

Initial Research

2019-02-12

Hövding: Safely ahead

- Innovative protective headgear with buoyant sales growth
- Outperforms all other bicycle helmets in terms of safety
- Exciting product and market launch 2019

Responsible analyst

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Stock ticker: HOVD
Industry: Consumer goods
Listed on: Nasdaq First North
Latest stock price (SEK): 16,60
Market cap (MSEK): 369,9
Enterprise Value (MSEK): 285,2
Total number of shares (M): 22,28
- of which free float (M): 10,30

VHCF fair value per share

DCF model 18,00 - 25,50 SEK

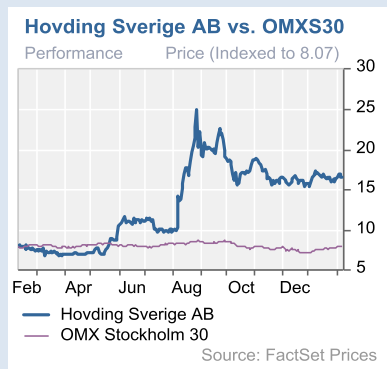
Hövding Sverige AB

Address: Bergsgatan 33
214 22 Malmö
Webpage: hovding.se
CEO: Fredrik Carling

Main owners (30 Oct 2018)

Owner	Capital (%)
Indigo Capital	21,1
LMK Industri AB	11,8
VIH Sweden AB	10,4
Carl-Olof och Jenz Hamrins Stiftelse	10,3
Avanza Pension	3,4

Stock price history



	-1m	-3m	-12m
Change (%)	-1,5	-8,5	105,7
52 w k range (Low /Hi) - SEK		6,50 / 26,00	

Source: FactSet

Hövding has developed an innovative alternative to traditional bike helmets. It is a collar with built-in electronic sensors that detect when the cyclist is about to suffer a fall. In an accident, it immediately inflates an airbag that folds out to protect the rider's head and neck. Being both thicker and softer than traditional bike helmets, the airbag offers up to eight times better protection against brain injury.

Revenues have grown fast since the first product launch in 2011. In the last twelve months, the company sold 57 000 Hövding units, an increase of 62 percent over the previous year. Growth continues in Sweden where Hövding was released first but is more and more driven by other markets, especially Denmark and Germany. The company is about to launch in London which further increases its potential. Another value driver this year will be the release of product version 3.0 which features important upgrades.

According to our financial scenario, the company will reach its goal of SEK 250 million in revenues in 2020. We expect continued strong growth over the coming decade and see potential for sales to reach half a million units per year within that timeframe. We expect the company to roughly break even in 2020 and deliver rising profits after that. We judge the current financial reserves to be adequate for the coming expansion phase and see low probability of further capital raisings.

We have valued the company using a DCF model and have estimated a fair value range of 18.00 – 25.50 SEK per share. This is based on our economic scenario as well as our assessment of the risk. Continued progress towards sustained profitability could make us apply a milder risk adjustment further out, which all else equal would imply a higher valuation range.

Table 1: Financial Overview

MSEK	2017	2018e	2019e	2020e	2021e
Net sales	56,7	92,7	174,9	256,1	360,4
Growth (%)	58,7%	63,6%	88,6%	46,4%	40,7%
Gross margin (%)	21,8%	20,6%	23,1%	25,2%	25,4%
EBIT	(41,0)	(38,4)	(43,6)	(0,0)	21,8
EBIT margin (%)	neg	neg	neg	neg	6,1%
Cash holdings	21,6	74,3	29,3	24,6	42,5
Total assets	58,7	108,4	92,5	112,1	162,6
Total equity	34,4	65,1	21,5	21,5	43,3
Solidity (%)	58,5%	60,1%	23,2%	19,2%	26,6%
P/E	neg	neg	neg	neg	17,0
ROE	neg	neg	neg	neg	50,4%
EV/EBIT (x)	neg	neg	neg	neg	13,1
EV/Sales (x)	5,0	3,1	1,6	1,1	0,8

Source: Västra Hamnen Corporate Finance

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Airbag for cyclists

What does Hövding do?

Hövding Sverige AB (publ) is a company based in Malmö, Sweden that develops, markets and sells Hövding, an innovative new bicycle helmet. In contrast to traditional helmets, Hövding is a collar with a built-in airbag that the bicycle rider wears around their neck while riding. Only when an accident occurs will the airbag inflate and cover the head and neck.

The inventors Anna Haupt and Terese Alstin came up with the idea in 2005 when they both were studying industrial design at the University of Lund. The airbag helmet became the subject for their final thesis. They had realised that many bicyclists avoided traditional helmets because they saw them as visually unappealing and uncomfortable. With the help of airbag technology, the inventors could make the helmet “invisible” and thereby remove the most common arguments against using it. The idea was well received, and they went on to found Hövding AB in 2006 with the aim of bringing their solution to the market.

”The world’s safest bike helmet” is growing fast

The first product version was launched onto the market in November 2011 and since then, sales growth has accelerated fast. In the twelve months concluding with Q3 2018, sales amounted to 57 000 units, which was an improvement of 62 percent on the year-earlier period. Along the way since market launch, the marketing message has changed from advertising the “invisible helmet” to accentuating the superior safety profile. The company now uses the slogan “The world’s safest bicycle helmet”.

The product

Hövding is worn instead of a traditional bicycle helmet and protects the rider’s head and neck from injuries caused by falls in connection with bicycling. The product looks like a collar which the rider puts on by closing a zip lock under the chin and pushing in place the button on the zip pull. The button is also the on/off button which activates its electronics. The collar’s outer layer is

Figure 1: Hövding, operating mode and inflated mode



made of water-proof fabric which protects the electronics and makes sure the product can be used in all weather conditions.

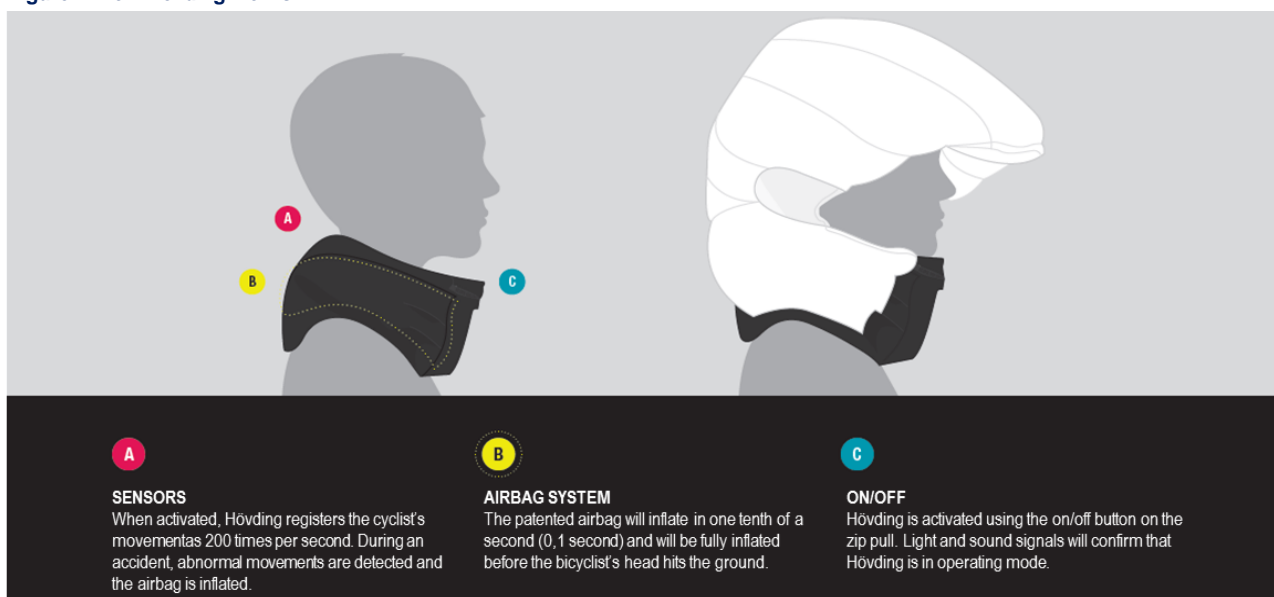
The rider's movements are recorded 200 times/second

When activated, the onboard sensors including an accelerometer and a gyroscope start recording the rider's movements at a frequency of 200 readings per second. Data from the sensors are continuously analysed by a dedicated processor. Its algorithm is developed with the sole aim of distinguishing between normal movements for a cyclist and movements that suggest that an accident has occurred, e.g. that the cycle has crashed into an object or been hit by a vehicle. The algorithm considers the stored movement records for the unit in order to determine what constitutes normal movement. Every data feed is evaluated against 2000 decision criteria to determine whether an accident has occurred. When the numerical outcome of these tests exceeds a certain limit, the mechanism that inflates the helmet is automatically triggered.

The airbag is fully inflated in 0.1 second

It takes 0.1 second from the detection of an accident until the helmet is fully inflated. When the helmet is filled with gas, it looks like an oversized hood which covers the head and neck but leaves the field of vision open. It protects a significantly larger area of the head than a normal helmet. The airbag is made of nylon and is designed to withstand rubbing against a paved road surface without puncturing. Due to it being both thicker and softer than ordinary helmets, its shock absorption is markedly better. A unique advantage is also that it fixates the neck and thereby provides effective protection against neck injuries. The airbag remains inflated for several seconds and provides protection against any further shocks, after which it gradually deflates and loosens.

Figure 2: How Hövding works



After an accident, the helmet is removed by opening the zip in the front. A Hövding unit that has been inflated is spent and cannot be used again. Most home insurance policies will however cover the cost of a new Hövding (less deductible).

Expected service life 10 years or more

The most important components inside a Hövding are, besides the processor and airbag, a gas generator and a battery. The gas generator is located in the part that goes behind the neck and is a cold gas generator producing helium. The battery is charged from e.g. a computer using a USB cord which is included with the purchase. There are coloured LED indicators around the on/off button showing the battery charge level and an alarm sound to warn the cyclist when the battery level reaches a critical low. The battery is said to manage 300 full charge cycles, of which every full charge gives 9-10 hours of operation. The longevity of the product will therefore depend first and foremost on the battery. A person cycling

5-6 hours every week all year round should therefore expect their Hövding to last at least ten years.

The unit is sold in three different sizes, S, M and L. The collar is not washable, it can only be wiped down. A Hövding is therefore delivered with a separate, removable cover that can be washed, and that protects the unit from wear, sweat and dirt. The company also offers a series of different-looking covers that can be purchased separately, which gives the user opportunity to adapt his or her Hövding to their personal tastes. For the company, the covers represent an opportunity for high-margin upsells.

Hövding is intended for city and road cycling on ordinary bikes and electric bicycles riding at a speed of maximum 25 km/h. The company has also set a minimum age limit of 15 years for Hövding users. The reason for not offering the product to children is that all simulation and testing has been performed using adult stunt persons. Since children may have different movement patterns from adults, the algorithm may not work as intended. Hövding is not intended for off-road bicycling or for other types of two-wheelers like e-scooters, kick-bikes etc.

Development

The first version of Hövding that started selling in 2011 is referred to as **version 1.0**. The main objectives when launching the first version was to secure a CE-mark and to gain a first foothold on the market. All parts of the product were developed within the company, from algorithms to the choice of materials to stitching. The company was aided by outside experts in designing some of components, however. Alva Sweden were involved in the development of the airbag and SP Technical Research Institute of Sweden were hired to develop test methods for the product.

The present version was launched in 2015

Version 2.0, which is the current model, was launched in January 2015. It included a number of improvements in both design and functionality. Its weight was reduced by 15 percent to 630 grams. The different sizes were made roomier and the fit became more flexible, which made for a better user experience. An improved manufacturing process led to cost savings in production of almost one third. The product is approved for marketing in Europe (CE mark) and has also been granted market access in Japan.

The current version is subject to ongoing developments in both hardware and software. Among notable improvements was a major revision of the algorithm during 2017, which was approved by RISE (Research Institutes of Sweden AB) in December 2017. The need to update the algorithm arose primarily from the many reports of Hövding units being inflated erroneously. While the helmet is under warranty, Hövding will reimburse faulty units and thereby incur an unwelcome and unnecessary cost. The algorithm is tuned to rather inflate once too often than once too seldom. Still, it is in the interest of both the company and its customers to keep the number of unwarranted inflations as low as possible. The new algorithm has been implemented in models sold from 2018 on and the company expects to see a decreasing number of warranty claims as a result.

Version 3.0 to be released in autumn 2019

Hövding is going to launch **version 3.0** during the autumn of 2019. The company has already produced prototypes and is currently working to complete the design and prepare for industrialisation. Testing with an aim to securing a CE mark goes on in parallel. Version 3.0 differs from previous models by featuring Bluetooth connectivity, which enables linking up with internet connected units and opens for a host of new applications. Among other things, it allows for updating the onboard software whenever the company releases a new version. On the electronics side, the new version sports higher-definition sensors and room for more data. The model will no longer come in different sizes but instead be delivered as an adjustable one-size model. The airbag will be manufactured using a new technique known as "one piece woven", which produces a softer collar, fewer steps in production and higher product quality.

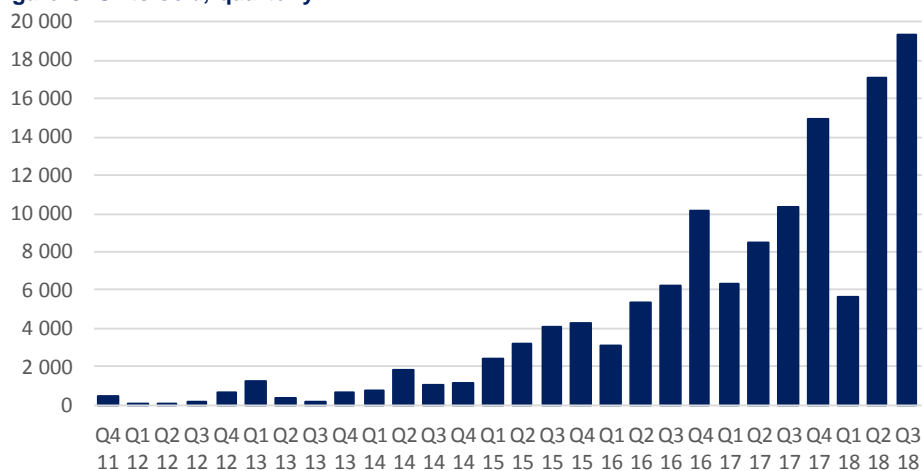
Sales through resellers, distributors and online

Business model

Since entering the market in 2011, Hövding has sold an accumulated total of 130 000 units, cf. Figure 3. The product was launched first in Sweden followed by Denmark. The two countries together account for about 70 percent of the units sold so far. Besides these two, Germany and the UK constitute the priority markets at the moment. The company reports that Hövding is presently on offer in more than 1 100 shops in 16 countries. In Sweden, Denmark and the UK, Hövding is selling directly to resellers. In Germany, Japan and other countries the company has signed up distributors to handle local sales. In addition, Hövding sells directly to consumers via its homepage hovding.com.

Hövding sells at different prices through each of its three sales channels. Online sales offer the best sales prices and gross margins, followed by sales to resellers while sales via distributors yield the lowest margins.

Figure 3: Units sold, quarterly



Source: Hövding AB

When Hövding first came to market, the product was sold exclusively by retailers specialised in fashion or design items, e.g. Designtorget in Sweden. Later, the scope of retailers was widened to include bicycle stores in major cities. In the last few years Hövding has made its way into large general sports chains such as Intersport, Team Sporia and Stadium as well as broad e-commerce platforms such as CDON and Amazon.

Focus on urban cyclists

Hövding has chosen to aim for big city markets in its distribution and marketing, which is highlighted by the slogan “Airbag for urban cyclists” which is used as a brand tagline. The choice is founded on a belief that visibility, both in shop windows and on other cyclists, is what drives product sales. In large population centres, each Hövding is seen by more people than anywhere else. Together with targeted marketing it is expected to make an impact in terms of brand awareness. The company believes it has much to gain from further improvement in brand awareness. In Stockholm, which is among its best markets, only half of adult cyclists recognises the brand according to Hövding’s market survey. In Copenhagen, the corresponding number is less than 20 percent.

The product is entirely manufactured by subcontractors. The most important production partner is the Japanese firm Nihon Plast, one of the world’s leading airbag manufacturers. Nihon Plast is responsible for final assembly and quality control of every finished unit. The airbag, collar and electronics are all manufactured in China.

Company and key personnel

36 employees of which 33 in Malmö

Hövding’s headquarters is located in Malmö, Sweden. In total, the company had 36 employees at the end of Q3 2018. Of these, 33 had their daily workplace at the head office, two were located in Kungälv while one employee was working out of Stockholm. The main functions handled within the organisation includes development, sourcing, marketing,

sales including customer service, and administration and accounting. The company believes the current staff to be sufficient for the expected continued expansion, with one exception. In sales and customer service Hövding is actively recruiting at the moment.

Hövding is headed by an experienced management team consisting of six people. The most central people are presented below.

CEO Fredrik Carling has headed the company since 2012. His background is from the fashion industry where he served as Nordic Head of Diesel in the last three years before joining Hövding. Before that, he was Purchasing Director at the department store Magasin du Nord in Copenhagen, and earlier he had a long spell filling different roles in the Levi's group, of which seven years were spent at their European headquarters in Brussels.

CFO Anna Brandt joined Hövding in 2017. Before that she had a more than 20-year long career in the Dole group, where she held leading positions within accounting and financial control as well as heading a business area. Her latest assignment before being hired by Hövding was as Director of HR and Finance in Dole European Shared Service Center AB.

Per Grönvall serves as **Director of Operations and Development** at Hövding since being hired in 2016. Previously, he spent eight years as CEO of Note Lund AB, a contract manufacturer in electronics. Before that he held leading roles primarily in the areas of development, quality and logistics within the Anoto group and Nolato among others.

Owners and financing

Hövding was listed on Nasdaq First North in June 2015. Since then, the company has completed three further new share issues with preferential rights for existing shareholders. The latest rights issue took place in August/September 2018. The company does not have a single main owner but a group of four owners who each hold a substantial number of shares.

Four main owners control 54 percent of the shares

The largest owner is Indigo Capital who holds shares corresponding to 21.1 percent of the capital and votes. Indigo Capital has been an owner since the listing in 2015 and has a representative on the Board of Directors. The group invests on behalf of several different investors based in Russia, among others a capital fund and one large individual investor. The second largest owner is LMK Industri with 11.8 percent of the capital and votes. LMK manages money on behalf of heirs to one of the founders of Axis Communications. It has been a leading owner through most of Hövding's history since making its first investment in 2009. After LMK follows VIH Sweden with a stake of 10.4 percent in Hövding. The company is owned by real estate developer Sten Mörtstedt and has been involved in Hövding since the listing in 2015. The fourth owner who deserves mention is the Hamrin foundation with an ownership share of 10.3 percent. The foundation is based in Jönköping and was formed with the inheritance from the founder of the Herenco group. The Hamrin foundation made its first investment in Hövding in 2017. All of the four major owners have made follow-up investments at least matching their stake in the company at each of the rights issues since their becoming owners.

History

- 2006:** The company is founded by Anna Haupt och Terese Alstin
- 2010:** The first Hövding model is premiered at Tekniska Mässan (Scandinavian Technical Fair) in Stockholm
- 2011:** Hövding is awarded a CE mark and starts selling in Sweden in November
The company is awarded the prestigious international design prize Index: Award
- 2012:** CEO Fredrik Carling joins the company
- 2013:** Hövding is launched on selected European markets
- 2015:** Hövding AB is listed on Nasdaq First North
Hövding 2.0 is launched
The product starts selling in Japan
Hövding enters a strategic development and manufacturing partnership with Nihon Plast
- 2016:** The company receives a grant of 1.37 MEUR towards further development from the EU programme Horizon 2020
- 2017:** Hövding starts selling through general sports retailers such as Team Sportia, Intersport and Stadium
- 2018:** Accumulated sales passes 100 000 units

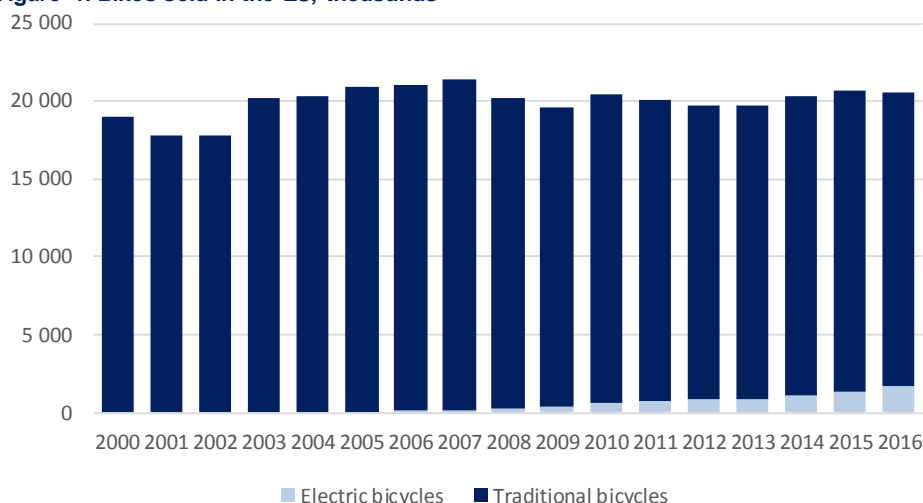
Bicycle products are a EUR 36 bn market

What is the market potential?

Bicycles are used all over the world and their popularity is increasing in step with increased focus on health and the environment. The number of cyclists in the world has been estimated at 1.1 billion. Global sales of bicycles and cycling related products totalled EUR 35.7 bn in 2014. Bicycles accounted for EUR 25.4 bn of the total while other bicycle equipment stood for EUR 10.3 bn.

In number of units, there are around 144 million bicycles sold every year according to research firm Cheetah Data. The European bicycle manufacturers’ organisation CONEBI has published statistics showing that European sales amount to more than 20 million ordinary bikes and electric bicycles per year, see Figure 4.

Figure 4: Bikes sold in the EU, thousands



Source: CONEBI

Electric bicycles are booming

CONEBI’s figures also show that sales of electric bicycles are growing fast, although their share of the total is still modest. Between 2015 and 2016, the latest available numbers, sales of electric bikes grew by 22 percent to almost 1.7 million units.

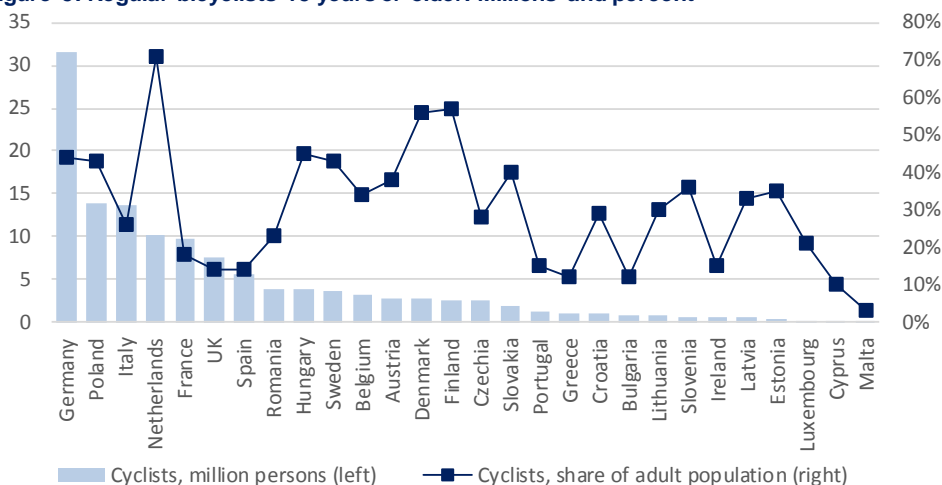
Germany is the biggest bicycle market in Europe with annual sales of 4.1 million bikes in 2016. Behind Germany, the next biggest markets are France and the UK, each with 3.0 million bikes sold, and Italy with annual sales of 1.7 million. In Sweden and Denmark, which have been Hövding’s most important markets so far, the number of bikes sold were 576 000 and 510 000 respectively in 2016.

29 percent of adult Europeans bicycle every week

TNS Opinion made a survey on behalf of the European Commission 2013 to find out how many of the union’s citizens aged 15 or over who rode a bike regularly. Of all EU countries the highest number was in the Netherlands, where 71 percent of adults reported using a bike a few times a week or more. The average for the whole of EU was 29 percent. Among Hövding’s first target markets, Sweden, Denmark, Germany and the UK, the share of adults bicycling at least a few times per week were 43, 56, 44 and 14 percent respectively, cf. Figure 5.

Counted as number of people, the survey suggests that around 127 million persons aged 15 or over ride a bicycle every week. The highest number of regular cyclists is in Germany where the number amounts to 31 million. Among Hövding’s other top markets, the number of regular bike riders come to 7.6 million in the UK, 3.5 million in Sweden and 2.7 million in Denmark.

Figure 5: Regular bicyclists 15 years or older. Millions and percent



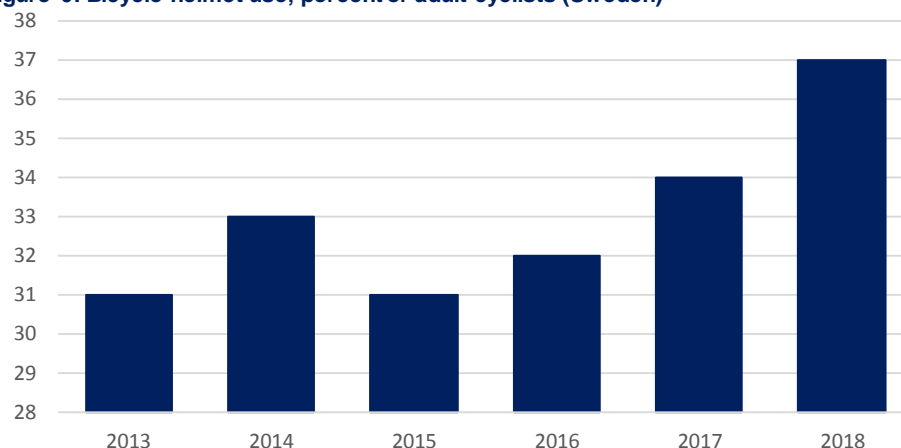
Sources: EU commission, Eurostat, own calculations

20 percent of adult bicyclists in Europe wear helmets

There are few reliable surveys revealing the frequency of helmet use among cyclists. Hövding estimates that the number of helmets sold globally totals around 25 million annually. The company has also referred to the rate of helmet use being around 20 percent in Europe. Behind the average there are wide differences between individual countries, however. An EU-funded research working group named HOPE (Helmet OPTimization in Europe) surveyed helmet usage in selected EU countries in 2015. The group reported the highest rate of helmet-wearing in Finland at 44 percent of cyclists. Sweden was also near the top with 34 percent usage. At the lower end of the scale they found Denmark at 15 percent and Germany at 9 percent.

Helmet-wearing on the rise in Sweden

In Sweden, The National Society for Road Safety (NTF) performs an annual survey of helmet usage. Their numbers reveal an increasing trend in helmet-wearing among adult cyclists. The latest survey in 2018 revealed that 37 percent of the adult bicycling population is using a helmet, cf. Figure 6. In major cities the percentage is significantly higher than in the country as a whole. According to NTF, more than 70 percent of adult regular bicyclists in Stockholm used a helmet in 2018.

Figure 6: Bicycle helmet use, percent of adult cyclists (Sweden)

Source: NTF

Electric bike riders are frequent helmet wearers

There are reasons to believe that both bicycle riding and helmet usage will continue to increase going forward. One of the reasons is the booming popularity of electric bicycles. Electric bicycles help entice more people to travel on two wheels, not least among the older population. Their higher speeds moreover make their riders feel more compelled to wear protection. European data show that riders of electric bicycles wear helmets more often than riders of ordinary bicycles.

Big cities encourage bicycling and safety

More public funds also go toward encouraging bicycling. Several countries have a stated policy goal of making more people ride bicycles in order to promote the environment, a healthy population and the flow of traffic in cities. Among the initiatives taken are investments in bicycle lanes, facilitation of bike rental programmes, and scaling back car traffic. Germany has adopted a national plan for the promotion of bicycling all over the country until 2020. Copenhagen has adopted targeted measures to increase the number of bicycle commuters and reduce the number of bicycle accidents. The government agency Transport for London has earmarked GBP 900 million for investments in bicycle safety through better infrastructure and the promotion of helmet wearing.

How is the competition?

Hövding is an alternative to a traditional bicycle helmet and the consumer typically faces a choice between the two. Traditional bicycle helmets therefore constitute the direct competition against Hövding. However, Hövding has experienced that many of its customers are cyclists who have never owned a helmet before. For these customers, the choice is presumably between Hövding and no protective headgear at all. When choosing a Hövding, their decision is probably motivated by the fact that Hövding is not a helmet. Against the alternative of not wearing any protection, Hövding's most important competitive parameter is to offer improved safety at the smallest possible sacrifice in convenience.

Against other helmets, the important competitive factors are safety, convenience and price. Traditional helmets are offered by many different manufacturers, but their unifying features are usually an inner layer made of shock absorbing expanded polystyrene, covered by a hard-plastic outer shell. All helmets offered for sale in Europe must carry a CE mark, which safeguards a certain minimum of shock absorption. Most of them are however far inferior to Hövding in this regard (cf. next section) and the market is characterised by price competition.

New generation helmets offer better safety

In the last few years, a new generation of helmets with significantly improved protection against rotational forces have entered the market. The advantage of these helmets comes into play when the helmet crashes onto a hard surface such as a road at an acute angle. They are designed so that the inner layer is allowed to move a little distance inside the outer shell, increasing the deceleration time for the head inside the helmet. The g-forces

impacting the brain are thereby greatly reduced and consequently also the risk of severe brain injury.

One supplier of solutions for reduced rotational impact is the Swedish company **MIPS**. The company does not manufacture helmets but supplies components to other manufacturers of helmets for cycling, skiing, riding, motorcycling and team sports such as ice hockey and American football. MIPS has managed to bring attention to its brand by making manufacturers put a sticker carrying its logo on every product featuring its components. The market sees MIPS-branded products as safer than other products. Examples of bike helmet brands featuring MIPS components include ABUS, Bell, Fox, Giro, Lazer, POC, Spectra among others.

Figure 7: A MIPS branded helmet from Oakley



Other companies supplying similar components for helmet manufacturers are **Fluid Brain Science** from Canada and **Armourgel** from the UK. Armourgel has been implemented in some bicycle helmets from Leatt and Kali whereas Fluid Brain Science has as of yet only found its way into skiing helmets. Both companies are lagging far behind MIPS when it comes to commercialisation.

A number of helmet manufacturers have developed their own solutions for improved shock absorption, especially against rotational forces. Some notable examples are 6D Helmets, Kali, Leatt, Shred Optics and POC. All of their solutions bear resemblance to each other as they all facilitate movement between the inner and outer layers of the helmet. Another unifying feature is that all of their helmets that include such components are oriented towards mountain bike or road racing bike riders and not towards everyday riders like bicycle commuters.

For users who select Hövding for the convenience of being able to fold it together for compact transport, there is competing offers in the form of foldable plastic shell helmets. An example of such is the British-made **Morpher**, which folds along the center to form a 7-8 cm thick semicircle. Another example is the Spanish helmet **Closca**, which is made in the shape of three concentric circles which fold into one another when not in use. Both these and other collapsible solutions offer convenience in storage and transport but offer nothing over and above normal helmets when it comes to safety.

What are Hövding's competitive advantages?

Hövding occupies a unique market position by offering improved safety for cyclists who would prefer not to use a helmet. The value of this trait is evidenced by the fact that many first-time Hövding buyers are cyclists who have not been using a helmet before. Even in comparison with other bicycle helmets, the superior safety is Hövding's key selling point. The Hövding is marketed as the safest bicycle helmet in the world and is claimed to offer 8 times better protection compared to traditional bicycle helmets.

**Stanford-study:
8x better protection
against concussion**

The basis for this claim is found in an article written by researchers at Stanford University and published in the Annals of Biomedical Engineering in 2016. In their laboratory work, test dummies were used to determine how much movement energy was absorbed by Hövding versus a standard bicycle helmet made of polystyrene. The results showed that Hövding offered up to eight times better protection against concussion compared with a traditional helmet. The difference is explained by the airbag being both thicker and softer than the standard helmet.

Folksam: 3x better shock absorption than second best contender

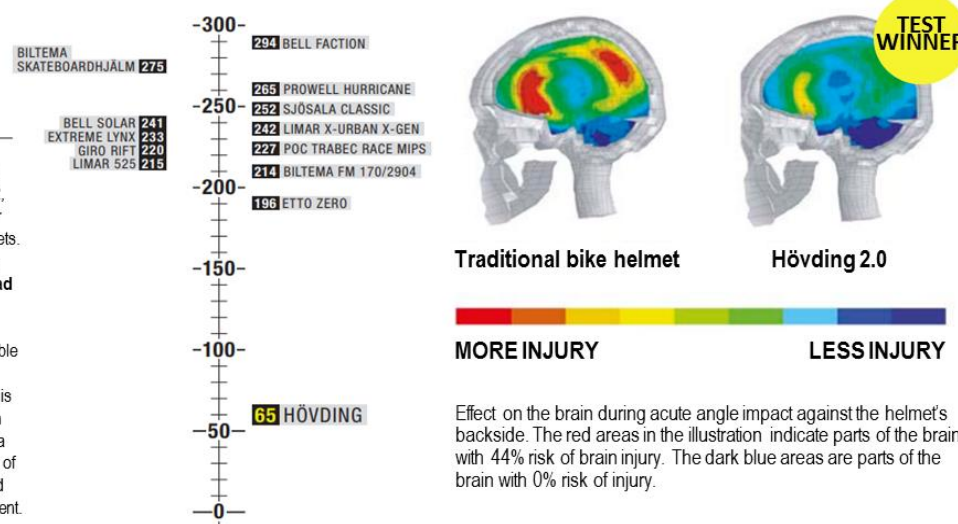
The Swedish insurance company Folksam has on two occasions tested Hövding against other helmets, both times in connection with a comprehensive survey of the safety of products on the Swedish market. In their 2012 survey, Hövding displayed three times better shock absorption in an impact test at 25 km/h, cf. Figure 8. The survey also included helmets equipped with MIPS components. In Folksam's most recent survey in 2015, Hövding was once again the highest rated helmet, followed by three helmets featuring MIPS technology.

Figure 8: Insurance company Folksam's test of bike helmets, 2012

FOLKSAM'S BIKE HELMET TEST 2012 IMPACT TEST, 25 KM/H ACCELERATION (G)

In the insurance company Folksam's test of 13 bicycle helmets on the Swedish market in 2012, Hövding displayed more than three times better shock absorption compared with all other helmets. **The lower the test score (right), the better is the helmet's ability to protect the rider's head in an accident.**

To qualify for the CE mark, a helmet must be able to reduce the acceleration force during head impact down to 250 g. The tolerated maximum is alarmingly high and clearly into a territory which would be considered harmful. This means that a helmet which lives up to the legal requirements of maximum 250 g could still lead to serious – and even lethal – head injury during a bicycle accident.



Sources: Folksam, Hövding. Translation from Swedish by Västra Hamnen Corporate Finance

Better protection for neck and face

Apart from the superior shock absorption, Hövding offers extra safety by covering a much larger area compared with other helmets. When inflated, it encloses the neck and protects it against skeletal injuries. The airbag also protrudes in front of the face and offers unrivalled protection against the face hitting the ground, thereby avoiding facial injuries.

Foldable for easy transportation

Hövding has moreover the advantage of being foldable when not in use, which facilitates ease of transport. The unit has a rigid part behind the neck which houses the battery, gas generator and electronics. The other parts are flexible and may be folded together. Other foldable helmets are hard to combine with techniques to absorb rotational forces and consequently perform much worse on safety. We note e.g. that one of the foldable alternatives included Folksam's latest survey was among the ones to receive the lowest scores for safety.

Another unique feature of the Hövding is the possibility to change its appearance by choosing different covers. The covers are thin fabric shells which are easily changeable by the user and offer an opportunity to adapt the Hövding to their taste and individual style.

Bluetooth connectivity opens unique opportunities

The next version of Hövding, due to launch in the autumn of 2019, will open opportunities for further value-enhancing products and services. By connecting the Hövding to e.g. a mobile phone via Bluetooth, the telephone's GPS signal and internet connection will supplement data from the Hövding's accelerometer and gyroscope. The company has not talked openly about what follow-on services they plan to offer. Among the opportunities we could envisage, we consider advanced theft protection, automatic assistance calls following accidents and traffic analytics among the most interesting.

Hövding's business is protected by a combination of trade mark protection and patents. The patents are divided into seven different patent families, describing inter alia the collar with an embedded airbag, the algorithm which controls when to inflate the airbag, and the physical shape of the airbag. The most central patent describing the collar is fully covered

until the autumn of 2026 while some of the other patents run until 2037. Besides being patented, the algorithm would be very difficult to reverse engineer and copy.

What is the earnings outlook?

To help us estimate a fair value for the company and its stock, we have developed a set of economic projections for the company's future earnings. The revenues are growing fast as sales are no longer only dominated by Sweden, but Denmark and Germany are also starting to contribute meaningfully. Hövding does not publish sales figures specified per country but by comparing different statements we have managed to deduce that Sweden constitutes about half of sales at the moment.

We expect break-even 2020

The company has stated a financial goal of total revenues exceeding SEK 250 million for the financial year 2020 with a positive operating profit in the same year. That would imply an annual average revenue growth of 55 percent between the years 2017 and 2020. We consider the goal to be realistic in light of the growth rates sustained in the last few quarters. During 2019, the company will open new growth opportunities with the rollout of its new product version and a concentrated effort on the London market. Knowledge of the fact that Hövding 3.0 is nearing release could persuade some potential customers to delay their purchase. We have therefore assumed a somewhat slower growth until mid-2019 which is compensated by faster growth in the latter half of the year. In our scenario, Hövding reaches both their revenue and profit targets for 2020.

Further out, we have modelled a continued strong yet somewhat slowing growth rate. A crucial question is to what level revenues can grow until they mature and stabilise. To approach the issue, we have based our assessment on Sweden, which cannot be described as a mature market but is the market that has progressed the furthest for Hövding. We have assumed that the company can continue its expansion phase until its market penetration in Europe matches the penetration it has among adult helmet-wearing cyclists in Sweden at present. In the last 12 months, we estimate that Hövding sold 25-30 000 units on the Swedish market where just over one million adult regular cyclists wear protective headgear. In all of Europe the number of adult regular cyclists equals about 35 times the number in Sweden, but their helmet-wearing rate is about 2/3 the level in Sweden. A European market penetration matching the current rate in Sweden would imply sales of 600-700 000 units per year.

Sales to hit one half million units in 2028

We choose a somewhat more conservative stance and assume that Hövding's sales numbers will grow to about 500 000 units per year over the coming ten years. After that, we assume a steady growth rate of 2.5 percent annually, matching the long-term growth rate of European household consumption. Half a million units per year does admittedly look high from the present viewpoint but we see potential for a higher as well as a lower outcome. Bear in mind that we have ignored all sales outside of Europe and that we have used Sweden today as reference for the future penetration of mature markets although Hövding is still growing rapidly in Sweden. Neither have we paid heed to the fact that bicycling as well as helmet use continue to grow.

Average selling price SEK 1 400

We have chosen to model with a selling price of SEK 1 400 per unit. For comparison, the average selling price in Q3 2018 was SEK 1 531. The reason why we have assumed a lower price in the future is partly that the Q3 price was boosted by currency fluctuations and partly that we expect sales through distributors to increase as a share of total revenues.

We have also selected to be conservative when it comes to sales of other items than helmets. The company also sells covers for the Hövding helmet and we expect there to be ample opportunity to sell various add-on services when the connected version 3.0 hits the market. Since sales of covers are still pretty modest and that other services are yet to be introduced, we have limited sales of other items to 2 percent of the sales of helmets.

Gross margin to increase to 25 percent

During the latest 12-month period, the company's gross margin has averaged around 21 percent. Hövding has been faced with the challenge of raising its gross margin by lowering the unit cost. Since a significant number of units have been inflated erroneously, the company has chosen to reserve funds for future warranty claims. The cost of warranty provisions amounted to 19 percent of the unit cost in both Q2 and Q3 2018. Hövding has released software updates addressing the problem and warranty costs are therefore expected to decrease over time. To illustrate what the company has to gain from avoiding erroneously triggered units, consider that a complete elimination of the problem could lead almost to a doubling of the gross margin. When estimating future margins, we have once again chosen conservatism, opting for a gross margin gradually increasing to 25 percent and staying there over the forecast horizon.

Temporary cost increase surrounding launch of Hövding 3.0

The company is currently recruiting for the sales function but claims that the staffing in other functions is adequate for the foreseeable future. We have therefore assumed a fairly modest increase in personnel costs for the coming years. Other external costs are according to the company expected to increase in H2 2019 in connection with the launch of version 3.0. We interpret this as a temporary increase and that the cost level will fall back in 2020 before growing on a somewhat slower trend than revenues.

According to our scenario, Hövding will record a net profit very close to zero in 2020 to be followed by growing profits in the years thereafter. Looking ahead to 2023, our model forecasts total revenues of SEK 515.1 million with EBITDA at SEK 57.1 million and net profit at SEK 56.2 million. We estimate that the company at the start of 2019 had accumulated losses of around SEK 261 million against which to net future taxable profits. In our model it takes until 2026 before this latent tax asset is exhausted and the company starts paying taxes on annual profits.

Table 2: Summary income statement

MSEK	2017	2018e	2019e	2020e	2021e	2022e	2023e
Total revenues	67,0	94,7	174,9	256,1	360,4	447,9	515,1
COGS	(44,4)	(73,6)	(134,5)	(191,5)	(268,9)	(333,7)	(383,8)
Opex	(54,4)	(57,5)	(82,5)	(63,4)	(68,5)	(72,1)	(74,2)
EBITDA	(31,8)	(36,5)	(42,2)	1,2	22,9	42,0	57,1
Amortisation & Depreciation	(9,2)	(2,0)	(1,5)	(1,2)	(1,1)	(0,9)	(0,8)
EBIT	(41,0)	(38,4)	(43,6)	(0,0)	21,8	41,1	56,2
Net financial items	0,0	(0,0)	-	-	-	-	-
Taxes	-	-	-	-	-	-	-
Net profit	(41,0)	(38,5)	(43,6)	(0,0)	21,8	41,1	56,2

Source: Västra Hamnen Corporate Finance

Adequate financing for future expansion

How is the cash situation?

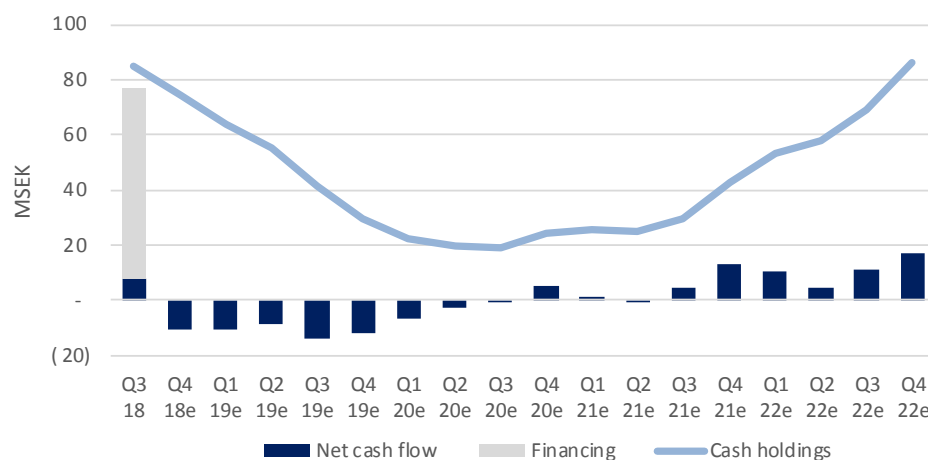
Hövding completed a fully subscribed rights issue during Q3 2018 and thereby raised a total of SEK 69.2 million in liquidity. Its cash holdings at the end of the quarter totalled SEK 84.7 million. According to our estimates, this gives the company adequate financing until the operation starts generating a recurring cash surplus. In our model the cash reserve shrinks until mid-2020 and bottoms out at SEK 19 million before it starts growing. This is a fairly comfortable buffer against any further capital injections from the outside.

In our scenario we have estimated all cash flows besides operating cash flows to be rather modest. All manufacturing operations are performed by subcontractors which limits the need for investment in physical assets. Neither have we assumed any acquisitions or investments in development over and above what is included in operating expenditures.

Even with regards to working capital we see modest requirements. Hövding has agreed attractive payment terms with its customers, implying that little capital is tied up in customer receivables. However, we expect inventories to scale up when sales increase. This is to some extent mitigated by growing current liabilities such as accounts payable. We see

the combined cash outflow due to increase in working capital amounting to just a few million SEK per year during the forecast period.

Figure 9: Cash flow and cash holdings



Source: Västra Hamnen Corporate Finance

What is fair value for the stock?

We apply two techniques to estimate fair value for the company. The first is a discounted cash flow (DCF) model based on the economic scenario described above and the second is a peer valuation. We perform the DCF valuation using two steps (see details in the appendix). In the first we estimate fair enterprise value assuming that the company survives until it reaches sustainable profitability. In the second we multiply this enterprise value with a risk coefficient, reflecting the probability of it reaching the profitable stage.

We apply a WACC of 12 percent

As the risk coefficient adjusts for the risk of non-survival, we can apply a lower discount rate than would otherwise be the case. We have chosen to discount future cash flows by a weighted average cost of capital (WACC) rate of 12 percent. Arguments for a lower WACC could be that the product and trademark has already been established on several markets and that it has been selling for two years with an acceptable gross margin. Moreover, both the technology and the organisation are close to fully developed. Arguments for a higher WACC include that the company is still small and that the market for consumer durables is subject to strong cyclicity.

The net present value of cash flows during the model's explicit period until 2028 sum up to SEK 181.1 million. To this we add a discounted terminal value of all cash flows from 2029 onward assuming a growth rate of 2.5 percent in perpetuity. Together this implies a fair enterprise value of SEK 550.4 million before adjusting for survival risk.

Many young companies struggle to make it from the start-up and growth stages and into a stage of stable profitability. Many fail along the way. That is why we multiply the enterprise value by a coefficient that represents the chance of this particular company making it to the profitable stage. Over time we may change this coefficient and the closer the company comes to delivering sustainable profits the higher the coefficient.

Considering Hövding's present stage and our assessment of the risk, we regard 60 to 90 percent to be a reasonable probability range. We use these figures as multiples to risk adjust our estimated enterprise value. Our estimate of fair enterprise value is SEK 330.3 million using 60 percent risk weight and SEK 495.4 million using 90 percent weight.

DCF model yields fair value of SEK 18.00 – 25.50 per share

To go from fair enterprise value to fair market capitalisation we add the company's net cash holdings, which we have estimated at SEK 74.3 million at the end of 2018. We also subtract the market value of outstanding option programmes as they represent a liability for the company. This leaves us with a fair market valuation of the equity at SEK 402.1 million using 60 percent risk weight and SEK 567.2 million using a weight of 90 percent. **This is equivalent to a fair value per share of 18.00 and 25.50 SEK, respectively.**

Table 3: DCF model assumptions

MSEK	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e
Total revenues	174,9	256,1	360,4	447,9	515,1	570,6	620,7	659,8
EBIT	(43,6)	(0,0)	21,8	41,1	56,2	69,1	80,7	89,8
EBIT margin	-25,0%	0,0%	6,1%	9,2%	10,9%	12,1%	13,0%	13,6%
Adj. Taxes	-	-	-	-	-	-	-	(12,0)
NOPLAT (= EBIT - tax)	(43,6)	(0,0)	21,8	41,1	56,2	69,1	80,7	77,8
Depreciation	1,5	1,2	1,1	0,9	0,8	0,8	0,7	0,6
Capex + Working cap	(8,2)	(8,5)	(8,4)	(4,8)	(4,2)	(3,3)	(3,0)	(2,5)
Net cash flow	(50,4)	(7,2)	14,5	37,3	52,9	66,6	78,4	75,9

DCF (MSEK)

WACC	12,0%	12,0%
Enterprise value (EV)	550,4	550,4
Prob of profitability	60%	90%
Risk adjusted EV	330,3	495,4
Options	(2,5)	(2,5)
Net cash	74,3	74,3
Fair value market cap	402,1	567,2
Number of shares (M)	22,28	22,28

Fair value/share (SEK) 18,00 25,50

Sensitivity analysis (value per share, SEK)

		Prob of profitability			
		60%	70%	80%	90%
WACC	16%	12,30	13,80	15,30	16,90
	14%	14,70	16,60	18,50	20,40
	12%	18,00	20,50	23,00	25,50
	10%	23,20	26,60	29,90	33,20
	8%	32,20	37,00	41,80	46,60

Source: Västra Hamnen Corporate Finance

We have also performed a so-called peer valuation, meaning a valuation based on what values the market assigns to comparable companies. The difficulty in comparing young companies against one another is that they lack profits, and sometimes even revenues, to use as parameters for comparison. In the case of Hövding, it is also difficult to find comparable companies as its product differs substantially from competing offerings within the category.

Table 4: Peer analysis

MSEK	Market cap	Net profit T12M	P/E	Enterprise value (EV)	EBITDA	Sales	EV/EBITDA	EV/sales
Hövding	369,9	(40,1)	neg	285,2	(36,2)	84,6	neg	3,4
Amer Sports (FI)	48 121,8	1 209,7	40,4	57 915,2	2 891,6	27 022,7	20,0x	2,1
Thule Group (SE)	19 289,7	754,0	25,6	20 860,7	1 238,0	6 333,0	16,9x	3,2
Fenix Outdoor (SE)	11 750,6	705,0	16,7	11 293,0	932,3	5 751,6	12,1x	2,0
Accell Group (NL)	5 202,4	96,4	53,3	7 000,6	446,8	10 611,5	15,7x	0,7
Average Thule & Fenix			21,1				14,5	
Hövding 2025e		80,7			81,4	620,7		
Fair value per share, SEK			22,2 - 33,3				17,3 - 25,9	

Source: Factset, Västra Hamnen Corporate Finance

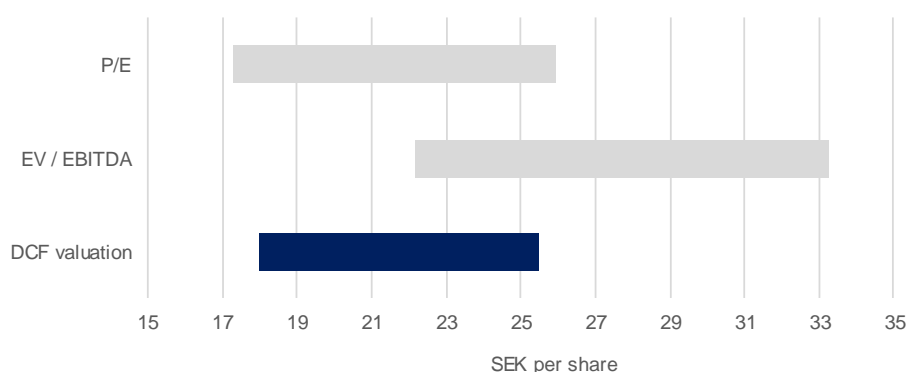
The closest peers in our opinion are other companies offering consumer durables oriented towards sports, outdoor and leisure activities. Geographically we consider Northern Europe to be a reasonable focus. The companies best fitting these criteria are listed in Table 4. The comparison with Hövding is somewhat lacking since all of these companies are fairly mature, having slowed to single digit revenue growth. We have decided to work around this problem by comparing on the basis of our sales and profit estimates for Hövding for the first year in which it also to delivers single digit growth, which is 2025 in our model. That

year, we see full-year revenues of SEK 620.7 million and EBITDA of SEK 81.4 million with a net profit of SEK 80.7 million.

Peer valuation suggests SEK 17.30 – 33.30 SEK per share

The peer companies vary greatly with respect to multiples. To some extent, this correlates with company size as the two smallest companies by revenues fetch the lowest valuations, at least when it comes to P/E. Given that Hövding as of 2025 will be still fairly small, we have chosen to use the multiples of Thule and Fenix Outdoor only as reference for valuation of Hövding. We have averaged the two companies' multiples and applied them to Hövding's estimated profits in 2025, discounted to the present and finally applied the two risk coefficients 60 and 90 percent as in the DCF model. **In summary, the peer analysis suggests a fair value of between SEK 22.20 and 33.30 per share using P/E and between SEK 17.30 and 25.90 based on EV/EBITDA.**

Figure 10: Football field - DCF, EV/EBITDA, P/E



Source: Västra Hamnen Corporate Finance

What is behind the numbers?

In our research we try to look beyond the reported numbers to see if the company uses accounting methods, or reports items off the income statement or balance sheet, that could impact our interpretation of its official figures. The underlying economics of the company could be stronger or weaker than they look at first and this could be important for our valuation.

Accounting methods inspire confidence

In the case of Hövding, we consider the accounts to have two significant strengths, the first one being its handling of warranty liabilities. The company makes reservations for future claims on an ongoing basis, the cost of which is included in cost of goods sold. On the balance sheet, the accumulated reservations show up as Other provisions between liabilities and equity. The size of the provisions is intended to match the estimated future warranty claims associated with sold products still under warranty. By reporting this item separately on the balance sheet the company acts transparently and reduces the risk of negative surprises in the future.

The other notable strength is the relative absence of intangible assets on the balance sheet. Historical development costs have almost completely been depreciated or expensed on an ongoing basis, indicating low depreciation cost from intangible assets in the future. As the scale of tangible assets is also very modest, depreciation as a whole will form a negligible cost going forward.

Another thing that investors should be aware of is the potential dilution from two outstanding option programmes issued to the CEO and other employees. Under the first programme, CEO Fredrik Carling was awarded 300 000 options, each entitling to subscribe for 1.57 shares at a strike price of SEK 22.58 per share. These options expire on 31 March 2019. The other programme was offered to employees of the company and a total of 198 437 options were sold, each with the right to subscribe for 1.4 shares at a strike price of SEK 22.79 per share. The exercise period for the second programme is 1 – 31 October 2020. The strike prices in both programmes exceed the current market price of the Hövding share

and we have therefore counted the current market value of the options as a latent liability when valuing the company, instead of valuing the company using the fully diluted number of shares. The potential dilution, should both option programmes be exercised in full, would be 3.3 percent.

Malfunction during accidents would be fatal for the brand

What could go wrong?

Like all safety products, it is critically important that Hövding's customers have full confidence that the product will protect them when it is needed. It could cause grave damage to the brand if it should appear that the helmet failed to expand during accidents. According to the prospectus it issued in 2018, Hövding has insurance that should cover any direct claim for damages. A much bigger risk in this circumstance would be the loss of sales should a large number of consumers start to doubt the reliability of the product. So far, such events have been avoided but with a new product version coming to the market in the autumn of 2019 there is a heightened risk of faulty units reaching the market, despite rigorous testing.

Erroneously triggered units could lower perceived quality

Hövding has designed the product to err on the side of caution, triggering once too often rather than once to seldom. Thereby it has avoided cases when the helmet did not offer protection when it should but at the cost of a relatively high number of unnecessary inflations of the airbag. The company is actively working on the software to reduce the number of such errors without lowering its safety standards. If their efforts do not bear fruit, the market's assessment of Hövding's product quality could deteriorate.

Vulnerable to disruptions at key supplier

Hövding has a close cooperation with its supplier Nihon Plast in China, which is responsible for the manufacturing of the airbag, collar and electronics as well as the final assembly of the product. The fact that so many parts of the value chain rests with a single supplier implies vulnerability, at least in the short run. Any problems on the side of the supplier or a deterioration of the relationship could make it hard to produce the required number of products on time. Hövding's agreement with Nihon Plast runs until 1 June, 2020.

By producing in one country, having employees in a different country and selling in yet more countries, the company is subject to foreign currency risk. The company does not use any currency hedging tools other than trying to match inflows and outflows in e.g. EUR. Looking ahead we expect an increasing share of revenue in EUR and GBP which could make the currency risk more pronounced. The company has not communicated how it intends to handle this issue.

New product version is key event this year

Coming events

The main event this year will be the launch of Hövding 3.0. The exact timing has not been specified other than mentioning the autumn of 2019. Neither do we know what the product will look like or what functions or services that utilise its connectivity it may include. As regards pricing, it has been indicated that it will be in the same range as version 2.0. That would bestow the new model with better customer value for the price, which increases the probability of a positive market reception.

We are uncertain of the extent to which the consumer market is aware that a new product version is due soon. Such awareness could affect sales of the outgoing model. We will therefore keep a watchful eye on how the product is discussed on consumer platforms to try to sense to what extent consumers delay purchase while waiting for the next version. This could be a valuable input to parsing the next few quarters' sales volumes and deciding how much to attribute to underlying demand growth and how much to short-term fluctuations.

London market is an exciting test

We will also pay special attention to any signals from the company regarding the sales push on the London market. This is a big and important effort, not least because it is the largest city yet for Hövding to set its sights on. It is also a city that sets trends far beyond its home country. A successful launch in London would be a positive omen for the continued expansion in Europe.

Version 3.0 will probably include some new functions that utilise the opportunity for digital connectivity. Further out we see opportunities for the company to launch separate add-on services that build on this feature and that could develop into separate business areas. So far however, we have no information on what such services could be or when they will be available.

In the future there could also be opportunities for broadening the application area of the airbag technology to other activities than cycling. There has been speculation that a collar of similar build could be worn by persons with high risk of falling over, e.g. people with epilepsy or impaired sense of balance. Another potential application could be for other types of two-wheeled transport, such as the shared electric scooters emerging in more and more cities around the world. Both of these application areas would require a redesign of the algorithm that controls when to inflate. For the first application a redesign of the physical product would probably also be needed. It remains to be seen whether Hövding is interested in running such development projects in-house. Alternatively, it could decide to license the technology to external parties willing to develop new products.

Financial calendar

7 March 2019	Year-end report 2018
9 May 2019	Annual General Meeting

Appendix: Valuation method

Companies in an early stage usually report negative net profits and may have many years left until they turn a profit. Sometimes they even have years until their first significant sales revenues. The difficulty in valuing growth companies with limited historical records is that the valuation rests on uncertain estimates of future earnings; more uncertain than for companies with years of stable profits on record. There is little in terms of historical figures on which to base estimates of future revenues, future profit margins and other items.

To handle these challenges, we choose to follow a generally accepted method for valuing growth companies described by finance professor Aswath Damodaran¹⁾ among others. Instead of scaling the discount rate (WACC) to account for all the risks and uncertainties associated with a young company, we use a two-stage valuation approach:

- First, we estimate fair enterprise value under the explicit assumption that the company survives until its first year of sustainable profits. We use a WACC commensurate with the circumstances of the company once it reaches profitability.
- Second, we adjust the estimated enterprise value by multiplying with a probability factor reflecting the likelihood that the company survives.

With each passing period after the initial valuation, the probability factor may be adjusted based on the company's development and our updated assessment of its chances of survival.

1) **Damodaran, Aswath**, "Valuing Young, Start-up and Growth Companies: Estimation Issues and Valuation Challenges", Stern School of Business, New York University, May 2009

Income Statement - Annual Data

kSEK	2016	2017	2018e	2019e	2020e	2021e	2022e	2023e
Net revenues	35 723	56 694	92 746	174 905	256 128	360 355	447 906	515 092
Other revenues	9 615	10 289	1 940	-	-	-	-	-
Total revenues	45 338	66 983	94 686	174 905	256 128	360 355	447 906	515 092
Cost of goods sold	(37 721)	(44 359)	(73 603)	(134 527)	(191 462)	(268 935)	(333 734)	(383 794)
Gross profit	7 617	22 624	21 083	40 378	64 666	91 420	114 172	131 298
Personnel costs	(21 435)	(25 194)	(28 428)	(29 512)	(30 623)	(31 789)	(33 079)	(33 996)
Other external costs	(21 249)	(27 662)	(28 674)	(53 037)	(32 817)	(36 755)	(39 045)	(40 216)
Other operating expenses	(764)	(1 571)	(441)	-	-	-	-	-
EBITDA	(35 831)	(31 803)	(36 460)	(42 171)	1 226	22 877	42 048	57 085
Amortisation & depreciation	(9 417)	(9 227)	(1 985)	(1 471)	(1 237)	(1 067)	(943)	(842)
EBIT	(45 248)	(41 030)	(38 445)	(43 642)	(11)	21 810	41 105	56 243
Net financial items	137	42	(21)	-	-	-	-	-
EBT	(45 111)	(40 988)	(38 466)	(43 642)	(11)	21 810	41 105	56 243
Taxes	-	-	-	-	-	-	-	-
Net profit	(45 111)	(40 988)	(38 466)	(43 642)	(11)	21 810	41 105	56 243
Growth (%)								
Net revenues	na	58,7%	63,6%	88,6%	46,4%	40,7%	24,3%	15,0%
EBITDA	na	na	na	na	na	1766,2%	83,8%	35,8%
EBIT	na	na	na	na	na	na	88,5%	36,8%
Net profit	na	na	na	na	na	na	88,5%	36,8%
% of revenues (%)								
Gross margin	-5,6%	21,8%	20,6%	23,1%	25,2%	25,4%	25,5%	25,5%
EBITDA margin	neg	neg	neg	neg	0,5%	6,3%	9,4%	11,1%
EBIT margin	neg	neg	neg	neg	neg	6,1%	9,2%	10,9%
EBT margin	neg	neg	neg	neg	neg	6,1%	9,2%	10,9%
Profit margin	neg	neg	neg	neg	neg	6,1%	9,2%	10,9%
Personnel costs	60,0%	44,4%	30,7%	16,9%	12,0%	8,8%	7,4%	6,6%
Total OPEX	121,6%	96,0%	62,0%	47,2%	24,8%	19,0%	16,1%	14,4%
Profitability (%)								
ROE	neg	neg	neg	neg	neg	50,4%	48,7%	40,0%
ROIC	neg	neg	neg	neg	neg	65,3%	107,4%	132,0%
ROCE	neg	neg	neg	neg	neg	24,8%	27,7%	24,8%

Source: Västra Hamnen Corporate Finance

Balance Sheet - Annual Data

kSEK	2016	2017	2018e	2019e	2020e	2021e	2022e	2023e
Inventories	7 079	12 447	12 933	27 236	39 104	54 927	66 130	76 049
Account receivable	9 159	13 602	9 718	21 539	31 387	44 159	53 252	61 239
Tax receivables	422	599	603	1 335	1 946	2 738	3 302	3 797
Prepaid costs & accrued inco	3 810	5 550	2 365	5 241	7 637	10 745	12 958	14 902
Other receivables	89	1 005	575	1 274	1 856	2 612	3 150	3 622
Cash and cash equivalents	34 082	21 634	74 338	29 271	24 570	42 487	85 905	143 481
Total current assets	54 641	54 837	100 531	85 897	106 501	157 668	224 696	303 090
Tangible assets	930	960	787	827	908	1 110	1 275	1 410
Intangible assets	11 683	2 874	7 066	5 755	4 688	3 818	3 110	2 533
Financial assets	52	52	52	52	52	52	52	52
Total fixed assets	12 665	3 886	7 905	6 634	5 647	4 980	4 437	3 995
Total assets	67 306	58 723	108 436	92 531	112 148	162 648	229 133	307 084
Accounts payable	8 078	10 813	21 986	35 407	46 925	65 912	79 355	91 259
Accrued cost & prepaid inco	7 496	3 196	5 912	13 103	17 184	21 491	25 916	29 803
Other liabilities	987	1 082	1 478	3 276	4 773	6 716	8 099	9 313
Total current liabilities	16 561	15 091	29 376	51 785	68 882	94 118	113 370	130 375
Other provisions	10 727	9 257	13 912	19 240	21 771	25 225	31 353	36 056
Total equity	40 018	34 375	65 148	21 506	21 495	43 305	84 410	140 653
Total equity and liabilities	67 306	58 723	108 436	92 531	112 148	162 648	229 133	307 084

Source: Västra Hamnen Corporate Finance

Cash flow statement

kSEK	2016	2017	2018e	2019e	2020e	2021e	2022e	2023e
Operating activities	(26 486)	(33 231)	(31 826)	(36 844)	3 757	26 331	48 177	61 788
Changes in working capital	4 506	(14 114)	21 295	(8 023)	(8 208)	(8 014)	(4 358)	(3 813)
Investing activities	(1 056)	(447)	(5 981)	(200)	(250)	(400)	(400)	(400)
Financing activities	38 608	35 345	69 239	-	-	-	-	-
Cash flow for the period	15 572	(12 447)	52 727	(45 066)	(4 701)	17 917	43 418	57 575
Beginning cash balance	18 696	34 082	21 634	74 338	29 271	24 570	42 487	85 905
Adjustments	(186)	(1)	(23)	-	-	-	-	-
Ending cash balance	34 082	21 634	74 338	29 271	24 570	42 487	85 905	143 481

Source: Västra Hamnen Corporate Finance

Income Statement - Quarterly Data

kSEK	Q1 2018	Q2 2018	Q3 2018	Q4 2018e	Q1 2019e	Q2 2019e	Q3 2019e	Q4 2019e
Net revenues	8 220	25 190	29 777	29 559	21 282	31 505	56 604	65 514
Other revenues	1 817	30	93	-	-	-	-	-
Total revenues	10 037	25 220	29 870	29 559	21 282	31 505	56 604	65 514
Cost of goods sold	(6 379)	(19 938)	(23 683)	(23 603)	(16 782)	(24 530)	(43 509)	(49 706)
Gross profit	3 658	5 282	6 187	5 956	4 500	6 975	13 095	15 808
Personnel costs	(7 316)	(7 205)	(6 887)	(7 020)	(7 160)	(7 304)	(7 450)	(7 599)
Other external costs	(6 531)	(9 298)	(6 176)	(6 669)	(6 802)	(6 938)	(19 577)	(19 719)
Other operating expenses	-	(548)	107	-	-	-	-	-
EBITDA	(10 189)	(11 769)	(6 769)	(7 733)	(9 463)	(7 267)	(13 932)	(11 509)
Amortisation & depreciation	(809)	(230)	(535)	(411)	(393)	(376)	(359)	(344)
EBIT	(10 998)	(11 999)	(7 304)	(8 144)	(9 856)	(7 643)	(14 291)	(11 853)
Net financial items	(40)	-	19	-	-	-	-	-
EBT	(11 038)	(11 999)	(7 285)	(8 144)	(9 856)	(7 643)	(14 291)	(11 853)
Taxes	-	-	-	-	-	-	-	-
Net profit	(11 038)	(11 999)	(7 285)	(8 144)	(9 856)	(7 643)	(14 291)	(11 853)
Y-o-Y Growth (%)								
Net revenues	(4,8%)	112,9%	101,3%	37,9%	158,9%	25,1%	90,1%	121,6%
EBITDA	na	na	na	na	na	na	na	na
EBIT	na	na	na	na	na	na	na	na
Net profit	na	na	na	na	na	na	na	na
% of revenues (%)								
Gross margin	22,4%	20,8%	20,5%	20,1%	21,1%	22,1%	23,1%	24,1%
EBITDA margin	neg	neg	neg	neg	neg	neg	neg	neg
EBIT margin	neg	neg	neg	neg	neg	neg	neg	neg
EBT margin	neg	neg	neg	neg	neg	neg	neg	neg
Profit margin	neg	neg	neg	neg	neg	neg	neg	neg
Personnel costs	89,0%	28,6%	23,1%	23,7%	33,6%	23,2%	13,2%	11,6%
Total OPEX	168,5%	67,7%	43,5%	46,3%	65,6%	45,2%	47,7%	41,7%
Profitability (%)								
ROE	neg	neg	neg	neg	neg	neg	neg	neg
ROIC	neg	neg	neg	neg	neg	neg	neg	neg
ROCE	neg	neg	neg	neg	neg	neg	neg	neg

Source: Västra Hamnen Corporate Finance

Balance Sheet - Quarterly Data

kSEK	Q1 2018	Q2 2018	Q3 2018	Q4 2018e	Q1 2019e	Q2 2019e	Q3 2019e	Q4 2019e
Inventories	19 005	13 195	9 203	12 933	9 196	13 441	23 841	27 236
Account receivable	5 554	14 643	14 040	9 718	6 997	10 358	18 610	21 539
Tax receivables	437	513	607	603	434	642	1 154	1 335
Prepaid costs & accrued inco	7 827	2 007	723	2 365	1 703	2 520	4 528	5 241
Other receivables	380	272	579	575	414	613	1 101	1 274
Cash and cash equivalents	12 719	7 611	84 681	74 338	63 834	55 453	41 400	29 271
Total current assets	45 922	38 241	109 833	100 531	82 577	83 027	90 633	85 897
Tangible assets	876	798	776	787	798	808	818	827
Intangible assets	2 172	7 694	7 438	7 066	6 713	6 377	6 058	5 755
Financial assets	52	52	52	52	52	52	52	52
Total fixed assets	3 100	8 544	8 266	7 905	7 563	7 237	6 928	6 634
Total assets	49 022	46 785	118 099	108 436	90 139	90 264	97 561	92 531
Accounts payable	13 132	20 556	22 382	21 986	14 713	20 161	33 377	35 407
Accrued cost & prepaid inco	3 774	3 894	8 214	5 912	4 256	6 301	11 321	13 103
Other liabilities	464	884	1 751	1 478	1 064	1 575	2 830	3 276
Total current liabilities	17 370	25 334	32 347	29 376	20 034	28 038	47 528	51 785
Other provisions	8 315	10 113	12 460	13 912	14 813	14 576	16 674	19 240
Total equity	23 337	11 338	73 292	65 148	55 293	47 650	33 359	21 506
Total equity and liabilities	49 022	46 785	118 099	108 436	90 139	90 264	97 561	92 531

Source: Västra Hamnen Corporate Finance

Kassaflödesanalys - kvartalsvis data

kSEK	Q1 2018	Q2 2018	Q3 2018	Q4 2018e	Q1 2019e	Q2 2019e	Q3 2019e	Q4 2019e
Operating activities	(11 171)	(9 971)	(4 403)	(6 281)	(8 562)	(7 504)	(11 834)	(8 944)
Changes in working capital	2 279	10 537	12 491	(4 012)	(1 892)	(827)	(2 169)	(3 135)
Investing activities	-	(5 674)	(257)	(50)	(50)	(50)	(50)	(50)
Financing activities	-	-	69 239	-	-	-	-	-
Cash flow for the period	(8 892)	(5 108)	77 070	(10 343)	(10 504)	(8 381)	(14 053)	(12 129)
Beginning cash balance	21 634	12 719	7 611	84 681	74 338	63 834	55 453	41 400
Adjustments	(23)	-	-	-	-	-	-	-
Ending cash balance	12 719	7 611	84 681	74 338	63 834	55 453	41 400	29 271

Source: Västra Hamnen Corporate Finance

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