indian population is expected to reach 1.45 billion by 2025 and 1.50 billion by 2030, an increase of 8% and 12% respectively compared to the current level.

Thanks to its distribution cooperation with the Indian manufacturer Bajaj Auto, KTMi is well positioned to benefit from this increasing demand. In India, KTMi's most important market in Asia, all KTMi motorcycles are sold through the distribution partner.

This cooperation enables KTMi to boost sales in India with a very capex-light business model since the motorcycles production is outsourced to Bajaj. KTMi also benefits from Bajaj's established distribution network and is therefore well-positioned to benefit from India's growing motorcycle demand. By 2022, KTMi expects to sell 70,000 KTM motorcycles and 50,000 Husqvarna motorcycles through Bajaj.

The biggest two-wheeler manufacturer in India with almost 40% market share is Hero Motocorp followed by HMSI and TVS with 26% and 15%, respectively. Bajaj is fourth, accounting for 12% two-wheeler unit sales in India. Included in this portion are vehicles of KTM Industries. Included in "Others" in the graph below are the Japanese manufacturers such as Honda, Yamaha and Kawasaki.

**India: Market share of two-wheeler units sold (2019)**



Source: Economic Times, SIAM, Warburg Research

**Partnership with Bajaj**

The cooperation with Bajaj is of extremely high importance for KTMi. Therefore we want to highlight the key elements of the strategic partnership.

**Bajaj in a nutshell**

Bajaj Auto is the partner to expand KTMi's footprint in Asia and to ensure efficient high

volume production of its high quality motorcycles. As a result of the cooperation with Bajaj, the partners jointly developed a completely new range of low displacement engines (125 to 390cc) for the KTM brand. Bajaj, for instance, produces all KTM Dukes with low displacement engines. From 2020 onwards all Husqvarna models (125 to 390cc) will join the platform. To keep costs low, the majority of parts for these motorcycles are locally sourced from India and other Asian countries.

Bajaj, is the second-largest Indian motorcycle manufacturer with a volume >3m per year, and therefore benefits from significant economies of scale. The 94.4k KTM motorcycles that it produced in 2018 were only a small fraction of its total production and such volume does not represent much of a challenge. Bajaj provides some 300 Indian workers to assemble the KTM motorcycles.

An important reason for the long term success of this partnership is that the companies are cut from the same cloth. Like KTM, the Indian manufacturer is also considered to be a high quality player and is therefore a suitable match for KTM's quality & performance-driven culture.

Efficient production plays an important role in the company's plans for future expansion in Asia. KTM can leverage this relationship and use India as a stepping stone to substantially increase its market share throughout Asia. By 2022e, KTM expects Bajaj to produce ~200k motorcycles up from 94.4k in 2018.

#### **KTM traded off technology expertise for production efficiency**

The partnership started more than 10 years ago when Bajaj was seeking a technology partner to successfully compete against the offering of Japanese companies. At the same time, KTM was looking for a local strategic partner in Asia to produce low displacement motorcycles at affordable prices mainly for the developing markets.

As a consequence of the partnership, KTM provided Bajaj with technological expertise to produce four-stroke engines for the higher-end segment. Subsequently KTM gained access to its very efficient production (i.e. low cost & high capacity) and won a distributor for KTM branded motorcycles in India and Indonesia. Bajaj benefits from substantial economies of scale and, rather than posing a challenge, the production of additional volumes for KTM increases utilization.

#### **Sales model work via a license fee**

Motorcycles manufactured by Bajaj are branded KTM and Husqvarna Motorcycles. Bajaj sells them in India & Indonesia and KTM Industries globally excl. India & Indonesia.

The royalty fee income (which was ~4% of unit revenue in 2018 and will be gradually increased to 5% as new models are introduced) is booked in revenues. As it feeds straight into the EBIT line, it is margin-enhancing.

#### **Balance sheet accounting is even better for KTM**

In addition to efficient production and a license fee income, Bajaj-produced motorcycles stay on Bajaj's balance sheet and no net working capital or other investment is required by KTM.

While KTM's offering is mainly directed to emerging markets (e.g. Asia), around 20% of the motorcycles find their way to Europe. All motorcycles sent to Europe are subject to stringent quality control in Austria. All motorcycles exported to other regions are subject to quality control in the respective CKD facility.

For vehicles distributed by KTM, the amount owed is paid in USD to Bajaj within 45 days after a motorcycle is sold and transactions are done through Bajaj Auto India directly. This works out as a natural hedge for KTM Industries as it reduces the USD long position stemming from the North America business. Bajaj charges a fair price (production costs plus small premium) and the partners set a new pricing every six months to also share the FX effect.

Finally, Bajaj also helps KTM set up businesses and gain a foothold in other Asian





countries.

### Bajaj is one of the key drivers for our investment case

For the future, the management expects production at Bajaj to increase significantly. Growth in Asia is expected to come mainly from Bajaj-produced motorcycles and we therefore expect the Indian company to play a key role in KTM's expansion in Asia.

The partnership goes far beyond enabling KTM's growth in emerging markets. In India itself, demand for mid-/high-end motorcycles is rising fast. KTM is already an established brand in India, not least thanks to Bajaj's substantial increase in KTM showroom numbers in the last few years (450 KTM showrooms).

In our view, this established and growing dealer network serves as a strong base for the planned rollout of Husqvarna street models in 2020. We show our forecast until 2022e to be consistent with KTM's mid-term horizon.

### Warburg license fee model for Bajaj

	2019e	2020e	2021e	2022e
License Fee KTM	4.5%	4.5%	5.0%	5.0%
License Fee HQV	4.0%	4.5%	4.5%	5.0%
<b>KTM</b>				
KTM Unit sales India (Bajaj)	54,558	60,014	66,015	72,616
KTM unit price (Bajaj)	2300	2300	2300	2300
yoy		0.0%	0.0%	0.0%
<b>KTM Sales (in USDm)</b>	<b>125.5</b>	<b>138.0</b>	<b>151.8</b>	<b>167.0</b>
<b>KTM share (KTM Sales x License Fee)</b>	<b>5.6</b>	<b>6.2</b>	<b>7.6</b>	<b>8.4</b>
<b>HQV</b>				
HQV Unit sales India (Bajaj)			25,000	55,000
HQV unit price (Bajaj)			2400	2400
yoy				0.0%
<b>HQV Sales (in USDm)</b>			<b>60.0</b>	<b>132.0</b>
<b>KTM share (HQV Sales x License Fee)</b>			<b>2.7</b>	<b>6.6</b>
<b>Total Sales</b>	<b>125.5</b>	<b>138.0</b>	<b>211.8</b>	<b>299.0</b>
<b>Total KTM share</b>	<b>5.6</b>	<b>6.2</b>	<b>10.3</b>	<b>15.0</b>
EUR/USD	1.14	1.14	1.14	1.14
<b>Total Fee Income KTM (EURm)</b>	<b>5.0</b>	<b>5.4</b>	<b>9.0</b>	<b>13.1</b>
License Fee to Husqvarna	1.5%	1.5%	1.5%	1.5%
Total License Fee Cost Husqvarna	0.0	0.0	0.8	1.7
<b>Net License Fee KTM Industries</b>	<b>5.0</b>	<b>5.4</b>	<b>8.2</b>	<b>11.4</b>

Source: Warburg Research

Going forward, the cooperation is likely to be expanded. We think that we will see even greater displacements being produced in India and a further deepening of the collaboration.

## China

After India, China is the second-largest two-wheeler market in the world counting around 16 million sales annually of which KTM addresses around 1.1m. But despite a relatively high household penetration of two-wheelers (60%), there is a decreasing trend in motorcycle and overall two-wheeler sales.

The decrease in sales can be explained by the regulatory and political environment in China which has been less favourable for motorcycles recently. In some cities motorcycles are entirely banned. In others, no new licences have been issued. The main concerns stated by officials were environmental and safety reasons, such as CO<sub>2</sub> and noise emission as well as various crimes involving motorcycles. Moreover, rising disposable income and infrastructure quality are benefitting public transportation and automobile manufactures.

### CF Moto JV

KTM Industries established a joint venture with CF Moto in China. Starting in 2021, middle class motorcycles will be produced in Hangzhou, China (at the moment, CF Moto is the distributor for KTM motorcycles in China). KTM only contributed some intangible assets for its 49% stake; the production capacity including machine and working capital will all come from CF Moto. The JV focuses on the industrialisation of components in China and the ASEAN region and the assembly of mid-range street motorcycles with engine capacities of 500-1000 cc. The JV yields several benefits for KTM:

- production costs of mid-range street motorcycles will be reduced,
- import duties to the Chinese market will be eliminated,
- production capacity at the Mattighofen plant will be relieved,
- the high-end motorcycle market, which is growing at ~20% p.a., will be addressed,
- components will be produced at lower cost.

For 2021, the CF Moto JV is targeting a sales volume of 15-20k motorcycles, of which approx. 5K will be sold into the Chinese market while the remaining units (i.e. KTM 790 Duke and later also the KTM 790 Adventure) will be distributed worldwide from China. CF Moto currently has production capacity of approx. 50k motorcycles, but is able to expand capacity to around 100k.

While in 2018, the JV generated an at-equity result of EUR-0.97m, we forecast that the JV will start production of mid-range motorcycles in the Chinese city of Hangzhou from 2021e onwards and break even in 2021e with further growth thereafter. Again, we show our forecast until 2022e to be consistent with KTM's mid-term horizon.

### Warburg assumptions for the JV with CF Moto

CFMOTO	2018	2019e	2020e	2021e	2022e
Total units CFMoto				10,000	15,000
yoy					50%
Unit Price				3,000	3,500
yoy					17%
<b>Sales (in EURm)</b>				<b>30.0</b>	<b>52.5</b>
<i>EBIT Margin</i>				3%	5%
<b>EBIT</b>				<b>0.9</b>	<b>2.6</b>
Financial Result					
<b>Pretax result</b>			-	0.6	1.1
Taxes 25%				0.1	0.4
<b>Net Profit</b>	<b>-1.9</b>	<b>-1.0</b>	<b>-1.0</b>	<b>0.2</b>	<b>1.2</b>
KTM share	49.9%	49.9%	49.9%	49.9%	49.9%
<b>KTM EBIT</b>		<b>0.00</b>	<b>0.00</b>	<b>0.45</b>	<b>1.31</b>
<b>KTM Profit</b>	<b>-0.97</b>	<b>-0.50</b>	<b>-0.50</b>	<b>0.11</b>	<b>0.59</b>

Source: Warburg Research

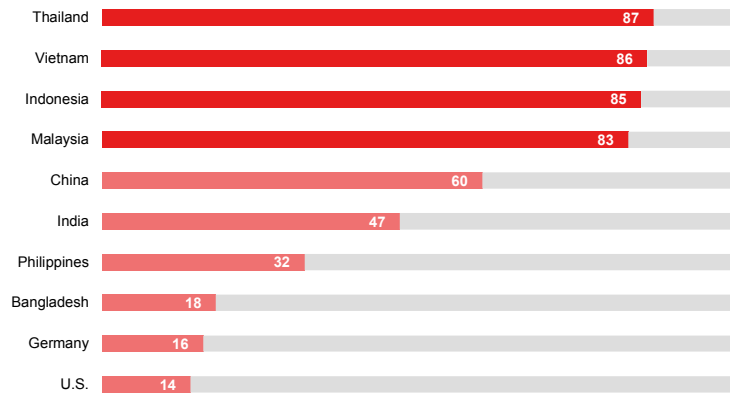


Rest of the world

ASEAN 6 (Indonesia, Vietnam, Thailand, Malaysia, Singapore, Philippines)

In the ASEAN region, two-wheelers are predominantly used as means of transportation. In many cases, a scooter or motorcycle is the primary or only vehicle for commuting to work or school. There is also an increasing demand in commercial use of two-wheelers (i.e. two-wheeler taxis, delivery services, etc.). For these forms of usage typically smaller-sized two-wheelers with displacements of up to 125ccm are the preferred choice. With the increasing wealth, there is a growing customer group resembling the ones in developed countries with more luxurious and customized features.

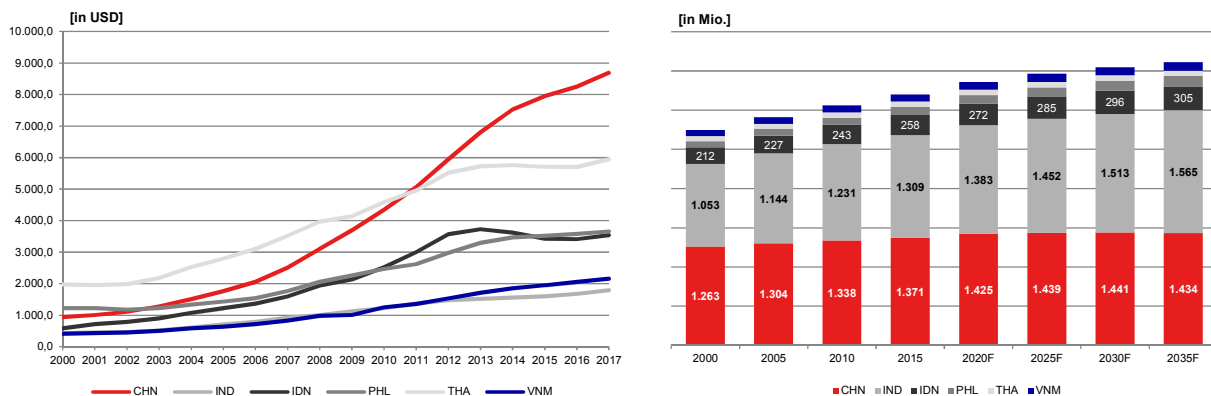
Penetration of two-wheelers in private Asian households (2014) [in %]



Source: Roland Berger, Warburg Research

Unlike in India and China, the two-wheeler markets in South East Asian countries have almost reached saturation point. In Thailand and Vietnam about nine out of ten private households own a scooter or a motorcycle. In comparison, the percentage of households with a two-wheeler in Germany or the U.S. is roughly 15%. Scooters account for 60-85% in the countries of Vietnam, Thailand, Indonesia and Malaysia. With increasing disposable income, however, motorcycles are expected to gain a greater share among two-wheelers, which can be seen as growth potential for KTM.

Asia: gross national income (2000-2017) and population (2000-2035e) in selected countries



Source: World Bank, United Nations, Warburg Research

The addressable market in Australia and New Zealand is estimated at ~58k p.a. and in Africa at 11k p.a. and are therefore of rather minor importance for premium products from KTM and Husqvarna.

**GranUrban**

- Retail price: EUR 3,400 – 4,200



**GranTourer**

- Retail price: EUR 3,000 – 4,400



**MountainCross**

- Retail price: EUR 4,400 – 6,200



**eBikes – a hidden value option**

**The PEXCO JV as entry into the field of electric power two-wheelers**

In H2/17, KTM Industries entered a JV agreement with the German Puello family (which has 25-30 years of experience in the bicycle business). This partnership led to the PEXCO JV with 40% ownership by KTM Industries. From our point of view, this was a move with clear strategic rationale:

We believe the increased traffic and congestion in many big cities and metropolitan areas and the more restrictive and emission standards (exhaust, CO2, noise) will trigger a gradual shift from ICE (internal combustion engine) vehicles to EVs (electric vehicles) in the next decades with electric power two-wheelers up to 11 kW (15 PS) leading the trend. As a consequence the product categories bicycles and entry model motorcycles will increasingly merge.

Based on KTM Industries' broad motorcycle expertise and innovation leadership, the strategic goal for the bicycle business is to become the technological market and innovation leader in the global eBike market.

While currently many players are active in the market (Cube, Giant Manufacturing, Trek, etc.) we expect a consolidation going forward.

**Ambitious targets**

KTM Industries has set ambitious sales targets for its eBike JV of more than 60K units and EUR 75-85m sales for 2019e already, while only targeting the DACH market in a first step.

The addressable DACH eBike market amounts to approx. 1.0m units p.a. but is growing at double-digit growth rates. It is very likely that PEXCO will already launch its models in other European countries (Scandinavia, France, etc.) in 2019e and into North America in 2020/21e.

Based on our detailed forecasts, we estimate that PEXCO will generate sales of EUR 150m at an EBIT margin of 8% by 2022e. This is in line with management's expectation that PEXCO will reach group margin level as soon as a critical size of units is sold.

<b>KTMI's stake in the PEXCO JV</b>					
PEXCO eBike	2018	2019e	2020e	2021e	2022e
eBikes units sold	30,000	60,000	80,000	96,000	115,000
yoy		100%	33%	20%	20%
average Unit Price	967	1,350	1,300	1,300	1,300
yoy		40%	-4%	0%	0%
Sales (in EURm)	29.0	81.0	104.0	124.8	149.5
<b>EBIT</b>		-	5.2	7.5	12.0
EBIT Margin		0%	5%	6%	8%
EBITDA		2.8	8.8	11.9	17.2
Financial Result	-	1.6	2.1	2.5	3.0
Pretax result		-1.6	3.1	5.0	9.0
Taxes 25%		-0.4	0.8	1.2	2.2
Net Profit		-1.2	2.3	3.7	6.7
Margin		-1.5%	2.3%	3.0%	4.5%
KTM share	40.0%	40.0%	40.0%	40.0%	40.0%
<b>KTM Net Profit (at-equity)</b>		<b>-0.49</b>	<b>0.94</b>	<b>1.50</b>	<b>2.69</b>
Sales Multiple		0.3 x	0.3 x	0.3 x	0.3 x
EBITDA Multiple		5.5 x	5.5 x	5.5 x	5.5 x
Target EV price based on Sales Multiple			9.72	12.48	15.56
Target EV price based on EBITDA Multiple			6.24	19.45	26.08

Source: Warburg Research

The contract between KTM Industries and its JV partner foresees that KTM Industries has an option to acquire the remaining 40% stake (Pierer Industries hold ~20%) in the PEXCO JV between 2020 and 2022 at a certain EBITDA multiple (**WRe**: 5.5x).

In its FY 2018 presentation the company stated that KTM Industries will use its option and acquire the remaining stake earlier than expected as the JV is growing faster than

anticipated. Full consolidation is targeted for 2020e/21e. We estimate a price of EUR ~20m if consolidated in 2021e, which would correspond to an EBITDA multiple of 5.5x. Additionally, KTMI will have to buy the remaining 20% stake from Pierer Industrie AG (WRe: ~EUR 3m). Important to note is that we do not incorporate a full consolidation in our model at this stage but rather include the Pexco contribution in at-equity earnings.

**Will it be successful?**

Our research and discussions with industry experts make us confident that the eBike business will be successful as a consequence of the following considerations:

- The Puello family has excellent access to bicycle dealers and profound knowledge of the industry.
- KTMI’s Husqvarna dealers are also highly receptive to the idea of listing eBikes as they earn a better margin than motorcycles (**WRe**: 30% vs. 15%)
- The eBikes reflect a lot of characteristics KTMI is known for: lightweight, design, premium components.
- KTMI can close the gap between motorcycles and bicycles and leverage its innovative power.

Additionally, PEXCO has a very asset-light business model and apart from the initial investment by both partners (**WRe**: EUR 5-6m), the JV will be self-funded and does not require additional financing from KTMI.

Assembly will be performed by third-party contract manufacturers with most components sourced as standard parts, including the eMotor. For the first years, PEXCO will use off-the-shelf eMotors from Shimano and Yamaha, two of the global leaders (the others are Bosch and Panasonic). Going forward, PEXCO eBikes will use internally developed eMotor specifications (motor control and applications) by KTMI (**WRe**: beginning in 2021e/22e), which would contribute an additional USP element and reduce dependence on Asian suppliers.

We can also think of further synergies stemming from KTMI’s experience with entry-model motorcycles (Freeride E 16kw, Sport Mini 2kw, etc.) and its deepened collaboration with Bajaj in e-motorcycles.



Source: KTM Industries, Warburg Research

**eMobility – the next chapter already started**

In early June, KTM reported that the company and Bajaj had decided to initiate a serial production project for powered two-wheeler electric vehicles in the power range of 3 to 10 kW (48 volt) at the level of KTM AG. This platform will support different product variants – scooters, mopeds, small mopeds, under brands of both partners. We regard this as the logical addition to the existing activities with Pexco in the Husqvarna eBike.

**KTM SX-E5 MY 2020**



**HQV EE5 MY 2020**



**Technical information:**

battery (non-removable): Capacity 907 Wh  
 usage/driving time: up to 2h for beginners,  
 25 minutes for racers  
 charging time: 70 minutes for 100%  
 45 minutes for 80%



**Strategic considerations**

- KTM boasts years of experience with electric vehicles as the Freeride E model has been on the market since 2014. This will now be a distinctive advantage over its peers, who are also expected to enter the electric segment sooner or later.
- In our view, KTM Industries clearly aims to target a new market segment which it is not currently serving and, at the same time, close the gap between eBikes and motorcycles. With this step, KTM also gains new competitors (Vespa, Peugeot scooters, etc.).
- In terms of technology, the motorcycles will have a low voltage concept which scores well on metrics such as safety, low noise and low emissions. This will make it the perfect urban transport vehicle. As the battery package only needs ~200 battery cells (in contrast to ~2000 cells for cars), costs will be relatively low. KTM once again, will capitalise on Bajaj’s efficient production capacities for the motor, the battery package and the frame geometry.

**Possible use cases**

As KTM will be able to programme the e-motorcycles with individual driving modes, a wide spectrum of use-cases is addressable.

- Those motorcycles will have a range of 50-80km which is more than enough for urban transportation and daily needs.
- These products have also the potential to capitalise on the rocketing trend towards ecommerce as distribution in cities will most likely be carried out with e-motorcycles/scooters.
- The target segment is a maximum displacement of up to 125 cc, for which drivers as young as 16 years are allowed to hold driving permits. However, KTM is also targeting the younger generation. Children from the age of 5-7 years will get the chance to “take their first steps” with a motorcycle

The electric segment is booming in Europe as 26,509 sales (+38.7%) have been reported this year to date. The European electric two-wheeler market stood at over USD 81m in 2017 and is expected to grow at a CAGR of more than 12%, to surpass USD 166m by 2023, on the back of rising GHG emissions and favourable government policies aimed at promoting the use of electric vehicles.

In India, the electric two-wheeler market stood at around USD 27m in 2017 and is forecast to grow at a CAGR of more than 41% to reach USD 200m by 2023, on account of the growing need to curb air pollution levels across the country. Government incentive schemes, growing distributor & dealership network, rising online sales, and the increasing affordability of electric two-wheelers are some of the other key factors that would boost demand for electric two-wheelers in India.

As KTM is targeting a competitive price of ~ EUR 4,900 in Europe (compared to ~4,200 for combustion engines), we estimate that KTM Industries will be able to sell around 50-100k of these motorcycles at current group margins in its key markets. In the medium term we could imagine a revenue share of 25% for electro motorcycles. The serial production will start at Bajaj’s production site in Pune/India by 2022. KTM claims that the necessary development budget is covered in the medium-term plans.

## Putting the parts together – our outlook

As mentioned above, KTM increased European registrations by 22% in Q1/19. However we refrain from extrapolating this trend as we think that, April and May figures were already lower and estimate a fair portion of Q1/19 registration were booked in FY 2018 revenues.

We still expect the largest unit sales contributions from Europe and North America in absolute terms. However, in relative terms, emerging markets will outperform KTM's main markets.

Unit sales forecast						Delta 18-	CAGR 18-	CAGR 18-
in EUR m	2018	2019e	2020e	2021e	2022e	21e	21e	22e
<b>KTM Unit sales Europe</b>	<b>83,984</b>	<b>86,084</b>	<b>88,666</b>	<b>91,326</b>	<b>94,066</b>	7,342	2.83%	2.87%
<b>KTM Unit sales North America</b>	<b>41,106</b>	<b>41,928</b>	<b>43,186</b>	<b>44,482</b>	<b>45,816</b>	3,376	2.67%	2.75%
KTM Unit sales Asia	13,647	14,329	16,049	19,259	23,110	5,612	12.17%	14.08%
KTM Unit sales South America	12,208	13,185	15,822	18,986	22,783	6,778	15.86%	16.88%
KTM Unit sales Oceania	9,066	9,247	9,987	10,486	11,011	1,420	4.97%	4.98%
KTM Unit sales Africa / Middle East	3,291	3,390	3,559	3,915	4,307	624	5.96%	6.96%
<b>KTM Unit sales Other</b>	<b>38,212</b>	<b>40,151</b>	<b>45,417</b>	<b>52,646</b>	<b>61,211</b>	14,434	11.27%	12.50%
<b>KTM Unit sales India (Bajaj)</b>	<b>49,598</b>	<b>54,558</b>	<b>60,014</b>	<b>66,015</b>	<b>72,616</b>	16,417	10.00%	10.00%
<b>Total</b>	<b>212,900</b>	<b>222,721</b>	<b>237,282</b>	<b>254,469</b>	<b>273,709</b>	<b>41,569</b>	<b>6.13%</b>	<b>6.48%</b>
<b>HQV Unit sales Europe</b>	<b>26,457</b>	<b>27,780</b>	<b>30,558</b>	<b>33,614</b>	<b>36,975</b>	7,157	8.31%	8.73%
<b>HQV Unit sales North America</b>	<b>14,046</b>	<b>14,748</b>	<b>15,486</b>	<b>16,260</b>	<b>19,512</b>	2,214	5.00%	8.56%
HQV Unit sales Asia	1,886	2,075	2,490	2,987	3,585	1,101	16.57%	17.42%
HQV Unit sales South America	1,997	2,297	2,871	3,445	3,962	1,448	19.93%	18.68%
HQV Unit sales Oceania	3,368	3,536	3,890	4,668	5,602	1,300	11.49%	13.56%
HQV Unit sales Africa / Middle East	800	840	924	1,063	1,222	263	9.92%	11.17%
<b>HQV Unit sales Other</b>	<b>8,051</b>	<b>8,748</b>	<b>10,174</b>	<b>12,163</b>	<b>14,370</b>	4,112	14.74%	15.59%
<b>HQV Unit sales India (Bajaj)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25,000</b>	<b>55,000</b>	25,000		
<b>Total</b>	<b>48,554</b>	<b>51,276</b>	<b>56,218</b>	<b>87,037</b>	<b>125,857</b>	<b>38,483</b>	<b>21.48%</b>	<b>26.89%</b>
KTM Unit sales India (Bajaj)	49,598	54,558	60,014	66,015	72,616	16,417	10.00%	10.00%
HQV Unit sales India (Bajaj)	0	0	0	25,000	55,000	25,000		
<b>Total Bajaj</b>	<b>49,598</b>	<b>54,558</b>	<b>60,014</b>	<b>91,015</b>	<b>127,616</b>	<b>41,417</b>	<b>22.43%</b>	<b>32.74%</b>
<b>Group Total</b>	<b>261,454</b>	<b>273,996</b>	<b>293,500</b>	<b>341,505</b>	<b>399,566</b>	<b>80,051</b>	<b>9.31%</b>	<b>13.40%</b>
Group Unit sales Europe	110,441	113,863	119,224	124,940	131,041	14,499	4.20%	4.37%
Group Unit sales North America	55,152	56,676	58,672	60,742	65,328	5,590	3.27%	4.32%
Group Unit sales Other	46,263	48,899	55,591	64,809	75,581	18,546	11.89%	13.06%
<b>Total</b>	<b>211,856</b>	<b>219,438</b>	<b>233,487</b>	<b>250,490</b>	<b>271,950</b>	<b>38,634</b>	<b>5.74%</b>	<b>6.44%</b>
Group Unit Price Europe	7,418	7,455	7,529	7,718	7,872		1.33%	1.50%
Group Unit Price North America	6,652	6,652	6,718	6,886	7,024		1.16%	1.37%
Group Unit Price Other	5,969	5,969	6,089	6,302	6,428		1.82%	1.87%
Group Sales Europe	819.2	848.8	897.7	964.2	1,031.5	145.0	5.58%	5.93%
Group Sales North America	366.8	377.0	394.2	418.3	458.8	51.4	4.47%	5.75%
Group Sales Other	272.5	291.9	338.5	408.4	485.8	135.9	14.44%	15.55%
License Fee Income Bajaj	3.7	5.0	5.4	8.2	11.4			
<b>Total Sales</b>	<b>1,462.2</b>	<b>1,522.7</b>	<b>1,635.8</b>	<b>1,799.2</b>	<b>1,987.6</b>	<b>336.9</b>	<b>7.16%</b>	<b>7.98%</b>

Source: KTM Industries, Warburg Research

## Profits expected to remain stable

Profitability development							
in % of Sales	2015	2016	2017	2018	2019e	2020e	2021e
<b>Sales</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Cost of sales	69.0%	67.7%	69.8%	70.4%	70.0%	70.1%	70.2%
<b>Gross profit</b>	<b>31.0%</b>	<b>32.3%</b>	<b>30.2%</b>	<b>29.6%</b>	<b>30.0%</b>	<b>29.9%</b>	<b>29.8%</b>
Research and development	2.4%	3.0%	2.5%	1.9%	2.0%	2.2%	2.3%
Sales and marketing	12.2%	12.6%	12.2%	11.8%	12.0%	12.0%	12.0%
General and administration	5.6%	6.0%	4.5%	4.9%	4.8%	4.8%	4.8%
Other operating income	0.3%	0.4%	0.3%	0.0%	0.5%	0.5%	0.5%
Other operating expenses	1.8%	2.1%	2.3%	2.0%	2.9%	2.5%	2.1%
<b>EBITDA</b>	<b>14.6%</b>	<b>14.8%</b>	<b>14.3%</b>	<b>14.4%</b>	<b>15.9%</b>	<b>16.0%</b>	<b>16.0%</b>
Depreciation of fixed assets	3.1%	3.2%	2.8%	3.0%	3.9%	3.8%	3.6%
<b>EBITA</b>	<b>11.5%</b>	<b>11.6%</b>	<b>11.5%</b>	<b>11.5%</b>	<b>12.0%</b>	<b>12.2%</b>	<b>12.3%</b>
Amortisation of intangible fixed assets	2.3%	2.5%	2.5%	2.7%	3.2%	3.2%	3.1%
Impairment charges and amortisation of goodwill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
At-equity earnings	0.0%	0.0%	0.0%	-0.3%	0.0%	0.1%	0.1%
<b>EBIT</b>	<b>9.2%</b>	<b>9.1%</b>	<b>9.0%</b>	<b>8.8%</b>	<b>8.8%</b>	<b>9.0%</b>	<b>9.2%</b>

Source: KTM Industries, Warburg Research

## At-equity earnings

Main drivers of the at-equity result will be the PEXCO eBike JV, the CFMoto JV as well as Kiska. While the Australian distributor had a negative one-off in 2018, KTM Industries announced in June 2019 that KTM Sportmotorcycle GmbH, a subsidiary of KTM AG, has increased its stake in Motorcycle Distributors Australia Pty Ltd from 26% to 100%. With the full takeover of the shares, the sales subsidiaries in Australia –Butmac Pty Ltd for the brand KTM and HQVA Pty Ltd for the brand Husqvarna– as well as in New Zealand – KTM Motorcycle Distributors NZ– become wholly-owned subsidiaries of the KTM AG.

We anticipate relatively stable earnings going forward for the other at-equity participations which (beside the before mentioned) also include dealers, flagship stores or the KTM Motohall museum. While we laid out our assumptions for PEXCO and CFMoto in detail above, we expect an increasing at-equity result for Kiska as KTM increased its share in Kiska at the end of 2018.



## KTMI's at-equity earnings

At-equity Earnings	2018	2019e	2020e	2021e
Kiska GmbH	0.27	0.63	0.63	0.63
KTM New Zealand Ltd.	0.00			
KTM Asia Motorcycle Manufacturing Inc.	-0.30	0.02	0.02	0.02
Motorcycle Distributors Australia Pty Ltd.	-3.29			
PEXCO GmbH	-0.49	-0.49	0.94	1.50
China Zhejiang CFMOTO-KTMR2R Motorcycles Co., L	-0.97	-0.50	-0.50	0.11
KTM Motohall GmbH	-0.12	0.01	0.01	0.01
Four flagship stores and miscellaneous	-0.03	0.02	0.02	0.02
<b>Total</b>	<b>-4.93</b>	<b>-0.30</b>	<b>1.12</b>	<b>2.30</b>

Source: KTM Industries, Warburg Research

## Non operative drivers

### Financial result

## KTMI's financial result

Financial Result	2015	2016	2017	2018	2019e	2020e	2021e
Interest Income	1.5	2.7	2.2	3.4	3.0	3.0	3.0
Interest expenses	-17.8	-19.5	-12.7	-18.5	-18.5	-18.2	-17.9
Other financial income/expenses	-6.6	3.4	-2.2	-1.4	-2.0	-2.0	-2.0
<b>Financial Result</b>	<b>-22.9</b>	<b>-13.4</b>	<b>-12.7</b>	<b>-16.4</b>	<b>-17.5</b>	<b>-17.2</b>	<b>-16.9</b>
in % of sales	-1.9%	-1.0%	-0.8%	-1.1%	-1.1%	-1.1%	-0.9%

Source: KTM Industries, Warburg Research

The financial result was historically mainly driven by interest expenses on outstanding debt. Due to a change in presentation of expenses (from production costs to interest expenses) in connection with a sales promotion programme in North America, the



financial result decreased in 2018. As this effect is permanent, we account for the higher expenses going forward.

### Taxes

Given that the Austrian companies of KTMI are subject to a corporate income tax rate of 25%, we take this as a starting point for our explicit forecast horizon 2019e-2021e.

### Minorities are substantial

Minorities are substantial at >40% of net income before minorities in 2018. Nearly all of it is accountable to the 48% share of Bajaj in KTM AG. However, at the end of March KTM Industries released its intention to simplify its structure.

Pierer Industrie AG and Bajaj have started discussing the possibility of transferring Bajaj's 48% stake in KTM AG to KTM Industries AG, with the Pierer Industrie AG continuing to retain the controlling majority over KTM Industries AG.

If Pierer Industrie AG and Bajaj decide to execute the transaction, KTM Industries AG plans a capital increase by contribution in kind from the existing authorised capital of the company. The authorised capital enables a capital increase of up to 50% of the existing share capital. If the transaction is executed, the company's stake in KTM AG would increase from current 51.7% to approximately 99.7%.

### KTMI's minority interest forecast

Minorities impact	2015	2016	2017	2018	2019e	2020e	2021e
Net Income before minorities	65.0	88.8	83.9	114.2	87.4	97.5	111.5
Minority interest	35.0	36.9	39.2	46.7	45.0	48.0	50.0
Net Income	30.0	51.9	44.7	67.5	42.4	49.5	61.5
Minority interest in % of NI before minorities	54%	42%	47%	41%	52%	49%	45%
Minority interest in % of NI	117%	71%	88%	69%	106%	97%	81%

Source: KTM Industries, Warburg Research

Consequently KTM Industries' share in profits of KTM AG would increase by approximately two-thirds while the number of shares would only increase by maximal 50%. Thus, the transaction is highly earnings-accretive for the existing shareholders.

Bajaj's intention is clear. First of all, the KTM AG shares are not listed and are therefore illiquid. Secondly, as we have noted, KTM Industries comprises far more than just KTM AG. With the transaction Bajaj also gains a fair share of the Pexco business as well as the remaining parts of the group. Accordingly, we regard the plan as a win-win situation for Bajaj, as well as for existing KTM Industries shareholders.

### Pro forma calculation

in EUR m	2018 actual	2018 post deal	change
<b>Net income before minorities</b>	<b>114.2</b>	<b>114.2</b>	0%
<b>Minority interest</b>	46.7	3.0	-94%
<b>Net Income</b>	<b>67.5</b>	<b>111.2</b>	65%
Average number of shares	22.5	33.8	50%
<b>EPS</b>	<b>2.99</b>	<b>3.29</b>	10%
P/E ratio	17.7x	16.1x	

Source: KTM Industries, Warburg Research

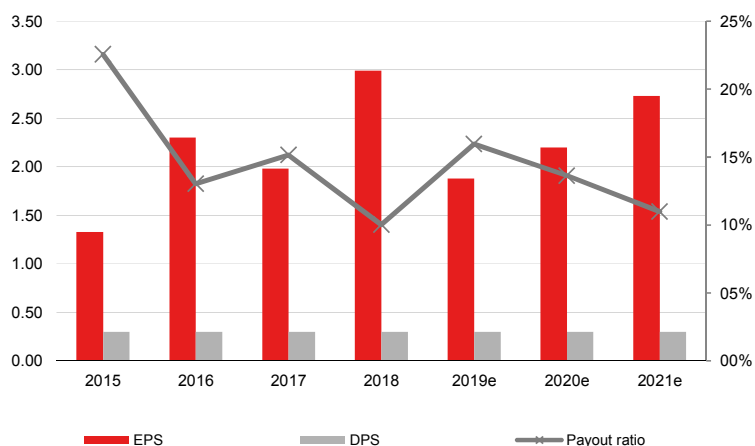
However, in an ad-hoc release dated June 2, 2019 KTMI reported that these considerations are not being pursued any further for the time being. Nevertheless, we wished to express our thoughts on this issue for the sake of presenting a comprehensive picture.

### Dividend policy

On the back of KTM's high capex needs in the last couple of years, the company has chosen to implement a very conservative dividend policy. In the last four years, the payout ratio amounted on average ~15% (DPS/EPS). For the explicit forecast period we model a stable DPS @ EUR 0.30 per share which translates into a payout ratio of ~10% in 2021e. This is in line with management's guidance for a "stable and conservative payout level".

However, it is also crystal clear that KTM will not become a dividend stock in the near term.

#### KTM's dividend policy



Source: KTM Industries, Warburg Research

## Warburg vs. consensus

Important to note:

- Consensus includes the estimates of only one other broker.
- While we obviously lack full transparency we are assuming that the large difference in 2021e estimates is explained by the consolidation of the PEXCO business.
- We are broadly in line with the EBIT margin assumptions.

### Warburg vs. consensus

KTM-Industries - Consensus	Warburg Research				Consensus		
	2018	2019e	2020e	2021e	2019e	2020e	2021e
as of: 11.06.2019							
<b>Sales</b>	1,462.2	1,522.7	1,635.8	1,799.2	<b>1,505.0</b>	<b>1,575.0</b>	<b>1,921.0</b>
yoy		4.1%	7.4%	10.0%	2.9%	4.7%	22.0%
Delta WRe (absolut)					17.7	60.8	-121.8
Delta WRe (relative)					1.2%	3.9%	-6.3%
<b>EBIT</b>	128.7	134.0	147.2	165.5	<b>136.0</b>	<b>147.0</b>	<b>181.0</b>
margin	8.8%	8.8%	9.0%	9.2%	9.0%	9.3%	9.4%
Delta WRe (absolut)					-2.0	0.2	-15.5
Delta WRe (relative)					-1.5%	0.1%	-8.6%
<b>Net Income</b>	67.5	42.4	49.5	61.5	<b>55.6</b>	<b>60.1</b>	<b>75.4</b>
margin	4.6%	2.8%	3.0%	3.4%	3.7%	3.8%	3.9%
Delta WRe (absolut)					-13.2	-10.6	-13.9
Delta WRe (relative)					-23.8%	-17.6%	-18.5%
<b>EPS</b>	3.0	1.9	2.2	2.7	<b>2.6</b>	<b>2.7</b>	<b>3.4</b>
Delta WRe (absolut)					-0.69	-0.50	-0.65
Delta WRe (relative)					-26.7%	-18.5%	-19.3%
<b>DPS</b>	0.30	0.30	0.30	0.30	<b>0.36</b>	<b>0.40</b>	<b>0.45</b>
payout	10.0%	16.0%	13.6%	11.0%	14.0%	15.0%	13.3%
Delta WRe (absolut)					-0.06	-0.10	-0.15
Delta WRe (relative)					-16.4%	-25.7%	-33.1%

Source: Factset, Warburg Research, Data as of 20.06.2019

## Short- and mid-term guidance

This compares to the management guidance as follows:

KTMI's guidance		
Short- and mid-term guidance (without PEXCO)	2019/2020	2021
Revenue growth (p.a.) <sup>1)</sup>	1 – 5%	9 – 11%
EBIT margin	8 – 10%	8 – 10%
Capex <sup>2)</sup> in EUR (incl. leasing) <sup>3)</sup>	150 – 160 million	150 – 160 million
Net debt / EBITDA	1.0 – 1.2x	< 1.0x
Free Cash Flow / sales (p.a.)	3 – 5%	3 – 5%
ROIC	10 – 12%	10 – 12%
Dividend policy	Stable and conservative payout level	Stable and conservative payout level

Targeted sales of more than 400,000<sup>4)</sup> motorcycles in 2022 confirmed

Source: KTM Industries, Warburg Research

## Valuation

- We derive our price target of CHF 90 from our DCF model.
- To confirm our view of conservative assumptions modelled in our DCF base case we also include a blue sky scenario.
- FCF Value Potential indicates a value of CHF 78 per share in 2021e.

Stable capex level  
as a driver of FCF generation

## Fundamental valuation

### DCF valuation

We derive an intrinsic value of EUR 80 which we convert to our target price of CHF 90 (FX-rate 1.12).

Our DCF model assumptions can be summarised as follows:

- **Revenue growth:** We expect top-line growth at a CAGR of ~7% during the 19e-21e explicit forecast period. However, during the transitional phase sales CAGR is anticipated at ~5% and will come down to 2% for the terminal value calculation. We regard this as a conservative assumption given the extraordinary high growth prospects outlined above.
- **EBIT margin:** EBIT margin decreases from 9.5% in 2022e to 8% in 2032e.
- **D&A:** D&A is expected to decrease from 6.5% of sales in 2022e to 5% in 2032e.
- **Capex:** A key pillar of our investment case is the stabilisation of capex spending and subsequent decline in capex/sales due to the production capacity shift to Bajaj. Freeing up capacity at the Mattighofen site will enable asset-light growth in Europe. We note that while total capex is forecast to remain largely stable (EUR 150-160m), the two contributing elements display opposite trends: maintenance capex in PPE is set to decline, while capitalised R&D is set to increase due to the launch of more street models.
- **WACC:** A qualitative beta of 1.4 is applied compared to an empirical beta (adjusted Bloomberg beta) versus SMI of 0.896. We take into account the cyclical business environment KTM is exposed to (rated 1.5), liquidity considerations (1.3) due to only 30% free float, financial strength (1.0), transparency (1.4) and "other" (1.3). As there are no bonds outstanding, we estimate an interest rate of 2%, which reflects the return expected from debt investors. Corporate tax rate is 25% but increases to 30%. An expected market return of 7% and a risk-free return of 1.5%, combined with a target debt ratio of 33%, lead to a WACC of 6.47%.
- **Minorities:** Minorities are substantial as Bajaj holds a ~48% stake in KTM AG. Minority interest stood at 41% of net income before minorities in 2018. Consequently we factor in the minority stake in at 12x earnings.
- **Market value of investments:** We take EBIT before at-equity earnings as a starting point and add the investments at book value EUR 26.1m. We regard this as extremely conservative given the potential of PEXCO outlined above.

**DCF model**

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	
Sales	1,523	1,636	1,799	1,979	2,148	2,303	2,445	2,574	2,689	2,791	2,882	2,961	3,031	
Sales change	4.1 %	7.4 %	10.0 %	10.0 %	8.5 %	7.2 %	6.2 %	5.3 %	4.5 %	3.8 %	3.2 %	2.8 %	2.3 %	2.0 %
EBIT	134	146	163	188	201	211	221	228	234	239	243	245	247	
EBIT-margin	8.8 %	8.9 %	9.1 %	9.5 %	9.3 %	9.2 %	9.0 %	8.9 %	8.7 %	8.6 %	8.4 %	8.3 %	8.1 %	
Tax rate (EBT)	25.0 %	25.0 %	25.0 %	25.0 %	25.5 %	25.9 %	26.4 %	26.9 %	27.4 %	27.9 %	28.4 %	28.9 %	29.5 %	
NOPAT	101	110	122	141	149	157	162	167	170	172	174	174	174	
Depreciation	108	116	124	129	136	142	147	151	153	155	156	156	156	
in % of Sales	7.1 %	7.1 %	6.9 %	6.5 %	6.3 %	6.2 %	6.0 %	5.9 %	5.7 %	5.6 %	5.4 %	5.3 %	5.1 %	
Changes in provisions	0	2	2	3	3	2	2	2	2	2	1	1	1	
Change in Liquidity from														
- Working Capital	-14	18	25	23	21	18	16	13	11	9	7	5	4	
- Capex	150	155	160	158	165	169	172	173	173	172	171	168	165	
Capex in % of Sales	9.9 %	9.5 %	8.9 %	8.0 %	7.7 %	7.3 %	7.0 %	6.7 %	6.4 %	6.2 %	5.9 %	5.7 %	5.4 %	
Other	10	0	0	0	0	0	0	0	0	0	0	0	0	
Free Cash Flow (WACC Model)	63	55	64	91	103	114	124	133	141	148	154	159	163	166
PV of FCF	62	51	55	75	79	82	84	85	85	83	81	79	76	1,729
share of PVs	6.22 %			29.90 %										63.88 %

**Model parameter**

Derivation of WACC:		Derivation of Beta:	
Debt ratio	35.00 %	Financial Strength	1.30
Cost of debt (after tax)	1.4 %	Liquidity (share)	1.50
Market return	7.00 %	Cyclicality	1.50
Risk free rate	1.50 %	Transparency	1.40
		Others	1.30
<b>WACC</b>	<b>6.47 %</b>	<b>Beta</b>	<b>1.40</b>

**Valuation (m)**

Present values 2031e	977
Terminal Value	1,729
Financial liabilities	445
Pension liabilities	25
Hybrid capital	0
Minority interest	540
Market val. of investments	26
Liquidity	89
<b>Equity Value</b>	<b>1,812</b>
No. of shares (m)	22.5
<b>Value per share (EUR)</b>	<b>80.41</b>

**Sensitivity Value per Share (EUR)**

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		1.25 %	1.50 %	1.75 %	2.00 %	2.25 %	2.50 %	2.75 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.68	7.5 %	50.35	52.41	54.65	57.09	59.77	62.72	65.98	1.68	7.5 %	36.70	43.50	50.29	57.09	63.89	70.69	77.49
1.54	7.0 %	59.02	61.61	64.44	67.56	71.01	74.85	79.14	1.54	7.0 %	45.10	52.58	60.07	67.56	75.05	82.54	90.03
1.47	6.7 %	63.96	66.88	70.09	73.64	77.59	82.00	86.98	1.47	6.7 %	49.97	57.86	65.75	73.64	81.53	89.42	97.31
1.40	6.5 %	69.38	72.69	76.34	80.41	84.95	90.07	95.87	1.40	6.5 %	55.40	63.74	72.07	80.41	88.74	97.07	105.41
1.33	6.2 %	75.36	79.12	83.30	87.98	93.25	99.22	106.05	1.33	6.2 %	61.48	70.31	79.15	87.98	96.81	105.65	114.48
1.26	6.0 %	81.99	86.29	91.10	96.52	102.67	109.70	117.82	1.26	6.0 %	68.34	77.73	87.13	96.52	105.91	115.31	124.70
1.12	5.5 %	97.62	103.36	109.87	117.32	125.93	135.98	147.88	1.12	5.5 %	85.04	95.80	106.56	117.32	128.08	138.84	149.60

- Sales growth slows from 10% to 2% in perpetuity.
- EBIT margin declines during transitional phase from 9% to 8%.
- EBIT used in our DCF differs from EBIT in the P&L as we exclude at-equity earnings...
- ... and separately add at-equity participations at book value. We deduct minority interest at 12x minority earnings.
- "Other" is the estimated purchase price for the distributor in Australia & New Zealand.

### Bull Case DCF

To put our conservative base case assumptions into perspective we also include a blue-sky scenario which would yield a value of CHF 128.

- **Revenue growth:** We expect top-line growth at a CAGR of ~7% during the 19e-21e explicit forecast period. In contrast to our base case scenario, we estimate top-line growth will continue at a high pace during the transitional phase and will come down to 2% for the terminal value calculation.
- **EBIT margin:** EBIT margin decreases from 9.5% in 2022e to only 9% in 2032e.
- **Taxes:** stable @ 25%
- **Capex:** Capex remains at the same absolute level; however, the FCF increases substantially as capex to sales decreases as a result of stronger top-line growth.
- **WACC:** changes as implied market value changes.

### Bull case DCF

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	
Sales	1522.7	1635.8	1799.2	1979.1	2162.3	2347.7	2534.0	2720.2	2905.3	3088.3	3268.5	3445.0	3617.2	2.0 %
Sales change	4.1%	7.4%	10.0%	10.0%	9.3%	8.6%	7.9%	7.3%	6.8%	6.3%	5.8%	5.4%	5.0%	
EBIT	134.3	146.1	163.2	188.0	204.3	220.6	236.9	252.9	268.6	284.0	299.0	313.4	327.3	
EBIT-margin	8.8%	8.9%	9.1%	9.5%	9.4%	9.4%	9.3%	9.3%	9.2%	9.2%	9.1%	9.1%	9.0%	
Tax rate (EBT)	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	
NOPAT	100.7	109.6	122.4	141.0	153.2	165.5	177.6	189.7	201.5	213.0	224.2	235.1	245.5	
Depreciation	107.6	116.1	124.2	128.6	136.9	144.8	152.2	159.2	165.6	171.5	176.8	181.5	185.7	
in % of Sales	7.1%	7.1%	6.9%	6.5%	6.3%	6.2%	6.0%	5.9%	5.7%	5.6%	5.4%	5.3%	5.1%	
Change in provisions	0.0	2.0	2.0	.7	2.7	2.8	2.8	2.8	2.8	2.7	2.7	2.6	2.6	
Change in liquidity from														
- Working Capital	-14.3	18.1	25.0	3.0	23.4	23.4	23.1	22.7	22.2	21.6	20.9	20.1	19.2	
- Capex	150.0	155.0	160.0	158.3	164.6	169.0	171.9	173.3	173.4	172.4	170.5	167.8	164.5	
Capex in % of Sales	9.9%	9.5%	8.9%	8.0%	7.6%	7.2%	6.8%	6.4%	6.0%	5.6%	5.2%	4.9%	4.5%	
Other	10	0	0	0	0	0	0	0	0	0	0	0	0	
Free Cash Flow (WACC-model)	62.6	54.6	63.6	109.0	104.9	120.7	137.6	155.6	174.2	193.2	212.3	231.3	250.0	
PV of FCF	61.9	50.4	54.9	88.0	79.1	85.0	90.6	95.7	100.1	103.8	106.6	108.5	109.6	2341.0
share of PVs	4.8%			27.82%										67.4%

#### Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	28.0%	Financial Strength	1.30
Cost of debt	2.0%	Liquidity	1.50
Market return	7.0%	Cyclicality	1.50
Risk free rate	1.5%	Transparency	1.40
		Others	1.30
<b>WACC</b>	<b>7.0%</b>	<b>Beta</b>	<b>1.40</b>

#### Valuation (m)

Present values until 2031e	1134.1		
Terminal Value	2341.0		
Financial liabilities	444.6		
Pension liabilities	25.0		
Hybrid capital	.0		
Minority interest	540.0		
Market val. of investments	26.1		
Liquidity	89.3		
<b>Equity Value</b>	<b>2581.0</b>		
		No. of shares (m)	22.5
		<b>Value per share (EUR)</b>	<b>114.51</b>

#### Sensitivity Value per share (EUR)

Beta	(WACC)	Terminal Growth						Delta EBIT-margin							
		1.3%	1.50%	1.75%	2.00%	2.25%	2.50%	2.75%	-1.50 pp	-1.00 pp	-0.50 pp	0.00 pp	0.50 pp	1.00 pp	1.50 pp
1.65	8.0%	76.29	78.93	81.78	84.86	88.21	91.87	95.88	63.00	70.29	77.58	84.86	92.15	99.43	106.72
1.53	7.5%	87.61	90.88	94.43	98.29	102.53	107.19	112.34	74.31	82.30	90.30	98.29	106.29	114.29	122.28
1.46	7.3%	94.02	97.67	101.65	106.01	110.80	116.09	121.98	80.80	89.20	97.60	106.01	114.41	122.81	131.21
1.40	7.0%	101.00	105.10	109.58	114.51	119.96	126.01	132.77	87.96	96.81	105.66	114.51	123.36	132.21	141.07
1.34	6.8%	108.65	113.26	118.34	123.94	130.17	137.12	144.95	95.90	105.25	114.60	123.94	133.29	142.64	151.98
1.27	6.5%	117.05	122.27	128.04	134.45	141.61	149.65	158.77	104.75	114.65	124.55	134.45	144.35	154.24	164.14
1.15	6.0%	136.61	143.39	150.97	159.49	169.15	180.18	192.89	125.87	137.08	148.28	159.49	170.70	181.91	193.12

Source: Warburg Research,

**No-growth assumptions also indicate  
an undervaluation**
**FCF Value Potential**

Keeping maintenance capex at 5% of sales (2019e: 77.4m) and WC constant leaves us with a value of EUR 69 per share for 2021e which translates in CHF ~78 (FX rate of 1.12).

**Free Cash Flow Value Potential**

Warburg Research's valuation tool "FCF Value Potential" reflects the ability of the company to generate sustainable free cash flows. It is based on the "FCF potential" - a FCF "ex growth" figure - which assumes unchanged working capital and pure maintenance capex. A value indication is derived via the perpetuity of a given year's "FCF potential" with consideration of the weighted costs of capital. The fluctuating value indications over time add a timing element to the DCF model (our preferred valuation tool).

in EUR m	2015	2016	2017	2018	2019e	2020e	2021e	
Net Income before minorities	65	89	84	114	87	98	111	
+ Depreciation + Amortisation	66	76	72	82	108	115	122	
- Net Interest Income	-23	-13	-13	-16	-18	-17	-17	
- Maintenance Capex	61	67	68	73	76	82	90	
+ Other	0	0	0	4	0	-1	-2	
<b>= Free Cash Flow Potential</b>	<b>92</b>	<b>111</b>	<b>101</b>	<b>144</b>	<b>137</b>	<b>147</b>	<b>159</b>	
FCF Potential Yield (on market EV)	6.1 %	6.3 %	4.8 %	6.2 %	6.7 %	7.1 %	7.7 %	
WACC	6.47 %	6.47 %	6.47 %	6.47 %	6.47 %	6.47 %	6.47 %	
<b>= Enterprise Value (EV)</b>	<b>1,525</b>	<b>1,765</b>	<b>2,120</b>	<b>2,308</b>	<b>2,044</b>	<b>2,064</b>	<b>2,064</b>	
<b>= Fair Enterprise Value</b>	<b>1,426</b>	<b>1,713</b>	<b>1,559</b>	<b>2,219</b>	<b>2,116</b>	<b>2,274</b>	<b>2,450</b>	
- Net Debt (Cash)	323	323	323	323	333	314	288	
- Pension Liabilities	25	25	25	25	25	27	29	
- Other	0	0	0	0	0	0	0	
- Market value of minorities	561	561	561	561	540	576	600	
+ Market value of investments	26	26	26	26	26	27	29	
<b>= Fair Market Capitalisation</b>	<b>543</b>	<b>830</b>	<b>676</b>	<b>1,336</b>	<b>1,244</b>	<b>1,384</b>	<b>1,562</b>	
Number of shares, average	23	23	23	23	23	23	23	
<b>= Fair value per share (EUR)</b>	<b>24.10</b>	<b>36.84</b>	<b>29.98</b>	<b>59.27</b>	<b>55.19</b>	<b>61.40</b>	<b>69.29</b>	
premium (-) / discount (+) in %					8.5 %	20.7 %	36.2 %	
<b>Sensitivity Fair value per Share (EUR)</b>								
	9.47 %	4.06	12.76	8.08	28.08	25.45	29.44	34.85
	8.47 %	9.16	18.89	13.65	36.02	33.03	37.58	43.62
	7.47 %	15.63	26.66	20.73	46.09	42.63	47.89	54.74
WACC	<b>6.47 %</b>	<b>24.10</b>	<b>36.84</b>	<b>29.98</b>	<b>59.27</b>	<b>55.19</b>	<b>61.40</b>	<b>69.29</b>
	5.47 %	35.67	50.73	42.62	77.26	72.36	79.84	89.17
	4.47 %	52.41	70.84	60.92	103.31	97.20	106.53	117.94
	3.47 %	78.80	102.55	89.76	144.37	136.36	148.61	163.29

- We expect maintenance Capex at 5% of sales.
- "Others" include the adjustments from at-equity earnings which we separately add at book value.
- Additionally, we deduct minority interest at 12x minority earnings.

### Relative Valuation

We benchmark KTMI with multiples of peer companies active in the motorcycle or eBike industry. However, comparability is limited as most major motorcycle competitors are:

- Part of a large automotive group or conglomerates with the motorcycle business only contributing a very small share (Honda, Suzuki, Kawasaki, BMW, Ducati).
- Many smaller competitors are privately-owned and neither historic data nor forecasts are available (Triumph).
- Others focus on markets where KTMI does not compete (Hero MotoCorp in India, Bajaj with 3-wheelers in India and Africa) or to a large extent serve a different market segment (Piaggio/Scooters, Polaris/Snowmobiles).
- Plus we do not find a listed entity active in both motorcycles and eBikes.

We made the following observations:

- Harley-Davidson & BMW also have a finance division which distorts comparability.
- The large motorcycle OEMs (Yamaha, Honda, Piaggio) are serving different market segments, trade at discount but also have a lower margin profile.
- eBike manufacturer can reach a comparable margin level but trade at a large premium to KTMI. This also indicates a decent hidden value of the PEXCO JV.

### Peer group key figures

Company	Ticker	LW	Kurs in LC	MK in LC m	EV in LC m	Sales			EBITDA			EBIT		
						19e	20e	21e	19e	20e	21e	19e	20e	21e
<b>Direct comparable</b>														
Harley-Davidson, Inc.	HOG	USD	34.98	5,564.4	12,104.3	4,701.0	4,752.3	4,787.0	985.0	1,050.5	1,021.2	654.5	782.8	764.9
Yamaha Motor Co., Ltd.	7272-TKS	JPY	1872.00	653,943.9	968,152.4	1,720,900.0	1,800,500.0	1,886,866.9	186,750.0	204,421.8	218,500.0	140,000.0	155,000.0	167,000.0
<b>Indirect comparable - motorcycle OEMs</b>														
Bayerische Motoren Werke AG	BMW-ETR	EUR	63.61	41,829.9	141,241.1	98,877.1	101,136.0	103,357.4	12,473.6	14,195.0	14,612.0	7,486.2	8,685.5	8,619.0
Honda Motor Co., Ltd.	7267-TKS	JPY	2766.00	4,866,951.0	10,014,246.6	15,800,000.0	16,165,000.0	16,545,283.0	1,229,500.0	1,327,500.0	1,394,000.0	802,500.0	858,500.0	970,049.3
Piaggio & C. S.p.a.	PIA-MIL	EUR	2.53	903.9	1,377.0	1,506.6	1,606.2	1,661.1	228.0	243.0	254.4	110.0	129.1	144.0
Polaris Industries Inc.	PII	USD	93.40	5,704.0	7,743.5	6,794.3	7,032.0	7,326.1	810.7	857.0	952.7	541.0	612.0	638.5
<b>Indirect comparable - eBike Manufacturers</b>														
Giant Manufacturing Co., Ltd.	9921-TAI	TWD	248.00	93,016.1	103,056.8	64,556.8	70,876.4	75,869.0	6,177.6	6,990.5	7,337.0	4,750.0	5,457.4	5,798.0
Merida Industry Co., Ltd.	9914-TAI	TWD	188.00	56,209.0	56,181.4	28,656.8	31,716.6	34,610.0	2,104.0	2,486.4	2,773.9	1,803.0	2,232.2	2,508.2
Accell Group N.V.	ACCEL-AMS	EUR	23.55	631.1	776.4	1,147.1	1,219.6		70.4	80.2		58.5	67.7	
<b>KTM Industries AG</b>	<b>KTMI-SWX</b>	<b>EUR</b>	<b>57.20</b>	<b>1,289.2</b>	<b>2,183.4</b>	<b>1,522.7</b>	<b>1,635.8</b>	<b>1,799.2</b>	<b>241.9</b>	<b>262.2</b>	<b>287.4</b>	<b>134.0</b>	<b>147.2</b>	<b>165.5</b>

Source: Factset, Warburg Research, Data as of 20.06.2019

### Peer group multiples

Company	LC	P/E			EV/Sales			EV / EBITDA			EV / EBIT		
		19e	20e	21e	19e	20e	21e	19e	20e	21e	19e	20e	21e
<b>Direct comparable</b>													
Harley-Davidson, Inc.	USD	9.5 x	9.2 x	8.7 x	2.6 x	2.5 x	2.5 x	12.3 x	11.5 x	11.9 x	18.5 x	15.5 x	15.8 x
Yamaha Motor Co., Ltd.	JPY	7.0 x	6.3 x	5.7 x	0.6 x	0.5 x	0.5 x	5.2 x	4.7 x	4.4 x	6.9 x	6.2 x	5.8 x
<b>Indirect comparable - motorcycle OEMs</b>													
Bayerische Motoren Werke AG	EUR	7.3 x	6.4 x	6.4 x	1.4 x	1.4 x	1.4 x	11.3 x	10.0 x	9.7 x	18.9 x	16.3 x	16.4 x
Honda Motor Co., Ltd.	JPY	6.8 x	6.4 x	5.9 x	0.6 x	0.6 x	0.6 x	8.1 x	7.5 x	7.2 x	12.5 x	11.7 x	10.3 x
Piaggio & C. S.p.a.	EUR	18.0 x	16.1 x	13.6 x	0.9 x	0.9 x	0.8 x	6.0 x	5.7 x	5.4 x	12.5 x	10.7 x	9.6 x
Polaris Industries Inc.	USD	15.0 x	13.6 x	12.4 x	1.1 x	1.1 x	1.1 x	9.6 x	9.0 x	8.1 x	14.3 x	12.7 x	12.1 x
<b>Indirect comparable - eBike Manufacturers</b>													
Giant Manufacturing Co., Ltd.	TWD	27.7 x	23.3 x	21.5 x	1.6 x	1.5 x	1.4 x	16.7 x	14.7 x	14.0 x	21.7 x	18.9 x	17.8 x
Merida Industry Co., Ltd.	TWD	23.5 x	20.0 x	17.7 x	2.0 x	1.8 x	1.6 x	26.7 x	22.6 x	20.3 x	31.2 x	25.2 x	22.4 x
Accell Group N.V.	EUR	20.0 x	14.7 x	n.a.	0.7 x	0.6 x	n.a.	11.0 x	9.7 x	n.a.	13.3 x	11.5 x	n.a.
Mean		15.0 x	12.9 x	11.5 x	1.3 x	1.2 x	1.2 x	11.9 x	10.6 x	10.1 x	16.6 x	14.3 x	13.8 x
Median		15.0 x	13.6 x	10.6 x	1.1 x	1.1 x	1.2 x	11.0 x	9.7 x	8.9 x	14.3 x	12.7 x	14.0 x
<b>KTM Industries AG</b>	<b>EUR</b>	<b>30.43 x</b>	<b>26.00 x</b>	<b>20.95 x</b>	<b>1.43 x</b>	<b>1.33 x</b>	<b>1.21 x</b>	<b>9.02 x</b>	<b>8.33 x</b>	<b>7.60 x</b>	<b>16.29 x</b>	<b>14.83 x</b>	<b>13.19 x</b>
Potential to mean in %		-51%	-50%	-45%	-11%	-9%	2%	32%	27%	33%	2%	-4%	4%
Potential to median in %		-51%	-48%	-50%	-21%	-18%	0%	22%	16%	17%	-12%	-15%	6%
<b>Fair value per share based on mean</b>		<b>28.17</b>	<b>28.40</b>	<b>31.39</b>	<b>46.56</b>	<b>48.40</b>	<b>58.92</b>	<b>87.88</b>	<b>83.75</b>	<b>89.39</b>	<b>59.23</b>	<b>53.57</b>	<b>61.49</b>
<b>Fair value per share based on median</b>		<b>28.28</b>	<b>30.00</b>	<b>28.81</b>	<b>37.32</b>	<b>40.25</b>	<b>56.73</b>	<b>78.70</b>	<b>72.95</b>	<b>73.77</b>	<b>45.42</b>	<b>42.97</b>	<b>62.97</b>

Source: Factset, Warburg Research, Data as of 20.06.2019



## Peer group margins

Company	LW	Div Yield			Gross Margin			EBITDA Margin			EBIT Margin		
		19e	20e	21e	19e	20e	21e	19e	20e	21e	19e	20e	21e
<b>Direct comparable</b>													
Harley-Davidson, Inc.	USD	4.3%	4.4%	4.7%	30.7%	32.3%	31.4%	21.0%	22.1%	21.3%	13.9%	16.7%	16.3%
Yamaha Motor Co., Ltd.	JPY	4.8%	5.1%	5.3%	26.5%	27.5%	27.1%	10.9%	11.4%	11.6%	8.1%	9.0%	9.7%
<b>Indirect comparable - motorcycle OEMs</b>													
Bayerische Motoren Werke AG	EUR	5.0%	5.5%	5.5%	23.2%	23.3%	23.4%	12.6%	14.0%	14.1%	7.6%	8.8%	8.7%
Honda Motor Co., Ltd.	JPY	4.3%	4.7%	5.1%	21.8%	21.9%	21.7%	7.8%	8.2%	8.4%	5.1%	5.4%	6.1%
Piaggio & C. S.p.a.	EUR	3.7%	3.8%	3.7%	-	-	-	15.1%	15.1%	15.3%	7.3%	8.6%	9.6%
Polaris Industries Inc.	USD	2.6%	2.7%	3.0%	24.3%	24.9%	24.8%	11.9%	12.2%	13.0%	8.0%	9.0%	9.4%
<b>Indirect comparable - eBike Manufacturers</b>													
Giant Manufacturing Co., Ltd.	TWD	2.2%	2.6%	2.7%	21.7%	23.4%	-	9.6%	9.9%	9.7%	7.4%	8.5%	9.0%
Merida Industry Co., Ltd.	TWD	2.5%	3.0%	3.3%	13.3%	13.8%	12.9%	7.3%	7.8%	8.0%	6.3%	7.8%	8.8%
Accell Group N.V.	EUR	2.5%	3.4%	-	30.4%	30.9%	-	6.1%	6.6%	-	5.1%	5.9%	-
Mean		3.5%	3.9%	4.2%	24.0%	24.7%	23.6%	11.4%	11.9%	12.7%	7.6%	8.8%	9.7%
Median		3.7%	3.8%	4.2%	23.7%	24.1%	24.1%	10.9%	11.4%	12.3%	7.4%	8.6%	9.2%
<b>KTM Industries AG</b>	<b>EUR</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>30.0%</b>	<b>29.9%</b>	<b>29.8%</b>	<b>15.9%</b>	<b>16.0%</b>	<b>16.0%</b>	<b>8.8%</b>	<b>9.0%</b>	<b>9.2%</b>
Delta to mean in bp		-297bps	-332bps	-357bps	602bps	517bps	623bps	452bps	411bps	329bps	116bps	16bps	-49bps
Delta to median in bp		-313bps	-325bps	-359bps	627bps	578bps	570bps	504bps	468bps	368bps	144bps	43bps	1bps

Source: Factset, Warburg Research, Data as of 20.06.2019

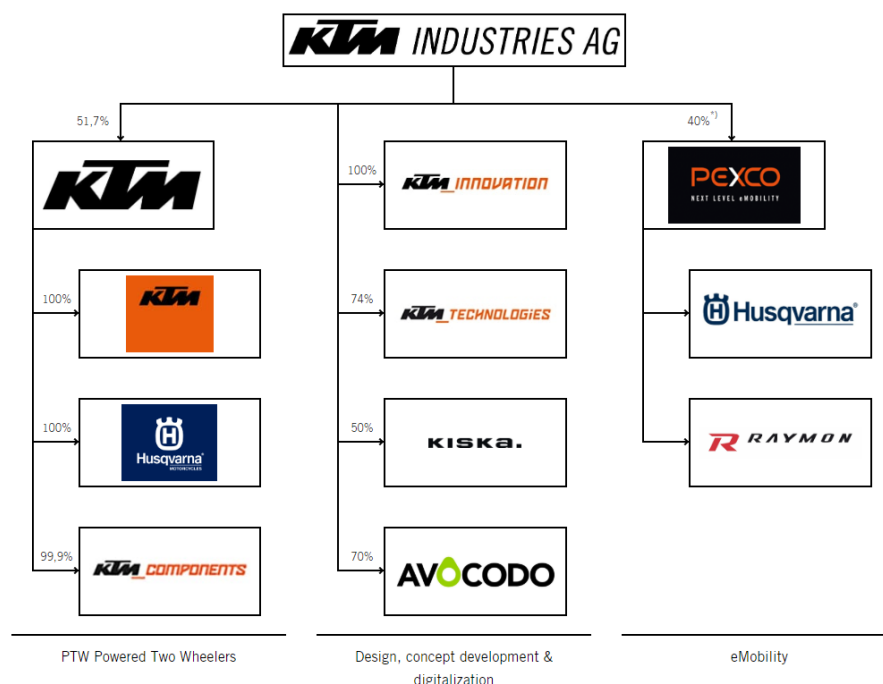
## Company & Group Structure

KTM Industries AG (formerly known as CROSS Industries) is a global motorcycle manufacturer with the well-known brands KTM, Husqvarna Motorcycles and WP, which all are among the technology and market leaders in their respective segments. The company, headquartered in Wels, Austria, had more than 4,200 employees in December 2018.

KTM industries' operations are divided into the three segments "powered two wheelers", "design, concept development & digitalization" and "eMobility". The export rate of all business segments of the Austria-based company is higher than 95%.

Due to the disposal of the Pankl Group at the end of June 2018 and the integration of the KTM Components Group (formerly: WP Group) into KTM AG, KTM AG now represents the main division of the KTM Industries Group.

### KTM Industries: simplified group structure (May 2019)



Source: KTM Industries, Warburg Research

## Ownership structure

KTM Industries is a public company and listed at the SIX Swiss exchange under the ticker symbol KTMI. Majority shareholder with 62% of the shares is Pierer Industries AG, the holding company of Stefan Pierer. The remaining 38% are free floating shares whereof approximately 1.1% of KTM Industries is held by the CFO and the CSO

KTM Industries owns 51.7% of KTM Group, which is the parent company to the KTM and Husqvarna Motorcycles brands as well as KTM Components. 48% of KTM Group is owned by the Indian two-wheeler and three-wheeler manufacturing company Bajaj Auto Limited (through the holding company Bajaj Auto International Holdings BV). The partnership with Bajaj enables KTMI to offer a broader product range including small-engine street models (between 125ccm and 390ccm). This partnership, which is in place since 2007, is planned to be extended as the production of the Husqvarna street bikes should be relocated to Bajaj.

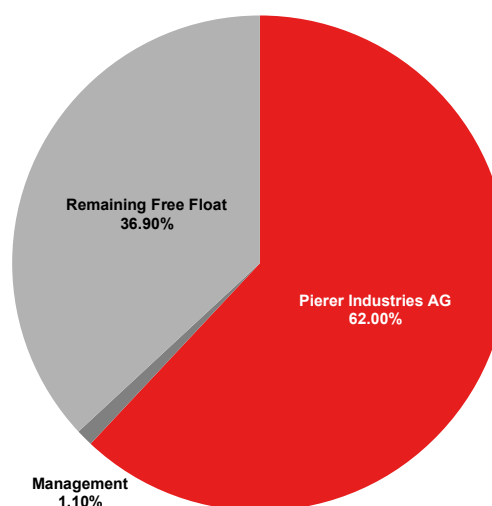
In 2018, KTM Industries increased its stake in KISKA from 26% to 50%. Simultaneously, the company holds 74% shares in KTM Technologies and 100% in KTM Innovation.

PEXCO GmbH is a joint venture in cooperation with the Puello family, which holds 40%

of the shares through Platin 1483 GmbH. 20% of PEXCO is held by Pierer Industrie AG and the remainder by KTM Industries, which reduced the stake from 49.99% to 40% in December 2018. KTM Industries holds PEXCO “at equity”.

Other holdings of KTM Industries are the wholly-owned PF Beteiligungsverwaltungs GmbH and a 12.3% stake in ACstyria Mobilitätscluster GmbH.

### KTM Industries: shareholder structure



Source: KTM Industries AG, Warburg Research

## Group structure in detail

### Powered two-wheelers

Within its powered two wheelers segment KTM Industries manufactures and distributes street and off-road motorcycles under the brands KTM and Husqvarna Motorcycles as well as motorcycle components under the brand WP.

### KTM AG: Europe’s leading motorcycle manufacturer

KTM AG is Europe’s largest manufacturer of street and off-road motorbikes with a market share of 11.7% in Europe and 8.9% in the United States and with revenues of more than EUR 1 billion.

The KTM brand offers a wide range of street and off-road motorcycles, including motocross, endure, free ride, supersmoto, adventure tourers, sports tourers, supersport and naked bikes. Moreover, the company produces and sells a lightweight, two-seater sportscar (“X-Bow”) as well as motorcycle components and clothing (see table below).

**“Ready to race” – more than just a slogan:** The brand KTM is well-known for its strong performances across various motorsport disciplines. Having won about 300 world championships, KTM is among the most successful brands worldwide. In 2018, Red Bull-KTM factory driver Matthias Walkner came first in the Dakar Rally in his KTM 450 RALLY as the first Austrian. This marked the 17th win in a row for KTM of the prestigious race.

### Husqvarna Motorcycles: “Pioneering since 1903”

Since 2013, the motorcycle manufacturer Husqvarna Motorcycles has been part of the KTMI Group. The company began producing motorcycles in 1903 in Husqvarna, Sweden, as a subsidiary of the Husqvarna armament company. This makes Husqvarna the world’s second-oldest continuously-produced motorcycle brand after Royal Enfield and ahead of Harley-Davidson. By introducing a street bike segment with the models Vitpilen and Svartpilen in 2014, KTMI wants to make Husqvarna Motorcycles the third-largest European producer (see table below).

Since the 1930s, Husqvarna has been a regular participant in international off-road

racing competitions. Husqvarna riders have won more than 80 World Championship titles in motocross, enduro and supermoto and have won several major rally events such as the Baja 1000 race.

## Off-road vs street motorcycles

### Off-road

KTM Industries' off-road segment of both brands, KTM and Husqvarna, comprises motocross, enduro and freeride, which are all primarily sports vehicles than means of transportation. The motorcycles mainly differ in terms of their usage, chassis and equipment.

- **Motocross** is a race of about 15 to 30 minutes driven in closed laps, usually 500m to 3km long. Races are characterised by top speed on tracks with tight curves, jumps and washboards. Motocross bikes are usually equipped with harder chassis, narrower gearboxes and smaller tanks and are generally lighter and less comfortable.
- **Enduro** races – as its name implies – are endurance races lasting for 2 hours to up to a few days and over several hundred kilometres. Races usually take place on both closed tracks and on public roads. Enduro motorcycles, compared to motocross bikes, usually have harder chassis, less aggressive engines and are more comfortable. In some cases, enduros are legally roadworthy.
- KTM's **Freeride** models (including the E-Ride motorcycle) are marketed as a combination of an enduro and a motocross motorcycle.

### Street

Since the introductions of the street motorcycles, KTM's sales have steadily increased and are now generating the same level of revenue as the off-road models. In general, street motorcycles have more technological features comforting regular street cycling, such as GPS or ABS systems.

The models can be divided into tourer, urban street, supermoto, supersport and KTM's four-wheeler models.

- **Tourers** are particularly suitable for longer journeys, having large displacement fairings and windshields for wind and weather protection, big fuel tanks as well as more elastic engines.
- **Urban street** is not a traditional motorcycle segment and rather marks KTM Industries' first move into a new market of street bikes. Husqvarna's Vitpilen and Svartpilen do not belong to either the off-road or street racing motorcycle categories and are more suited to stylish and relaxed way of riding - the focus is on the driver experience.
- **Supermoto** is a race that combines off-road and street racing, where tracks alternate between street, flat tracks, jumps and motocross obstacles. Motorcycles used are usually off-road motorcycles with street racing tires.
- **Super sport** bikes are motorcycles with the emphasis on speed, acceleration, braking and manoeuvrability. They are primarily built for paved race tracks, and lack features of comfort or amenity.



**KTM: Product overview**

Vehicle type	Category	Name	Engine	Displacement [ccm]	Dry Weight [kg]	Price	
Motorcycle	Motocross	450 SX-F	4-Stroke, 1-cylinder	450	100	10,345 €	
		450 SX-F Herlings Replica 2019	4-Stroke, 1-cylinder	450	100	11,095 €	
		350 SX-F	4-Stroke, 1-cylinder	350	100	10,045 €	
		250 SX-F	4-Stroke, 1-cylinder	250	99	9,745 €	
		250 SX	2-Stroke, 1-cylinder	249	96	9,145 €	
		150 SX	2-Stroke, 1-cylinder	144	88	8,945 €	
		125 SX	2-Stroke, 1-cylinder	125	88	8,345 €	
		85 SX 19/16	2-Stroke, 1-cylinder	85	68	5,995 €	
		85 SX 17/14	2-Stroke, 1-cylinder	85	67	5,995 €	
		65 SX	2-Stroke, 1-cylinder	65	53	4,895 €	
		50 SX	2-Stroke, 1-cylinder	49	42	3,895 €	
		Enduro	500 EXC-F SIX DAYS	4-Stroke, 1-cylinder	510	107	11,645 €
			500 EXC-F	4-Stroke, 1-cylinder	510	107	10,945 €
	450 EXC-F SIX DAYS		4-Stroke, 1-cylinder	449	107	11,445 €	
	450 EXC-F		4-Stroke, 1-cylinder	449	106	10,745 €	
	350 EXC-F SIX DAYS		4-Stroke, 1-cylinder	350	105	11,245 €	
	350 EXC-F		4-Stroke, 1-cylinder	350	104	10,545 €	
	250 EXC-F SIX DAYS		4-Stroke, 1-cylinder	250	104	10,995 €	
	250 EXC-F		4-Stroke, 1-cylinder	250	103	10,295 €	
	300 EXC TPI SIX DAYS		2-Stroke, 1-cylinder	293	104	10,595 €	
	300 EXC TPI ERZBERGRODEO		2-Stroke, 1-cylinder	293	104	11,245 €	
	300 EXC TPI		2-Stroke, 1-cylinder	293	103	9,995 €	
	250 EXC TPI SIX DAYS		2-Stroke, 1-cylinder	249	104	10,495 €	
	250 EXC TPI		2-Stroke, 1-cylinder	249	103	9,795 €	
	150 EXC TPI		2-Stroke, 1-cylinder	144	97	8,795 €	
	Freeride		Freeride 250 F	4-Stroke, 1-cylinder	250	99	7,695 €
	E-Ride	Freeride E-XC	n/a	n/a	110	7,695 €	
	Travel	1090 Adventure	4-Stroke, 2-cylinder	1,050	205	13,395 €	
		1290 Super Adventure R	4-Stroke, 2-cylinder	1,301	217	17,999 €	
		1290 Super Adventure S	4-Stroke, 2-cylinder	1,301	215	17,199 €	
		1090 Adventure R	4-Stroke, 2-cylinder	1,050	207	14,795 €	
		790 Adventure R	4-Stroke, 2-cylinder	799	189	13,399 €	
		790 Adventure	4-Stroke, 2-cylinder	799	189	12,399 €	
690 Enduro R		4-Stroke, 1-cylinder	693	146	10,799 €		
450 Rally		4-Stroke, 1-cylinder	449	139	n/a		
Sports Tourer		1290 Super Duke GT	4-Stroke, 2-cylinder	1,301	209	18,999 €	
Supermoto		690 SMC R	4-Stroke, 1-cylinder	693	147	10,799 €	
Naked	1290 Super Duke R	4-Stroke, 2-cylinder	1,301	195	17,099 €		
	790 Duke	4-Stroke, 2-cylinder	799	169	10,099 €		
	690 Duke	4-Stroke, 1-cylinder	690	149	8,899 €		
	390 Duke	4-Stroke, 1-cylinder	373	149	5,449 €		
	125 Duke	4-Stroke, 1-cylinder	125	137	4,749 €		
	Supersport	RC 390	4-Stroke, 1-cylinder	373	147	5,859 €	
RC 125		4-Stroke, 1-cylinder	125	135	4,749 €		
Sportscar	X-Bow	X-BOW GT4	2-liter TFSI	1,984	975	n/a	
		X-BOW RR	2-liter TFSI	1,984	810	n/a	
		X-BOW R	2-liter TFSI	1,984	790	n/a	
		X-BOW GT	2-liter TFSI	1,984	847	n/a	

Source: Company website, Warburg Research

**Husqvarna: Product overview**

Vehicle type	Category	Name	Engine	Displacement [ccm]	Dry Weight [kg]	Price	
Motorcycle	Motocross	FC 450 Rockstar Edition	4-Stroke, 1-cylinder	450	101	11,398 €	
		FC 450	4-Stroke, 1-cylinder	450	101	10,499 €	
		FC 350	4-Stroke, 1-cylinder	350	100	10,299 €	
		FC 250	4-Stroke, 1-cylinder	250	100	9,899 €	
		TC 250	2-Stroke, 1-cylinder	249	96	9,099 €	
		TC 125	2-Stroke, 1-cylinder	125	88	8,199 €	
		TC 85 19/16	2-Stroke, 1-cylinder	85	68	5,699 €	
		TC 85 17/14	2-Stroke, 1-cylinder	85	67	5,699 €	
		TC 65	2-Stroke, 1-cylinder	65	53	4,699 €	
		TC 50	2-Stroke, 1-cylinder	49	42	3,699 €	
		TC 50 Mini	2-Stroke, 1-cylinder	49	40	3,699 €	
		Enduro	701 Enduro	4-Stroke, 1-cylinder	693	145	11,299 €
			FE 501	4-Stroke, 1-cylinder	511	109	11,399 €
	FE 450		4-Stroke, 1-cylinder	450	109	11,099 €	
	FE 350		4-Stroke, 1-cylinder	350	107	10,799 €	
	FE 250		4-Stroke, 1-cylinder	250	106	10,499 €	
	TE 300i		2-Stroke, 1-cylinder	293	105	10,699 €	
	TE 250i		2-Stroke, 1-cylinder	249	105	10,199 €	
	TX 125		2-Stroke, 1-cylinder	125	92	9,299 €	
	Supermoto	701 Supermoto	4-Stroke, 1-cylinder	693	145	11,299 €	
		FS 450	4-Stroke, 1-cylinder	450	103	11,498 €	
	Vitpilen	Vitpilen 701	4-Stroke, 1-cylinder	693	157	11,299 €	
		Vitpilen 401	4-Stroke, 1-cylinder	373	148	6,699 €	
	Svartpilen	Svartpilen 701	4-Stroke, 1-cylinder	693	159	11,299 €	
		Svartpilen 401	4-Stroke, 1-cylinder	373	150	6,699 €	

Source: Company website, Warburg Research

**KTM Components / WP: the group’s biggest supplier**

KTM Components develops, manufactures and markets chassis components for motorcycles and vehicles, including suspension components, frame manufacturing and related steel welding assemblies, exhaust systems and cooling systems.

The company was founded in 1977 as White Power Suspension B.V. in Malden, Netherlands by Wim Peters and is currently one of the largest European manufacturers of wheel suspensions for motorcycles. During the 1980s, the company transformed from an aftermarket producer to an OEM for KTM, Husaberg and BMW.

**KTM Components / WP: product overview**



Source: Company website, Warburg Research

During the course of the integration of WP Group “WP Performance Systems GmbH” was renamed “KTM Components GmbH”. The brand name “WP” for motorcycle components will remain in force. Currently, KTM Components is the most important supplier of KTM’s motorcycle production. WP products are also installed in vehicles of Beta, Honda, Kawasaki, Sherco, Suzuki and Yamaha.

Currently the company has more than 100 authorised centres in Europe, North America, South Africa and Australia. In 2018, the expansion of the group’s own radiator production site in Dalian, China was largely completed and series production started successfully.

**Design, concept development & digitalisation**

The design, concept development and digitalisation segment comprises the companies KTM Technologies, KTM Innovations and KISKA.

**KTM Technologies**

KTM Technologies is a service company for concept development, design, dimensioning and simulation, prototype manufacturing and consulting. The company mainly focuses on high performance composites and lightweight designs. Its core business is the concept development of electric vehicles, such as e-bikes, e-motorcycles, electric cars and autonomous vehicles. Within the lightweight segment, the company is involved in numerous future-oriented projects, including drones for passenger and goods transportation, data glasses for augmented reality and high-end sports articles.

Biggest customer of KTM Technologies is the KTM Group but among the clients are other internationally renowned and emerging businesses from IT, aerospace, medical engineering, energy and mechanical engineering industries.

The company, formerly known as “KTM Engineering”, emerged as a spin-off for the development and production of KTM’s X-BOW in 2007. KTM Technologies continued to work closely with “in-house” partners such as KISKA, enabling the company to fully include product design into the concept development process.

**KTM Innovation**

KTM Innovation is KTM’s in-house centre for digital transformation and innovation. The company consists of a diverse group of technical experts in the fields IT, internet of things, artificial intelligence and production to enable innovation within the whole group.

**KISKA**

KISKA is an independent design agency with offices in Austria, Germany, the USA and China. The agency was founded in 1990 by Gerald Kiska as a one-man business.

Currently, the Salzburg headquarters employs more than 260 designers, strategists, digital experts, engineers and modellers from 35 nations. KISKA operates an office in Bamberg, Germany, and a subsidiary in California, US.

The company sees its unique selling point in integrated design development. Strategic brand and design studies are the basis for target group-oriented and focused design solutions, according to the company. Most of the designs were developed for consumer goods, industrial goods and automotive industries.

KISKA has been working for KTM since 1991. During this cooperation the company has designed all motorcycles since 1992 as well as four versions of the X-BOW. The agency is responsible for the entire branding of KTM as well as advertising materials, digital appearances, trade fair appearances and shop designs. Among the customers are numerous other national and international companies such as Atomic, CFMoto Gasteiner, Husqvarna Motorcycles, Magura, Ottobock, Schubert and Zeiss.

**eMobility**

As one of the first manufacturers of off-road motorcycles, KTM introduced an electric-powered version of its Freeride model in 2014. The new 2018 model includes a powerpack allowing rides of up to 90 minutes, which is already 50% more than the previous version. This innovative approach of introducing an off-road motorcycle powered with an electric engine, even though it is not yet competitive to combustion engines, was valuable in the context of government initiatives to reduce vehicle emissions and can be seen as the starting point for the deepened cooperation with Bajaj on a jointly developed e-platform.

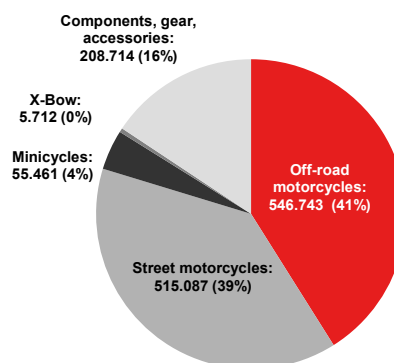
In 2017, KTM Industries entered into a strategic partnership with PEXCO GmbH, an eMobility company recently founded by the German entrepreneur family Puello. The joint venture PEXCO focuses on the development and distribution of e-bikes and bicycles. PEXCO sells its e-bikes and bicycles under the brands “Husqvarna Bicycles” and “R Raymon”. Due to the successful market launch of the Husqvarna and Raymon brands, the joint venture was able to generate sales of around EUR 29m in the first fiscal year 2018 (more than 30,000 e-bikes and bicycles). The company has set itself the goal of becoming the technology leader in the area of zero emissions for lightweight vehicles.

**Sales & distribution**

Within KTM AG in 2017, street and off-road motorcycles each generated approximately 40% of revenues, while around 4% was generated with minicycles and X-Bows. The remaining 16% were mainly generated with parts and components, clothing and accessories.

Currently, the ratio of street to off-road motorcycles is about 60:40 but should shift towards 70: 30 by 2022, according to KTM Industries.

**KTM AG: Revenues by Segment (2017) [in €'000]**



Source: Company website, Warburg Research

With over 35 sales subsidiaries and joint ventures, KTM AG currently cooperates with 2,822 independent dealers and importers of the two brands worldwide (see map).

In 2018, the company was able to sell more than 260,000 motorcycles (+10% compared to 2017), of which approximately 210,000 were KTM and 50,000 were Husqvarna bikes. The company has set itself the target of an annual sales volume of 400,000 motorcycles by 2022. KTM Industries achieved record sales of EUR 1,559.6m in 2018 (including Pankl).

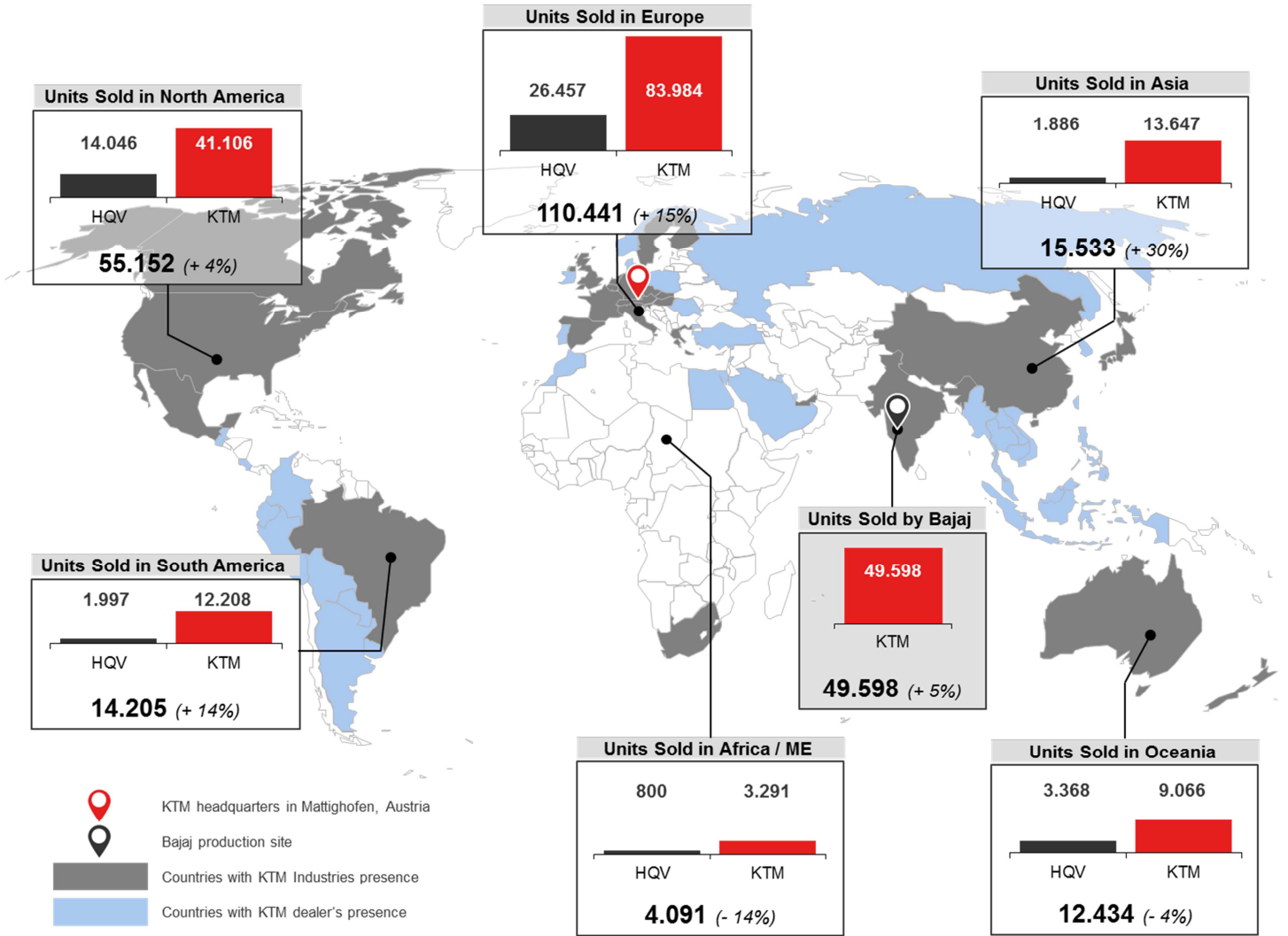
Units sold in Europe and North America account for over 60% of KTM Industries' sales, however, the largest growth in relative terms is expected in emerging markets. Last year, unit sales rose by 30% in Asia and by 14% in South America.

To benefit from this growing trend in developing countries, KTM Industries plans to extend the production volume of its strategic partner Bajaj in India. By Q4 2019, the production of Husqvarna road motorcycles (up to 400 ccm) will be transferred to India. The motorcycles will be distributed by Bajaj based on a license fee model as already in place with KTM motorcycles produced by Bajaj.

In 2018, KTM Industries formed a joint venture with longstanding distribution partner CF Moto. From 2021, mid-class motorcycles are going to be manufactured in Hangzhou, China, and distributed worldwide from there. The 2021 target is to produce between 15,000 and 20,000 motorcycles in China, of which about 5,000 should remain in China.



KTM Industries: sales & distribution network



Source: Company website, Warburg Research

## Company history

### Long road to market leadership

- 1934** Hans Trunkenpolz founds a metalworking and car repair shop in Mattighofen.
- 1953** Ernst Kronreif joins the company as sizeable shareholder. Now, the official company name is: KTM "Kronreif, Trunkenpolz, Mattighofen".
- 1978** US subsidiary KTM North America Inc. is founded in Lorain, Ohio.
- 1986** Despite the successes in motorsports in the decades before, the company experiences massive financial problems for the first time. A revenue decline and difficulties with importers in Italy, Germany and France attracts attention.
- 1987** Stefan Pierer founds investment company Cross Holding, which later becomes KTM Industries-Beteiligungsgruppe.
- 1991** Additional losses in other operating sectors leads to the bankruptcy of KTM Motorfahrzeugbau AG and its division into four independent successor companies: KTM Sportmotorcycle GmbH (motorcycles division), KTM Fahrrad GmbH (bicycles division), KTM Kühler GmbH (radiators division) and KTM Werkzeugbau GmbH (tooling division).
- 1992** Stefan Pierer acquires shares in KTM Sportmotorcycle GmbH. The newly formed motorcycle division - KTM Sportmotorcycle GmbH - starts with a new management (Stefan Pierer), a new Hard Enduro concept and a new motorcycle design.
- 1996** Acquisition of Swedish Husaberg AB and White Power Suspension. KTM Motorradholding AG is listed on the Vienna Stock Exchange.
- 1999** Opening of plant, development centre and administration building in Mattighofen. Cross Beteiligungsverwaltungs-AG is founded, which acquires 99.77% of the shares of KTM Sportmotorcycle AG and delists the company from the Vienna stock exchange.
- 2003** Re-listing on the Vienna Stock Exchange
- 2005** Cross Beteiligungsverwaltungs-AG is renamed KTM Power Sports AG.
- 2007** Indian Bajaj Auto acquires 14.5% stake in KTM Power Sports AG (increased stake to 48% by 2013).
- 2008** Introduction of KTM's first superbike (RC8) and super sports car (X-Bow).
- 2012** Renaming KTM Power Sports AG "KTM AG"
- 2013** Acquisition of Husqvarna Motorcycles
- 2016** Dual Listing at SIX Swiss Exchange
- 2018** Joint Ventures with PEXCO and CF Moto. Full integration of WP Group.

Source: Company website, Warburg Research

## Management

### Management & Supervisory Board



**DI Stefan Pierer** (\*1956, Austrian), *Member of the Executive Board (CEO)*

After graduating from the Montan-University in Leoben, Austria (Business and Energy Management), Stefan Pierer began his career as sales assistant at HOVAL GmbH in Marchtrenk in 1982 and then later as sales manager for Upper Austria and authorized signatory. In 1987 he founded the KTM Industries Group in which he acts as majority shareholder and member of the Executive Board. He has been shareholder and member of the Management Board of the KTM AG since 1992.



**Mag. Friedrich Roithner** (\*1963, Austrian), *Member of the Executive Board (CFO)*

After graduating from the Johannes Kepler University of Linz (Business Administration), Friedrich Roithner started his career as an auditing assistant at one of the big four leading tax consultancy and auditing companies in Austria (focusing on tax consultancy and auditing). In 1992 he switched to Austria Metall AG and was a member of the Management Board from 2002 until 2006.

Since the end of 2007 Friedrich Roithner has been part of the management team at the KTM Industries Group. In 2010 Friedrich Roithner became CFO of KTM Industries AG.



**Mag. Hubert Trunkenpolz** (\*1962, Austrian), *Member of the Executive Board (CSO)*

After graduating from the Johannes Kepler University Linz (Business Administration), Hubert Trunkenpolz started his career at ISA Audivisual Communication Corp. as marketing manager and subsequently at TRUMAG as sales manager/managing director. He has been at CROSS Group (now KTM Industries group) since 1992 and a member of the Executive Board of KTM Motorrad AG since 2004. Hubert Trunkenpolz also became a member of the Executive Board of KTM AG in 2007 and of KTM Industries AG in 2018.



**Josef Blazicek** (\*1964, Austrian), *Chairman of the Supervisory Board*

Josef Blazicek began his career in the International Sales division of GIRO Credit Bank of the Österreichischen Sparkassen AG. From 1989, he was head of the trading department at ERSTE BANK AG, before taking up the same position at INVESTMENTBANK AUSTRIA AG in 1991, where he served as a director of Bank Austria Securities Ltd., among other positions. From 1997 to 2000, he was Head of Syndications at ICE Securities Ltd. Subsequently, until 2003, he was managing shareholder at OCEAN Equities Ltd. Since 2000 Josef Blazicek has been working in the QINO Group / Ocean Consulting GmbH in various leadership positions and since 2008 has been a Member of the Supervisory Board of the Company as Chairman.

Source: Company website, Warburg Research

### Management remuneration

The remuneration of the members of the Executive Board of KTM Industries AG includes fixed and variable components.

The variable components of the remuneration are not limited in amount and depend on the key performance indicators EBIT, EBT and free cash flow of the KTM Industries Group companies for the respective financial year. With regard to the various members of the Management Board, the variable remuneration components laid down in the individual contracts each target different performance indicators. The weighting of the individual parameters of the variable components of the remuneration is determined individually between the Supervisory Board and the respective Management Board member.

The remuneration policy is reviewed annually by the Supervisory Board. There is no external benchmarking of the remuneration or remuneration structure. The Chairman of the Supervisory Board informs the Annual General Meeting once a year about the principles of the remuneration system.

There are no stock option plans or similar share-based payment systems. There is a D&O insurance policy in place which, in addition to the Executive Board and the Supervisory Board also includes the management of the Group companies.

### Executive Board remuneration

<i>Name</i>	<i>Fixed [€]</i>	<i>Fixed [%]</i>	<i>Variable [€]</i>	<i>Variable [%]</i>	<i>Total</i>
<b>Stefan Pierer</b>	392.598	25	1.200.000	75	<b>1.592.598</b>
<b>Friedrich Roithner</b>	175.434	21	666.667	79	<b>842.100</b>
<b>Hubert Trunkenpolz</b>	348.264	27	951.000	73	<b>1.299.264</b>

Source: Company website, Warburg Research

DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	
Sales	1,523	1,636	1,799	1,979	2,148	2,303	2,445	2,574	2,689	2,791	2,882	2,961	3,031	
Sales change	4.1 %	7.4 %	10.0 %	10.0 %	8.5 %	7.2 %	6.2 %	5.3 %	4.5 %	3.8 %	3.2 %	2.8 %	2.3 %	2.0 %
EBIT	134	146	163	188	201	211	221	228	234	239	243	245	247	
EBIT-margin	8.8 %	8.9 %	9.1 %	9.5 %	9.3 %	9.2 %	9.0 %	8.9 %	8.7 %	8.6 %	8.4 %	8.3 %	8.1 %	
Tax rate (EBT)	25.0 %	25.0 %	25.0 %	25.0 %	25.5 %	25.9 %	26.4 %	26.9 %	27.4 %	27.9 %	28.4 %	28.9 %	29.5 %	
NOPAT	101	110	122	141	149	157	162	167	170	172	174	174	174	
Depreciation	108	116	124	129	136	142	147	151	153	155	156	156	156	
in % of Sales	7.1 %	7.1 %	6.9 %	6.5 %	6.3 %	6.2 %	6.0 %	5.9 %	5.7 %	5.6 %	5.4 %	5.3 %	5.1 %	
Changes in provisions	0	2	2	3	3	2	2	2	2	2	1	1	1	
Change in Liquidity from														
- Working Capital	-14	18	25	23	21	18	16	13	11	9	7	5	4	
- Capex	150	155	160	158	165	169	172	173	173	172	171	168	165	
Capex in % of Sales	9.9 %	9.5 %	8.9 %	8.0 %	7.7 %	7.3 %	7.0 %	6.7 %	6.4 %	6.2 %	5.9 %	5.7 %	5.4 %	
Other	10	0	0	0	0	0	0	0	0	0	0	0	0	
Free Cash Flow (WACC Model)	63	55	64	91	103	114	124	133	141	148	154	159	163	166
PV of FCF	62	51	55	75	79	82	84	85	85	83	81	79	76	1,729
share of PVs	6.22 %			29.90 %										63.88 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	35.00 %	Financial Strength	1.30
Cost of debt (after tax)	1.4 %	Liquidity (share)	1.50
Market return	7.00 %	Cyclicality	1.50
Risk free rate	1.50 %	Transparency	1.40
		Others	1.30
<b>WACC</b>	<b>6.47 %</b>	<b>Beta</b>	<b>1.40</b>

Valuation (m)

Present values 2031e	977		
Terminal Value	1,729		
Financial liabilities	445		
Pension liabilities	25		
Hybrid capital	0		
Minority interest	540		
Market val. of investments	26		
Liquidity	89	No. of shares (m)	22.5
<b>Equity Value</b>	<b>1,812</b>	<b>Value per share (EUR)</b>	<b>80.41</b>

Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		1.25 %	1.50 %	1.75 %	2.00 %	2.25 %	2.50 %	2.75 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.68	7.5 %	50.35	52.41	54.65	57.09	59.77	62.72	65.98	1.68	7.5 %	36.70	43.50	50.29	57.09	63.89	70.69	77.49
1.54	7.0 %	59.02	61.61	64.44	67.56	71.01	74.85	79.14	1.54	7.0 %	45.10	52.58	60.07	67.56	75.05	82.54	90.03
1.47	6.7 %	63.96	66.88	70.09	73.64	77.59	82.00	86.98	1.47	6.7 %	49.97	57.86	65.75	73.64	81.53	89.42	97.31
1.40	6.5 %	69.38	72.69	76.34	80.41	84.95	90.07	95.87	1.40	6.5 %	55.40	63.74	72.07	80.41	88.74	97.07	105.41
1.33	6.2 %	75.36	79.12	83.30	87.98	93.25	99.22	106.05	1.33	6.2 %	61.48	70.31	79.15	87.98	96.81	105.65	114.48
1.26	6.0 %	81.99	86.29	91.10	96.52	102.67	109.70	117.82	1.26	6.0 %	68.34	77.73	87.13	96.52	105.91	115.31	124.70
1.12	5.5 %	97.62	103.36	109.87	117.32	125.93	135.98	147.88	1.12	5.5 %	85.04	95.80	106.56	117.32	128.08	138.84	149.60

- Sales growth slows from 10% to 2% in perpetuity.
- EBIT margin declines during transitional phase from 9% to 8%.
- EBIT used in our DCF differs from EBIT in the P&L as we exclude at-equity earnings...
- ... and separately add at-equity participations at book value. We deduct minority interest at 12x minority earnings.
- "Other" is the estimated purchase price for the distributor in Australia & New Zealand.

### Free Cash Flow Value Potential

Warburg Research's valuation tool "FCF Value Potential" reflects the ability of the company to generate sustainable free cash flows. It is based on the "FCF potential" - a FCF "ex growth" figure - which assumes unchanged working capital and pure maintenance capex. A value indication is derived via the perpetuity of a given year's "FCF potential" with consideration of the weighted costs of capital. The fluctuating value indications over time add a timing element to the DCF model (our preferred valuation tool).

in EUR m	2015	2016	2017	2018	2019e	2020e	2021e	
Net Income before minorities	65	89	84	114	87	98	111	
+ Depreciation + Amortisation	66	76	72	82	108	115	122	
- Net Interest Income	-23	-13	-13	-16	-18	-17	-17	
- Maintenance Capex	61	67	68	73	76	82	90	
+ Other	0	0	0	4	0	-1	-2	
<b>= Free Cash Flow Potential</b>	<b>92</b>	<b>111</b>	<b>101</b>	<b>144</b>	<b>137</b>	<b>147</b>	<b>159</b>	
FCF Potential Yield (on market EV)	6.1 %	6.3 %	4.8 %	6.2 %	6.7 %	7.1 %	7.7 %	
WACC	6.47 %	6.47 %	6.47 %	6.47 %	6.47 %	6.47 %	6.47 %	
<b>= Enterprise Value (EV)</b>	<b>1,525</b>	<b>1,765</b>	<b>2,120</b>	<b>2,308</b>	<b>2,044</b>	<b>2,064</b>	<b>2,064</b>	
<b>= Fair Enterprise Value</b>	<b>1,426</b>	<b>1,713</b>	<b>1,559</b>	<b>2,219</b>	<b>2,116</b>	<b>2,274</b>	<b>2,450</b>	
- Net Debt (Cash)	323	323	323	323	333	314	288	
- Pension Liabilities	25	25	25	25	25	27	29	
- Other	0	0	0	0	0	0	0	
- Market value of minorities	561	561	561	561	540	576	600	
+ Market value of investments	26	26	26	26	26	27	29	
<b>= Fair Market Capitalisation</b>	<b>543</b>	<b>830</b>	<b>676</b>	<b>1,336</b>	<b>1,244</b>	<b>1,384</b>	<b>1,562</b>	
Number of shares, average	23	23	23	23	23	23	23	
<b>= Fair value per share (EUR)</b>	<b>24.10</b>	<b>36.84</b>	<b>29.98</b>	<b>59.27</b>	<b>55.19</b>	<b>61.40</b>	<b>69.29</b>	
premium (-) / discount (+) in %					8.5 %	20.7 %	36.2 %	
<b>Sensitivity Fair value per Share (EUR)</b>								
	9.47 %	4.06	12.76	8.08	28.08	25.45	29.44	34.85
	8.47 %	9.16	18.89	13.65	36.02	33.03	37.58	43.62
	7.47 %	15.63	26.66	20.73	46.09	42.63	47.89	54.74
WACC	<b>6.47 %</b>	<b>24.10</b>	<b>36.84</b>	<b>29.98</b>	<b>59.27</b>	<b>55.19</b>	<b>61.40</b>	<b>69.29</b>
	5.47 %	35.67	50.73	42.62	77.26	72.36	79.84	89.17
	4.47 %	52.41	70.84	60.92	103.31	97.20	106.53	117.94
	3.47 %	78.80	102.55	89.76	144.37	136.36	148.61	163.29

- We expect maintenance Capex at 5% of sales.
- "Others" include the adjustments from at-equity earnings which we separately add at book value.
- Additionally, we deduct minority interest at 12x minority earnings.

<b>Valuation</b>							
	2015	2016	2017	2018	2019e	2020e	2021e
Price / Book	2.8 x	3.0 x	3.7 x	4.7 x	3.4 x	3.1 x	2.7 x
Book value per share ex intangibles	-5.72	-3.89	-3.49	-5.56	-5.83	-5.83	-5.12
EV / Sales	1.2 x	1.3 x	1.6 x	1.6 x	1.3 x	1.3 x	1.1 x
EV / EBITDA	8.5 x	8.9 x	10.9 x	10.9 x	8.5 x	7.9 x	7.2 x
EV / EBIT	13.5 x	14.4 x	17.4 x	17.9 x	15.3 x	14.0 x	12.5 x
EV / EBIT adj.*	13.5 x	14.5 x	17.4 x	17.3 x	15.2 x	14.1 x	12.6 x
P / FCF	n.a.	34.5 x	n.a.	n.a.	13.0 x	30.4 x	25.9 x
P / E	18.5 x	15.7 x	26.0 x	20.8 x	27.1 x	23.1 x	18.6 x
P / E adj.*	18.5 x	15.7 x	29.1 x	34.1 x	27.1 x	23.1 x	18.6 x
Dividend Yield	0.1 %	0.1 %	0.6 %	0.5 %	0.6 %	0.6 %	0.6 %
FCF Potential Yield (on market EV)	6.1 %	6.3 %	4.8 %	6.2 %	6.7 %	7.1 %	7.7 %

\*Adjustments made for: One-offs and Pankl deconsolidation effect

<b>Company Specific Items</b>							
	2015	2016	2017	2018	2019e	2020e	2021e
Total KTM Bikes	161,613	172,636	201,451	212,898	222,721	237,282	254,469
Total Husqvarna Bikes	21,560	30,787	36,883	48,554	51,276	56,218	87,037
Sales share off-road	46.0 %	50.0 %	45.0 %	40.0 %	39.0 %	36.0 %	34.0 %
Sales share on-road	54.0 %	50.0 %	55.0 %	60.0 %	61.0 %	64.0 %	66.0 %
eBikes sold	n.a.	n.a.	n.a.	30,000	60,000	80,000	96,000

**Consolidated profit and loss**

In EUR m	2015	2016	2017	2018	2019e	2020e	2021e
<b>Sales</b>	<b>1,224</b>	<b>1,343</b>	<b>1,354</b>	<b>1,462</b>	<b>1,523</b>	<b>1,636</b>	<b>1,799</b>
Change Sales yoy	n.a.	9.8 %	0.8 %	8.0 %	4.1 %	7.4 %	10.0 %
COGS	844	909	945	1,029	1,066	1,147	1,263
<b>Gross profit</b>	<b>379</b>	<b>434</b>	<b>409</b>	<b>433</b>	<b>457</b>	<b>489</b>	<b>536</b>
<i>Gross margin</i>	<i>31.0 %</i>	<i>32.3 %</i>	<i>30.2 %</i>	<i>29.6 %</i>	<i>30.0 %</i>	<i>29.9 %</i>	<i>29.8 %</i>
Research and development	30	40	34	27	30	36	41
Sales and marketing	149	170	165	172	183	196	216
Administration expenses	69	80	60	71	73	79	86
Other operating expenses	22	28	32	30	44	40	38
Other operating income	4	5	4	0	8	8	9
Unfrequent items	0	0	0	0	0	0	0
<b>EBITDA</b>	<b>178</b>	<b>198</b>	<b>194</b>	<b>211</b>	<b>242</b>	<b>262</b>	<b>287</b>
<i>Margin</i>	<i>14.6 %</i>	<i>14.8 %</i>	<i>14.3 %</i>	<i>14.4 %</i>	<i>15.9 %</i>	<i>16.0 %</i>	<i>16.0 %</i>
Depreciation of fixed assets	37	43	38	43	60	63	66
<b>EBITA</b>	<b>141</b>	<b>156</b>	<b>156</b>	<b>168</b>	<b>182</b>	<b>200</b>	<b>222</b>
Amortisation of intangible assets	28	33	34	39	48	52	56
Goodwill amortisation	0	0	0	0	0	0	0
<b>EBIT</b>	<b>113</b>	<b>122</b>	<b>122</b>	<b>129</b>	<b>134</b>	<b>147</b>	<b>166</b>
<i>Margin</i>	<i>9.2 %</i>	<i>9.1 %</i>	<i>9.0 %</i>	<i>8.8 %</i>	<i>8.8 %</i>	<i>9.0 %</i>	<i>9.2 %</i>
<b>EBIT adj.</b>	<b>113</b>	<b>122</b>	<b>122</b>	<b>134</b>	<b>134</b>	<b>146</b>	<b>163</b>
Interest income	2	3	2	3	3	3	3
Interest expenses	18	20	13	18	19	18	18
Other financial income (loss)	-7	3	-2	-1	-2	-2	-2
<b>EBT</b>	<b>90</b>	<b>109</b>	<b>109</b>	<b>112</b>	<b>116</b>	<b>130</b>	<b>149</b>
<i>Margin</i>	<i>7.4 %</i>	<i>8.1 %</i>	<i>8.1 %</i>	<i>7.7 %</i>	<i>7.7 %</i>	<i>7.9 %</i>	<i>8.3 %</i>
Total taxes	25	20	30	27	29	33	37
<b>Net income from continuing operations</b>	<b>65</b>	<b>89</b>	<b>79</b>	<b>85</b>	<b>87</b>	<b>98</b>	<b>111</b>
Income from discontinued operations (net of tax)	0	0	5	5	0	0	0
<b>Net income before minorities</b>	<b>65</b>	<b>89</b>	<b>84</b>	<b>114</b>	<b>87</b>	<b>98</b>	<b>111</b>
Minority interest	35	37	39	47	45	48	50
<b>Net income</b>	<b>30</b>	<b>52</b>	<b>45</b>	<b>67</b>	<b>42</b>	<b>50</b>	<b>61</b>
<i>Margin</i>	<i>2.5 %</i>	<i>3.9 %</i>	<i>3.3 %</i>	<i>4.6 %</i>	<i>2.8 %</i>	<i>3.0 %</i>	<i>3.4 %</i>
Number of shares, average	23	23	23	23	23	23	23
<b>EPS</b>	<b>1.33</b>	<b>2.30</b>	<b>1.98</b>	<b>2.99</b>	<b>1.88</b>	<b>2.20</b>	<b>2.73</b>
EPS adj.	1.33	2.30	1.77	1.82	1.88	2.20	2.73

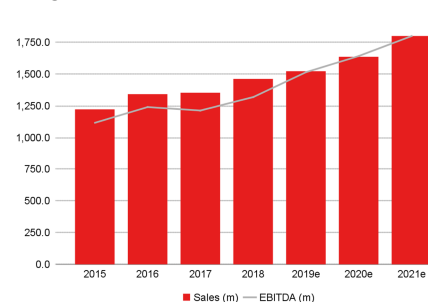
\*Adjustments made for: One-offs and Pankl deconsolidation effect

**Guidance: Revenue growth 1-5%; EBIT Margin 8-10%; FCF/sales 3-5%**

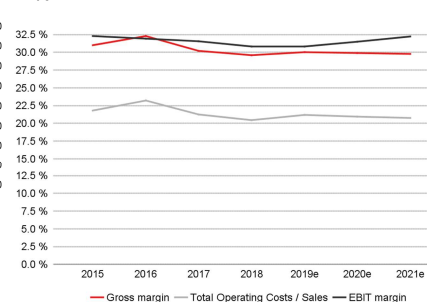
**Financial Ratios**

	2015	2016	2017	2018	2019e	2020e	2021e
Total Operating Costs / Sales	21.8 %	23.2 %	21.2 %	20.5 %	21.2 %	21.0 %	20.7 %
Operating Leverage	n.a.	0.9 x	-0.4 x	0.7 x	1.0 x	1.3 x	1.2 x
EBITDA / Interest expenses	10.0 x	10.2 x	15.3 x	11.4 x	13.1 x	14.4 x	16.1 x
Tax rate (EBT)	27.8 %	18.5 %	27.6 %	24.2 %	25.0 %	25.0 %	25.0 %
Dividend Payout Ratio	1.0 %	0.8 %	8.6 %	7.9 %	7.7 %	6.9 %	6.1 %
Sales per Employee	268,739	264,936	322,856	339,817	339,817	339,817	339,817

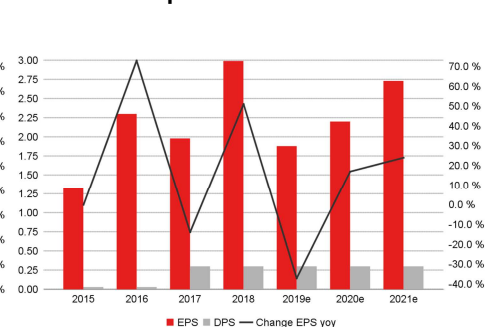
**Sales, EBITDA**  
in EUR m



**Operating Performance**  
in %



**Performance per Share**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research



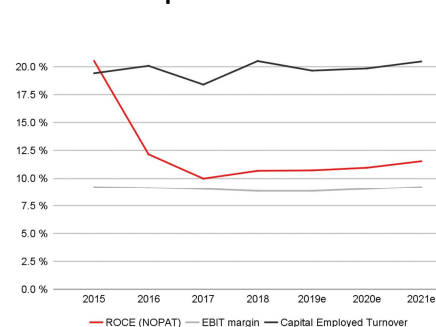
**Consolidated balance sheet**

In EUR m	2015	2016	2017	2018	2019e	2020e	2021e
<b>Assets</b>							
Goodwill and other intangible assets	326	362	397	423	465	507	546
thereof other intangible assets	208	244	280	327	368	411	450
thereof Goodwill	118	118	117	96	96	96	96
Property, plant and equipment	274	303	357	283	334	331	330
Financial assets	4	6	15	26	26	27	29
Other long-term assets	26	11	6	9	10	10	12
<b>Fixed assets</b>	<b>630</b>	<b>682</b>	<b>775</b>	<b>742</b>	<b>834</b>	<b>876</b>	<b>917</b>
Inventories	243	252	297	287	277	303	333
Accounts receivable	111	122	120	149	154	161	178
Liquid assets	135	284	169	89	142	153	170
Other short-term assets	57	84	104	87	91	97	107
<b>Current assets</b>	<b>546</b>	<b>741</b>	<b>691</b>	<b>612</b>	<b>664</b>	<b>714</b>	<b>788</b>
<b>Total Assets</b>	<b>1,176</b>	<b>1,424</b>	<b>1,465</b>	<b>1,354</b>	<b>1,497</b>	<b>1,590</b>	<b>1,705</b>
<b>Liabilities and shareholders' equity</b>							
Subscribed capital	225	225	225	23	23	23	23
Capital reserve	10	10	10	10	10	10	10
Retained earnings	0	0	0	0	0	0	0
Other equity components	-39	39	83	265	301	343	398
Shareholders' equity	197	274	318	297	333	376	431
Minority interest	190	181	211	253	287	323	361
<b>Total equity</b>	<b>387</b>	<b>455</b>	<b>529</b>	<b>551</b>	<b>620</b>	<b>699</b>	<b>791</b>
Provisions	33	41	50	43	43	45	47
thereof provisions for pensions and similar obligations	21	24	24	25	25	27	29
Financial liabilities (total)	523	648	544	413	475	467	459
thereof short-term financial liabilities	57	191	171	73	73	73	73
Accounts payable	111	131	178	191	200	215	237
Other liabilities	123	149	164	157	160	165	172
<b>Liabilities</b>	<b>789</b>	<b>969</b>	<b>937</b>	<b>803</b>	<b>877</b>	<b>891</b>	<b>914</b>
<b>Total liabilities and shareholders' equity</b>	<b>1,176</b>	<b>1,424</b>	<b>1,465</b>	<b>1,354</b>	<b>1,497</b>	<b>1,590</b>	<b>1,705</b>

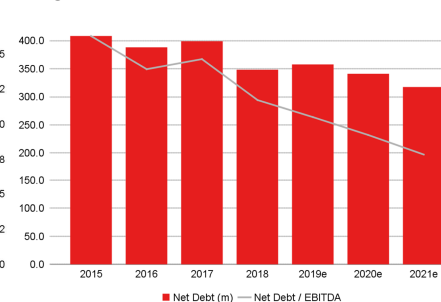
**Financial Ratios**

	2015	2016	2017	2018	2019e	2020e	2021e
<b>Efficiency of Capital Employment</b>							
Operating Assets Turnover	2.4 x	2.5 x	2.3 x	2.8 x	2.7 x	2.8 x	3.0 x
Capital Employed Turnover	1.5 x	1.6 x	1.5 x	1.6 x	1.6 x	1.6 x	1.6 x
ROA	4.8 %	7.6 %	5.8 %	9.1 %	5.1 %	5.7 %	6.7 %
<b>Return on Capital</b>							
ROCE (NOPAT)	20.5 %	12.2 %	10.0 %	10.7 %	10.7 %	10.9 %	11.6 %
ROE	30.5 %	22.0 %	15.1 %	21.9 %	13.4 %	14.0 %	15.3 %
Adj. ROE	30.5 %	22.0 %	13.5 %	13.4 %	13.4 %	14.0 %	15.3 %
<b>Balance sheet quality</b>							
Net Debt	408	388	399	348	358	341	317
Net Financial Debt	387	365	375	323	333	314	288
Net Gearing	105.6 %	85.3 %	75.5 %	63.2 %	57.7 %	48.8 %	40.1 %
Net Fin. Debt / EBITDA	217.1 %	183.7 %	193.3 %	153.2 %	137.5 %	119.7 %	100.4 %
Book Value / Share	8.7	12.2	14.1	13.2	14.8	16.7	19.1
Book value per share ex intangibles	-5.7	-3.9	-3.5	-5.6	-5.8	-5.8	-5.1

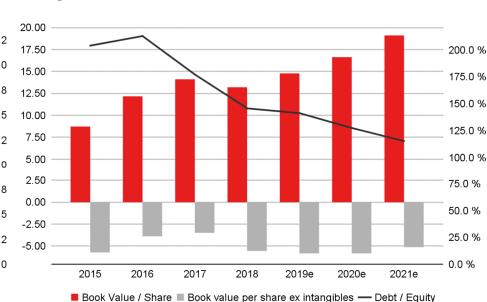
**ROCE Development**



**Net debt in EUR m**



**Book Value per Share in EUR**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

**Consolidated cash flow statement**

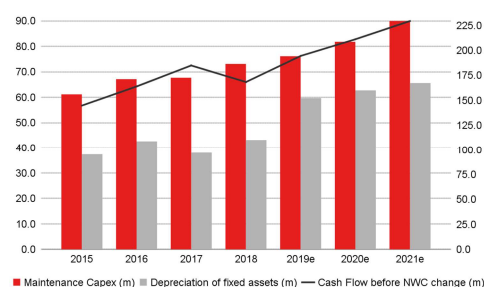
In EUR m	2015	2016	2017	2018	2019e	2020e	2021e
Net income	65	89	84	114	87	98	111
Depreciation of fixed assets	37	43	38	43	60	63	66
Amortisation of goodwill	0	0	0	0	0	0	0
Amortisation of intangible assets	28	33	34	39	48	52	56
Increase/decrease in long-term provisions	0	3	0	1	0	2	2
Other non-cash income and expenses	14	-4	28	-29	-1	-4	-6
<b>Cash Flow before NWC change</b>	<b>145</b>	<b>164</b>	<b>185</b>	<b>168</b>	<b>194</b>	<b>211</b>	<b>229</b>
Increase / decrease in inventory	-21	13	-36	-58	40	-26	-30
Increase / decrease in accounts receivable	-18	-25	-44	-26	-5	-7	-16
Increase / decrease in accounts payable	0	16	56	1	10	15	22
Increase / decrease in other working capital positions	1	0	0	0	0	0	0
Increase / decrease in working capital (total)	-38	4	-23	-83	44	-18	-25
<b>Net cash provided by operating activities [1]</b>	<b>107</b>	<b>168</b>	<b>161</b>	<b>85</b>	<b>239</b>	<b>193</b>	<b>204</b>
Investments in intangible assets	-54	-69	-74	-93	-90	-95	-95
Investments in property, plant and equipment	-79	-75	-105	-90	-60	-60	-65
Payments for acquisitions	0	0	0	0	-10	0	0
Financial investments	0	0	9	16	0	0	0
Income from asset disposals	2	7	27	70	0	0	0
<b>Net cash provided by investing activities [2]</b>	<b>-110</b>	<b>-159</b>	<b>-154</b>	<b>-102</b>	<b>-160</b>	<b>-155</b>	<b>-160</b>
Change in financial liabilities	71	206	-97	-39	-8	-8	-8
Dividends paid	-15	-18	-20	-19	-7	-7	-7
Purchase of own shares	0	0	0	0	0	0	0
Capital measures	0	0	0	0	0	0	0
Other	-5	-49	0	-6	-11	-12	-13
<b>Net cash provided by financing activities [3]</b>	<b>51</b>	<b>139</b>	<b>-118</b>	<b>-63</b>	<b>-26</b>	<b>-27</b>	<b>-27</b>
Change in liquid funds [1]+[2]+[3]	47	148	-111	-80	53	11	18
Effects of exchange-rate changes on cash	-2	0	-4	0	0	0	0
<b>Cash and cash equivalent at end of period</b>	<b>46</b>	<b>283</b>	<b>169</b>	<b>89</b>	<b>142</b>	<b>153</b>	<b>170</b>

**Financial Ratios**

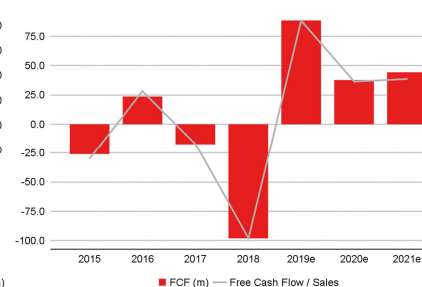
	2015	2016	2017	2018	2019e	2020e	2021e
<b>Cash Flow</b>							
FCF	-26	24	-17	-98	89	38	44
Free Cash Flow / Sales	-2.1 %	1.8 %	-1.3 %	-6.7 %	5.8 %	2.3 %	2.5 %
Free Cash Flow Potential	92	111	101	144	137	147	159
Free Cash Flow / Sales	-2.1 %	1.8 %	-1.3 %	-6.7 %	5.8 %	2.3 %	2.5 %
Free Cash Flow / Net Profit	-87.0 %	45.6 %	-38.7 %	-145.4 %	208.9 %	76.1 %	72.1 %
Interest Received / Avg. Cash	2.3 %	1.3 %	1.0 %	2.7 %	2.6 %	2.0 %	1.9 %
Interest Paid / Avg. Debt	6.8 %	3.3 %	2.1 %	3.9 %	4.2 %	3.9 %	3.9 %
<b>Management of Funds</b>							
Investment ratio	10.9 %	10.7 %	13.2 %	12.6 %	9.9 %	9.5 %	8.9 %
Maint. Capex / Sales	5.0 %	5.0 %	5.0 %	5.0 %	5.0 %	5.0 %	5.0 %
Capex / Dep	202.8 %	189.4 %	248.0 %	223.0 %	139.0 %	134.8 %	131.3 %
Avg. Working Capital / Sales	9.9 %	18.1 %	17.8 %	16.6 %	15.6 %	14.7 %	14.5 %
Trade Debtors / Trade Creditors	99.5 %	93.1 %	67.4 %	78.4 %	77.1 %	75.0 %	75.0 %
Inventory Turnover	3.5 x	3.6 x	3.2 x	3.6 x	3.9 x	3.8 x	3.8 x
Receivables collection period (days)	33	33	32	37	37	36	36
Payables payment period (days)	48	53	69	68	69	68	68
Cash conversion cycle (Days)	90	82	78	71	63	64	64

**CAPEX and Cash Flow**

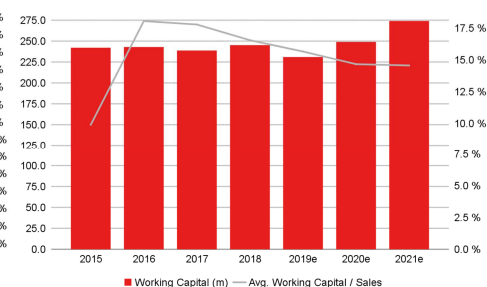
in EUR m



**Free Cash Flow Generation**



**Working Capital**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

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-B-	<b>Buy:</b>	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	<b>Hold:</b>	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	<b>Sell:</b>	The price of the analysed financial instrument is expected to fall over the next 12 months.
“-“	<b>Rating suspended:</b>	The available information currently does not permit an evaluation of the company.

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Buy	120	60
Hold	69	35
Sell	4	2
Rating suspended	6	3
<b>Total</b>	<b>199</b>	<b>100</b>

**WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING ...**

... taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	34	83
Hold	5	12
Sell	0	0
Rating suspended	2	5
<b>Total</b>	<b>41</b>	<b>100</b>

**PRICE AND RATING HISTORY KTM INDUSTRIES AS OF 20.06.2019**



Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.

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