

**MASTER OF SCIENCE IN  
FINANCE**

**MASTERS FINAL WORK  
PROJECT**

**EQUITY RESEARCH:  
HORNBAACH BAUMARKT AG**

**JOÃO MARIA GONÇALVES PAIVA DÓRDIO RODRIGUES**

**SUPERVISOR:  
ANA ISABEL ORTEGA VENÂNCIO**

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# Abstract

The following project is a valuation of the company Hornbach Baumarkt AG, based on publicly available information until the 6<sup>th</sup> November 2020. It follows the format recommended by the CFA Institute.

Hornbach Baumarkt AG was chosen due to the interest in wanting to explore and learn about the DIY sector and by it being the only publicly traded German company.

Hornbach Baumarkt AG is a Top 10 player in the DIY Home Improvement sector in Europe. It was created in 1993 after an IPO that saw Hornbach AG being subdivided in Hornbach Holding AG (Parent Company) and Hornbach Baumarkt AG, having the original company being founded in 1877, in Landau, Germany, but only making their first IPO in 1987. Today, Hornbach Baumarkt AG is a Child company of Hornbach Holding AG.

The valuation was derived from an intrinsic valuation, based on a Discounted Cash Flow (DFC) method, more specifically, through a Free Cash Flow to the Firm (FCFF) perspective. This was supported by a Relative (Multiples) Valuation and a Dividend Discount Model (DDM).

The final target price is €42,31 per share for Hornbach Baumarkt AG (HBM) at YE2020 which represents an upside potential of 11,5% when compared to the closing price of HBM at 6<sup>th</sup> November, 2020. This valuation follows a HOLD recommendation with a medium risk profile.

JEL classification: G10; G32; G34

Keywords: Equity Research; Valuation; Mergers & Acquisitions; Hornbach Baumarkt AG

# Resumo

O seguinte trabalho final de mestrado pratica uma avaliação da empresa Hornbach Baumarkt AG, baseada em informação pública disponível até 6 de novembro 2020. Este trabalho segue o formato recomendado pelo *CFA Institute*.

A Hornbach Baumarkt AG foi escolhida devido ao interesse em querer aprender mais sobre o sector DIY e pelo facto de ser a única empresa Alemã cotada.

A Hornbach Baumarkt AG é uma das empresas no Top 10 da Europa na Indústria de produtos *DIY* e *Home Improvement*. Foi criada em 1993 após uma Oferta Pública Inicial que viu a Hornbach AG ser subdividida na Hornbach Holding AG (Empresa-mãe) e a Hornbach Baumarkt AG, tendo sido a empresa originalmente fundada em 1877 em Landau, na Alemanha, tendo feito a sua primeira Oferta Pública Inicial em 1987. Hoje, a Hornbach Baumarkt AG é uma subsidiária da Hornbach Holding AG.

A avaliação foi derivada através de uma análise intrínseca do valor da empresa com base no método de Fluxos de Caixa Atualizado, mais especificamente pela perspetiva dos Fluxos de Caixa para a Empresa. Esta avaliação foi suportada por uma avaliação Relativa (Múltiplos) e por uma avaliação de Atualização de Dividendos.

O preço alvo final é €42,31 por ação para a Hornbach Baumarkt AG para o final do ano de 2020, que representa um potencial ganho de 11,5% quando comparado com o preço de fecho da Hornbach Baumarkt AG a 6 de novembro de 2020. Esta avaliação segue uma recomendação de MANTER, com um perfil de risco médio.

Classificação JEL: G10; G32; G34

Palavras-Chave: Equity Research; Avaliação de Empresas; Fusões e Aquisições; Hornbach Baumarkt AG

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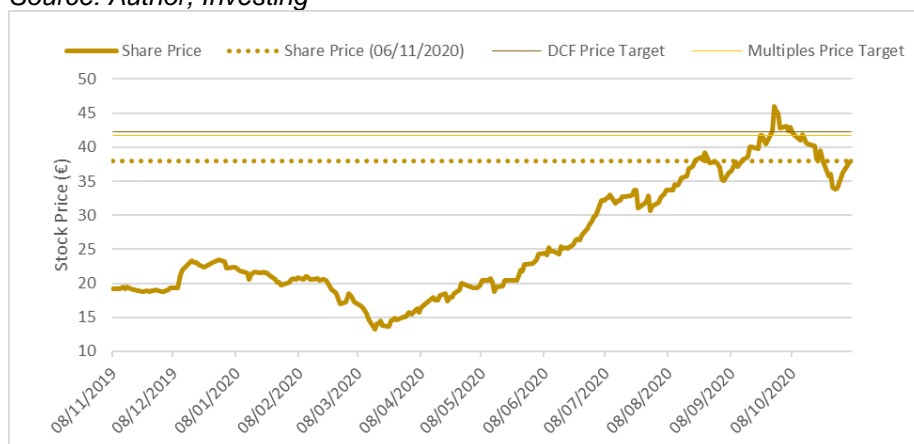
## 1. Research Snapshot

(YE2020 Price Target: €42,31€ (11,5%); Recommendation is to **HOLD**)

**Hornbach Baumarkt AG (HBM)** is a German Do-It-Yourself and Home Improvement firm listed on the Frankfurt Stock Exchange and part of the SDAX Index. Its main activity is the retail of **DIY** and **Home Improvement** products.

Figure 1 - Hornbach Baumarkt AG Share Price

Source: Author, Investing



The recommendation for HBM, using the DCF method, and taking into consideration a medium risk assessment, is to **HOLD**, with a price target of €42,31, representing an upside potential of 11,5%. This value and recommendation are backed up by the Relative Valuation, which indicates a 9,8% upside potential.

It is expected that HBM sales grow in the following years (Table 4), from €4,4B (2019) to €5,3B (2023F). motivated, in 2020, by the increased demand in face of confinement measures due to COVID-19, focus on geographical expansion and investment in its online platform. Net Profit will decay in the last years of the forecast due to high levels of depreciations of the Right-of-use-Assets, going from €83,8M (2021F) to €75,2M (2023F).

Table 4 - Financial Highlights (€M)

Source: Author, Company Data

Year	2015	2016	2017	2018	2019	2020F	2021F	2022F	2023F
Sales	€ 3.534,8	€ 3.710,1	€ 3.890,7	€ 4.095,5	€ 4.428,0	€ 4.915,1	€ 5.052,7	€ 5.194,2	€ 5.339,7
Gross Profit	€ 1.331,2	€ 1.381,2	€ 1.449,9	€ 1.502,8	€ 1.620,3	€ 1.822,9	€ 1.874,0	€ 1.926,5	€ 1.980,4
EBITDA	€ 331,3	€ 327,4	€ 335,1	€ 316,8	€ 413,8	€ 423,1	€ 453,9	€ 466,1	€ 478,6
Net Profit	€ 72,4	€ 52,9	€ 58,7	€ 40,9	€ 78,7	€ 74,9	€ 83,8	€ 78,7	€ 75,2

Table 1 - Investment Grade and Risk Classification Matrix

Source: Author

	Low Risk	Medium Risk	High Risk
Buy	>10%	≥15%	≥20%
Hold	>0% and ≤10%	>5% and ≤15%	>10% and ≤20%
Reduce	>-10% and ≤0%	>-5% and ≤5%	>-0% and ≤10%
Sell	-10%≤	-5%≤	0%≤

Table 2 - HBM AG Market Profile

Source: Author, Investing

Market Profile	
Ticker	HBM.DE
Shares Outstanding (thousands)	31.807
Open Price	€ 38,10
Close Price	€ 37,95
52-Week High	€ 46,70
52-Week Low	€ 12,20
Market Capitalization (€M)	€ 1.207,08

Table 3 - Valuation and Recommendation

Source: Author

Valuation	YE2020 Target Price	Upside Potential
DCF	€ 42,31	11,5%
Relative Valuation	€ 41,67	9,8%
Recommendation	<b>HOLD</b>	

## 2. Business Description

**Hornbach Baumarkt AG** (HBM) is a German firm currently listed in the Frankfurt Stock Exchange. Its core activity is the commercialization of Building materials, appliances, gardening, décor, and provide consultancy/tradesman services to customers regarding projects for customers. These can be Do-It-Yourself (DIY) or Do-It-For-Me (DIFM) types of projects.

HBM has its foundations dating all the way back to 1877 when a small workshop was established (Hornbach) in Laundau / Pfalz and only in 1968, inspired by a trip to the U.S.A., the first combined DIY store and gardening center opens in Bornheim. The company undergoes its first IPO in 1987 with their workforce growing to 1.000 employees, creating Hornbach AG. 4 years later, at the fall of the Berlin wall, Hornbach is the first company in the DIY sector to build Megastores both in East and West, the first being in Dresden. It was, at the time, the largest DIY store in Germany providing a drive-in system. In 1993 it conducts a further IPO, dividing Hornbach AG into Hornbach Holding AG and Hornbach-Baumarkt-AG (HBM). In 1996 it starts its international expansion on neighboring countries, opening its first store in Austria, which was followed by the Netherlands (1997), Czech Republic (1998), Luxemburg (1998), Switzerland (2002), Sweden (2003), Slovakia (2004) and Romania (2007). In 2001, HBM and Kingfisher formed a strategic alliance which at the time was Europe’s largest DIY store operator. In 2002, HBM founded the “People in Need” Foundation. In 2010, HBM launched its online retail store. In 2011, HBM conducted a stock split on a 2:1 ratio, going from 15,9M to 31,8M shares. In 2014, the alliance with Kingfisher wanted to enter markets in which Hornbach also competed in. In 2015, HBM celebrates its 150<sup>th</sup> DIY Megastore opening. On August 24, 2020 HBM was included in the SDAX index, having seen their share price more than doubled in the first half of 2020/21. Market Capitalization saw an increase from €540,7M (February 29, 2020) to €1.202M (August 31, 2020).

Currently the company employs 19.457 workers, from which 10.452 are employed in Germany, and the remaining 9.005 in other European countries, having gone from 16.491 employees in 2015, translating to an increase in these past 5 years of 18%, or 3% CAGR. Also, the company, over the past 5 years, has been increasing the weight of part-time workers in their workforce, which in 2015 represented 28% of the total number of workers, to being 31% in 2019. A measure to increase the flexibility and more easily, and less costly, adjust the number of their workers.

Figure 3 – Hornbach Baumarkt AG Logo

Source: Company Website



Figure 2 - Weight of types of employee contract in Total n° of employees

Source: Author, Company Data

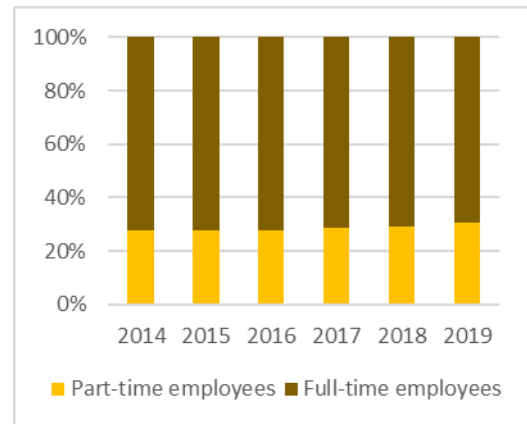
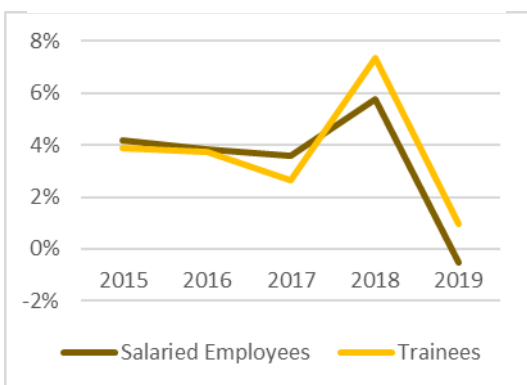


Figure 4 - Yearly % change of Salaried Employees and Trainees

Source: Author, Company Data



## Area of Operations

HBM currently operates in 9 countries (Figure 5) in Europe, being Germany the provider of most of the sales for the company with approximately 56%, being the remaining stores are spread out between Sweden (4.56%), Czech Republic (7.46%), Slovakia (3.08%), Netherlands (10.18%), Luxemburg (0.64%), Switzerland (4.77%), Austria (8.94%) and Romania (4.64%).

The company has several subsidiaries (Appendix 19) to assist in the operations, in total it has 36 subsidiaries, from which 7 are located in Germany, and the remainder 29 are located in other countries.

## Key Challenges

The DIY sector is facing several paradigm changes that will cause challenges for firms operating in this sector. Over the past years, customers have become more **environmentally conscious**, as such, preference of environmentally friendly products over more pollutant ones will cause companies to search/develop new or existent types of products to suit these needs. **Digitalization** pushing innovation in how firms should product their items in the stores. This has already led to the creation of Virtual Reality (VR) showrooms, where customers can be immersed and have a better sense on how several products would actually fit in a room, fulfilling their needs and giving a better overall shopping experience. Not only limited to VR, stores also have been providing with in-store navigation, price finders and offer search applications to customers. **Hybrid Customers**, who usually seek for cheap items (budget, low-end, generic) but will also seek from time to time premium/high-end products for other projects, meaning that companies must have a good assortment range of items to fulfill these needs.

## Company Strategy

**Operating Megastores:** The use of homogeneous Megastores with a sales area bigger than 10.000sqm enables the company to generate economies of scale, driving fixed costs down and boost profitability.

**Store Ownership:** HBM (Figure 7) has as its philosophy to own at least 50% of their sales area. This provides the company an advantage as this way they avoid to incur expenses related to interests from leases which can hinder the further growth of the company. Currently, Hornbach group owns close to 59% of their sales floor, leasing the remaining 41%

Figure 5 - Sales Area distribution in 2019

Source: Author, Company Data

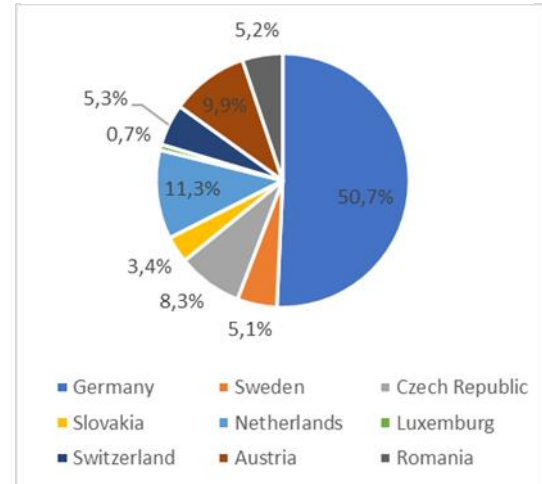


Figure 6 - Hornbach Store

Source: Company Data



**Interconnected Retail:** Combine Stationary retail business with its online (e-commerce) to act as a multichannel DIY retail. Over the past 10 years, HBM has been engaged in modernizing their operations, having in the last year provided customers with self-scan process in all shops, which translates to faster checkouts and less burdening on staff. They also provided Virtual Reality (VR) for bathroom planning, making the customer experience more complete. With the investment in digitalization, the company intends to reduce, or even eliminate, manual work steps by automating procurement, provision and data processing. The company is also analyzing the impact on using Artificial Intelligence to improve process control and identify sales opportunities by analyzing products and services.

**Project Concept:** HBM main target group are **Project customers**, which are 1) home improvement enthusiasts and professional customers wishing to implement extensive renovation and construction projects on their own on their houses, apartments or gardens (DIY); 2) customers who wish to select their products themselves, but then have the work involved in their project, including all services, performed by a competent partner (DIFM). The company is tailored to serve these types of customers as HBM offers a broad and deep product range in sufficiently large quantities. On average, HBM has 50.000 articles at its stationary stores. The products are available in the 5 divisions of Hardware/Electrical, Paint/Wallpaper/Flooring, Construction Materials/Timber/Prefabricated Components, Sanitary/Tiles, and Garden.

**Cost Leadership:** HBM operates in a very competitive environment/industry, the company finds it critical to retain customers by offering the best market prices across its entire product range on a permanent basis, with prices matching both in stationary and online stores.

**Geographical Diversification:** Due to the saturation of the German Market, HBM has been searching for new growth and sales opportunities outside Germany. The company already has a portfolio of stores outside Germany (Appendix 20), being the provider of 44% of the Total sales of the company, and in the last 4 years it has opened at least 2 stores abroad each year. This also allows to establish strategic long-term relationships with global suppliers which can provide in the future lower costs for products, improving the bottom line.

**Private Labels:** In order to be able to differentiate itself from its competitors, HBM has been developing private labels in partnership with suppliers while also providing good value for money products to customers. This brings

Figure 7 - HBM Sales area ownership

Source: Author, Company Data

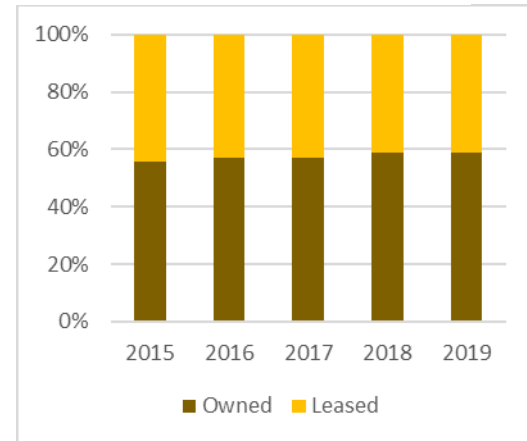
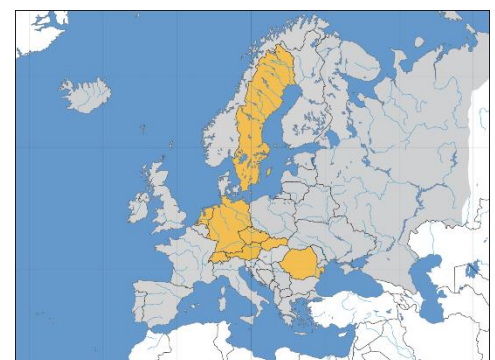


Figure 8 - Hornbach countries of operation

Source: Company Data



independence from manufacturer's brands in terms of innovation and quality, brand management, product lifecycle management, and also gain a greater gross margin. Currently, HBM has a portfolio of 50 private label brands, which accounted for 24.1% share of sales in the last financial year. HBM has a medium-term plan of ramping that number to 30%.

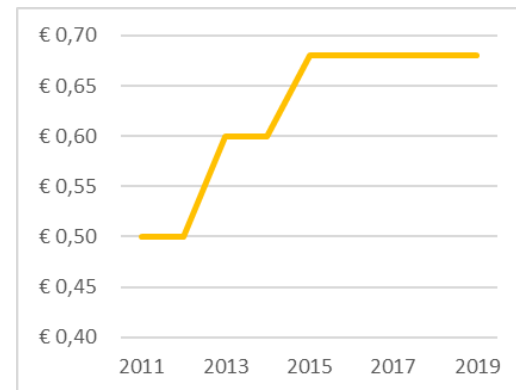
**Dividend Policy:** HBM pursues a continuous and sustainable dividend policy, providing Shareholders with an annual Dividend that is at least as high as the previous Dividend. Dividends are currently at €0.68 with 31.807.000 outstanding shares, totaling to €21.628.760 of dividends paid.

HBM has been paying €0,68 of dividends per share since FY2015.

**Social Responsibility:** HBM understands the importance of the sustainability of the environment, for their private labels. They adhered to sustainable product features and environmentally compatible product packaging and disposal. All timber related products available at HBM stores are all FSC-certified.

Figure 9 - HBM DPS evolution

Source: Author, Company Data



### 3. Management and Corporate Governance

#### Ownership structure

At 29/02/2020 HBM had a share capital of €95.421.00 and is divided into 31.8007.00 no-par ordinary bearer shares with a prorated amount of share capital of €3.00 per share. From this, 76.4% is held by the Parent company of the Hornbach Group, **HORNBACH Holding AG & Co. KGaA** (previously **Hornbach Holding AG**), which translates to 24.300.548 shares. The remaining 23.6%, which translates to 7.506.452 shares, are Free Float. The ownership structure of the entirety of the Hornbach brand can be seen on Appendix 21.

Table 5- HBM Shareholder Structure

Source: Author, Company data

Investor Name	Position	%
HORNBACH Holding AG & Co. KGaA	72.901.644	76,40%
Free Float	22.519.356	23,60%
<b>Total</b>	<b>95.421.000</b>	<b>100,00%</b>

#### Corporate Governance

HBM, as in every German publicly traded firm, needs to adhere to the Dual Board / Two Tier system. It has a Board of Management and a Supervisory Board. The Supervisory Board also has the following committees: Mediation, Personnel, Audit and Nomination. This type of Governance system is more societal based, taking into consideration all the stakeholders, instead of value creation with a focus on value creation for shareholders,

Table 6 - Supervisory Board Compensation

Source: Author, Company data

S.B. Remuneration (000's €)	2019/2020	2018/2019
Basic	€ 390	€ 390
Committee	€ 125	€ 125
<b>Total</b>	<b>€ 515</b>	<b>€ 515</b>

The **Supervisory Board**, which is responsible for appointing and supervising the Executive Board, consists of 16 members, half appointed by shareholders and half appointed by employees: Albrecht Hornnbach (Chairman), Kay Strelow, Dr. John Feldmann, Mohamed Elaouch, Christian Garrecht, Erich Harsch (until December 31, 2019), Georg Hornbach, Martin Hornbach, Markus Lass, Jorg Manns, Anke Matrose, Brigitte Otto, Simona Scarpaleggia (member since January 1, 2020), Vanessa Stutzle, Melani Thomann-Bopp and Prof. Dr. Jens. Wulfsberg. It also serves the Board of Management in an advisory capacity.

Table 7 - Board of Management Compensation

Source: Author, Company data

B.M. Remuneration (000's €)	2019/2020	2018/2019
Fixed	€ 2.938	€ 2.903
Variable	€ 1.911	€ 2.306
One-off	€ 3.917	€ -
<b>Total</b>	<b>€ 8.766</b>	<b>€ 5.209</b>

The **Audit Committee**: Melanie Thomann-Bopp (Chairwoman), Dr. John Feldmann, Erich Harsch (until December 31, 2019), Albrecht Hornnbach, Georg Hornbach, Martin Hornbach, Markus Lass, Kay Strelow and Vanessa Stutzle. It is in charge of auditing the financial accounts, risk management and compliance.

The **Personnel Committee**: Dr. John Feldmann (Chairman), Christian Garrecht, Albrecht Hornnbach, Martin Hornbach and Markus Lass. It is in charge of the company's remuneration principles

The **Mediation Committee**: Dr. John Feldmann (Chairman), Albrecht Hornbach, Johannes Otto and Kay Strelow. It acts on the occasion of no



consensus regarding the appointment of a new Executive Board and puts forward suitable candidates.

The **Nomination Committee:** Albrecht Hornbach (Chairman), Dr. John Feldmann, Martin Hornbach and Melanie Thomann-Bopp. It is in charge of nominating suitable candidates for the Supervisory Board.

The **Board of Management:** Steffen Hornbach (CEO) (until December 31, 2019), Erich Harsch (CEO) (since January 1, 2020), Roland Pelka (CFO), Susanne Jager, Wolfger Ketzner (until February 29, 2020), Karsten Kuhn, Ingo Leiner and Dr. Andreas Schobert. It is in charge of providing the Supervisory Board with regular, prompt and extensive information on all matters relevant to the company's strategy, planning, business performance, financial and earnings position, risk situation and management. It also presents the group investment, financial and earnings budgets to the Supervisory Board for the forthcoming year.

As stated in the company's latest Annual Report, a new remuneration system for member of the Board of Management of Hornbach Baumarkt AG will be used. This new system, which takes effect as of March 1, 2020, will disclose remuneration on an individualized basis. Further explanations regarding the new system will only appear on the 2020/2021 Annual Report.

## Company's Key members

**Albrecht Hornbach**, serves as Supervisory Board's Chairman as well as Chairman of the Board of Management for Hornbach Holding. He studied at Karlsruhe University, graduating in Civil Engineering. He is responsible for the DIY Stores and Garden Centers (Hornbach Baumarkt AG), Builder's Merchant (Hornbach Union GmbH) and Real Estate (Hornbach Immobilien AG).

**Roland Pelka** serves as Board of Management's Deputy Chairman. He studied at Johann-Wolfgang-Goethe Universitat in Frankfurt am Main, graduating in Business Administration and has professional qualifications as tax advisor and certified auditor. He is in charge of several departments, including: Finance, Accounting, Tax, Controlling, Risk Management, Loss Prevention, Investor Relations, Internal Audit, Legal and Compliance. He shares these responsibilities not only to Hornbach AG but also to the Hornbach Holding.

## Share Buyback

Since FY1993 (company IPO) that Hornbach Baumarkt AG has offered the opportunity to entitled employees to subscribe to HBM shares at advantageous prices and thus benefit from the business performance and its long-term success. Since 2013, HBM has, on average, bought 46.100 shares per year for this program.

Figure 10 - Hornbach Holding Logo

Source: Company Data

**HORNBACH** ■  
Holding

Figure 11 - Hornbach Baustoff Union

Source: Company Data

**HORNBACH** ■ **BAUSTOFF**  
**UNION**

Figure 12 - Hornbach Immobilien AG

Source: Company Data

**HORNBACH** ■  
IMMOBILIEN AG



In the previous year, a total of 2.679 Hornbach Group employees participated in the program, with 52.450 shares being transferred.

## Corporate Social Responsibility (CSR)

HBM has a clear commitment regarding all stakeholders of the company, which can be seen in its CSR policy:

**Equal opportunities**, having signed the “Diversity Charter”, HBM publicly underlined its commitment to respecting all of its employees, irrespective of their gender, nationality, ethnic origin, religion, disability, age, or sexual orientation.

**Minimum requirements in suppliers’ production sites**, HBM expects its partners to offer safe working conditions for the employees on location. It recognizes the International Standards established by the conventions of the International Labor Organization (ILO). As such, it obliges its entire supply chain to adhere to these standards.

**Flawless Quality of Products**, Samples are selected and tested by accredited and certified external service providers to ensure quality. There is also an emphasis on product reliability and safety. Also, it requires a comprehensive product specification from the supply chain and conduct random audits to factories and articles prior to shipment.

**Environmentally conscious**, HBM offers low-emission products to minimize negative impact in consumer’s living space and offers advice and information about water and energy saving functions of the products. Also, it does not stock controversial or environmentally critical products such as glyphosate herbicides or plants that require the use of neonicotinoids (product that hinders bees). All tropical timber products must have the Forest Stewardship Council (FSC) seal to document that it was sourced from environmentally and socially compatible forestry.

**Recycling and Waste avoidance**, HBM ensures that recyclable materials are separated from waste (use of compressors for high-volume waste such as waste and paper). It also provides recycling stations at all of its DIY stores with garden centers, free of charge, and provides at its stores and website consumers assistance and guidance concerning compatible disposal of their waste and recyclable materials.

Figure 13 - HBM Share Buyback program

Source: Author, Company Data

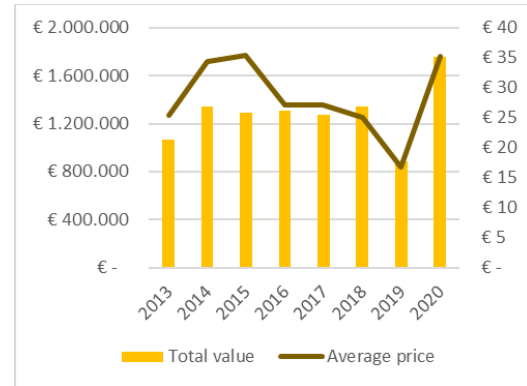


Figure 14 - ILO logo

Source: ILO



Figure 15 - FSC logo

Source: FSC



## 4. Financial Analysis

**Sales** (Appendix 2), over the past few years has from €3.534,85M in 2015/2016 to €4.428,04M in 2019/2020, corresponding to an increase over 25%.

If we assess sales by **geographical areas**, we can see an increasing trend over the last years in every region. Currently, Germany is on par with the other regions, making up for 50,8% of the total in the last year, having decreased from previous years, going from 56,89% in 2015 to today's values. Taking into consideration the values from 2015 and the values from last year, we see an evolution in sales of 11,7%, with a CAGR of 2,2%, for Germany, and 43%, with a CAGR of 7,4%, for the rest of Europe.

Table 8 - Sales by Geographical Area (average by sqm for Outside of Germany) (€M)

Source: Author, Company Data

Sales by country	2015	2016	2017	2018	2019
<b>Total in Germany</b>	<b>2.010,00</b>	<b>2.041,00</b>	<b>2.071,00</b>	<b>2.119,00</b>	<b>2.245,00</b>
Sweden			172,16	194,43	224,43
Czech Republic			332,69	347,65	367,22
Slovakia			108,87	113,86	151,83
Netherlands			388,47	435,17	500,99
Luxemburg			28,55	29,83	31,51
Switzerland			184,44	222,07	234,57
Austria			398,79	416,72	440,17
Romania			204,04	213,28	228,28
<b>Total outside Germany</b>	<b>1.524,00</b>	<b>1.668,00</b>	<b>1.818,00</b>	<b>1.973,00</b>	<b>2.179,00</b>

Although **Gross Profit** has been increasing every year, going from €1.331,2M in 2015 to €1.620,4M in 2019, implying an increase in the last 5 years of 21,72%, the **Gross profit Margin**, which has been in the vicinity of 37%, has been slowly decreasing, going from 37,66% in 2015 to 36,59% in 2019. This is explained by the company to be a consequence of the e-commerce segment. The company is able to generate more Sales with e-commerce segment, however, since it is applied the same price as the stationary stores, there are freight costs that can't be transferred to the customer as it would make the company less attractive for customers.

Regarding **Operational Expenses** (Table below), we verify that the bulk of the costs come from **Selling and Store expenses**, which incorporates more than 80% of OPEX, being the remaining attributable to **General and Administration Expenses**.

The increase in **Selling and Store expenses** in 2016 and 2017 is attributable to a disproportionate rise in operating expenses according to the firm, while in 2018, this was due to an increase in personnel, during the 3<sup>rd</sup> quarter of 2018, with the intent to provide with better service to customers, mainly in Germany,

Figure 16 - Historical Sales, COGS and Gross Profit (€M)

Source: Author, Company Data

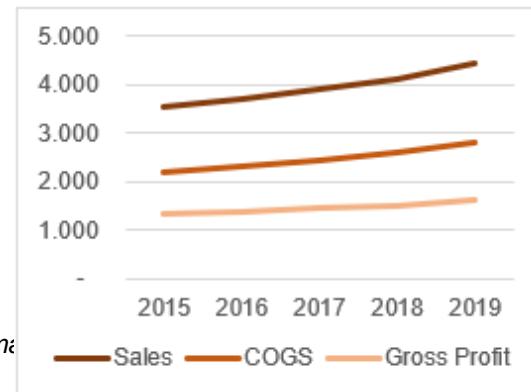
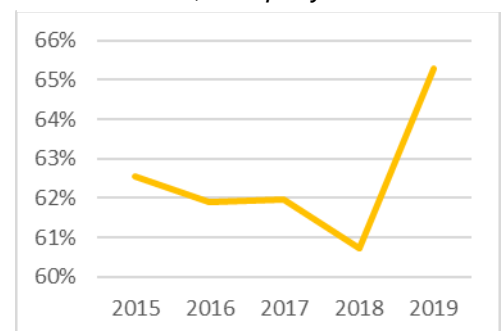


Figure 17 - Weight of Salaries and Social Security Contributions in OPEX

Source: Author, Company Data



which translated to an increase in sales in the 4<sup>th</sup> Quarter (Appendix 10) for 2018.

For the **General and Administration Expenses**, the increases are mostly due to e-commerce investment and with Administration costs for newly opened stores.

Also, it can be seen (Adjacent Figure) that Expenses related to salaries and Social Security contributions have a significant weight in the total amount of OPEX, representing between 61% to 65% from 2015 to 2019.

**EBITDA**, adjusted to exclude Lease Payments for periods 2015 up to 2018, has remained stable in the €330M value, however, it has increased in the last year by €93,6M, going from €320,1M to €413,76M. This is justified by an increase in Gross Profit, but not followed up by an increase in the Selling and Store Expense, which remained almost identical in 2019, €1.010,74M compared to 2018, €1.009,64M.

Figure 18 - Yearly % change on Wages, Salaries and Social Security Contributions

Source: Author, Company Data

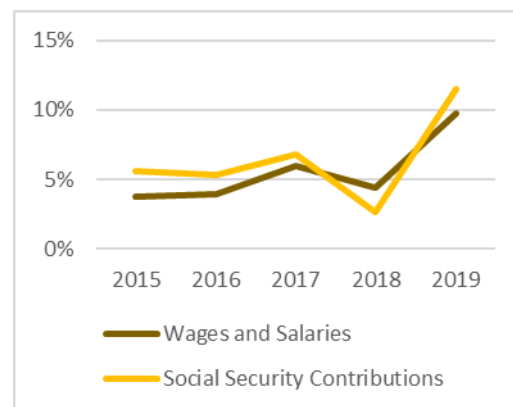


Table 9 - OPEX (excluding Lease Payments)

Source: Author, Company Data

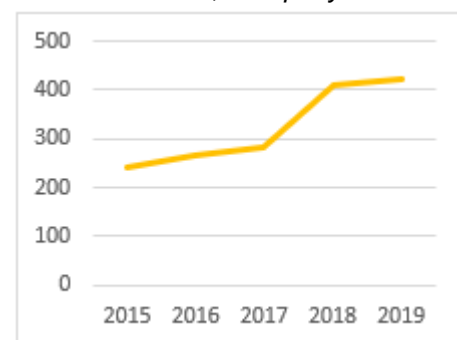
OPEX	2015	2016	2017	2018	2019
<b>Gross profit</b>	<b>€ 1.331.208</b>	<b>€ 1.381.246</b>	<b>€ 1.449.927</b>	<b>€ 1.502.822</b>	<b>€ 1.620.349</b>
Selling and store expenses	€ 861.191	€ 906.531	€ 953.423	€ 1.011.047	€ 1.010.739
Pre-opening expenses	€ 9.200	€ 5.237	€ 4.478	€ 5.668	€ 7.403
General and administration expenses	€ 142.970	€ 154.922	€ 172.085	€ 183.692	€ 210.585
Other income and expenses	€ 13.408	€ 12.888	€ 15.111	€ 14.358	€ 22.137
<b>EBITDA (excluding Lease payments)</b>	<b>€ 331.255</b>	<b>€ 327.444</b>	<b>€ 335.052</b>	<b>€ 316.773</b>	<b>€ 413.759</b>

**Net Working Capital** (Appendix 7) has been increasing since 2015, observing a steep increase during 2018, going from €281,2M in 2017 to €410,7M in 2018. The explanation provided by the annual report indicates that the company, which closes its accounts on the last day of February, wanted to stock up for the Spring, which corresponds to the first quarter of the following fiscal year for the company.

**PP&E** (Appendix 1), which encompasses Land, Leasehold rights, and buildings, including buildings on third-party land, Other Equipment, Plant and office equipment and Assets under Construction, being an important portion of Total Assets, representing on average, close to 53% of it. However, last year it slumped to 30% of Total Assets, due to the implementation of IFRS 16, which soared the value for Right-of-Use-Assets. Due to the implementation be a Modified retrospective approach, only the previous year was adjusted, and as such, we see this significant difference in the accounts.

Figure 19 - Historical Net Working Capital (€M)

Source: Author, Company data



**Right-of-Use-Assets**, as explained above, this was the first year where this account appears on the Balance Sheet due to the implementation of IFRS 16. It accounts for close to 34% of total assets. Very little past analysis can be made in regards to this account, but it is expected that in the future, it should evolve closely to PP&E, as the strategy of the company is to balance their purchases with their leasing in regards to Sales area.

**Net Debt** (Table below) was another parameter that was tremendously influenced by the implementation of IFRS 16. For periods going from 2015 to 2017, Net Debt remained in the €230M-€320M range. In 2018 it spiked to €520M due to the need of repayment of a corporate Bond that had a maturity on February 2020, which can be seen by the change in Current Financial Debt, going from €11M in 2017 to €304M in 2018. Also, the company issued promissory 2 segments of promissory notes with terms for FY2023 and FY2025, with values of €177,5M and €116,7M respectively. In 2019, Non-Current financial debt spiked due to the need of repayment of a historical corporate Bond with maturity in February 15, 2020. A new bond was issued that year, which was in its essence a refinancing of the bond to pay. The new bond has a maturity until October 2026 with an interest rate of 3,25%, as opposed to the previous bond, which had an interest rate of 3,875%, lowering in this way their cost for interest. It was also issued below par, at 99,232%. The key development for the current Financial debt situation for Hornbach as of 2019, was the inclusion of the Lease liabilities, that before were classified as operating leases, an off-balance sheet item, which ramped the **Non-Current Lease Liabilities** from €153M to €1.145M.

It was assumed that **Current** and **Non-Current** Financial Debt represented in the Balance Sheet for the Forecasted years would be the values allocated in the Financial Debt Decomposition for FY2019 in the annual report (Appendix 11). Also, for liquidity purposes 2 bonds of €70M were issued in 2021F and 2022F and for 2023F a bond of €170M to refinance the bond to be paid in that year of €178M.

Table 10 - Historical Net Debt (€M)

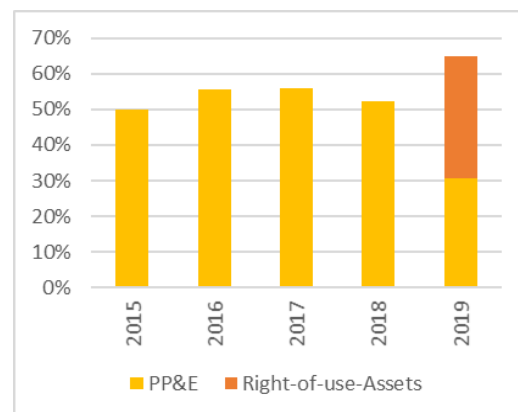
Source: Author, Company Data

Net Debt	2015	2016	2017	2018	2019
Non-current financial debt	€ 418	€ 424	€ 413	€ 294	€ 541
Non-current Lease Liabilities	€ -	€ -	€ -	€ 153	€ 1.145
Current financial debt	€ 94	€ 29	€ 11	€ 304	€ 51
Current Lease Liabilities	€ -	€ -	€ -	€ 11	€ 139
Cash and Equivalents	€ 283	€ 113	€ 102	€ 243	€ 302
<b>Total Net Debt</b>	<b>€ 230</b>	<b>€ 340</b>	<b>€ 322</b>	<b>€ 520</b>	<b>€ 1.573</b>

Regarding **Dividends**, HBM has a continuous dividend policy, having paid for the past 4 years €0,68 per share, totaling €21,63M each year. From the past 9 years, the dividend per share climbed from €0,50 to the current €0,68, with

Figure 20 - PP&E and Right-of-use-Assets weight in Total Assets

Source: Author, Company Data



a strict policy of providing each year, at minimum, the same dividend per share distributed in the previous year.

## 5. Economic Overview

### Global and European Economic Overview

Since 2017 that the World GDP growth (Figure 21) has been declining, going from 3,8% in 2017 to 2,8% in 2019. This decline was greatly aggravated for the current year of 2020 due to the global pandemic that struck, placing the Global GDP growth in negative figures, at negative 4,4%. Despite this huge slump, IMF has positive expectations regarding GDP growth for following years, placing the figure at 5,2% growth, signaling that they expect normality to ensure already in 2021 and stabilizing annual growth for the following years at 3,5%.

For the inflation rate, from 2015 to 2018 it jumped from 2,7% to 3,6%, having then declined to 3,2% for the current year. Forecasts from IMF indicate that their expectation is that the inflation rate remains stable at the current value up until 2025F.

The **World** was struck with a global pandemic that has already infected 38M people and taken more than 1M lives worldwide. It impacted virtually every industry, causing governments to implement measures to try and contain the spread of it. Measures that ranged from mandatory lockdowns, use of masks, prohibition of gatherings, companies having to cease operations, among others. IMF predicts a decline of GDP in 2020 for advanced economies in the order of -5,8%. The current crisis does not relate to the 2007-2008 House Economic crisis, nor to governments' inability to contain their debt and thus requiring financial aid with several conditions attached. This crisis has been triggered by an uncontrollable and unpredictable variable (virus) that has led governments to halt economic activity in order to contain it.

Regarding the **Eurozone**, GDP (Figure 23) is expected to plummet by -7,2% due to the pandemic, which represents a decrease of 880bps in relation to 2019. Unemployment Rate (Figure 25) started to increase as 2020 started, but aggravated with the Government's lockdowns (6,5% in February 2020 to 7,4% in August 2020). For the inflation rate, IMF estimates that for 2020 it will be 1,2% (80bps below target of 2%) and then slowly increase to 2% by 2023 and stabilizes for the following years.

### Germany Economic Overview

Germany, like the majority of countries, was severely impacted by the global pandemic. GDP values has shown a decrease of -2% on the 1<sup>st</sup> quarter on 2020 in respect to the 4<sup>th</sup> quarter of 2019, which aggravated even more in the 2<sup>nd</sup> quarter of 2020, which shown a decline of 9,7% regarding the 1<sup>st</sup> quarter.

Figure 21 - World's and Advanced Economies GDP growth and World's Inflation Rate (%)

Source: IMF, World Economic Outlook Database, October 2020, Author

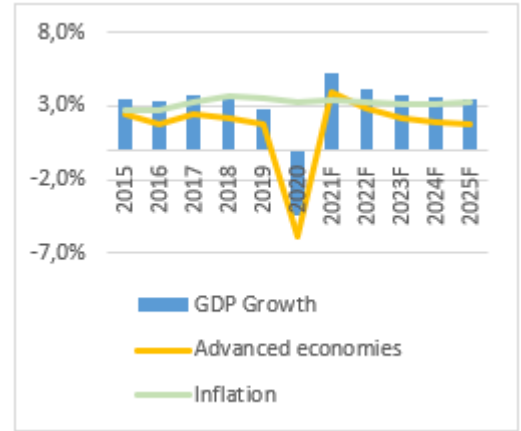


Figure 22 - Quarterly GDP % Change of Germany and EU-27

Source: Destatis, Eurostat, Author

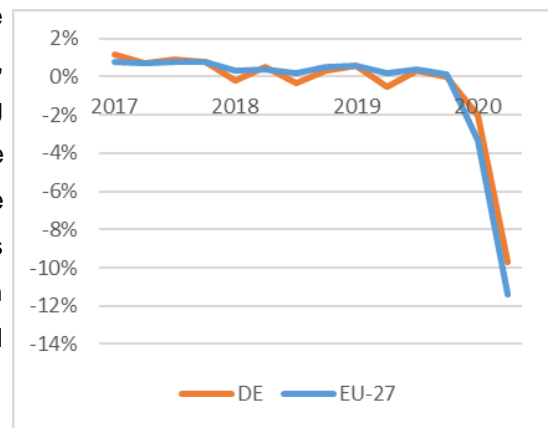
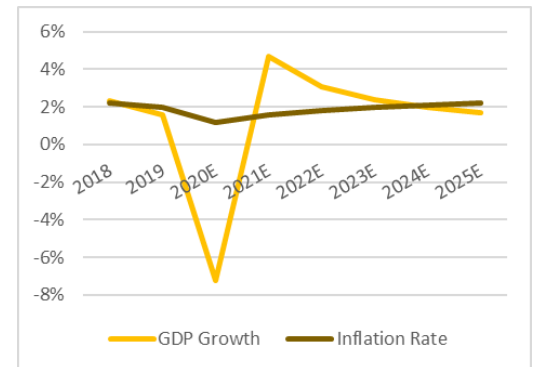


Figure 23 - Europe GDP Growth YoY and Inflation Rate

Source: Author, IMF





Unemployment followed the same trend, having also increased in 2020. The unemployment rate, which had been declining since 2010, had peaked at 8,6%, reached the lowest value in November/December 2019 of 4,9%, and in 2020 reached a value of 6,4% during the month of August. In order to mitigate the effects of the pandemic, the German government proceeded with a program called *Kurzarbeitergeld* to secure the wages of workers who saw their working hours being reduced due to the lack of work, for 60% of the work they were stripped of. This meant that a worker that got his hours reduced to 0 got at least 60% of his salary. This measure allows workers to be able to have economic power to not only be able to keep their homes and support their family but also have the means to continue consuming, boosting and lifting the economy in this downturn. The German government further announced the introduction of a stimulus program in the €130B range, that encompassed a reduction of the VAT from 19% to 16%, one-off payments to families by the number of children in them, funds to address climate change and a support programme for small firms.

Also, the German government, in March, extended the period for bankruptcy filings (Figure 26) to the last day of September for companies that proved that their insolvency was being caused by the pandemic, as such, the number for business insolvencies slowed down during the recent period. This extension was a precaution of the government in fear that a substantial number of firms would file for bankruptcy due to timing issues relating with the receiving of government aid.

The Harmonized Index of Consumer Price (HICP) (Figure 24), which had peaked in October 2018 at 2,6%, slowed down up until October 2019, reaching 1%. Afterwards, it jumped to 1,7% in February 2020, falling to the current -0,2%.

The construction sector (Figure 27) shows positive indicators for a short-medium term perspective as the numbers for Building (dwellings) permits granted increased during 2019 (28K) and maintaining its values for 2020, being given, on average, 31k permits per month. New orders received for construction activity showed an increase in November 2019 of 15,9%, an increase of 9,6% in January 2020 and an increase of 13,4% for June 2020, compared to previous months respectively. However, it is also need to account the downturns during March, April and May due to the pandemic, which brought the values down by -15,3%, -4,4% and -7,5%, for their respective months.

Figure 24 - HICP for Germany, France and EU-27, 2018-2020 August

Source: Author, Eurostat

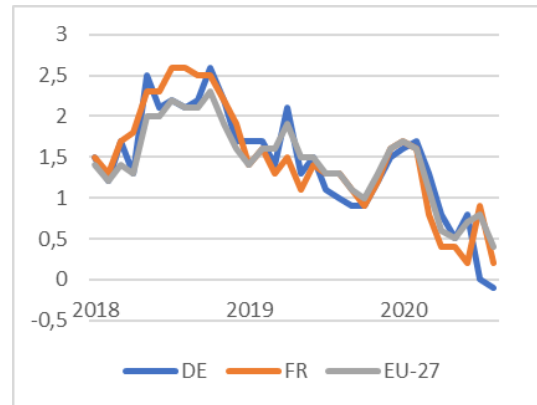


Figure 25 – Unemployment Rate for Germany and EU-27 2017-2020 August

Source: Destatis, Author

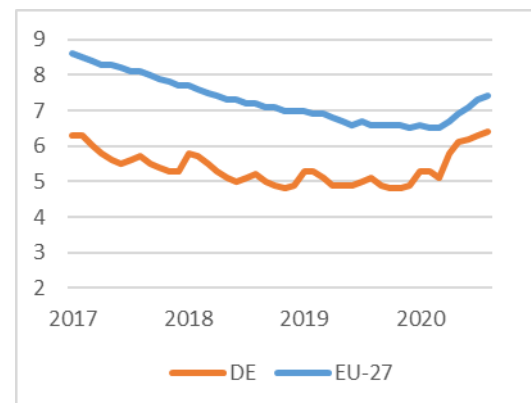
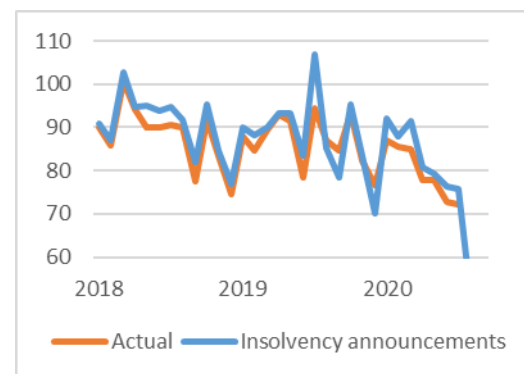


Figure 26 - Actual and announced Insolvency proceedings for Germany 2018-2020 August

Source: Destatis, Author



## 6. Industry Overview and Competitive Positioning

The **Home Improvement Retail** business is considered to be in a mature stage, with the need of capital investments in areas such as sales area expansion/efficiency, online selling platform, modernization of existence stores (for example, implementing VR Showrooms) in order to keep being competitive. It is highly dependent on general economic growth of the country/region as it is also with the evolution of the construction sector. Weather also plays an important role, making this a cyclical industry as most of the sales occur during periods where less meteorological hardships, such as precipitation and frost, happen.

The leading Home Improvement Retail market is the American one, with values for Total Sales (Figure 28) in the order of the \$338B for 2015, growing to \$407B in 2019. Its leading firms, by far, are Home Depot and Lowe's, with both of this firms having a market share (Figure 29) of 45% collectively. Home Depot alone constitutes a bit over 27% of the whole market, raking in Sales values in the order of \$110B while Lowe's is still trailing with Sales values of \$72B. The company that follows Lowe's in terms of sales in the US is Menards Inc, at \$10,3B, making up for only 2,53% of the total market.

Analysts expect this industry in America to grow in the following years due to 3 major drivers: The fact that homeowner's equity has almost doubled in the past five years, making homeowners more inclined to invest more of their savings towards renovating, driving the value of their homes even higher. Also, the average age for Houses in America being of 40 years, with 40% of the homes being over 50 years. The fact that Millennials are now starting to pave their way into home ownership, which, aligned to the fact of the aging housing in America, it is expected that a considerable number of home improvement projects will be undertaken by this generation.

Regarding the **European market**, by assessing the top players of the sector, we can already see an abysmal difference in respect to the American market. We observe that the firm that holds the bigger share of sales (Figure 30) is Group ADEO, raking in €20B in sales. Contrasting with the leading American company, Home Depot, the highest European company is 13 times smaller, in terms of sales, currency adjusted. Furthermore, if we group the value of sales of the top 10 European firms, the value would only amount to €63,9B. This means that the top 10 sales earners of this sector in Europe, grouped,

Figure 27 - Monthly Building permits granted (trend component) and new orders received (% change from previous year) in Germany 2017-2020 August

Source: Destatis, Author

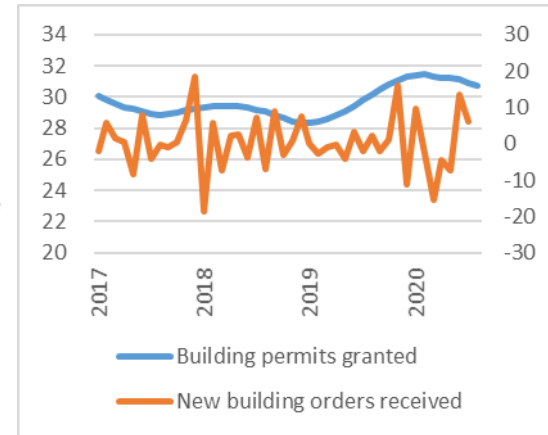


Figure 28 - Total Sales of Home Improvement Sector in the U.S.A 2015-2023F (\$B)

Source: Statista, Author

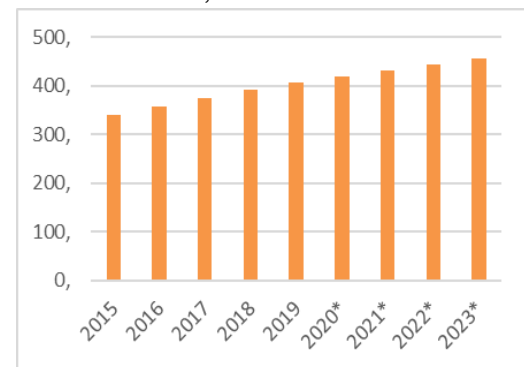
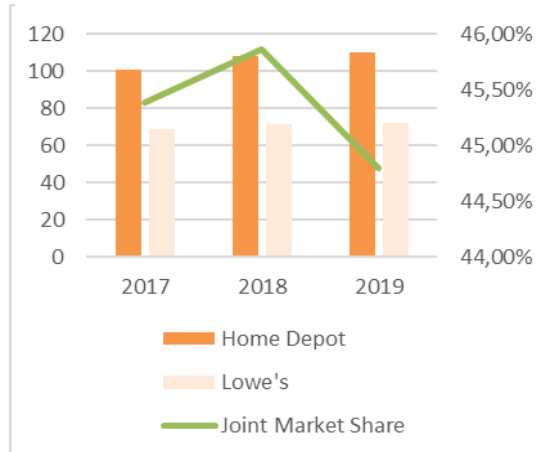


Figure 29 - Sales (\$B) of Home Depot and Lowe's 2017-2019 and their joint Market Share

Source: Company's Annual Reports, Statista, Author





would be comparable to Lowe's, the 2<sup>nd</sup> biggest firm, in sales terms, in the Market.

## Companies' structure

There is a mix in strategy employed regarding the structure of firms in this sector in Europe. Some companies operate as a group and have multiple brands associated, and firms operating under only a unique brand. The two biggest sales earners in Europe are Group ADEO and Kingfisher, with both of them using several brands in the DIY sector. Group ADEO has brands such as: Leroy Merlin, AKI and Bricoman, while Kingfisher has: B&Q (UK & Ireland), Brico Depot (France, Spain, Portugal and Romania), Castorama (France, Poland and Russia) and Screwfix (UK). From the rest of the top earners, companies such as HBM, Bauhaus, Hagebau and OBI, operate under their own single brand.

## Industry in Germany

**In Germany**, the total volume of the Industry (Figure 31), in 2019, was of €46,86B in sales values. Of this we can decompose into 3 main segments: B+H (*Baumärkte und Heimwerkermärkte*) which refers to **Home Improvement Centers**, who combine the functions of both a Hardware Store and a Lumber Yard. Examples of these types of establishments are Home Depot, Lowe's in the US, Hornbach, OBI, Bauhaus, Hagebau in Germany; **Specialty Stores**, which are more focused types of stores, selling items for a specific theme, being Floor & Décor an example of this, which sells hard surface flooring and related accessories; and Small Businesses which have a much more limited inventory catalog and that do not operate as a brand.

According to *Baumarkt Handelsverband* (BHB), B+H segment, which corresponds 49,1% of the sales of the sector, is composed of Home Improvement Centers, where most of them are Home Improvement Centers that has a sales area of more than 1.000 sqm, examples of such firms are Hornbach and its competitors, such as Obi, Toom, Hagebau and Baumarkt Direkt with the rest being firms that operate with an average sales area lower than 1.000 sqm. Specialist Stores and other Small Businesses comprise of the remainder 50%.

Assessing the evolution of sales (Figure 32) of big Home Improvement firms in the last 10 years we verify a growth from 2010 to 2013 of 2,17%, going from €18,4B to €18,8B, followed by a dip of -6,5% in the following year, to €17,6B. Afterwards, it has been steadily climbing Year on Year with a CAGR of 1,72%, having grown 3,6% from 2018 to 2019, reaching €19,5B.

Figure 30 - 2018 Turnover DIY sales (€B) by Retailer

Source: Retail-Index, Author

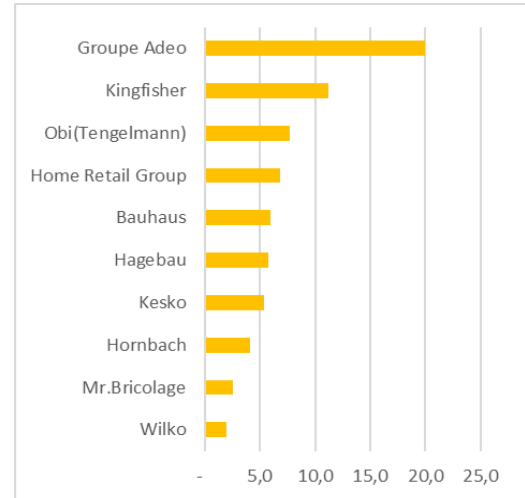


Figure 31 - DIY Industry Composition for 2019 (in €B)

Source: BHB presentation 2020, Author

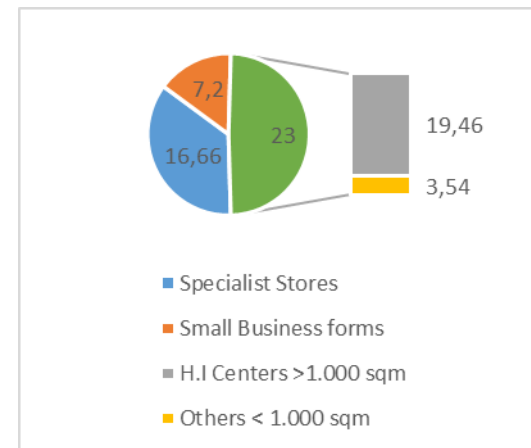
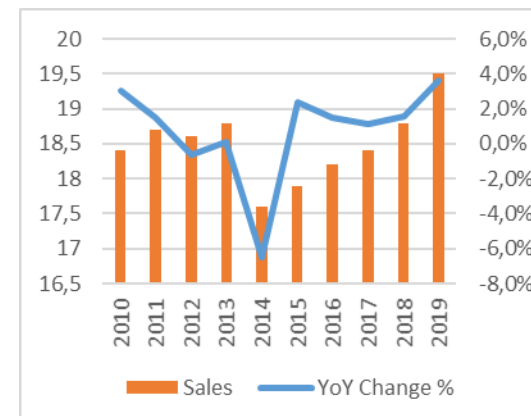


Figure 32 – H.I Centers, with more than 1.000sqm, Sales (€B) and YoY % Change 2010-2019

Source: BHB presentation 2020, Author



According to BHB, in 2019, these firms, saw most of their sales (Figure 33) coming from: Building Materials at €2.024,6M, which account for 10,4% of total sales, having grown 6,9% YoY; Sanitary Installation/Heating at €1.798,4M, accounting for 9,2%, having grown 2% YoY; and Garden equipment at €1.391,7M, accounting for 4,5%, having grown 4,5% YoY. The bottom bracket of sales corresponds to Garden furniture, Tiles and Living/Decoration items, with each accounting for close to 1,7% each, having shown a YoY change for garden furniture and living/decoration items of -3,5% and -2,1% respectively, having Tiles remained more or less constant YoY.

The E-Commerce segment for the DIY sector has been growing at an accelerated pace, increasing from €1,065M in 2010 to almost quadruple of that value to €4.000M, implying a CAGR of 14%.

It is noticeable a decrease in YoY percentage change, having gone from 26,9% to 13,6% in 2013, followed by a jump in the following year to 19,2%, having then decreased to 9% in 2019. Due to the current pandemic, it is expected that, more customers will opt to purchase their items through the e-commerce channel. To note that for 2019, E-Commerce sales accounted for 8,5% of total sales for DIY sector.

## Retail Revenue

Assessing the retail revenue distribution in Germany over the past 10 years, we can verify the trend of high growth regarding e-commerce doesn't refer only to the DIY sector but to all retail accounted. Online sales have grown from corresponding to 0,2% in 2010 to 4,7% in 2018, implying a CAGR of 18,1%, showing how important and relevant it is for companies to tap into this alternative channel. Specialist retailers' chains have also seen their position being favored, gaining 4 percentual points from 2000 to 2018, changing from 12,2% to 16,1%. Specialist retailers excluding chains have been the channel that lost their share the most, having gone from a share of 31,9% in 2000 to 16,2% in 2018, representing a decline of -3,7% on average per year.

Figure 33 - Top/Low 3 Sellers for DIY stores for 2019 (in €000's)

Source: BHB presentation 2020, Author



Figure 34 - DIY E-Commerce sales (in €000's) for 2019

Source: Statista, BHB presentation 2020, Author

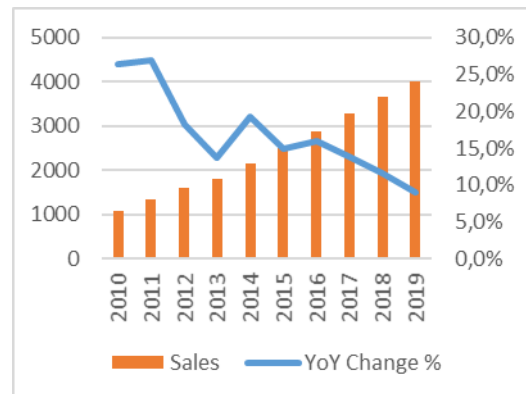
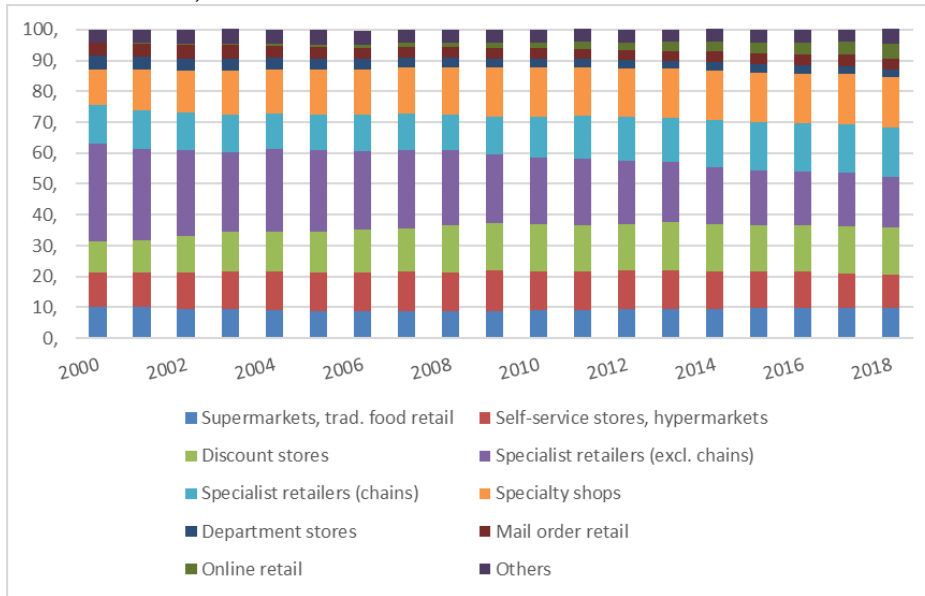


Figure 35 - Retail revenue distribution in Germany by sales channel 2000-2018

Source: Statista, Author



Analyzing the recent trends on DIY and non-food retailing in general (Adjacent Figure), it can be seen a growing trend from 2019 to 2020. Comparing the index for the months of May, June, July and August, we observe an increase of the index for Non-food to 116,6, 118,9, 122,2 and 115,3 from 112,6, 108,1 and 115,6, respectively for each of the months (increase of 4, 10,8, 6,6 and 5). The change was even greater for DIY sector, with it reaching an index of 118,4, 115,2, 119,8 and 110,9, from 108,2 100,9, 105,4 and 102,6 respectively for each month (increase of 10,2, 14,3, 14,4 and 8,3). To note that during the months of March and April of the current year, it can be seen a sharp decline when compared to the same periods in the previous year, for non-food, we see a decline of -6,3 and -15,3, to 105,8 and 99 respectively, and for DIY sector a decline of -13,4 and -22,9, to 97,8 and 87,2 respectively. This trend can also be seen in regular retail (Adjacent Figure) where the change in relation to the previous months is very close to zero from May 2019 to February 2020, having in March dipped to -5,6% with a -5,3% follow-up in April.

According IFAK, Ipsos and GfK Media and Communication Research (Figure 38), it can be seen that Olympics Baumarkt Holding (OBI) is, by far, the most popular store to purchase DIY and Home Improvement products. For the people surveyed, it represents more than 30% of the total answers provided, although having reduced from 35% (2015) to 32% (2019). Hornbach has been increasing their representation, going from 15,7% (2015) to 16,5% (2019), however, has been outpaced and outranked by Bauhaus, which represented 13,7% of the answers in 2015, to 17,7% in 2019. Globus and Toom Baumarkt

Figure 36 - DIY and total non-food retailing in Germany 2016-2020 August Turnover (base Year 2015)

Source: Destatis, Author

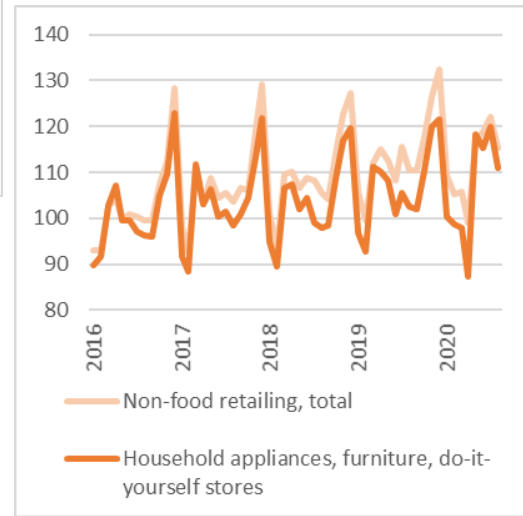
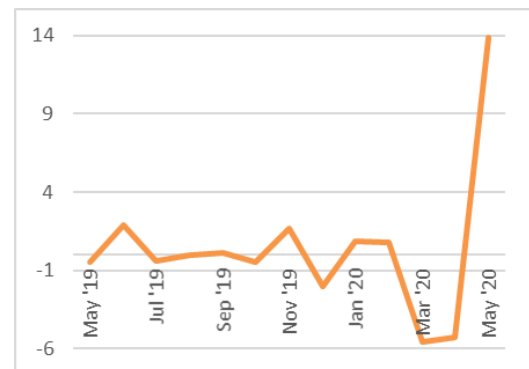


Figure 37 - Monthly sales development in German Retail 2019-2020

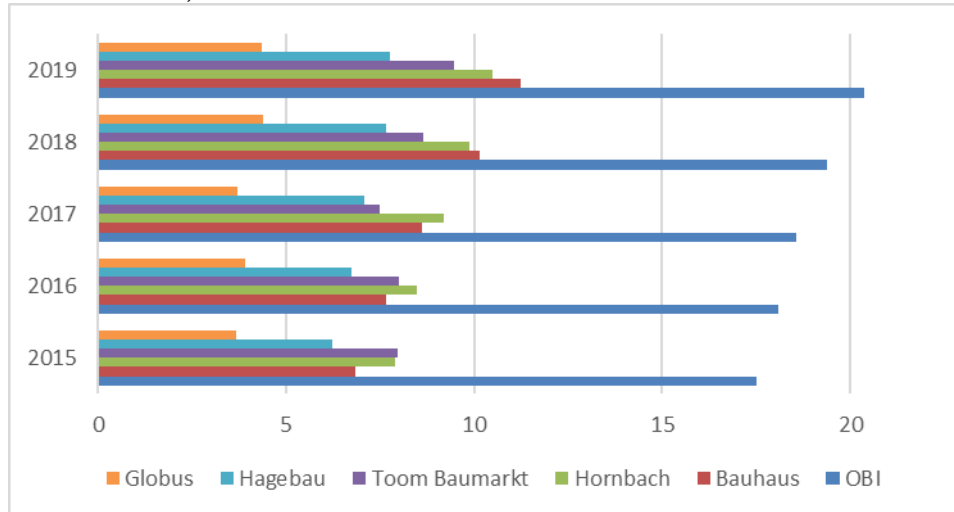
Source: Author, Statista



have worsened their position in terms of representation, going from 7,3% (2015) to 6,8% (2019) and 15,9% (2015) to 14,9% (2019) respectively.

Figure 38 - Survey on DIY Stores used in the past 6 months (thousands)

Source: Author, Statista



## Weather

As previously mentioned, weather conditions affect the DIY and Home Improvement sector. Additional frost and ice days and an increase of the precipitation delays the construction sector and people wanting to work on garden/outdoor projects, implying a decrease in revenue.

According to the Deutscher Wetterdienst (DWD), the German Meteorological Service, it is predicted, through their models, that precipitation (Appendix 16) levels, for the next 20 years, will remain virtually identical to the current levels, at 800mm (1mm of rain corresponds to 1 liter per square meter of water on the surface) per year.

Regarding Frost days (Appendix 17), the trend has declined since 1951, having the running mean gone from close to 100 days in 1951 to close to 70 days in 2019, with predictions for the following years also to continue to decline, with half of the models indicating a mean value of close to 60 days in 20 years.

Ice days (Appendix 18) also follow the declining trend of Frost days, having gone from close to 30 days in the 1960's to 15 days in 2019. It is predicted for the next 20 years, the value to be close to 10 days.

## HBM Competitive Positioning

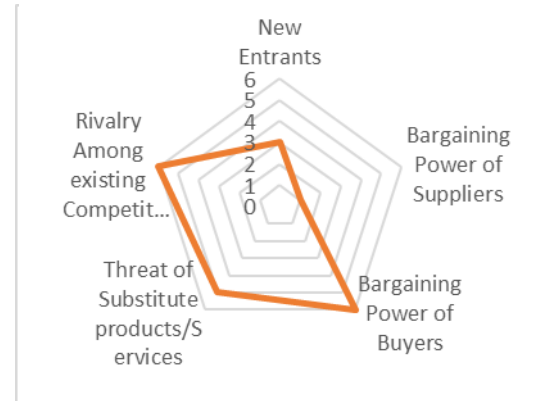
To understand the Competitive Positioning of HBM in the DIY Home Improvement market, a Porter's Five Forces and SWOT analysis was conducted:

## Porter's Five Forces

- **Threat of new entrants (Moderate):** For this Industry, there isn't a high cost for customers to switch between firms. Also, there is no need of a substantial amount of capital to be able to secure a small location to operate and supply it. However, big players of the market spend vast amounts of capital in brand image/awareness, making it difficult for smaller business owners to gain market share.
- **Bargaining Power of Suppliers (Low):** The vast offer of suppliers makes it so that there is a power imbalance in the negotiation table. Also, for the aforementioned reason, suppliers tend to establish exclusivity contracts with the firms, giving them, on one hand, business security, but giving up leverage to them.
- **Bargaining Power of Buyers (High-Very High):** Customers have considerable power over the firms. The Low switching costs of customers, allied with the availability of information to consumers regarding alternative solutions, provides customers with power over the firms.
- **Threat of Substitute Products/Services (high):** The low switching costs of customers allied to the availability of substitute products, as products such as building materials are standardized and undifferentiated, customers will find no difficulty in procuring alternatives.
- **Rivalry among existing Competitors (High-Very High):** The existence of several companies operating at the level of HBM, such as Obi, Bauhaus, Hagebau and Toom, allied to the low switching costs of customers, and the moderate exit barriers, making it unlikely for these firms to stop operating, translates to a very competitive environment.

Figure 39 - Porter's Five Forces

Source: Author



## SWOT Analysis

Table 11 - SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Known Brand and within the top 10 in Europe;</li> <li>• Geographically Diversified;</li> <li>• Vanguard in terms of innovation in the sector;</li> <li>• The only German DIY firm listed on Stock Market;</li> </ul>	<ul style="list-style-type: none"> <li>• High Levels of Debt;</li> <li>• Coming from a downturn;</li> <li>• Poor payables management;</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Increasing Online retailing;</li> <li>• Accessibility to credit;</li> <li>• Availability of Labour;</li> </ul>	<ul style="list-style-type: none"> <li>• Competition;</li> <li>• Weather dependent;</li> <li>• Exposed to different countries' legislations;</li> <li>• Current Coronavirus pandemic;</li> </ul>

## Peer Comparison

To understand how HBM performed in relative terms in the Industry, Kingfisher was selected as a comparable company (due to Geographical Diversification and volume of sales) to assess some profitability and activity ratios.

Regarding Gross Profit margin (Figure 40), HBM lagged behind Kingfisher (36,6% compared to 37%). However, HBM outperformed Kingfisher for the rest of the ratios, starting from EBITDA margin (9,3% compared to 7,2%), ending on Net Profit margin (1,8% compared to 0,1%). The poor performance of Kingfisher over the last year is attributed to impairments of their store property portfolio and loss in value of their business segment in Russia.

Regarding Activity ratios (Figure 41), HBM was more efficient regarding their inventory, taking on average 106 days to turn their inventory into sales, as opposed to Kingfisher which took on average 127 days. For the average collection period, it took Kingfisher, on average, a full week more than HBM to translate sales to cash (8 days compared to 1 day). For the average payment period, Kingfisher outperformed HBM significantly by paying to its suppliers, on average, in 62 days, whereas HBM paid in 33 days. Despite the disparity on Inventory and Payables days outstanding for both companies, the Cash Conversion Cycle for both companies is 74 days.

Figure 40 - HBM and Kingfisher Profitability margins

Source: Author, Company Data

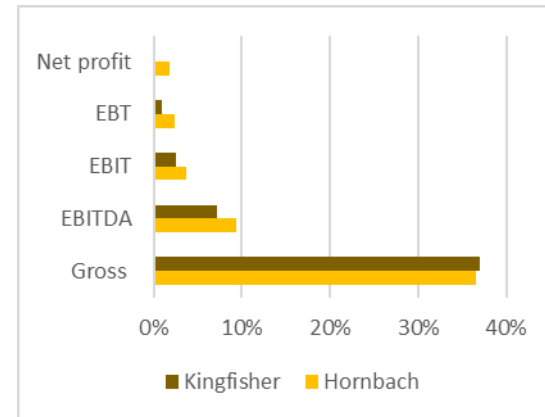
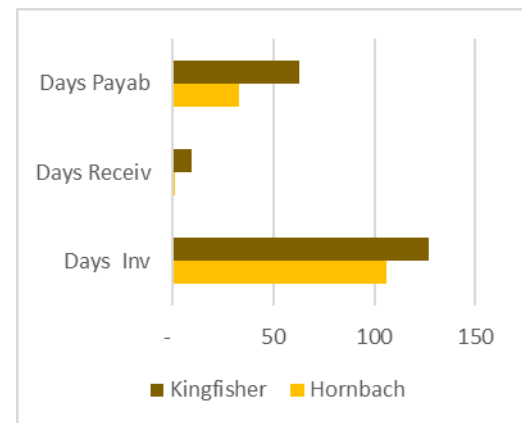


Figure 41 - HBM and Kingfisher Activity ratios

Source: Author, Company Data



## 7. Investment Summary

With a Price Target of €42,31, an **Upside Potential** of (11,5%) for YE2020, using the **Discounted Cash Flow Model**, and **Medium Risk** assessment the recommendation is to **HOLD**. Valuation through Dividend Discount Model does not follow this recommendation as the current Dividends are too low to support the DCF valuation. (Table 12)

HBM is a top performing firm in the European Market for DIY and Home Improvement products. Although general economic conditions dictate a negative outlook, companies from the sector are benefiting from the increased demand generated from lockdown restrictions. This translates to a significant increase of sales for FY2020 (11%)

### Company Valuation

The three methods used to value HBM were the **Discounted Cash Flow (DCF)** model and the **Dividend Discount Model (DDM)** for intrinsic valuation and **Relative Valuation**. Since the HBM has been consistently delivering Dividends to shareholders in the past, it was assumed that DDM would be a good candidate for supporting the valuation of the DCF, however dividends per share have stagnated over the past 5 years at €0,68 per share, with no indication to increase in the following years. Also, with dividends not being relative to the profitability of the company, they are not a true representation of the future profitability of HBM. DCF indicates a target price of €42,31, which is supported by a relative valuation.

### Financial Position

It is expected for HBM to continue to see their sales grow for the near future motivated by the lockdown measures, that increased demand substantially, and by the investments made on online platforms to support the demand. For the years following it is expected a slowdown in momentum.

Over the past years it can be seen a rather stable Gross Margin, with a slight dip in 2018. **EBITDA margin** has shown a decreasing trend from 2015 to 2018 (9,4% to 7,7%) having recovered in 2019, jumping to 9,3% due to cost optimization, and it is expected to hover around the 9% mark until 2023F. **EBIT** margin was stable for years 2015 to 2017 at 2,6%, dipping the following year to 1,6% and then jumping to 3,7% due to increased EBITDA and then it is expected to trend around 3%. Falling just short of it in 2023F due to higher depreciation values of Leased items.

Table 12 - Valuation Summary

Source: Author, Company Data

DCF Valuation		
Equity Value	€	1.345.623
<b>Price Target</b>	<b>€</b>	<b>42,31</b>
Relative Valuation		
Equity Value	€	1.325.432
<b>Price Target</b>	<b>€</b>	<b>41,67</b>
<b>Difference</b>	<b>€</b>	<b>0,63</b>
DDM Valuation		
Current Dividend per share	€	0,68
<b>Price Target</b>	<b>€</b>	<b>11,95</b>

### **Risks to Price Target**

The current Coronavirus situation provides the biggest degree of uncertainty to the company as governments established lockdowns, which hindered overall economic activity. This affects not only the volume of in store customers, but also may disrupt procurement. The investment made from HBM in regards to technology (e-commerce) over the past years helped the company through this downward moment as customers couldn't shop in-store.

To assess the impact of the main risks associated to the price target, a sensitivity analysis (Figure 51) and a Monte Carlo (Figure 52) simulation was conducted. The mean price obtained in Monte Carlo simulation supports the recommendation of **HOLD**.



## 8. Valuation

### Valuation Methodology

Two types of valuations were used to assess the equity value of HBM. An absolute valuation through DCF model through FCFF and DDM perspectives, and a relative valuation through market multiples.

### Key Valuation Drivers

#### Revenue

Revenue for HBM was obtained by taking into consideration Interim reports from HBM and Forecasts from experts of the sector. Although HBM is present in 9 different countries, they only report the sales values for **Germany** and then condense the other 8 countries in 1 segment which the company refers to **Other European countries**.

An analysis of assessing past information regarding the evolution of the incremental sales per new store opening (Table 13) shows inconsistencies in values, example being in 2015, 7 new stores were opened, but the value of additional sales per new store opened was €25.549, whereas in 2019, 2 new stores were opened with an average of additional sales per store of €166.252. this makes an assessment regarding future sales a function of newly opened stores in that year extremely difficult.

Also, analyzing the average sales value per store (Appendix 20) shows that, although the value has been growing since 2012, it shows erratic growth. From 2013 to 2015. The average sales per store grew 2,2%, 2,8%, 0,5% and then from 2017 to 2019, grown 4,2%, 3,9% and 6,8%. To note, however, that HBM is benefiting from bigger sales values per store outside of Germany than in Germany. Which motivates the expansion strategy, which can be seen by the increase of stores from 41 (2010) to 64 (2019).

The most consistent metric that HBM presents in this regard is the actual evolution of sales, which has been on the 5% every year, since 2008, excluding 2012 where it was 0,7%, having grown 8,1% 5,3%, 4,9%, 5%, 5,3% and 4,4% for years 2019, 2018, 2017, 2016, 2015 and 2013 respectively. This evolution goes in line with the growth for the sector for that same period according to HIRI (Home Improvement Research Institute).

According to the Q1 and Q2 report for 2020 from HBM, sales (Appendix 10) have spiked in relation to the previous year, with an YoY change of 18,4% and

Table 13 - Yearly change in sales per Change in N° of Stores

Source: Author, Company Data

	$\Delta$ stores	$\Delta$ sales	$\Delta$ sales / $\Delta$ store
2019	2	€ 332.503	€ 166.252
2018	2	€ 204.831	€ 102.416
2017	1	€ 180.607	€ 180.607
2016	2	€ 175.251	€ 87.626
2015	7	€ 178.846	€ 25.549
2014	5	€ 204.000	€ 40.800
2013	3	€ 132.000	€ 44.000

23% for the respective Quarters. Germany and Others saw a YoY change for Q1 of 23,6% and 12,7% respectively. The disparity in growth was due to the fact that there were more restrictions imposed outside of Germany than it was in Germany. As all restrictions were lifted, Q2 for both regions increased YoY by 24,4% and 21,6%, respectively, meaning that without restrictions on sales, both regions grew similarly. This growth in sales implied a YoY change for the first 6 months of 20,62%. Expectations regarding the rest of the year, although not at the level of the first 6 months, are also very positive, with HBM expecting to increase between 9% and 15% in yearly sales which goes in line with the expectations of HIRI, which expect for 2020 an increase of 11%. An increase of yearly sales of 11% was assumed for 2020.

As 2020 was an anomalous year, it is not feasible to assume an increase of the same level for the following years, as such it is assumed the industry forecast of 2,8% for the following years.

Other smaller revenues were calculated as an historical average of the past 5 years

## Main Costs

Most of the costs – COGS, Selling and Store Expenses, Pre-opening expenses and General and Administration Expenses, have followed a stable proportion in relation to sales, as such, for these estimated costs, an historical average of the past 5 years.

According to the HBM 2020 Half-year Interim report, to acknowledge the work performed by the employees during the pandemic, management decided to pay a one-off bonus of €6,9M. Additionally, COVID-19 related expenses in relation to preparing the stores in accordance with Health & Safety guidelines, amounted to €12M. Both of these costs were taken into account for the forecast for 2020 results.

## Capital Expenditure (CapEx)

HBM over the years have been consistently investing into their fixed assets, whether it meant the opening of new stores or maintaining/expanding their existent operations, as such, it is expected for HBM to continue to conduct these investments. An average of Capex in terms of sales has been computed for the past 4 years.

As no prior information regarding Right-of-use-Assets exist, to go in line with the company's strategy off balancing their PP&E with Leased Assets, it was assumed the same level of CAPEX for both items.

Figure 42 - Sales from 2019 to 2023F

Source: Author

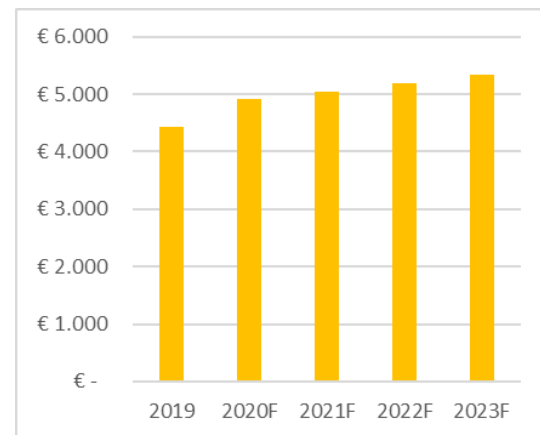


Figure 43 - Major Operating Expenses in % of Sales

Source: Author, Company Data

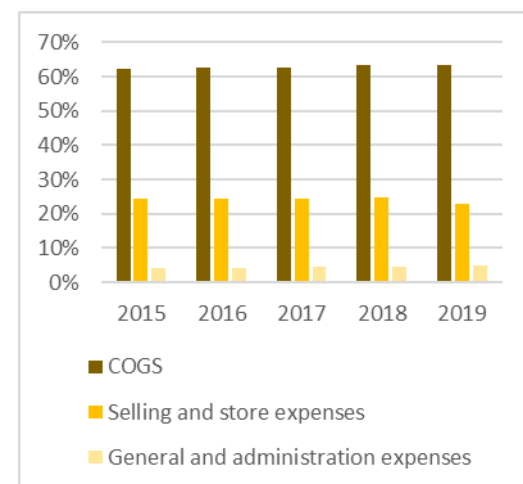


Table 14 - Capex, 2016-2019 (€M)

Source: Company Report, Author

CAPEX	2016/2017		2017/2018		2018/2019		2019/2020	
CAPEX PP&E	€	166.959	€	109.545	€	27.428	€	102.729
% in sales		<b>4,50%</b>		<b>2,82%</b>		<b>0,67%</b>		<b>2,32%</b>
CAPEX Intangible	€	5.852	€	7.800	€	3.720	€	4.355
% in sales		<b>0,16%</b>		<b>0,20%</b>		<b>0,09%</b>		<b>0,10%</b>

For Depreciations and Amortizations, it is expected to grow very closely to the average of the past years D&A rates over the Gross value of PP&E and Intangible Assets.

Regarding Depreciations for Right-of-use-Assets, since the company was required to implement IFRS 16 in the last reported year, only 1 data set point is available, as the company opted to use a Modified Retrospective Approach which does not require a restatement of previous financial statements.

To note that Depreciation rate for Right-of-use-Assets significantly higher than the rate for PP&E because Depreciation for Right-of-use-Assets is over the shorter of: useful life of the asset and lease term. The average lease terms for HBM are close to 10 years.

Table 15 - Depreciation, 2015-2019 (€M)

Source: Company Report, Author

Depreciations	2015/2016		2016/2017		2017/2018		2018/2019		2019/2020	
PP&E	€	1.674.719	€	1.817.666	€	1.900.830	€	1.874.927	€	1.960.203
Intangible	€	91.439	€	97.046	€	104.354	€	107.892	€	111.757
Value Leased	€	-	€	-	€	-	€	-	€	1.419.390
Depreciation PP&E	€	68.769	€	71.552	€	76.238	€	75.149	€	77.732
Amortization Int. Asset	€	4.208	€	2.662	€	4.143	€	5.218	€	5.885
D&A Leased	€	-	€	-	€	-	€	-	€	166.069
Depreciation %		<b>4,11%</b>		<b>3,94%</b>		<b>4,01%</b>		<b>4,01%</b>		<b>3,97%</b>
Amortization %		<b>4,60%</b>		<b>2,74%</b>		<b>3,97%</b>		<b>4,84%</b>		<b>5,27%</b>
D&A % Leased										<b>11,70%</b>

## Net Working Capital (NWC)

For Net Working Capital, we verified that the current assets: Inventories, Trade Receivables and other current assets behaved similarly over the years in relation that year's sales, as such a 5 year historical average was assumed for the forecasted years, except for inventories, which spiked in 2018 and maintained the same value for 2019, this was due to a company strategy of providing a wider range of inventory, as such, the average of these last 2 years was taken into account. For the remaining current assets: Contract assets and Income Tax receivables, as they represent such a low portion of sales and are unpredictable, the last value for 2019 was assumed to be the value for following years. For Current Liabilities, only Trade payables was considered to be a percentage of sales for its consistency. Other accounts such as

Contract liabilities, Other current liabilities, Income tax Liabilities and Other provisions and accrued liabilities was considered their 2019 value for following years.

Table 16 - Net Working Capital, 2015-2019 (% of Revenue)

Source: Company Report, Author

Net Working Capital	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
<b>Current Assets</b>					
Inventories	16,6%	16,9%	16,9%	18,5%	18,4%
Trade receivables	0,3%	0,2%	0,2%	0,3%	0,3%
Contract assets	0,0%	0,0%	0,0%	0,0%	0,0%
Other current assets	1,3%	1,2%	1,4%	1,5%	1,6%
Income tax receivables	0,5%	0,2%	0,1%	0,1%	0,0%
<b>Current Liabilities</b>					
Trade payables	7,3%	6,6%	6,5%	5,5%	5,7%
Contract liabilities	0,0%	0,0%	0,0%	0,8%	0,8%
Other current liabilities	2,2%	2,2%	2,3%	1,7%	1,7%
Income tax liabilities	0,4%	0,4%	0,3%	0,2%	0,4%
Other provisions and accrued liabilities	2,1%	2,1%	2,3%	2,1%	2,2%

## Discounted Cash Flow Valuation

To estimate the Discounted Cash Flow Valuation (DCF), it was considered a valuation period from March 1<sup>st</sup>, 2020 and February 28<sup>th</sup>, 2024, and afterwards the terminal value.

Following the forecasting of the financial statements, it was computed the Free Cash Flow to the Firm (FCFF) for the forecasted periods and afterwards it was discounted with the Weighted Average Cost of Capital (WACC).

FCFF was computed through the following formula:

$$FCFF = EBIT * (1 - Effective Tax Rate) + D\&A - CAPEX - \Delta NWC$$

With FCFF on the last period being a Terminal Value, following the formula:

$$\frac{EBIT * (1 - Tc) - \Delta NWC}{WACC - g}$$

Table 17 - DCF Output

Source: Author, Company Data

DCF Output (in thousands)	
Ent. Value YE2020	€ 2.906.679,33
Net Debt	€ 1.561.056,19
Eq Value	€ 1.345.623,15
Shares outstanding	31.807
<b>Price Target</b>	<b>€ 42,31</b>
Share Price at	€ 37,95
Upside Potential	<b>11,5%</b>
<b>Recommendation</b>	<b>HOLD</b>

FCFF	2020F	2021F	2022F	2023F	2024F
EBIT*(1-Tc)	€ 113.198	€ 120.568	€ 113.822	€ 106.886	€ 108.490
Dep & Amort - owned	€ 88.664	€ 94.177	€ 99.844	€ 105.670	
Dep & Amort - Leases	€ 180.885	€ 196.115	€ 211.772	€ 227.868	
CapEx - owned	€ 133.414	€ 137.150	€ 140.990	€ 144.938	
CapEx - Leases	€ 126.630	€ 130.176	€ 133.821	€ 137.568	
Change in NWC	€ 53.781	€ 19.634	€ 20.184	€ 20.749	€ 21.061
<b>FCFF</b>	<b>€ 68.922</b>	<b>€ 123.900</b>	<b>€ 130.444</b>	<b>€ 137.170</b>	<b>€ 3.085.937</b>
<b>PV</b>	<b>€ 66.060</b>	<b>€ 113.822</b>	<b>€ 114.857</b>	<b>€ 115.763</b>	<b>€ 2.496.178</b>

Table 18 - FCFF Calculation (€M)

Source: Author

## WACC assumptions

WACC was calculated applying the following formula:

$$WACC = Ke * \frac{E}{V} + Kd * \frac{D}{V} * (1 - Tc)$$

Where  $Ke$  is the Cost of Equity,  $Kd$  is the Cost of Debt,  $E$  and  $D$  are the market values of Equity and Debt, respectively, and  $V$  is the sum of the previous two and  $Tc$  is the company's marginal Tax rate.

Cost of Equity ( $Ke$ ) (Appendix 14) was computed using the CAPM formula with a Country Risk Premium:

$$Ke = Rf + \beta * (MRP - Rf) + CRP + CP$$

The **Risk-Free rate (Rf)**, is the weighted average, by proportion of sales, of the risk-free rate used for each country in which HBM operates. The values for  $Rf$  for each country were found in the annual survey of Fernandez<sup>1</sup>. The value obtained was 1,16%.

Or the **Beta ( $\beta$ )** (Appendix 13), due to the lack of suitable peers for a pure-play method of Beta unlevered, to then lever it according to the Capital Structure, a regression of the monthly returns of HBM against the monthly returns of the DAX index. To that Beta obtained, a Blume adjustment was performed, obtaining a value for the Beta of 0,87. Additionally, the pure-play method to calculate beta was also used. The peers Betas were obtained, by the Regression method, against the main Index of each of the companies' countries, and the value obtained for the Levered Beta for HBM was 1,14, which is 0,28 higher than the one calculated through Regression.

Table 19 – WACC

Source: Damodaran, Fernandez, Deloitte, Company Data, Author

2020F	
Risk-Free rate (Rf)	1,2%
Country Risk Premium (CRP)	0,3%
Market Risk Premium (MRP)	5,5%
Covid Premium	2,0%
Adjusted Beta	0,87
<b>Cost of Equity (Ke)</b>	<b>7,27%</b>
<b>Cost of Debt (Kd)</b>	<b>3,08%</b>
Tax Rate	26,3%
Weight of Equity	41,2%
Weight of Debt	58,8%
<b>WACC</b>	<b>4,33%</b>

<sup>1</sup> Fernandez, Pablo and de Apellániz, Eduardo and F. Acín, Javier, Survey: Market Risk Premium and Risk-Free Rate used for 81 countries in 2020 (March 25, 2020).

For **Market Risk Premium (MRP)**, it was calculated as the MRP for each country HBM operates in, weighted by their proportion in total sales value. Values for each country's MRP was found in the Fernandez survey mentioned already. The value obtained for MRP was 5,54%.

For the **Country Risk Premium (CRP)**, calculated again as a weighted average of the CRP of each country in relation with total sales of HBM for that country. The values for each country's CRP was extracted from Damodaran Database. The value obtained for CRP was 0,31%.

For the **Covid Premium (CP)**, a premium was added to take into consideration the generalized risk of the Covid pandemic. The value for this premium was found in a Deloitte Report on April 29<sup>th</sup>, *Valuation & Capital Markets Impact Monitor*. The use of this premium was also referenced in the Fernandez' survey, where some respondents referred that due to the pandemic, they were adjusting their model by 2%, which goes in line with the Deloitte paper, which range the premium for the Eurozone between 1,5%-2,5%. A premium of 2% was chosen.

**Cost of Equity (Ke)** thus amounts to 7,27%.

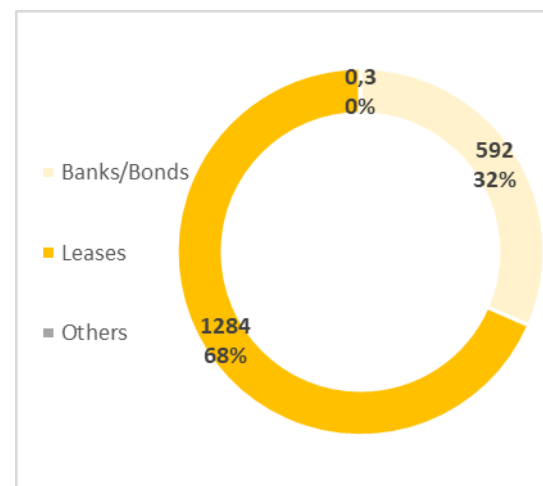
For the **Cost of Debt (Kd)**, as HBM has a bond available in the market, the yield to maturity for that bond (Appendix 15) was calculated, which, at the time of the calculations, 22<sup>nd</sup> August, amounted to 3,01%. Also, HBM refers in their latest Annual Report that the Weighted Average Incremental Borrowing rate amounted to 3.1%. As both of these debts accounted for close to 82% of the total Financial Debt, a weighted average between the two rates was used, giving a weight of 4/5 to the Incremental Borrowing rate, and 1/5 to the Yield to maturity of the bond. The value obtained for Cost of Debt was 3,08%.

The **Effective Tax Rate (Tc)** was obtained by weighting in the Corporate Tax rates for each country that HBM operates in with the respective proportion in sales. The values for each country's Tax rates were obtained through Damodaran Database. The Tax rate obtained was of 26,3%.

For the **Terminal Value (TV)**, it was assumed that the Perpetual Growth Rate (g) would be the average GDP growth for Germany over the past 15 years, which amounts to 1,5%. It was also assumed that Depreciations would be equal to CAPEX.

Figure 44 - HBM Debt decomposition YE2019

Source: Author, Company Data



Thus, reaching to Weighted Average Cost of Capital (WACC) of 4,33%

## Dividend Discount Model

Regarding the Dividend Discount Model, a Gordon Growth Model was utilized. As no indication of a change in the amount of dividend per share was announced, and the fact that the value remains unchanged for the past 5 year at €0,68 per share, it was considered that on the Long-term it would grow according to the 15-year Historical average GDP growth for Germany, which is 1,5%. What can be verified is that, for the current available information regarding the evolution of dividends, the value is far off the current trading price of the share, which for the month of September has been hovering the €40 mark. This implies that for this dividend discount model to emulate the current values of the share, either it is announced an increase of dividend to triple the current value. As such, this model, as it stands, with the available information, isn't in conformity with market current pricing.

The DDM was computed through the following formula:

$$V_0 = \frac{D_1}{r - g}$$

## Relative Valuation

HBM operates as a DIY Home Improvement retailer, as such, a relative valuation will take into consideration other companies that operate in the same space.

The criteria of selecting peer companies (Appendix 22) were: 1) Operating in the same market as HBM (Europe), 2) Operating in multiple countries within the European market. The number of companies found were 4, due to the fact that a very significant number of companies in this industry are privately held companies.

The multiples chosen for this valuation were: EV/EBITDA, EV/EBIT, EV/Sales and P/E. This allows us to assess the relationship between EV and profitability on different levels. The following results were achieved:

Table 22 - Peers Multiples

Source: Author, Yahoo Finance, Company Data

Peers	EV/EBITDA	EV/Sales	EV/EBIT	P/E
Kingfisher plc	7,9	0,7	17,3	42,1
Bygghem AB	6,2	0,8	17,9	20,7
Clas Ohlson AB	5,6	0,8	12,6	14,1
Dunelm Group plc	14,5	2,7	24,2	27,5
<b>Average excluding outliers</b>	<b>6,6</b>	<b>0,8</b>	<b>18,0</b>	<b>20,8</b>

Table 20 - DDM Output

Source: Author, World Bank, Company Data

Price Target	
Dividend 2020	€ 0,68
Cost of Equity (Ke)	7,27%
Long-term Growth Rate	1,5%
<b>Price Target</b>	<b>€ 11,95</b>

Table 21 - Relative Valuation Output

Source: Author

Relative Valuation	
Average Equity Value	€ 1.325.432,21
Shares Outstanding	31.807
<b>Price Target</b>	<b>€ 41,67</b>
Upside Potential	<b>9,8%</b>
Recommendation	<b>HOLD</b>



Table 23 - Relative Valuation

Source: Author

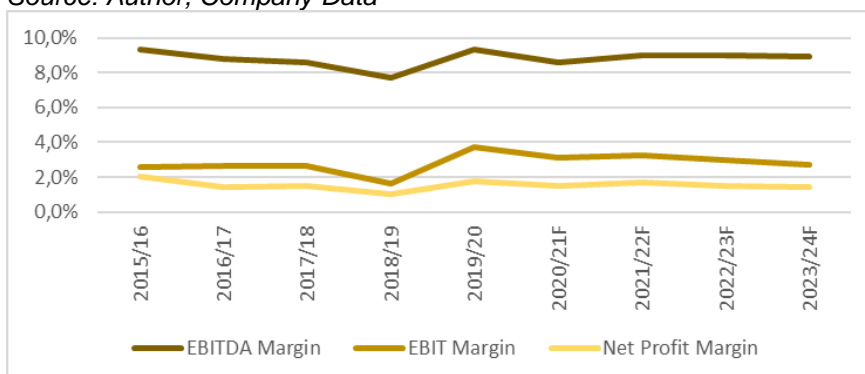
Hornbach	EV/EBITDA	EV/Sales	EV/EBIT	P/E
Price Target	€ 38,3	€ 68,9	€ 37,8	€ 48,9
Average Price Target	€ 41,7			

## Financial Statements Forecast Analysis

**EBITDA Margin**, which over the past 5 years has been declining, going from 9,4% in 2015 to 7,7% in 2018, recovering to 9,3% in 2019, will, over the forecasted years, be 8,6% in 2020F and then going and maintaining at the 9% mark up until 2023F. **EBIT Margin**, that over the past 3 years oscillated from 2,6% in 2017 to 1,6% in 2018 and 3,7% in 2019, will see for the forecasted years a trend a bit over the 3% mark until 2022F, and then suffering a decline to 2,7% in 2023F. This is due to an increase on the depreciations of the Right of use Assets, which are on average depreciated at a higher rate than standard PP&E. This in turn will cause the same trend on the **Net Profit Margin**, meaning that Net Profit Margin up until 2022F will hover the 1,6%, suffering a decline to 1,4% in 2023F.

Figure 46 - EBITDA, EBIT and Net Profit Margin (%)

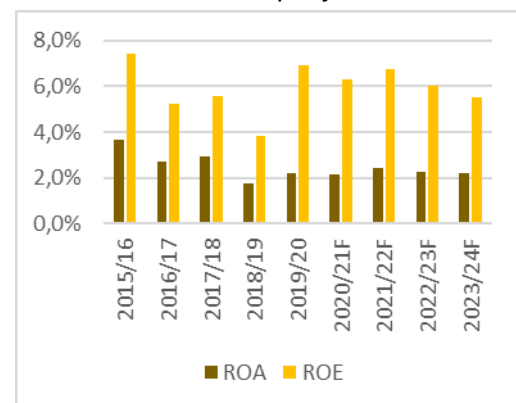
Source: Author, Company Data



**Return on Equity (ROE)** and **Return on Assets (ROA)** follow the same trend of profitability mentioned above. Over the past 5 years, these ratios shown some volatility, with ROE ranging from 7,4% in 2015 and 3,8% in 2018, stabilizing in the forecasted years in the 6% mark, and with ROA ranging from 3,6% in 2015 and 1,8% in 2018, with ROA stabilizing in the forecasted years in the 2,2% to 2,3%. The lower value for ROA is mainly due to the inclusion of Right of use Assets on the Balance Sheet since 2019.

Figure 45 - ROA & ROE (%)

Source: Author, Company Data





**Interest Coverage Ratio** has been declining over the past years, going from 7,63 in 2015 to 4,32 in 2018. In 2019 it dipped to 2,82, which was due to the inclusion of the Leases Debt, which spiked interest costs in the Income Statement at the EBIT – EBT level. For the Forecasted years it is expected to increase, going to 3,37 by 2023F as it is expected the company to be paying off its Debt.

**Debt to EBITDA** ratio which had been decreasing since 2015 (1,55 to 1,27 in 2017) spiked in 2018 to 2,41 due to an increase in Debt on 2 sets of Promissory Notes and in 2019 a further increase to 4,53 due to the inclusion of the Debt from Leases. It is expected that this value, for the forecasted years will decrease steadily to 2,92 in 2023F.

Overall, solvency ratios are expected to be higher than in previous years due to the implementation of IFRS 16, which makes the company recognize the off-balance sheet leasing expenses as actual Debt, spiking Debt values, as seen on the change from 2018 to 2019.

Figure 47 - Interest Coverage Ratio

Source: Author, Company Data

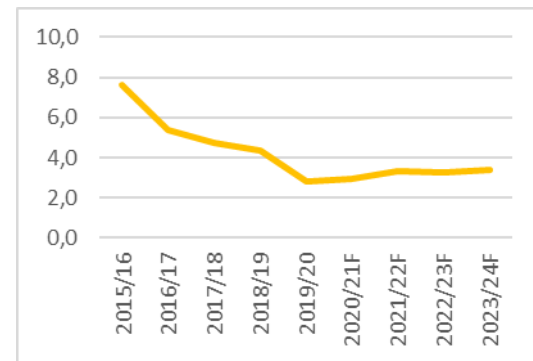


Figure 48 - Debt to EBITDA

Source: Author, Company Data

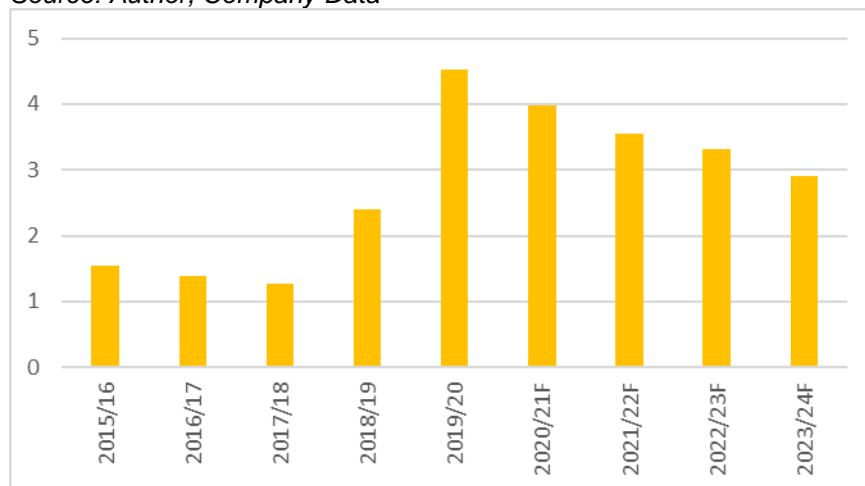
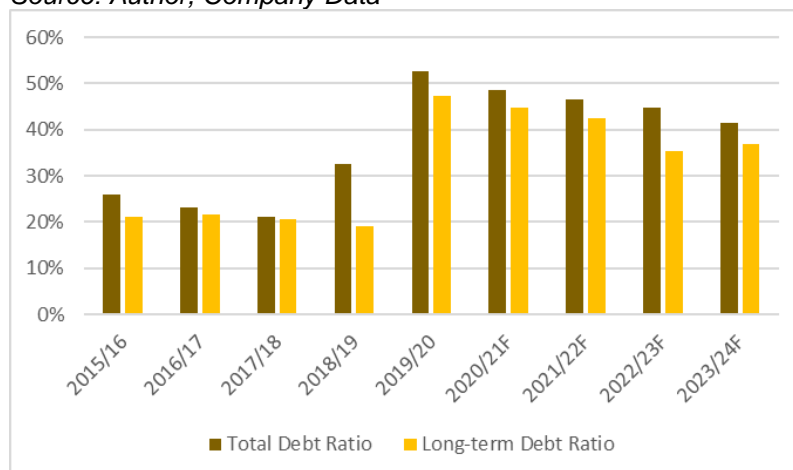


Figure 49 - Total and Long-term Debt Ratio

Source: Author, Company Data



## 9. Investment Risks

### External

#### **GDP and Disposable Income (EX1)**

In normal circumstances, companies in this Industry rely immensely on the current state of the economy. Severe economic downturns translate to less disposable income of households, which have to be more mindful regarding their spending decisions. In that situation, customers will prioritize their savings towards survival of the adverse times, and unless they require a structural upgrade to be able to keep their homes, often, customers will choose by delaying purchases in this sector, leading to a decreasing of companies' revenues, deteriorating their financial position. In this sense, the company has been tackling an internationalization strategy, where they want to spread this risk over multiple countries, as shown by decreasing weight of Germany in total sales and increasing weight for other countries. This is an issue that could have a **significant impact**, with a **medium probability to occur**.

#### **Natural occurrences (EX2)**

As a company that also sells wooden materials, the risk of fires destroying the company's wooden inventories or even forest fires destroying the raw material for those inventories is present. To mitigate this risk, the company is insured against the most relevant natural hazards at a group level, as such, although **improbable** to occur, the **impact could be high**.

#### **Coronavirus (EX3)**

The current situation that the world is living in is of a worldwide pandemic that has struck virtually every economy in the world. Countries have imposed mandatory lockdowns which led to companies having to stop operations all together. Companies were able to keep operating in some extent if they adhered to several safety regulations imposed by the governments (space between customers, wear masks, hygiene gels at the entrance, barriers for cashiers, etc.) however, it's not certain if companies will be able to keep operating even with these measures if infection numbers increase, so this is a scenario that is **possible** and that could have a **severe/critical impact** on the company.

#### **Regulatory (EX4)**

The company is subject to a multitude of regulations that differ from country to country as it operates in several ones. The addition or modification of regulations might increase costs for the company in regards to properties acquisition, product liability and patent infringements. To mitigate these risks, the company employs/seeks advice from legal experts for matters related to

contractual agreements. These additions/changes occur **occasionally** and may cause hinder to the operations with a **severe** impact.

## Financial and Operational

### Exchange rate (FO1)

Having taken the internationalization strategy, HBM is exposed to different currencies devaluing in relation to the Euro. Said currencies include the Swiss franc, the Swedish and Czech crowns. Although the risk is **possible to occur**, the countries with different currency amount to 24 out of the 160 that the company operates, making the impact on the bottom line **not significant**.

### Liquidity (FO2)

The specifications for this industry require large investments in property and inventory in order to expand. This can lead to a depletion of funds and thus facing a situation of not having available cash for repayments. Failing to meet financial obligations has **severe/critical** consequences for the company as it can lead to bankruptcy in more severe cases. On lighter scenarios, lenders may require a restructure of debt with harsher conditions. HBM mitigates this risk by using long-term financing to incur these costs. Currently, HBM has an active bond with maturity in 2026 and some promissory notes to be paid in 2, and 4, years' time, spreading the risk of not having available cash for its commitments. The **probability** of lacking liquidity is **very low**.

### Procurement (FO3)

Being HBM a retail company, it is completely dependent on manufacturers and suppliers providing with inventory. Any disruption in the supplying of inventory can lead to **significant impact** to the company's bottom line. However, the company employs systems to monitor these occurrences, and the large availability of suppliers, mitigates the impact of disruptions, making it a scenario not likely to occur.

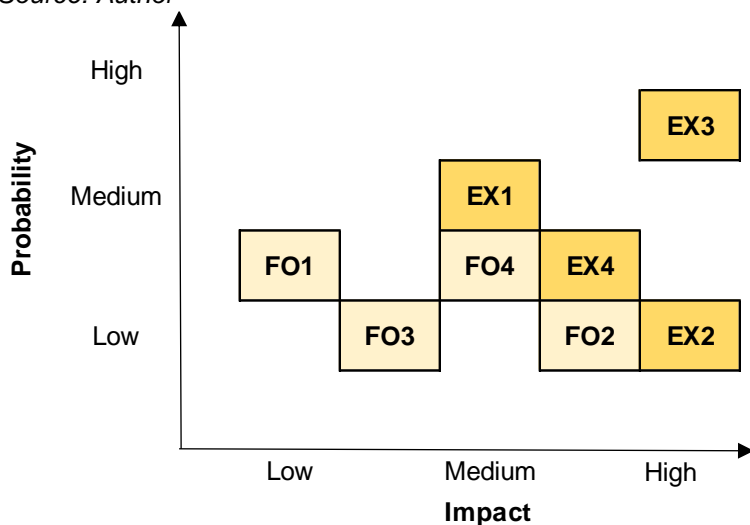
### Technology (FO4)

To stand out from the crowd, companies must invest on new and better ways to engage and connect with customers. One of the deterrents of this process is the need for significant investments that will only start providing benefits to the company in mid-long term due to need of hiring the appropriate personnel to first develop and then implement those ideas. The neglect of this aspect can cause the loss of customers to other companies that had invested previously, causing a **significant impact** on the bottom line. This **isn't a likely scenario** for HBM as the company has been investing in this regard. Some of the advancements comprise of: HBM application that lets the customers know beforehand where items are located in the store, the ability to be able to purchase online and have it delivered or needing only to pick the items at the

store, the use of VR to see how items would actually fit into customers' homes, among others.

Figure 50 - Risk Matrix

Source: Author



## Sensitivity Analysis

In the Table below, it can be seen that changes in **Weighted Average Cost of Capital (WACC)** and the **Terminal Growth Rate (g)** can greatly impact the price target. For the analysis, it was assumed increments of 15 basis points for the Terminal Growth Rate, and 2% changes in the WACC each step. In the best-case scenario of the analysis, the price target can increase up to €66,99 (+58,3%) and in the worst scenario it can drop to €26,26 (-37,9%).

Figure 51 - Effects of changes in WACC and Terminal Growth Rate (g) on Price Target

Source: Author

		WACC								
		42,31	4,00%	4,08%	4,16%	4,25%	4,33%	4,42%	4,51%	4,60%
Terminal Growth Rate	1,80%	€ 66,99	€ 62,91	€ 59,04	€ 55,36	€ 51,86	€ 48,59	€ 45,48	€ 42,51	€ 39,67
	1,65%	€ 60,26	€ 56,65	€ 53,22	€ 49,94	€ 46,82	€ 43,89	€ 41,08	€ 38,40	€ 35,82
	1,50%	€ 54,33	€ 51,12	€ 48,06	€ 45,12	€ 42,31	€ 39,66	€ 37,12	€ 34,68	€ 32,34
	1,35%	€ 49,07	€ 46,20	€ 43,44	€ 40,80	€ 38,25	€ 35,85	€ 33,54	€ 31,31	€ 29,17
	1,20%	€ 44,38	€ 41,79	€ 39,30	€ 36,90	€ 34,58	€ 32,39	€ 30,28	€ 28,24	€ 26,26

## Monte Carlo Simulation

In order to enrich the Risk Analysis, a Monte Carlo Simulation of 20.000 trials in Excel was conducted. It was used to understand how and by how much the Price Target would change in regards to changes in **COGS**. As COGS is the most significant cost in the Income Statement, a slight change on the metric

could produce a significant change to the Price Target. The values assumed as the Mean for the simulation was the current level of COGS weight in sales, of 62,91%, and a standard deviation, based on the previous 5 years, of 0,44%. With the values obtained through the simulation, we observe that it produced a **median** value of €42,23 and a **mean** value of €42,17. Also it can be seen what was stated previously, that a change on the variable COGS would produce a significant change on the Price Target, which can be seen by the **standard deviation** of €17,43.

Figure 52 - Monte Carlo Simulation

Source: Author

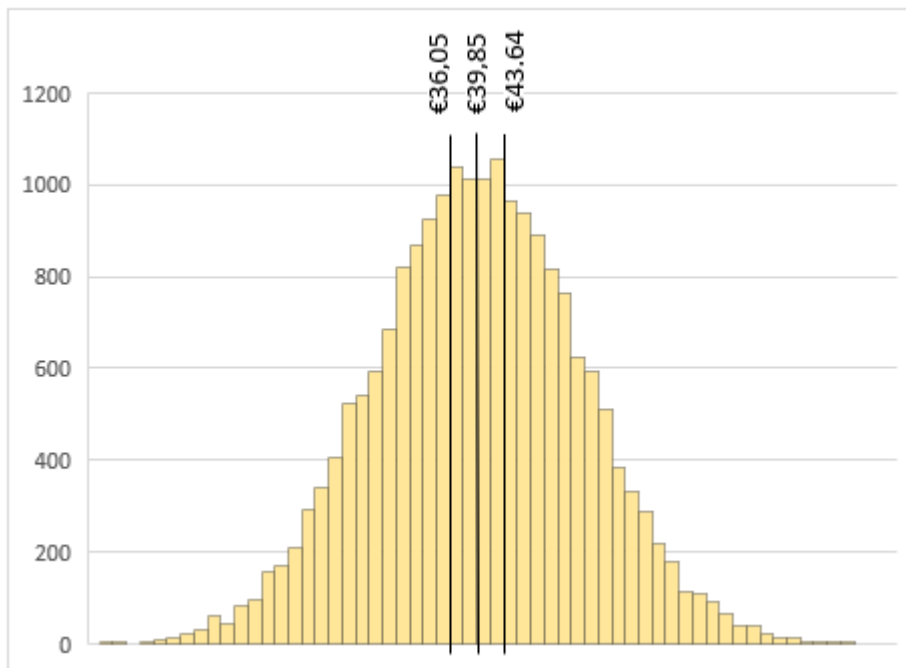


Table 24 - Monte Carlo Statistics

Source: Author

Monte Carlo Statistics	
Nº Trials	20.000
Mean	€ 42,17
Standard Deviation	€ 17,74
Median	€ 42,23
10th percentile	19,31
90th percentile	64,58

Table 25 - Recommendation Boundaries

Source: Author

Recommendation Boundaries		
<b>BUY</b>	15%	€ 43,64
<b>HOLD</b>	5%	€ 39,85
<b>REDUCE/ SELL</b>	-5%	€ 36,05

# Appendices

## Appendix 1 - Balance Sheet

Balance Sheet	2015	2016	2017	2018	2019	2020F	2021F	2022F	2023F
<b>Assets</b>	<b>€ 1.986,4</b>	<b>€ 1.959,9</b>	<b>€ 1.997,7</b>	<b>€ 2.337,9</b>	<b>€ 3.564,3</b>	<b>€ 3.467,6</b>	<b>€ 3.470,6</b>	<b>€ 3.464,7</b>	<b>€ 3.374,9</b>
<b>Non-current assets</b>	<b>€ 1.038,6</b>	<b>€ 1.131,7</b>	<b>€ 1.173,2</b>	<b>€ 1.261,5</b>	<b>€ 2.360,3</b>	<b>€ 2.347,5</b>	<b>€ 2.324,6</b>	<b>€ 2.287,8</b>	<b>€ 2.236,7</b>
Intangible assets	€ 12,0	€ 15,2	€ 18,9	€ 17,4	€ 15,9	€ 17,6	€ 19,2	€ 20,7	€ 22,0
Property, plant, and equipment	€ 991,7	€ 1.087,1	€ 1.120,4	€ 1.221,7	€ 1.097,7	€ 1.140,7	€ 1.182,1	€ 1.221,8	€ 1.259,7
Investment property	€ 14,9	€ 16,2	€ 18,7	€ 6,6	€ 6,7	€ 6,7	€ 6,7	€ 6,7	€ 6,7
Right-of-use assets	€ -	€ -	€ -	€ -	€ 1.217,8	€ 1.160,3	€ 1.094,4	€ 1.016,4	€ 926,1
Financial assets	€ 3,9	€ 5,7	€ 6,5	€ 7,3	€ 10,5	€ 10,5	€ 10,5	€ 10,5	€ 10,5
Other non-current receivables and assets	€ 3,9	€ 3,6	€ 4,2	€ 2,2	€ 1,3	€ 1,3	€ 1,3	€ 1,3	€ 1,3
Non-current income tax receivables	€ 1,7	€ -	€ -	€ -	€ -	€ -	€ -	€ -	€ -
Deferred tax assets	€ 10,5	€ 3,8	€ 4,5	€ 6,4	€ 10,4	€ 10,4	€ 10,4	€ 10,4	€ 10,4
<b>Current assets</b>	<b>€ 947,8</b>	<b>€ 828,2</b>	<b>€ 824,5</b>	<b>€ 1.076,4</b>	<b>€ 1.203,9</b>	<b>€ 1.120,1</b>	<b>€ 1.146,1</b>	<b>€ 1.177,0</b>	<b>€ 1.138,1</b>
Inventories	€ 588,4	€ 626,1	€ 657,8	€ 755,7	€ 814,4	€ 905,5	€ 930,8	€ 956,9	€ 983,7
Current financial assets	€ -	€ 30,0	€ -	€ -	€ -	€ -	€ -	€ -	€ -
Trade receivables	€ 11,9	€ 8,2	€ 8,9	€ 11,3	€ 11,6	€ 13,0	€ 13,4	€ 13,8	€ 14,2
Contract assets	€ -	€ -	€ -	€ 1,6	€ 1,6	€ 1,6	€ 1,6	€ 1,6	€ 1,6
Other current assets	€ 46,8	€ 43,1	€ 53,4	€ 60,0	€ 72,1	€ 73,2	€ 75,2	€ 77,3	€ 79,5
Income tax receivables	€ 17,7	€ 7,7	€ 2,2	€ 5,3	€ 2,1	€ 2,1	€ 2,1	€ 2,1	€ 2,1
Cash and cash equivalents	€ 283,0	€ 113,0	€ 102,1	€ 242,5	€ 302,2	€ 124,8	€ 123,0	€ 125,4	€ 57,2
<b>Shareholders' equity</b>	<b>€ 972,9</b>	<b>€ 1.010,6</b>	<b>€ 1.048,8</b>	<b>€ 1.068,6</b>	<b>€ 1.132,1</b>	<b>€ 1.185,3</b>	<b>€ 1.247,5</b>	<b>€ 1.304,5</b>	<b>€ 1.358,1</b>
Share capital	€ 95,4	€ 95,4	€ 95,4	€ 95,4	€ 95,4	€ 95,4	€ 95,4	€ 95,4	€ 95,4
Capital reserve	€ 143,6	€ 143,6	€ 143,6	€ 143,6	€ 143,6	€ 143,6	€ 143,6	€ 143,6	€ 143,6
Revenue reserves	€ 733,8	€ 771,6	€ 809,8	€ 829,6	€ 893,0	€ 946,3	€ 1.008,4	€ 1.065,5	€ 1.119,0
<b>Liabilities</b>	<b>€ 1.013,5</b>	<b>€ 949,2</b>	<b>€ 948,9</b>	<b>€ 1.269,3</b>	<b>€ 2.432,2</b>	<b>€ 2.282,3</b>	<b>€ 2.223,1</b>	<b>€ 2.160,2</b>	<b>€ 2.016,8</b>
<b>Non-current liabilities</b>	<b>€ 493,7</b>	<b>€ 503,4</b>	<b>€ 496,3</b>	<b>€ 531,4</b>	<b>€ 1.764,3</b>	<b>€ 1.627,0</b>	<b>€ 1.555,7</b>	<b>€ 1.303,7</b>	<b>€ 1.327,2</b>
Non-current financial debt	€ 418,5	€ 424,3	€ 412,6	€ 294,2	€ 540,9	€ 540,9	€ 610,9	€ 503,3	€ 673,3
Non-current Lease Liabilities	€ -	€ -	€ -	€ 153,2	€ 1.144,9	€ 1.007,6	€ 866,3	€ 721,9	€ 575,4
Provisions for pensions	€ 14,6	€ 15,2	€ 10,8	€ 14,2	€ 24,2	€ 24,2	€ 24,2	€ 24,2	€ 24,2
Deferred tax liabilities	€ 28,6	€ 27,5	€ 26,0	€ 17,5	€ 12,6	€ 12,6	€ 12,6	€ 12,6	€ 12,6
Other non-current liabilities	€ 32,1	€ 36,4	€ 46,9	€ 52,4	€ 41,5	€ 41,5	€ 41,5	€ 41,5	€ 41,5
<b>Current liabilities</b>	<b>€ 519,8</b>	<b>€ 445,8</b>	<b>€ 452,6</b>	<b>€ 737,9</b>	<b>€ 667,9</b>	<b>€ 655,3</b>	<b>€ 667,5</b>	<b>€ 856,5</b>	<b>€ 689,6</b>
Current financial debt	€ 94,5	€ 28,6	€ 11,4	€ 304,0	€ 50,9	€ -	€ -	€ 177,6	€ -
Current Lease Liabilities	€ -	€ -	€ -	€ 10,8	€ 138,7	€ 137,3	€ 141,3	€ 144,4	€ 146,5
Trade payables	€ 257,4	€ 244,5	€ 253,7	€ 227,0	€ 250,7	€ 290,4	€ 298,5	€ 306,9	€ 315,5
Contract liabilities	€ -	€ -	€ -	€ 30,9	€ 34,4	€ 34,4	€ 34,4	€ 34,4	€ 34,4
Other current liabilities	€ 78,2	€ 82,6	€ 88,0	€ 70,3	€ 76,0	€ 76,0	€ 76,0	€ 76,0	€ 76,0
Income tax liabilities	€ 14,5	€ 13,4	€ 11,6	€ 9,1	€ 17,6	€ 17,6	€ 17,6	€ 17,6	€ 17,6
Other provisions and accrued liabilities	€ 75,3	€ 76,7	€ 87,8	€ 85,9	€ 99,5	€ 99,5	€ 99,5	€ 99,5	€ 99,5
<b>Equity and liabilities</b>	<b>€ 1.986,4</b>	<b>€ 1.959,9</b>	<b>€ 1.997,7</b>	<b>€ 2.337,9</b>	<b>€ 3.564,3</b>	<b>€ 3.467,6</b>	<b>€ 3.470,6</b>	<b>€ 3.464,7</b>	<b>€ 3.374,9</b>

## Appendix 2 - Income Statement

P&L (€M)	2015	2016	2017	2018	2019	2020F	2021F	2022F	2023F
Sales	€ 3.534,8	€ 3.710,1	€ 3.890,7	€ 4.095,5	€ 4.428,0	€ 4.915,1	€ 5.052,7	€ 5.194,2	€ 5.339,7
Cost of goods sold	€ 2.203,6	€ 2.328,9	€ 2.440,8	€ 2.592,7	€ 2.807,7	€ 3.092,2	€ 3.178,8	€ 3.267,8	€ 3.359,3
<b>Gross profit</b>	<b>€ 1.331,2</b>	<b>€ 1.381,2</b>	<b>€ 1.449,9</b>	<b>€ 1.502,8</b>	<b>€ 1.620,3</b>	<b>€ 1.822,9</b>	<b>€ 1.874,0</b>	<b>€ 1.926,5</b>	<b>€ 1.980,4</b>
Selling and store expenses	€ 861,2	€ 906,5	€ 953,4	€ 1.011,0	€ 1.010,7	€ 1.179,9	€ 1.213,0	€ 1.246,9	€ 1.281,8
Pre-opening expenses	€ 9,2	€ 5,2	€ 4,5	€ 5,7	€ 7,4	€ 8,1	€ 8,3	€ 8,5	€ 8,8
General and administration expenses	€ 143,0	€ 154,9	€ 172,1	€ 183,7	€ 210,6	€ 215,1	€ 221,2	€ 227,3	€ 233,7
Other income and expenses	€ 13,4	€ 12,9	€ 15,1	€ 14,4	€ 22,1	€ 22,2	€ 22,3	€ 22,4	€ 22,5
<b>EBITDA (excluding Lease payments)</b>	<b>€ 331,3</b>	<b>€ 327,4</b>	<b>€ 335,1</b>	<b>€ 316,8</b>	<b>€ 413,8</b>	<b>€ 423,1</b>	<b>€ 453,9</b>	<b>€ 466,1</b>	<b>€ 478,6</b>
Dep. & Amort. Owned	€ 73,1	€ 76,1	€ 80,4	€ 93,0	€ 83,8	€ 88,7	€ 94,2	€ 99,8	€ 105,7
Dep. & Amort. Leases	€ -	€ -	€ -	€ -	€ 166,1	€ 180,9	€ 196,1	€ 211,8	€ 227,9
Obligations with leases	€ 168,0	€ 153,8	€ 152,2	€ 156,6	€ -	€ -	€ -	€ -	€ -
<b>Earnings before interest and taxes (EBIT)</b>	<b>€ 90,2</b>	<b>€ 97,5</b>	<b>€ 102,5</b>	<b>€ 67,2</b>	<b>€ 163,9</b>	<b>€ 153,6</b>	<b>€ 163,6</b>	<b>€ 154,4</b>	<b>€ 145,0</b>
<i>Other interest and similar income (+)</i>	€ 0,8	€ 0,9	€ 0,7	€ 0,7	€ 0,8	€ -	€ -	€ -	€ -
<i>Other interest and similar expenses (-)</i>	€ 15,1	€ 18,6	€ 17,6	€ 17,1	€ 59,8	€ 52,0	€ 49,9	€ 47,7	€ 43,0
<i>Other financial result (+)</i>	€ 2,5	-€ 0,5	-€ 4,8	€ 0,8	€ 0,9	€ -	€ -	€ -	€ -
<b>Net financial expenses</b>	<b>€ 11,8</b>	<b>€ 18,2</b>	<b>€ 21,6</b>	<b>€ 15,5</b>	<b>€ 58,2</b>	<b>€ 52,0</b>	<b>€ 49,9</b>	<b>€ 47,7</b>	<b>€ 43,0</b>
<b>Consolidated earnings before taxes</b>	<b>€ 78,4</b>	<b>€ 79,3</b>	<b>€ 80,9</b>	<b>€ 51,6</b>	<b>€ 105,8</b>	<b>€ 101,6</b>	<b>€ 113,7</b>	<b>€ 106,7</b>	<b>€ 102,0</b>
Taxes on income	€ 6,0	€ 26,4	€ 22,2	€ 10,7	€ 27,1	€ 26,7	€ 29,9	€ 28,1	€ 26,8
<b>Consolidated net income</b>	<b>€ 72,4</b>	<b>€ 52,9</b>	<b>€ 58,7</b>	<b>€ 40,9</b>	<b>€ 78,7</b>	<b>€ 74,9</b>	<b>€ 83,8</b>	<b>€ 78,7</b>	<b>€ 75,2</b>
<b>Basic/diluted earnings per share (€)</b>	<b>€ 2,28</b>	<b>€ 1,66</b>	<b>€ 1,84</b>	<b>€ 1,29</b>	<b>€ 2,47</b>	<b>€ 2,35</b>	<b>€ 2,63</b>	<b>€ 2,47</b>	<b>€ 2,36</b>





## Appendix 4 - Common Size Income Statement

Common-Size P&L (%)	2015	2016	2017	2018	2019	2020F	2021F	2022F	2023F
Sales	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Cost of goods sold	62,3%	62,8%	62,7%	63,3%	63,4%	62,9%	62,9%	62,9%	62,9%
<b>Gross profit</b>	<b>37,7%</b>	<b>37,2%</b>	<b>37,3%</b>	<b>36,7%</b>	<b>36,6%</b>	<b>37,1%</b>	<b>37,1%</b>	<b>37,1%</b>	<b>37,1%</b>
Selling and store expenses	24,4%	24,4%	24,5%	24,7%	22,8%	24,0%	24,0%	24,0%	24,0%
Pre-opening expenses	0,3%	0,1%	0,1%	0,1%	0,2%	0,2%	0,2%	0,2%	0,2%
General and administration expenses	4,0%	4,2%	4,4%	4,5%	4,8%	4,4%	4,4%	4,4%	4,4%
Other income and expenses	0,4%	0,3%	0,4%	0,4%	0,5%	0,5%	0,4%	0,4%	0,4%
<b>EBITDA (excluding Lease payments)</b>	<b>9,4%</b>	<b>8,8%</b>	<b>8,6%</b>	<b>7,7%</b>	<b>9,3%</b>	<b>8,6%</b>	<b>9,0%</b>	<b>9,0%</b>	<b>9,0%</b>
Dep. & Amort. Owned	2,1%	2,1%	2,1%	2,3%	1,9%	1,8%	1,9%	1,9%	2,0%
Dep. & Amort. Leases	0,0%	0,0%	0,0%	0,0%	3,8%	3,7%	3,9%	4,1%	4,3%
Obligations with leases	4,8%	4,1%	3,9%	3,8%	0,0%	0,0%	0,0%	0,0%	0,0%
<b>Earnings before interest and taxes (EBIT)</b>	<b>2,6%</b>	<b>2,6%</b>	<b>2,6%</b>	<b>1,6%</b>	<b>3,7%</b>	<b>3,1%</b>	<b>3,2%</b>	<b>3,0%</b>	<b>2,7%</b>
<i>Other interest and similar income (+)</i>	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
<i>Other interest and similar expenses (-)</i>	0,4%	0,5%	0,5%	0,4%	1,4%	1,1%	1,0%	0,9%	0,8%
<i>Other financial result (+)</i>	0,1%	0,0%	-0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
<b>Net financial expenses</b>	<b>0,3%</b>	<b>0,5%</b>	<b>0,6%</b>	<b>0,4%</b>	<b>1,3%</b>	<b>1,1%</b>	<b>1,0%</b>	<b>0,9%</b>	<b>0,8%</b>
<b>Consolidated earnings before taxes</b>	<b>2,2%</b>	<b>2,1%</b>	<b>2,1%</b>	<b>1,3%</b>	<b>2,4%</b>	<b>2,1%</b>	<b>2,3%</b>	<b>2,1%</b>	<b>1,9%</b>
Taxes on income	0,2%	0,7%	0,6%	0,3%	0,6%	0,5%	0,6%	0,5%	0,5%
<b>Consolidated net income</b>	<b>2,0%</b>	<b>1,4%</b>	<b>1,5%</b>	<b>1,0%</b>	<b>1,8%</b>	<b>1,5%</b>	<b>1,7%</b>	<b>1,5%</b>	<b>1,4%</b>

## Appendix 5 - Assumptions for Income Statement

P&L	Unit	Change				Assumption
		2020F	2021F	2022F	2023F	
Revenue						Refer to Valuation section - Revenues
COGS	%	62,91%	62,91%	62,91%	62,91%	% of Total Revenue
Selling and store expenses	%	24,01%	24,01%	24,01%	24,01%	% of Total Revenue
Pre-opening expenses	%	0,16%	0,16%	0,16%	0,16%	% of Total Revenue
General and administration expenses	%	4,38%	4,38%	4,38%	4,38%	% of Total Revenue
Other income and expenses	%	0,39%	0,39%	0,39%	0,39%	% of Total Revenue
Depreciations & Amortizations						Refer to Depreciation Appendix
Interest Costs and other Financial Costs	%	3,08%	3,08%	3,08%	3,08%	Cost of debt (Rd)
Financial Income	%	0,00%	0,00%	0,00%	0,00%	Equal to 2019 Value
Tax Rate						Refer to Valuation section - WACC assumptions

## Appendix 6 – Assumptions for Balance Sheet

Balance Sheet	Unit	Change				Assumption
		2020F	2021F	2022F	2023F	
<b>Non-current assets</b>						
Investment property	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Financial assets	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Other non-current assets	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Deferred tax assets	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
<b>Current assets</b>						
Inventories	%	18,4%	18,4%	18,4%	18,4%	% of Total Revenue
Trade receivables	%	0,3%	0,3%	0,3%	0,3%	% of Total Revenue
Contract assets	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Other current assets	%	1,5%	1,5%	1,5%	1,5%	% of Total Revenue
Income tax receivables	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
<b>Shareholders' equity</b>						
Share capital	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Capital reserve	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
<b>Non-current liabilities</b>						
Provisions for pensions	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Deferred tax liabilities	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Other non-current liabilities	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
<b>Current liabilities</b>						
Trade payables	%	5,9%	5,9%	5,9%	5,9%	% of Total Revenue
Contract liabilities	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Other current liabilities	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Income tax liabilities	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Other provisions and accrued liabilities	%	0,0%	0,0%	0,0%	0,0%	Equal to 2019 Value
Debt						Refer to Financial Analysis Section - Net Debt

## Appendix 7 - Net Working Capital

Net Working Capital	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021F	2021/2022F	2022/2023F	2023/2024F
Inventories	588.440	626.086	657.821	755.676	814.438	905.463	930.816	956.879	983.671
Trade receivables	11.860	8.221	8.913	11.333	11.613	13.027	13.391	13.766	14.152
Contract assets	-	-	-	1.569	1.566	1.566	1.566	1.566	1.566
Other current assets	46.829	43.129	53.417	59.957	72.110	73.160	75.208	77.314	79.479
Income tax receivables	17.676	7.706	2.235	5.322	2.059	2.059	2.059	2.059	2.059
<b>Operating Assets</b>	<b>664.805</b>	<b>685.142</b>	<b>722.386</b>	<b>833.857</b>	<b>901.786</b>	<b>995.274</b>	<b>1.023.041</b>	<b>1.051.584</b>	<b>1.080.927</b>
Trade payables	257.363	244.468	253.711	227.021	250.710	290.418	298.549	306.909	315.502
Contract liabilities	-	-	-	30.874	34.388	34.388	34.388	34.388	34.388
Other current liabilities	78.198	82.626	88.000	70.257	76.024	76.024	76.024	76.024	76.024
Income tax liabilities	14.494	13.441	11.608	9.065	17.644	17.644	17.644	17.644	17.644
Other provisions and accrued Liabilities	75.267	76.729	87.839	85.917	99.549	99.549	99.549	99.549	99.549
<b>Operating Liabilities</b>	<b>425.322</b>	<b>417.264</b>	<b>441.158</b>	<b>423.134</b>	<b>478.315</b>	<b>518.023</b>	<b>526.154</b>	<b>534.514</b>	<b>543.107</b>
<b>NWC</b>	<b>239.483</b>	<b>267.878</b>	<b>281.228</b>	<b>410.723</b>	<b>423.471</b>	<b>477.252</b>	<b>496.886</b>	<b>517.071</b>	<b>537.820</b>
<b>Δ NWC</b>	<b>-</b>	<b>28.395</b>	<b>13.350</b>	<b>129.495</b>	<b>12.748</b>	<b>53.781</b>	<b>19.634</b>	<b>20.184</b>	<b>20.749</b>

## Appendix 8 - Depreciations and CAPEX

Depreciations (€M)	2015	2016	2017	2018	2019	2020F	2021F	2022F	2023F
<b>PP&amp;E</b>									
<b>PP&amp;E Cost</b>	€ 1.674,72	€ 1.817,67	€ 1.900,83	€ 1.874,93	€ 1.960,20	€ 2.086,83	€ 2.217,01	€ 2.350,83	€ 2.488,40
Depreciation	€ 68,77	€ 71,55	€ 76,24	€ 75,15	€ 77,73	€ 83,59	€ 88,80	€ 94,16	€ 99,67
Accumulated Dep.	€ 683,03	€ 730,57	€ 780,42	€ 802,24	€ 862,52	€ 946,11	€ 1.034,91	€ 1.129,07	€ 1.228,74
<b>PP&amp;E End</b>	€ 991,69	€ 1.087,10	€ 1.120,41	€ 1.072,69	€ 1.097,68	€ 1.140,73	€ 1.182,10	€ 1.221,76	€ 1.259,66
<b>Depreciation Rate %</b>	<b>4,11%</b>	<b>3,94%</b>	<b>4,01%</b>	<b>4,01%</b>	<b>3,97%</b>	<b>4,01%</b>	<b>4,01%</b>	<b>4,01%</b>	<b>4,01%</b>
<b>Intangible Assets</b>									
<b>Intangible Assets Cost</b>	€ 91,44	€ 97,05	€ 104,35	€ 107,89	€ 111,76	€ 118,54	€ 125,52	€ 132,68	€ 140,06
Amortization	€ 4,21	€ 2,66	€ 4,14	€ 5,22	€ 5,89	€ 5,08	€ 5,38	€ 5,68	€ 6,00
Accumulated Amort.	€ 79,39	€ 81,81	€ 85,46	€ 90,50	€ 95,89	€ 100,97	€ 106,35	€ 112,03	€ 118,03
<b>Intangibles End</b>	€ -	€ -	€ -	€ -	€ -	€ 17,57	€ 19,17	€ 20,65	€ 22,03
<b>Amortization Rate %</b>	<b>4,60%</b>	<b>2,74%</b>	<b>3,97%</b>	<b>4,84%</b>	<b>5,27%</b>	<b>4,28%</b>	<b>4,28%</b>	<b>4,28%</b>	<b>4,28%</b>
<b>Right-of-use-Assets</b>									
<b>Leased Assets Cost</b>	-	-	-	€ 1.355,17	€ 1.419,39	€ 1.546,02	€ 1.676,20	€ 1.810,02	€ 1.947,58
Depreciation	-	-	-	€ 38,77	€ 166,07	€ 180,88	€ 196,12	€ 211,77	€ 227,87
Accumulated Dep.	-	-	-	€ 38,77	€ 204,83	€ 385,72	€ 581,83	€ 793,61	€ 1.021,47
<b>Leased Assets End</b>	-	-	-	€ 1.316,41	€ 1.253,32	€ 1.160,30	€ 1.094,36	€ 1.016,41	€ 926,11
<b>Depreciation Rate %</b>	-	-	-	-	<b>11,70%</b>	<b>11,70%</b>	<b>11,70%</b>	<b>11,70%</b>	<b>11,70%</b>
<b>CAPEX (€M)</b>									
<b>CAPEX PP&amp;E</b>	€ 302,79	€ 166,96	€ 109,55	€ 27,43	€ 102,73	€ 126,63	€ 130,18	€ 133,82	€ 137,57
% in sales	<b>8,57%</b>	<b>4,50%</b>	<b>2,82%</b>	<b>0,67%</b>	<b>2,32%</b>	<b>2,58%</b>	<b>2,58%</b>	<b>2,58%</b>	<b>2,58%</b>
<b>CAPEX Intangible</b>	€ 5,05	€ 5,85	€ 7,80	€ 3,72	€ 4,36	€ 6,78	€ 6,97	€ 7,17	€ 7,37
% in sales	<b>0,14%</b>	<b>0,16%</b>	<b>0,20%</b>	<b>0,09%</b>	<b>0,10%</b>	<b>0,14%</b>	<b>0,14%</b>	<b>0,14%</b>	<b>0,14%</b>
<b>CAPEX Leased</b>	€ -	€ -	€ -	-	€ 67,49	€ 126,63	€ 130,18	€ 133,82	€ 137,57
% in sales	-	-	-	-	<b>1,52%</b>	<b>2,58%</b>	<b>2,58%</b>	<b>2,58%</b>	<b>2,58%</b>

## Appendix 9 - Key Financial Ratios

Key Financial Ratios		Unit	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21F	2021/22F	2022/23F	2023/24F
<b>Efficiency Ratios</b>											
Total Assets Turnover	times		1,8	1,9	1,9	1,8	1,2	1,4	1,5	1,5	1,6
Accounts Receivables Turnover	times		298,0	451,3	436,5	361,4	381,3	377,3	377,3	377,3	377,3
Collection Period	days		1,2	0,8	0,8	1,0	1,0	1,0	1,0	1,0	1,0
Inventory Turnover	times		3,7	3,7	3,7	3,4	3,4	3,4	3,4	3,4	3,4
in Inventory	days		97,5	98,1	98,4	106,4	105,9	106,9	106,9	106,9	106,9
Payables Turnover	times		8,6	9,5	9,6	11,4	11,2	10,6	10,6	10,6	10,6
Payables Period	days		42,6	38,3	37,9	32,0	32,6	34,3	34,3	34,3	34,3
Operating Cycle	days		98,7	98,9	99,2	107,4	106,8	107,8	107,8	107,8	107,8
Cash Conversion Cycle	days		56,1	60,6	61,3	75,4	74,2	73,6	73,6	73,6	73,6
<b>Profitability Ratios</b>											
Gross Profit Margin	%		37,7%	37,2%	37,3%	36,7%	36,6%	37,1%	37,1%	37,1%	37,1%
EBITDA Margin	%		9,4%	8,8%	8,6%	7,7%	9,3%	8,6%	9,0%	9,0%	9,0%
EBIT Margin	%		2,6%	2,6%	2,6%	1,6%	3,7%	3,1%	3,2%	3,0%	2,7%
Net Profit Margin	%		2,0%	1,4%	1,5%	1,0%	1,8%	1,5%	1,7%	1,5%	1,4%
ROA	%		3,6%	2,7%	2,9%	1,8%	2,2%	2,2%	2,4%	2,3%	2,2%
ROCE	%		6,1%	6,7%	7,0%	3,7%	5,5%	5,3%	5,7%	5,4%	5,3%
ROE	%		7,4%	5,2%	5,6%	3,8%	7,0%	6,3%	6,7%	6,0%	5,5%
EPS	€		2,28	1,66	1,84	1,29	2,47	2,35	2,64	2,47	2,36
SG&A/Sales	%		28,7%	28,8%	29,0%	29,3%	27,7%	28,5%	28,5%	28,5%	28,5%
<b>Solvency Ratios</b>											
Total Debt Ratio	%		25,8%	23,1%	21,2%	32,6%	52,6%	48,6%	46,5%	44,7%	41,3%
Long-term Debt Ratio	%		21,1%	21,7%	20,7%	19,1%	47,3%	44,7%	42,4%	35,4%	37,0%
Net Debt to Equity Ratio	times		0,2	0,3	0,3	0,5	1,4	1,3	1,2	1,1	1,0
Debt to Equity Ratio	times		0,5	0,4	0,4	0,7	1,7	1,4	1,3	1,2	1,0
Equity Multiplier	times		2,0	1,9	1,9	2,2	3,1	2,9	2,8	2,7	2,5
Debt to EBITDA	times		1,5	1,4	1,3	2,4	4,5	4,0	3,5	3,3	2,9
Interest Coverage Ratio	times		7,6	5,3	4,7	4,3	2,8	3,0	3,3	3,2	3,4
<b>Liquidity Ratios</b>											
Current Ratio	times		1,8	1,9	1,8	1,5	1,8	1,7	1,7	1,4	1,7
Quick Ratio	times		0,6	0,3	0,2	0,3	0,5	0,2	0,2	0,2	0,1
Cash Ratio	times		0,5	0,3	0,2	0,3	0,5	0,2	0,2	0,1	0,1
<b>Dividend-Related Quantities</b>											
Dividend payout ratio	%		29,9%	40,9%	36,9%	52,8%	27,5%	28,9%	25,7%	27,5%	28,8%
Retention rate	%		70,1%	59,1%	63,1%	47,2%	72,5%	71,1%	74,3%	72,5%	71,2%

## Appendix 10 - Net Sales by Quarter for Total, Germany and Rest of Europe (€M)

Net Sales	Q1	Q2	Q3	Q4
<b>20/21</b>	€ 1.492,10	€ 1.456,80		
<b>19/20</b>	€ 1.260,70	€ 1.184,00	€ 1.054,50	€ 928,74
<b>18/19</b>	€ 1.162,00	€ 1.087,60	€ 1.006,40	€ 839,44
<b>17/18</b>	€ 1.130,40	€ 1.042,70	€ 936,50	€ 781,10
<b>16/17</b>	€ 1.058,90	€ 1.003,60	€ 900,90	€ 746,70
<b>15/16</b>	€ 995,20	€ 938,20	€ 863,00	€ 738,45

Germany	Q1	Q2	Q3	Q4
<b>20/21</b>	€ 808,40	€ 748,60		
<b>19/20</b>	€ 654,10	€ 601,70	€ 513,80	€ 477,85
<b>18/19</b>	€ 612,70	€ 561,20	€ 513,80	€ 431,30
<b>17/18</b>	€ 613,40	€ 552,70	€ 492,20	€ 412,70
<b>16/17</b>	€ 591,90	€ 550,90	€ 490,00	€ 407,70
<b>15/16</b>	€ 575,70	€ 540,40	€ 480,40	€ 414,20

Others	Q1	Q2	Q3	Q4
<b>20/21</b>	€ 683,70	€ 708,20		
<b>19/20</b>	€ 606,60	€ 582,30	€ 540,70	€ 451,35
<b>18/19</b>	€ 549,30	€ 526,40	€ 492,60	€ 404,70
<b>17/18</b>	€ 517,00	€ 490,00	€ 444,30	€ 366,70
<b>16/17</b>	€ 467,00	€ 452,70	€ 410,90	€ 337,40
<b>15/16</b>	€ 419,50	€ 397,80	€ 382,60	€ 322,50

## Appendix 11 - Debt Decomposition for FY2019

Source: Author, Company Data

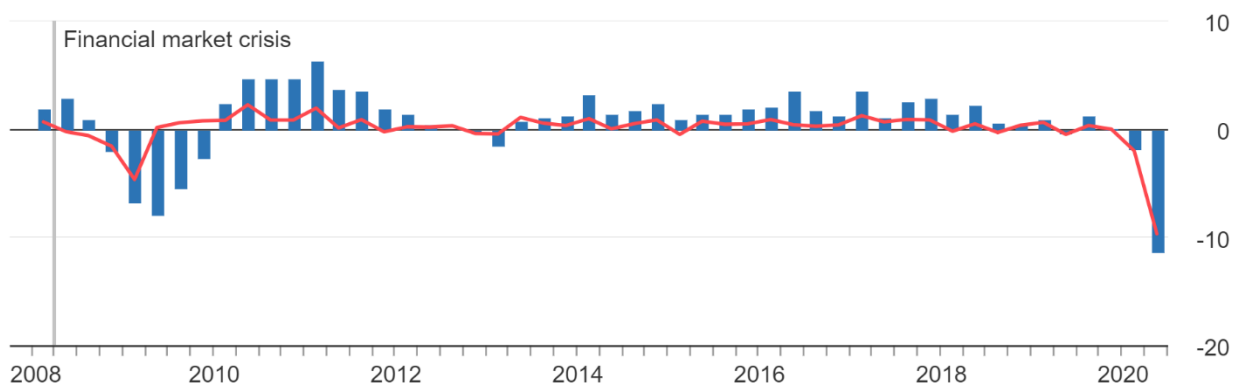
2019	<1 year	1-2 years	2-3 years	3-4 years	4-5 years	>5 years	29.02.2020	28.02.2019
Short-term Bank debt	3,5	0	0	0	0	0	3,5	1
Mortgage loans	0	0	0	0	0	0	0	0
Other Loans	47,1	0	0	177,6	0	116,7	341,4	347,1
Bonds	0	0	0	0	0	246,6	246,6	249,5
Negative Fair Value of derivative financial instruments	0,3	0	0	0	0	0	0,3	0,5
Lease Liabilities	138,7	137,3	141,3	144,4	146,5	575,4	1283,6	164
<b>Total Financial Debt</b>	<b>189,6</b>	<b>137,3</b>	<b>141,3</b>	<b>322</b>	<b>146,5</b>	<b>938,7</b>	<b>1875,5</b>	<b>762,1</b>
Cash and Equivalents							302,2	242,5
<b>Net Financial Debt</b>							<b>1573,3</b>	<b>519,6</b>



## Appendix 12 – Germany’s GDP Quarterly Growth, in Homologous terms

### Development of the gross domestic product

price-adjusted in %



- Change on the same quarter a year earlier
- Change on the previous quarter (seasonally and calendar-adjusted)

Click or tap on the legend to show or hide variables.

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## Appendix 13 - HBM Beta Regression Output

SUMMARY OUTPUT	
<i>Regression Statistics</i>	
Multiple R	0,494321727
R Square	0,24435397
Adjusted R Square	0,23154641
Standard Error	0,064617306
Observations	61

### ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0,079661908	0,079661908	19,07888565	5,14335E-05
Residual	59	0,24634838	0,004175396		
Total	60	0,326010287			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>
Intercept	-0,01086755	0,008316693	-1,306715357	0,196380024	-0,027509215	0,005774114	-0,027509215	0,005774114
<b>X Variable 1</b>	<b>0,804711801</b>	0,184231491	4,367938375	5,14335E-05	0,436065438	1,173358163	0,436065438	1,173358163

## Appendix 14 - Cost of Equity Assumptions

Cost of Equity assumptions	MRP	CRP	% Sales	CRP * %Sales	MRP * %sales	Rf	Rf * %Sales	Tax Rate	Tax Rate * %Sales
<b>Germany</b>	5,2%	0,0%	55,7%	0,0%	2,9%	0,8%	0,4%	30,0%	16,7%
<b>Sweden</b>	5,2%	0,0%	4,6%	0,0%	0,2%	1,0%	0,0%	21,4%	1,0%
<b>Czech Republic</b>	6,1%	0,9%	7,5%	0,1%	0,5%	1,8%	0,1%	19,0%	1,4%
<b>Slovakia</b>	6,5%	1,3%	3,1%	0,0%	0,2%	2,4%	0,1%	21,0%	0,6%
<b>Netherlands</b>	5,2%	0,0%	10,2%	0,0%	0,5%	1,6%	0,2%	25,0%	2,5%
<b>Luxemburg</b>	5,2%	0,0%	0,6%	0,0%	0,0%	0,8%	0,0%	24,9%	0,2%
<b>Switzerland</b>	5,2%	0,0%	4,8%	0,0%	0,2%	0,9%	0,0%	18,0%	0,9%
<b>Austria</b>	5,8%	0,6%	8,9%	0,1%	0,5%	0,9%	0,1%	25,0%	2,2%
<b>Romania</b>	8,5%	3,2%	4,6%	0,1%	0,4%	3,7%	0,2%	16,0%	0,7%
<b>Total</b>				<b>0,3%</b>	<b>5,5%</b>		<b>1,2%</b>		<b>26,3%</b>

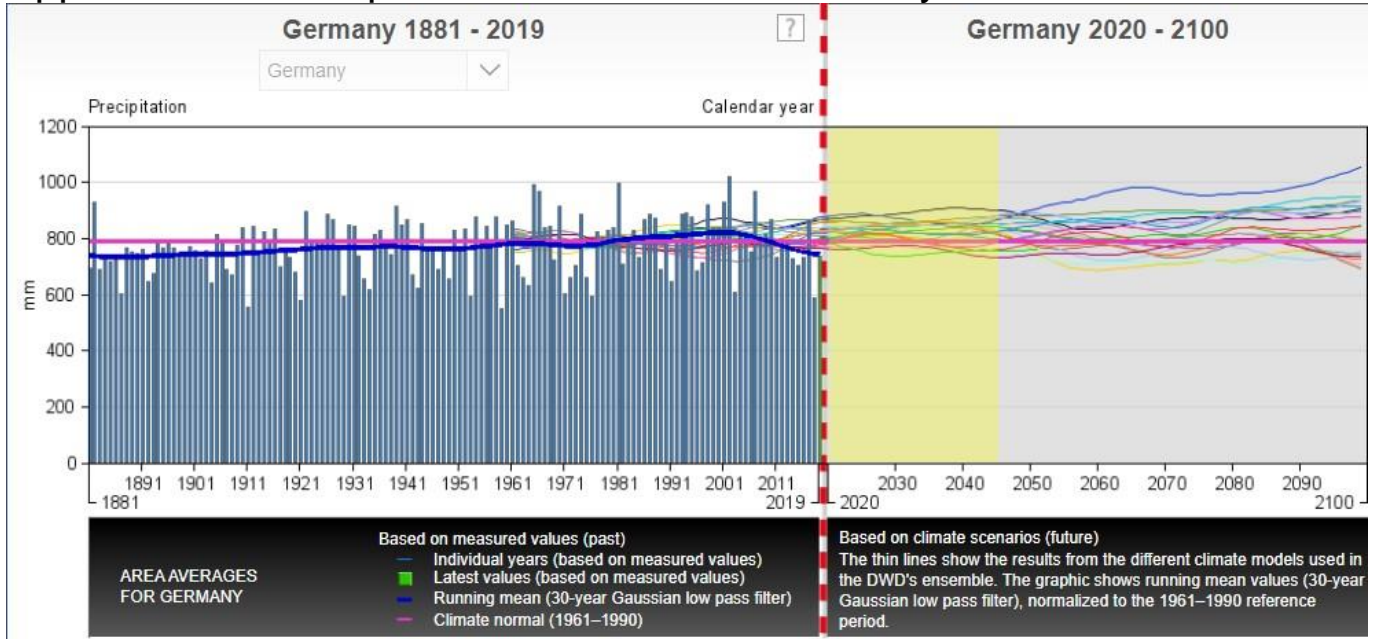
## Appendix 15 - Issued Bond Yield to Maturity

Bond Details	
Volume	250000000
ISIN	DE000A255DH9
WKN	A255DH
Issuer	HORNBACH Baumarkt AG
Price @ 22/08/2020	103,975%
Denomination	€ 100.000,00
Coupon (per annum)	3,25%
Issue Date	25/10/2019
Maturity Date	25/10/2026
Next Coupon	25/10/2020
Today	22/08/2020
Days in Between	64

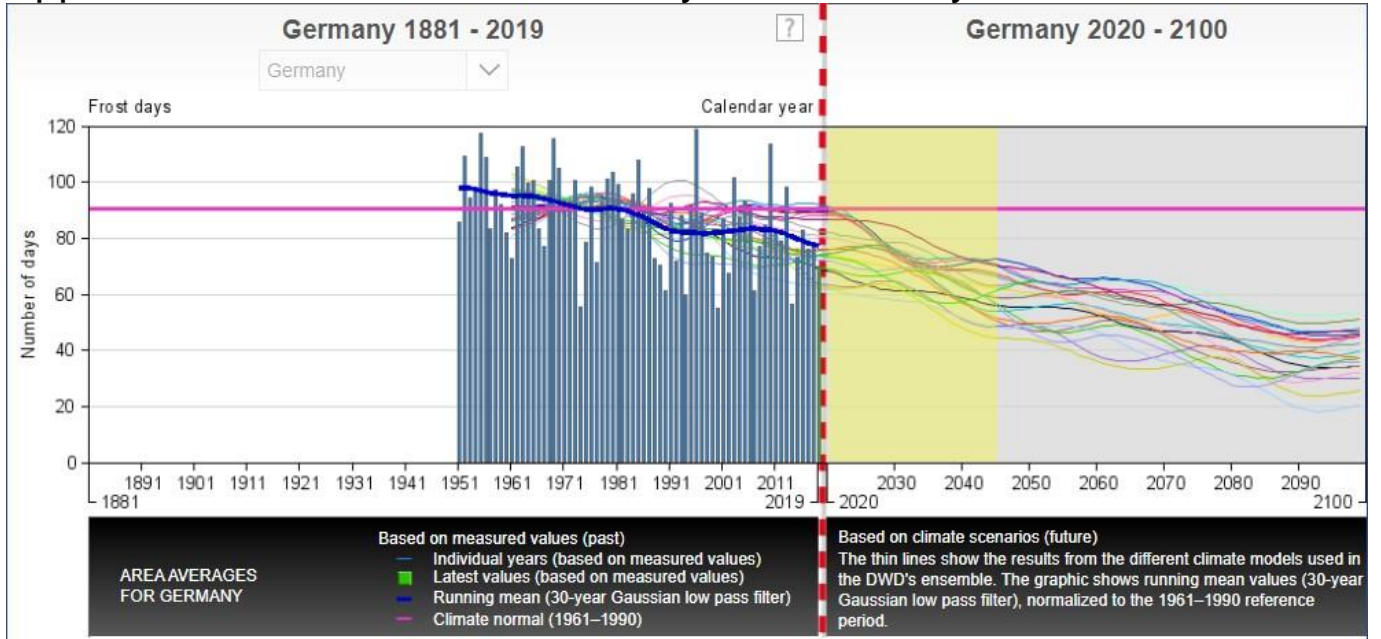
T (25-Oct)	Cash-Flow	Present Value
2020	€ 3.250,00	€ 3.232,89
2021	€ 3.250,00	€ 3.138,28
2022	€ 3.250,00	€ 3.046,45
2023	€ 3.250,00	€ 2.957,30
2024	€ 3.250,00	€ 2.870,77
2025	€ 3.250,00	€ 2.786,76
2026	€ 103.250,00	€ 85.942,55

<b>ytm @ 22/08/2020</b>	<b>3,014%</b>
Sum of pv	€ 103.975,00
Target price	€ 103.975,00

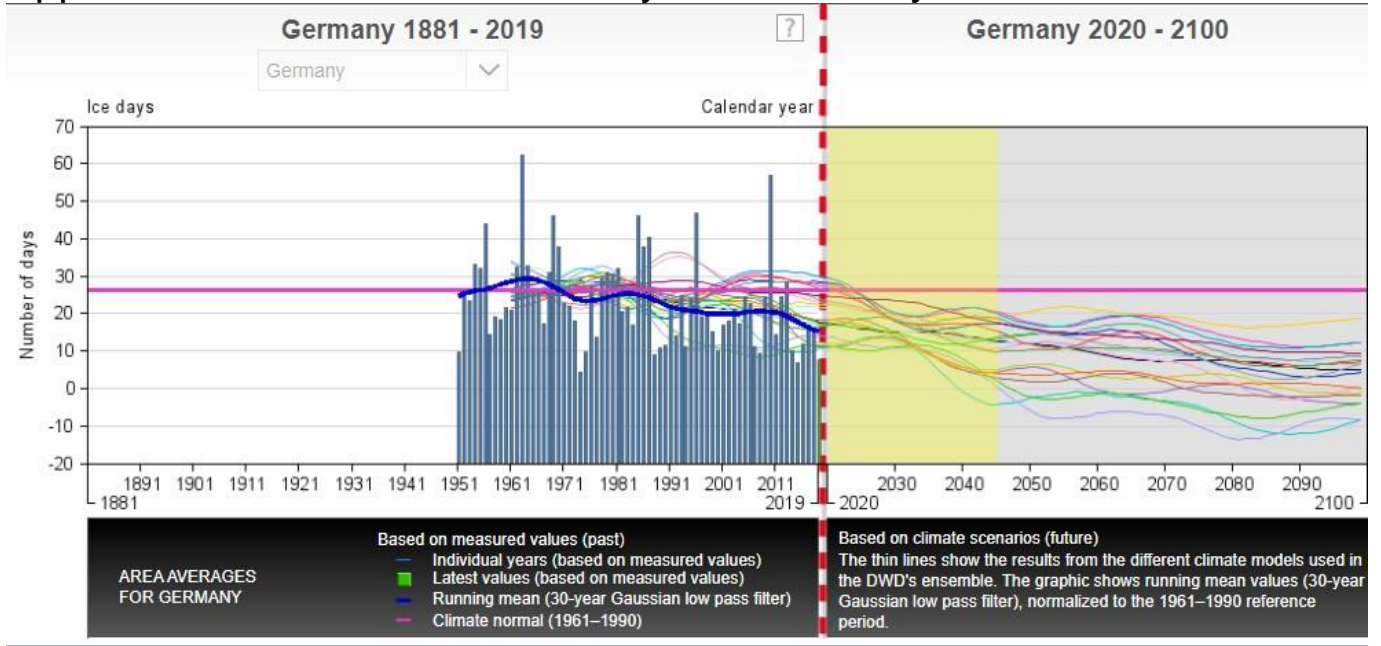
# Appendix 16 -Precipitation Evolution for Germany



# Appendix 17 - Evolution of Frost Days for Germany



# Appendix 18 - Evolution of Ice Days for Germany



## Appendix 19 - Hornbach Baumarkt AG Subsidiaries

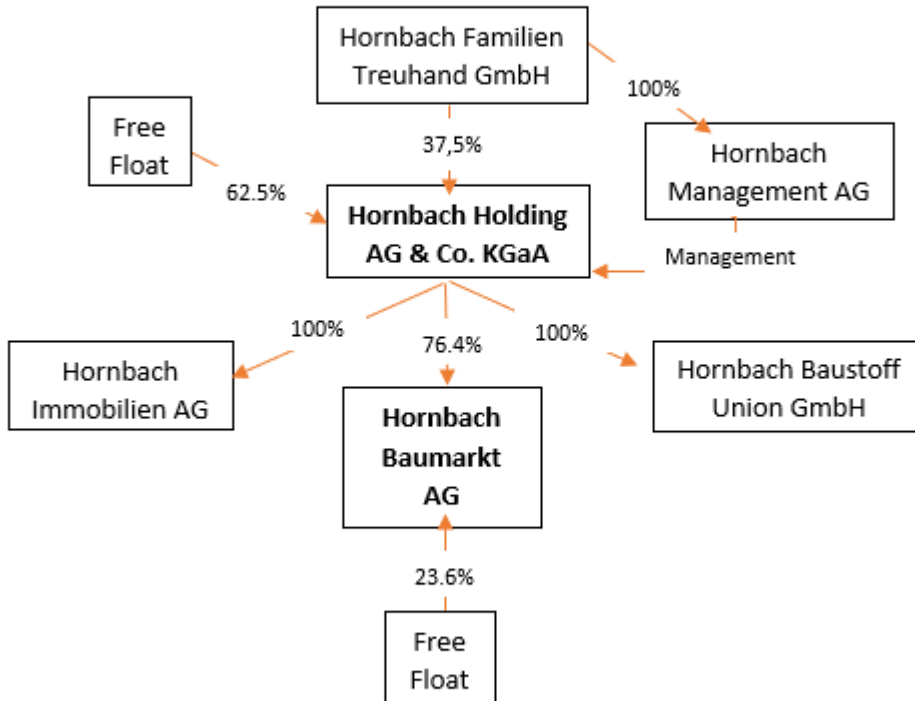
<b>Germany</b>	<b>Shareholding in %</b>	<b>Equity in thousands, local</b>
HORNBACH International GmbH, Bornheim	100	€ 106.019
HORNBACH Beteiligungen GmbH, Bornheim	100	€ 7.809
AWV-Agentur für Werbung und Verkaufsförderung GmbH, Bornheim	100	€ 44
HB Reisedienst GmbH, Bornheim	100	€ 7.281
BODENHAUS GmbH, Essingen	100	-€ 788
HORNBACH Versicherungs-Service GmbH, Bornheim	100	€ 281
HORNBACH Forst GmbH, Bornheim	100	-€ 547
<b>Other countries</b>	<b>Shareholding in %</b>	<b>Equity in thousands, local</b>
HORNBACH Baumarkt CS spol s.r.o., Prague, Czech Republic	100	€ 3.728.748
HORNBACH Baumarkt GmbH, Wiener Neudorf, Austria	100	€ 57.705
HL Immobilien Lambda GmbH, Wiener Neudorf, Austria	100	€ 14.113
G.N.E. Global Grundstücksverwertung GmbH, Wiener Neudorf, Austria	100	€ 1.708
HORNBACH Baumarkt Luxemburg SARL, Bertrange, Luxembourg	100	€ 10.837
HORNBACH Baumarkt (Schweiz) AG, Oberkirch, Switzerland	100	€ 145.613
HORNBACH Byggmarknad AB, Gothenburg, Sweden	100	€ 27.524
HORNBACH Holding B.V., Amsterdam, Netherlands	100	€ 160.924
HORNBACH Bouwmarkt (Nederland) B.V., Driebergen-Rijsenburg, Netherlands	100	€ 27.912
HORNBACH Real Estate Apeldoorn B.V., Apeldoorn, Netherlands	100	€ 12
HORNBACH Real Estate Enschede B.V., Enschede, Netherlands	100	€ 15
HORNBACH Real Estate Breda B.V., Breda, Netherlands	100	€ 1.615
HORNBACH Real Estate Best B.V., Nieuwegein, Netherlands	100	€ 1.436
HORNBACH Real Estate Amsterdam-Sloterdijk, Amsterdam, Netherlands	100	€ 1.205
HORNBACH Real Estate Den Haag B.V., The Hague, Netherlands	100	€ 1.778
HORNBACH Real Estate Zwolle B.V., Zwolle, Netherlands	100	€ 1.093
HORNBACH Real Estate Almelo B.V., Almelo, Netherlands	100	€ 2
HORNBACH Real Estate Duiven B.V., Duiven, Netherlands	100	-€ 2.311
HORNBACH Real Estate Tilburg B.V., Tilburg, Netherlands	100	€ 1.226
HORNBACH Real Estate Groningen B.V., Groningen, Netherlands	100	€ 1.179
HORNBACH Real Estate Wateringen B.V., Wateringen, Netherlands	100	€ 1.550
HORNBACH Real Estate Alblasserdam B.V., Alblasserdam, Netherlands	100	€ 555
HORNBACH Real Estate Nieuwegein B.V., Nieuwegein, Netherlands	100	€ 1.517
HORNBACH Real Estate Nieuwerkerk B.V., Nieuwerkerk, Netherlands	100	€ 1.349
HORNBACH Real Estate Geleen B.V., Geleen, Netherlands	100	€ 732
HORNBACH Reclame Activiteiten B.V., Nieuwegein, Netherlands	100	-€ 77
HORNBACH-Baumarkt SK spol. s.r.o., Bratislava, Slovakia	100	€ 23.081
HORNBACH Centrala SRL, Domnesti, Romania	100	€ 153.787
HORNBACH Asia Ltd., Kowloon, Hong Kong	100	€ 10.564



## Appendix 20 - Average € per Store (thousands), Total and per Region

Average €/store (Thousands)	NºStores	Total	YoY % Change	NºStores	Germany	YoY % Change	NºStores	Others	YoY % Change
2019	160	€ 27.650	6,8%	96	€ 23.385	7,0%	64	€ 34.047	5,3%
2018	158	€ 25.899	3,9%	97	€ 21.845	3,4%	61	€ 32.344	3,2%
2017	156	€ 24.929	4,2%	98	€ 21.133	1,5%	58	€ 31.345	7,1%
2016	155	€ 23.923	3,6%	98	€ 20.827	2,6%	57	€ 29.263	3,7%
2015	153	€ 23.092	0,5%	99	€ 20.303	0,2%	54	€ 28.222	-0,5%
2014	146	€ 22.986	2,8%	97	€ 20.268	2,1%	49	€ 28.367	4,9%
2013	141	€ 22.355	2,2%	92	€ 19.859	4,9%	49	€ 27.041	-2,7%
2012	138	€ 21.884	-2,3%	92	€ 18.924	-0,4%	46	€ 27.804	-6,0%
2011	134	€ 22.396	5,0%	91	€ 19.000	6,5%	43	€ 29.581	1,6%
2010	133	€ 21.323	-	92	€ 17.848	-	41	€ 29.121	-

## Appendix 21 - Group Structure of Hornbach Group



## Appendix 22 - Peer Selection Criteria

Peer Selection		
Company	Europe	Complete DIY
The Home Depot, Inc	x	✓
Lowe's Companies, Inc	x	✓
Bed Bath & Beyond Inc	x	x
Ace Hardware Corporation	x	x
Laura Ashley Holdings plc	✓	x
Carpetright Plc	✓	x
Topps Tiles Plc	✓	x
United Carpets Group Plc	✓	x
Moda Bagno - N. Varveris S.A	✓	x
Kid ASA	✓	x
United Carpets Group Plc	✓	x
Clas Ohlson AB	✓	✓
Dunelm Group plc	✓	✓
Byggmax Group AB	✓	✓
Kingfisher Plc	✓	✓

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# Abbreviations

B – Billion

Bps – Basis Points

CAGR -Compound Annual Growth Rate

CP – Covid Premium

CRP – Country Risk Premium

CSR – Corporate Social Responsibility

DCF – Discounted Cash Flow

DDM – Dividend Discount Model

DIFM – Do-it-for-me

DIY – Do-it-yourself

DPS – Dividend Per Share

EPS – Earnings per share

EV – Enterprise Value

FSC – Forest Stewardship Council

FY – Fiscal Year

HBM – Hornbach Baumarkt AG

M – Million

MRP – Market Risk Premium

OPEX – Operational Expenses

RF – Risk Free

VR – Virtual Reality

WACC – Weighted Average Cost of Capital

WC – Working Capital

YE – Year End

YoY – Year on Year

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