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EQUITY RESEARCH SYMRISE AG – SUSTAINED ORGANIC GROWTH

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A Project carried out on the Master in Finance Program, under the supervision of:

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This report is an equity research on the German MDAX listed company Symrise. As being part of an overall report, it analyzes the Company's market environment, future strategy and growth opportunities in order to provide an in-depth intrinsic valuation. In this respect, the individual segments are discussed and a reference to the most important competitors is made. Based on the analysis performed, a target price of EUR 125.73 is derived, and a buy recommendation is stated.

Keywords
Valuation, Equity Research, Symrise, Chemicals

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This report is part of the Equity Research Symrise AG report (annexed) and should be read has an integral part of it.

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Company Overview

Established through a merger of Haarmann & Reimer GmbH and Dragoco Gerberding & Co. AG in 2003, Symrise AG is a leading supplier of flavors, fragrances, cosmetics and functional ingredients. The company, based in Holzminden, Germany, employs over 10,000 individuals in more than 40 countries worldwide, selling 30,000 products to over 6,000 customers in 160 countries.

Symrise is market leader in vanilla flavor compositions

With roots dating back to 1874, Haarmann & Reimer GmbH was the first company to produce vanillin synthetically. Today, Symrise is the market leader in vanilla flavor compositions, while vanilla is among the most popular flavors worldwide[1]. As Symrise's customers produce goods fulfilling consumer's daily needs, final consumers interact with the company's ingredients around 20 to 30 times, on average, per day2. Besides traditional flavors and fragrances, Symrise offers products that include features such as reducing sugar or salt, while keeping the taste of the final product for the consumer.

Since its IPO in 2006, Symrise has recorded positive sales growth in every single year, resulting in a CAGR of 8.2% from 2006 (EUR 1.229bn) to 2019 (EUR 3.408bn).

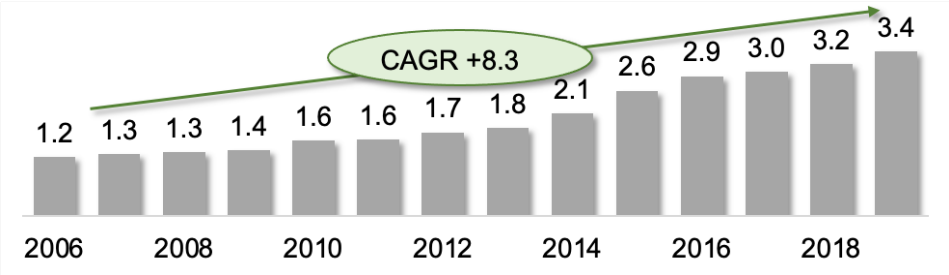


Figure 1: Sales Development in EURbn
Source: Company Report

As Symrise's operations are exposed to less-cyclical industries, the company was able to demonstrate growth, even during economic downturns with weak consumer spending. In 2009, Symrise's sales grew by 3%, despite a 12% decrease in the worldwide trading volume, proving the company's resilience[3]. Regardless of the Covid-19 related headwinds in 2020, Symrise grew organically by 3.3% during the first nine months of 2020. Symrise was able to keep up with market leader Givaudan who reported 3.7% organic growth and performed better than IFF with 3.0% organic growth.

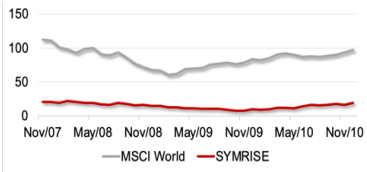


Figure 2: MSCI World Index and Symrise Stock Performance in EUR
Source: Bloomberg

Management Board

Symrise benefits from an experienced management

Symrise has a dual management structure with an Executive Board and a Supervisory Board. The Supervisory Board oversees the activities of the Executive Board, who manages the company. The management has extensive experience in running the company. Current CEO Dr. Heinz-Jürgen Bertram has held various management positions at Symrise since 1985, including being a member of the Executive Board. After being appointed as CEO in August 2009, Bertram successfully managed the company out of the 2009 Financial Crisis. Currently, there is no information on a new CEO replacing Bertram after the end of his current contract in 2022.

[1] (Cook's Illustrated, 2019)
[2] (Symrise AG, 2020)
[3] (Symrise AG, 2009)

Remuneration of the Executive Board is not excessive

Analysing the remuneration of the Executive Board, we concluded that their compensation is not disproportionate, as the vertical target remuneration is approximately 28 times the average remuneration of Symrise's employees in 2019. The average compensation for the Executive Board of the MDAX has been ranging around a factor of 34 during the timespan from 2009 to 2017, indicating that Symrise's Executive Board receives a lower remuneration[4]. For members of the Executive Board, there are no termination payments or pension contributions made by Symrise at this time.

Shareholder Structure



Figure 3: Shareholder Structure by Investor Type
Source: Company Factbook

Symrise's shareholder structure is very fragmented with 95% of its shares in free float[5]. Currently, no shareholder owns a significant position exceeding 10%. Total ownership is composed by institutional investors (71%), strategic investors (8%) and others (21%). The largest owners are US-based Massachusetts Financial Services Company and BlackRock Inc. with 9.96% and 5.95% ownership, respectively. Horst-Otto Gerberding, grandson of the founder of Dragoco Gerberding & Co. AG, still holds 5.24% of Symrise, making him the 3rd largest shareholder. The majority of Symrise's shareholders is located in the USA (39%), while German shareholders account for approx. 10%. The high share of institutional investors corresponds with the fact that groups of investors are from the US. While only 15% of Symrise's investors are index investors, the majority follows a growth strategy, believing in the high growth potential of Symrise (47%). Recently, there have been no major changes in the shareholder structure.

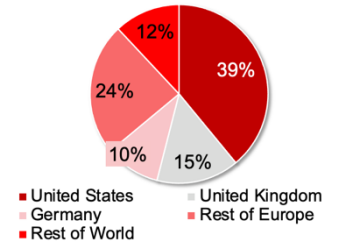


Figure 4: Shareholder Structure by Region
Source: Company Factbook

Currently, Symrise is listed in the MDAX. After Wirecard AG had to leave the DAX in August 2020, Symrise was a potential candidate to replace the company in the DAX. Although Symrise has not been selected to replace Wirecard AG, it may rise to DAX in September 2021, as ten companies will be added to the DAX, which will then include 40 instead of 30 major German companies. To be included in DAX, companies must meet certain criteria, such as a minimum level of liquidity and market capitalization, being is the most important criteria[6]. As Symrise fulfils these criteria and has a market capitalization of 14.8bn, exceeding the market capitalization of two companies currently listed in DAX index, we expect Symrise to rise to the DAX in September 2021[7].

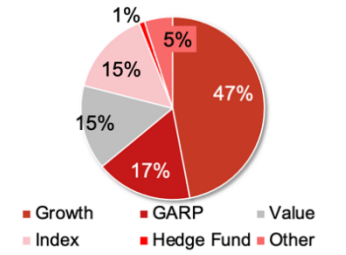


Figure 5: Shareholder Structure by Investment Strategy
Source: Company Factbook

Although being a well-known company among investors due to its position in the MDAX, we believe that the company's reputation would increase and gain more attention from investors and analyst coverage. Nevertheless, the fundamentals of Symrise would not change.

We deem ETFs that replicate the DAX to have an impact, as trading volume will increase and lead to possible share price increases. The expectation of increased share prices is opposed by the efficient market hypothesis of Fama, stating that in an efficient market, the price of a stock reflects all information available to the public. As the decision about entering the DAX is made based upon information already available to the public, the share price should not be affected[8]. Nevertheless, as markets are not perfect, there is a high possibility that the share price is subject to increases in the short-term.

[4] (Prof. Dr. Götz & Stahl, 2018)
[5] (Financial Times, 2020)
[6] (Manager Magazin, 2020)
[7] (Markets Insider, 2021)
[8] (Lauter, 2015)

Customer Base

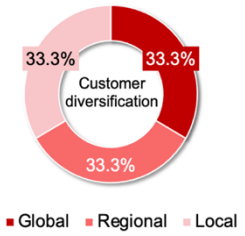


Figure 6: Customer Split
Source: Company Factbook

Symrise sells its products to a wide variety of customers, including manufacturers of food, such as baby food and pet food, cosmetic products, parfums, household products, nutritional supplements and pharmaceuticals. The company benefits from a highly diversified customer base, with no single customer accounting for more than 5% of sales, leading to a high degree of independence. In contrast, the largest customer of International Flavors and Fragrances (IFF), one of Symrise closest competitors, accounts for 10% of its total sales, making the company more dependent on a single customer. Further diversification is achieved by the fact that global, regional and local customers account equally for one-third of total sales. Among the global customer base are established blue chip companies such as Unilever, Danone and Nestle with high sales volumes. We assume the count of global customers to be lower while the sales per customer are higher, compared to regional and local customers.

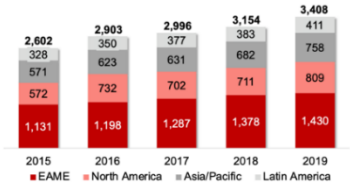


Figure 7: Sales per Region in EURm
Source: Company Report

Although global fast-moving consumer goods (FMCG) brands have a strong position in developed and emerging markets, they are continuously losing market share to smaller, more agile brands. Since 2010, the three largest FMCG brands in China, Brazil, India and Indonesia have lost 5% market share[9]. Consumers, who are younger than 35 years, are more likely to buy from newly founded brands than from big food companies[10]. Through increasing e-commerce purchases, we expect smaller, local and regional brands to gain more attention from customers. Therefore, small FMCG brands are showing faster organic growth than large, established brands. In the US, from 2012 to 2016, smaller companies with a revenue between USD 0.4bn to USD 2bn grew with a CAGR of 3.0%, while large FMCG companies with revenue of more than USD 8bn per year grew with a CAGR of 1.5%[11]. Due to the faster growth, we deem local and regional customers to be beneficial for Symrise's growth. Additionally, we expect local customers to respond faster to local demands due to their proximity to the trends and preferences[12]. With research centres and production sites worldwide, Symrise can develop region specific ingredients to respond to regional preferences.

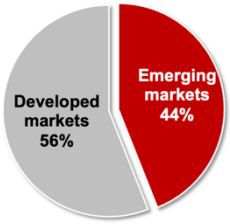


Figure 8: Sales Split
Source: Company Report

In 2019, EAME accounted for 42% of sales, North America for 24%, Asia Pacific for 22% and Latin America for 12%. Compared to 2006, Symrise increased its global presence, as 55.6% of sales were created in Europe. Overall, 44% of sales were generated in emerging markets in 2019.

Cyber Attack



Figure 9: Share Price Development after Cyber-Attack in Dec 2020
Source: Bloomberg

On December 15th 2020, Symrise announced that a cyber-attack affected its communication systems in Germany and other countries.

Although Symrise's ERP system, SAP, as well as production systems have not been attacked, the company partly stopped production for safety reasons. The full extent of the attack is still uncertain in terms of data breaches and reputational issues.

With a share price as of 106.4 EUR on December 14th 2020, the date before the announcement, the share price dropped by 2.7 percentage points to 103.7 EUR on December 15th 2020. Two days after the announcement, the share price has recovered and even exceeded the pre-announcement level three days after the announcement (107.8 EUR).

[9] (Gupta & Oliver Wright, 2019)
[10] (Gupta & Oliver Wright, 2019)
[11] (Kelly, Kopka , Küpper, & Moulton, 2018)
[12] (Kelly, Kopka , Küpper, & Moulton, 2018)

Segment Analysis

Symrise was a first mover to expand into pet food, UV filters and probiotics

The company's operating activities are divided into three segments: Scent & Care, Nutrition and Flavor. Symrise holds one of the most diversified product portfolios in the flavor and fragrance (F&F) industry. Being the first mover to expand into areas such as pet food, UV filters and probiotics, the company added high-growth products to its portfolio and thereby expanding outside of the traditional F&F industry to capitalize on these growth opportunities. Symrise is the global market leader in certain areas, such as the production of mint and vanilla flavor compositions. Moreover, Symrise has leading positions in UV sun filters and pet food.

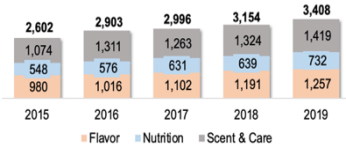


Figure 10: Sales Development per Segment in EURm
Source: Company Report

Scent & Care

The Scent & Care segment is the company's largest segment, as its sales contribution of EUR 1,419m in 2019 represents 42% of the company's total sales. With sales of EUR 1,074m in 2015, this segment grew at a 7.2% CAGR from 2015 to 2019. Although Scent & Care is Symrise largest segment, it is the company's least profitable one with an average EBITDA margin of 19.9% from 2015 to 2019, which is below the company's average of 21.1%. In comparison to Symrise's peers, we find that the segments related to fragrances have the lowest EBITDA margins (i.e., Givaudan's Fragrance segment with an EBITDA margin of 19.8% in 2019 compared to the Givaudan's total EBITDA margin of 21.1%). Due to the high proportion of sales, Scent & Care has a strong impact on Symrise overall profitability.

More than 15,000 Scent & Care products are produced across 30 sites for customers located in 126 countries. The segment has three sub-segments: Fragrances, Cosmetic Ingredients as well as Aroma Molecules. In the Fragrance sub-segment, Symrise creates fine fragrances for perfumes, consumer fragrances for personal care and household cleaning products as well as oral care ingredients, such as toothpaste or chewing gum. The cosmetic ingredient sub-segment includes products such as sun protection or ingredients for product conservation. In the aroma molecules sub-segment, Symrise mainly manufactures nature-identical menthol for oral care products such as toothpaste or aroma chemicals that are used for perfumes.

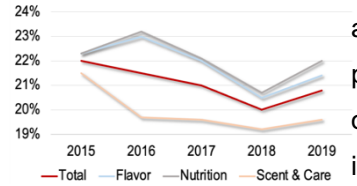


Figure 11: EBITDA Development per Segment in %
Source: Company Report

Flavor

The Flavor segment ranks as the second largest segment, with sales amounting to EUR 1,257m in 2019, representing a share of 37% of Symrise's total sales. In 6.45% CAGR from 2015 to 2019, little below the CAGR of the Scent & Care segment. With an average EBITDA margin of 21.8% from 2015 to 2019, the Flavor segment is more profitable than the company's respective total EBITDA margin.

The segment produces 13,000 products at 40 production sites, serving customers in 143 countries. The three business units of this segment are beverages, sweet and savory. Beverages focuses on soft drinks, tea, coffee or brewery, sweet focuses on chocolate and milk products as well as baked goods and cereals while savory focuses on ready-made meals, snacks and plant-based proteins.

Nutrition

The Nutrition segment is the fastest growing segment of Symrise

The Nutrition segment was established in 2016, after a split from the combined Flavor & Nutrition segment. With sales of EUR 732m in 2019, accounting for 21% of total sales, this segment is the company's smallest segment. Having sales of EUR 548m in 2015, the Nutrition segment grew at

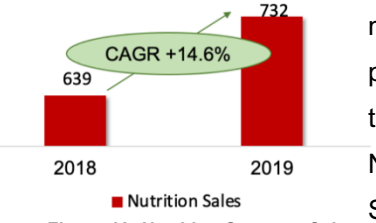


Figure 12: Nutrition Segment Sales Development in EURm
Source: Company Report

a CAGR of 7.5% from 2015 to 2019. It should be mentioned that especially the growth from 2018 to 2019 is notable, with an increase of 14.6% in sales. The Nutrition segment is also Symrise's most profitable segment, as its average EBITDA margin of 22% from 2015 to 2019 is 0.9 percentage points above the company's respective EBITDA margin. The last year shows a trend that the discrepancy is increasing. The combination of rapid growth and high margins makes the Nutrition segment the segment that we deem to have the highest potential in the future. In 2019, Symrise expanded this segment by acquiring ADF/IDF, an US-American manufacturer of protein specialties.

The 2,992 employees in the nutrition segment serve customers in 100 countries globally. The 35 production sites of this segment are located across 25 countries. The Nutrition segment has five business units: pet food, food, aqua, ADF/IDF and Probi. While the pet food unit creates products to improve taste and health of pet food as well as fragrances for pet care, the food unit produces solutions for food and beverage manufactures as well as baby food products. In aqua, Symrise creates ingredients for food used in aquacultures. Newly acquired ADF/IDF is the leading provider of egg-based protein specialties and produces meat-based ingredients for food and pet food. The Probi unit develops and produces probiotics, including nutritional supplements aiming for health benefits.

Covid-19 Impact on Segments

During the Covid-19 pandemic, Nutrition accounted the highest growth out of all segments

Covid-19 has changed consumer behavior and had an impact on Symrise's segments. Measured in terms of organic growth, the Nutrition segment had the strongest performance during the first nine months of 2019 with 9.1% organic growth, followed by Scent & Care with 3.1% and Flavor with 0.6%. The Scent & Care segment profited from increasing demand in personal hygiene and oral care products, while demand in cosmetic ingredients decreased especially in UV filters, due to the limited travelling in 2020. Moreover, demand for fine fragrances for luxury perfumes decreased. The sales of the Flavor segment reflect the change in consumer behavior during the lockdowns and restrictions, as consumers prepared their meals at home, leading to a good performance in savory and baking products. In return, decreasing out-of-home consumption resulted in less demand for beverages and sweets. In the Nutrition segment, pet food continues to be the main driver for growth.

While the shares of the segments of total sales were relatively constant from 2015 to 2019, Covid-19 has had an impact. Based on Q3 2020 numbers, Scent & Care lost around 3 percentage points to only account for 39% of total sales and Flavor lost around 2 percentage points to account for 35% of total sales. The Nutrition segment confirmed its strong growth with now accounting for almost 26% of total sales, an increase of 5 percentage points.

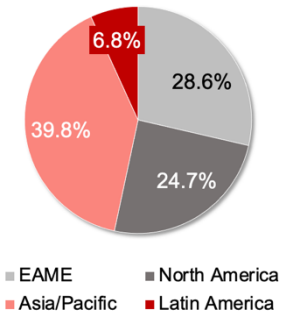


Figure 13: Share of Sales per Region in the F&F market
Source: IAL Consultants

Industry Overview

The global flavor and fragrances industry had a sales volume of EUR 27.6bn in 2019, while the global aroma molecules market accounted for EUR 7.4bn. Combined, the total market relevant for Symrise, the aroma, fragrance and flavor (AFF) market, had a size of EUR 35.0bn in 2019. In the past 20 years, the F&F industry has been growing at a CAGR of 4.9%, increasing from a market volume of EUR 12.9bn in 2000 to a market volume of EUR 27.6bn in 2019. Thereby, the CAGR from 2000 to 2010 as well as the CAGR from 2010 to 2019 are both at 4.9%, which highlights a constant market growth over the last 20 years. As of 2019, 39.8% of F&F sales

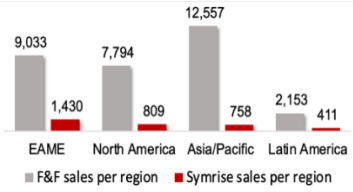


Figure 14: Total F&F Sales per Region vs. Symrise Sales per Region in EURm
Source: Company Report, Analyst Estimates

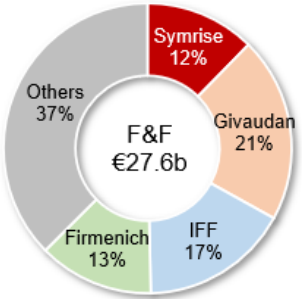


Figure 15: F&F Market Shares of the Top Four Companies
Source: Company Report, Analyst Estimates

worldwide were generated in Asia/Pacific[13]. We attribute this to be due to the high number of individuals living in large cities, large overall population figures and a higher demand in seasoned foods. Analysing the market share that Symrise has in the respective regions, we find that Symrise serves only 6% of the total Asian F&F market. In contrast, Symrise serves 19% of the Latin American F&F market.

As the ten largest players in the F&F industry, measured by revenue, increased their market share from 64.0% in 2000 to 77.0% in 2017, we expect the consolidation to continue in the future. The four major players in the F&F market are Givaudan (21%), IFF (17%), privately held Firmenich (13%) and Symrise (12%), holding 63% market share in the F&F market in 2019. In contrast, the top four F&F players of 2000 held only 39.2% of the market[14]. In the AFF market relevant to Symrise's operations, the four top companies hold 49% market share, of which 9.7% are attributable to Symrise. The trend towards consolidation in the industry is exemplified by IFF's announced merger with DuPont's Nutrition and Bioscience segment, which is expected to be closed in Q1 2021. DuPont's Nutrition and Bioscience segment is, among others, active in animal nutrition (mainly livestock), pharma solutions, dietary supplements and food and beverages. hough it is not certain what impacts the merger will have on the F&F industry, it is very certain t the newly merged company will be the largest F&F company after the closing of the deal.

Competitive Landscape

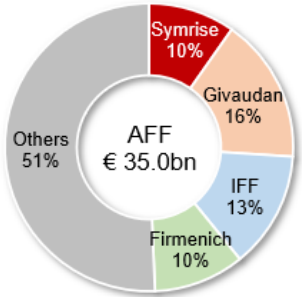


Figure 16: AFF Market Shares of the Top Four Companies
Source: Company Report, Analyst Estimates

Symrise's main competitors in terms of market share are Givaudan, IFF and Firmenich. Kerry Group, Tate & Lyle and Robertet are the closest companies to the top four in terms of revenue. Although competition is high, there are around 500 companies active in the F&F industry, especially smaller regional and local players as well as companies specialized on certain ingredients. We expect smaller players to benefit from regional and local trends, as they can better respond due to the proximity to regional and local customers. Besides competitors from the traditional F&F market, consumer chemical companies start to enter the F&F market. For example, BASF entered the F&F market in 2019 through the acquisition of Isobionics in 2019.

Customers in the F&F industry demand unique, customized ingredients for their products. We estimate that around 95% of Symrise sales are generated through customized ingredients. For the B2B customer, flavor and fragrance ingredient costs account for approximately 1% and 2%-5% of the final product, respectively. Nevertheless, FMCG companies rely on F&F companies, as flavors and fragrances are a key buying criteria for end-consumers, considering that consumers base their final purchasing decision the on their preferred taste or smell. The exact formulas are not published and competitors cannot simply imitate products. As a result, although switching costs for customers are low, they typically remain with the same supplier for the life cycle of the product.

▪ Barriers of Entry

While the steady growth of the F&F industry seems to be attractive for new entrants, we deem barriers of entry to be high, due to continuous regulatory requirements, core list systems, the importance of an effective supply chain and the relevance of innovations.

The regulatory requirements and therefore increasing product standards demand companies to spend high amounts of fixed costs on the documentation and monitoring of the production

[13] (IAL Consultants, 2020)
[14] (Leffingwell Associates , 2003)

processes, making it difficult for smaller companies to handle these costs due to lower revenues.

Core list systems drive competition among the four top players

Core list systems are used by large, multinational clients, mostly customers that purchase fragrances. On average, four F&F suppliers are preselected by a potential customer to pitch their products and compete for the respective customer. As the F&F suppliers on core lists are often the top F&F suppliers, competition among all players decreases. As a result, smaller companies are increasingly excluded from supplying global FMCG companies. However, core list systems will increase competition among the top players, as they directly compete against each other. We expect that more customers will use core list systems in the future, making it even more difficult for smaller companies to gain market share.

Another barrier of entry are complex supply chains that companies must manage. The production of ingredients requires a wide range of raw materials from sources in several countries around the globe. As supply chains must be monitored to receive high quality raw materials at reasonable prices, we believe that smaller companies face more difficulties as they do not have established relationships to raw material suppliers and great bargaining power.

- Pricing Power

Suppliers are divided into suppliers of synthetic raw materials and natural raw materials. We expect the majority of synthetic raw materials to be widely available, due to a large number of suppliers worldwide. The availability of certain raw materials is limited to geographical regions, resulting in a lower number of suppliers and dependence on harvesting conditions. As a result, raw material prices are subjects to fluctuations.

In case of increasing raw material prices, AFF companies increase prices for their products to pass on higher raw material prices to customers. However, Symrise and its peers have limited pricing power due to high market power of their B2B customers who most of the time define prices. Based on the limiting pricing power, we expect sales increases in the F&F industry because of higher volumes sold instead of price increases.

Financial Analysis

Capital Structure

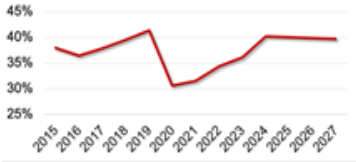


Figure 17: Development of Symrise's Equity Ratio
Source: Company Report, Analyst Estimates

Between 2015 and 2019, the equity ratio of Symrise ranges between 36.4% and 41.4%. The peak in 2019 is caused by a capital increase in 2019. Symrise actively targets a specific equity ratio, which allows the company to operate flexible and independent. Although not communicated by Symrise, we assume the target ratio to be 40%, based on past financial data. Symrise is categorized as a levered company and corresponds to industry peers Givaudan (35.2%) and IFF (46.9%). Symrise issued a new bond in 2019, which led to a significant increase in debt. According to our estimates, we assume that ratio to be below the target in 2020 but to recover until 2024. A high share of external capital is an indicator that lenders trust a company to manage its cash effectively. Institutions and lenders assess the company as solvent and assume future cash flows to be high enough to pay back debt.

PPE and Intangible Assets

Intangible assets accounted for 42% of the total amount of invested capital in 2019. The large share of intangible assets is caused by high M&A activity and proofs the major importance of intellectual knowledge such as patents and recipes as well as customer base in the company's value creation. Intangible assets, twice as high as PPE, account for 20% of the invested capital in 2019. We expect intangible assets to decrease without acquisitions and the share of PPE to slightly increase since machinery will replace human work due to automation.

Return on Invested Capital

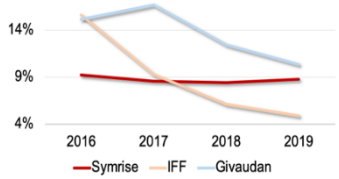


Figure 18: ROIC Development of Symrise, IFF and Givaudan
Source: Bloomberg, Analyst Estimates

The return on invested capital (ROIC) indicates how much investors earn on each Euro invested in Symrise. Hence, capital intensive businesses require higher investments to increase revenue (e.g., to expand capacity), especially when pricing power is low. From 2016 to 2018, Symrise's ROIC decreased from 9.2% to 8.4%. Since costs reduce ROIC, we expect an increase in raw material costs such as vanilla and crude oil to be responsible for the decrease in ROIC. As raw material prices started to decrease in 2019 and are expected to continue to decrease, we await an increase in ROIC resulting in a terminal ROIC of 12.9%, which is slightly below the industry average of specialty chemicals of 13.0%[15]. If we compare Symrise's ROIC with that of its competitors, we see that Givaudan's ROIC as well as IFF's ROIC are subject to an even stronger downward trend in the years 2016 to 2019 supporting the hypothesis that raw material costs are responsible for the downwards trend. The ROIC of IFF and Givaudan seems to be subject to another factor, as their ROIC has developed similarly since 2016, while Symrise's ROIC is only subject to minor fluctuations. Considering recent years, Symrise has a competitive advantage to IFF earning a higher ROIC but a disadvantage to Givaudan. A higher ROIC can either indicate higher prices or a more efficient production. However, Givaudan shows a significant downwards trend converging with Symrise. We used ROIC incl. intangible assets, as they account for a large share of invested capital. RONIC, indicating the return on new deployed capital, is less steady than ROIC. We expect the terminal growth rate to be above the weighted average cost of capital.

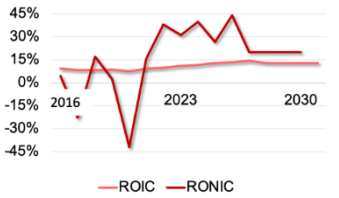


Figure 19: ROIC and RONIC development of Symrise
Source: Company Report, Analyst Estimates

Working Capital

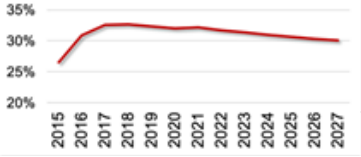


Figure 20: Working Capital to Sales
Source: Company Report, Analyst Estimates

From 2015 to 2019, net working capital (NWC) nearly doubled, reaching a value of EUR 1.1bn, amounting approximately one third of sales. Investigating Symrise's cash conversion cycle, we find an upwards trend in days of sales outstanding with 69.4 days in 2019 and days of inventory outstanding with 159.0 days in 2019 leading to a cash conversion cycle of 168.9 days. This implies that a lot of capital is tied up in the sales process. Symrise's competitors have significantly lower cash conversion cycles of 111.7 days (Givaudan) and 131.7 days (IFF), mainly due to lower days of inventory outstanding. Although uncertain, we deem backward integration as the reason for building up inventory. We expect Symrise to slightly reduce its cash conversion cycle and consequently its working capital to stay competitive and converge with its competitors. However, we made conservative assumptions regarding improvement.

	DSO	DIO	DPO	CCC
Symrise	69.37	159.04	59.47	168.94
Givaudan	166.94	114.18	82.78	111.72
IFF	62.22	127.29	57.84	131.66

Table 1: CCC of Symrise, Givaudan and IFF in Day
Source: Company Report, Analyst Estimates

[15] (Damodaran, 2020)

Profitability

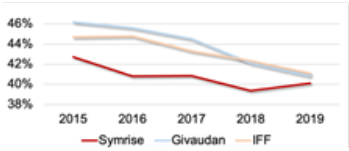


Figure 21: Gross Margin of Symrise, Givaudan and IFF
Source: Company Report, Analyst Estimates

We measure Symrise's profitability using the gross margin and the EBITDA margin. While Symrise had a lower gross margin than Givaudan and IFF in 2015, gross margins converged since the margins of IFF and Givaudan decreased until reaching the same level. In 2019, Symrise had a gross margin of 40.1% compared to 40.8% and 41.1% for Givaudan and IFF, respectively. In the AFF industry, raw materials account for a large share of cost of goods sold. Looking deeper into the effect of raw material costs, we consider increases to be the main reason for the downward trend in gross margins of Givaudan, IFF and Symrise before the latter started recovering in 2019. Although it is not certain how many of the 10,000 raw materials used by Symrise were affected by rising raw material prices, we expect rising prices to be reflected in the margins. Prices for vanilla beans, one of Symrise's most important natural raw ingredients, increased by 625.7% from USD 87.5 per kilo in Q1 2015 to reaching its peak at USD 635 per kilo in Q2 2017. The current price level in Q4 2020 is at USD 250 per kilo, indicating that prices have decreased, although still above 2015 levels. In addition, base chemicals, which are derived from crude oil, are used by the F&F industry for solvents and several processes during the production. Analyzing prices from 2015 to 2019, we observe increasing prices before a drop in 2019. This drop is attributable to the Covid-19 related decrease in demand in crude oil in Q1 and Q2 2020. Raw materials costs are expected to remain below previous levels, further decreasing. Additionally, due to a more efficient production processes and optimization of the supply chain, we expect further savings in COGS.



Figure 22: Vanilla Price Development in USD
Source: Thomson Reuters

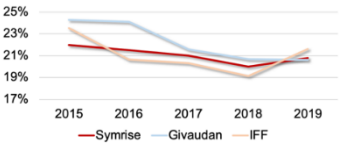


Figure 23: EBITDA Margin of Symrise, Givaudan and IFF
Source: Company Report, Analyst Estimates

The EBITDA margins of Symrise, IFF and Givaudan are at a similar level, fluctuating little above 20%. Symrise's EBITDA margin increased from 20.0% in 2018 to 20.8% in 2019 of which a part can be attributed to the introduction of IFRS 16, requiring the balancing of operating leases. From 2006 to 2019, the company's EBITDA margin remained stable at around 20.5%. Comparing the EBITDA margins to the top competitors, Symrise's EBITDA margin is lower than the EBITDA margin of Givaudan (average EBITDA margin of 22,4% from 2015 to 2019) but slightly higher than of IFF (average EBITDA margin of 20,3% from 2015 to 2019). Furthermore, smaller companies show lower profitability and more volatility in EBITDA margins. For example, the EBITDA margin of Sensient was at 13.3% in 2019 and had an average of 16.0% from 2015 to 2019. Symrise defined a target EBITDA margin range of 20.0% to 23.0% from 2020 to 2025. According to our estimations, Symrise will reach this goal with an EBITDA margin of 22.3% in 2025. With an EBITDA margin of 22%, Nutrition currently is the most profitable, also showing the highest growth, followed by Flavor with 21.4% and Scent and Care with 19.6%.

Organic growth

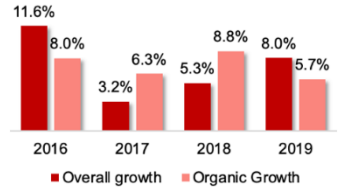


Figure 24: Overall Sales Growth vs. Organic Sales Growth
Source: Company Report, Analyst Estimates

Organic growth implies that portfolio effects and currency effects are not considered. As Symrise shows strong M&A activity and produces and distributes globally, organic growth can deviate significantly from overall growth. In 2019, 5.7% of the total growth of 8.0% were attributable to organic growth, while the remaining 2.3% of growth were due to currency effects (1.3%) and M&A activity (1.0%). With an organic growth of 5.7%, Symrise managed to exceed market growth, not considering positive currency effects. Strong organic growth proves that Symrise is able to grow through internal value creation in terms of process optimization and successful R&D activities improving current products and expanding current product range. Q3 2020 numbers highlight that Symrise has a high-risk exposure to FX rates since currency effects decrease the overall growth by 6.3 percentage points. Organic growth accounted for 3.1% and portfolio effects for 5.8%.

Since one-third of Symrise's total sales are generated in USD, Symrise has a high exposure to USD fluctuations. Although the company is exposed to natural hedging, since the company party produces in countries where it sells its products, Symrise manages risk exposure through hedging on a case-by-case basis. In Q1 2019 Symrise implemented an inhouse bank to improve risk management[16].

[16] (Backhaus, 2019)

Annex

Company Overview

Established through a merger of Haarmann & Reimer GmbH and Dragoco Gerberding & Co. AG in 2003, Symrise AG is a leading supplier of flavors, fragrances, cosmetics and functional ingredients. The company, based in Holzminden, Germany, employs over 10,000 individuals in more than 40 countries worldwide, selling 30,000 products to over 6,000 customers in 160 countries.

Symrise is market leader in vanilla flavor compositions

With roots dating back to 1874, Haarmann & Reimer GmbH was the first company to produce vanillin synthetically. Today, Symrise is the market leader in vanilla flavor compositions, while vanilla is among the most popular flavors worldwide[17]. As Symrise's customers produce goods fulfilling consumer's daily needs, final consumers interact with the company's ingredients around 20 to 30 times, on average, per day[18]. Besides traditional flavors and fragrances, Symrise offers products that include features such as reducing sugar or salt, while keeping the taste of the final product for the consumer.

Since its IPO in 2006, Symrise has recorded positive sales growth in every single year, resulting in a CAGR of 8.2% from 2006 (EUR 1.229bn) to 2019 (EU 3.408bn).

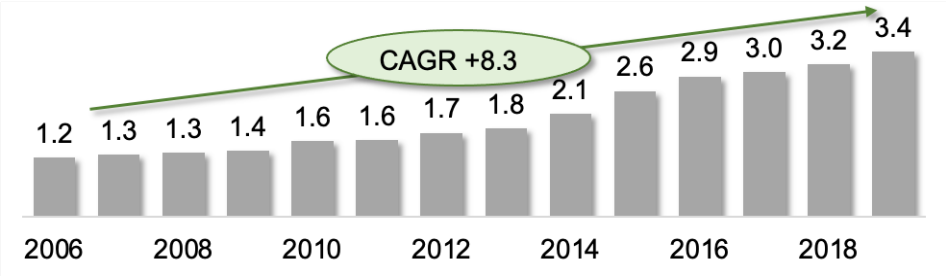


Figure 1: Sales Development in EURbn
Source: Company Report

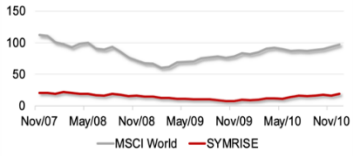


Figure 2: MSCI World Index and Symrise Stock Performance in EUR
Source: Bloomberg

As Symrise's operations are exposed to less-cyclical industries, the company was able to demonstrate growth, even during economic downturns with weak consumer spending. In 2009, Symrise's sales grew by 3%, despite a 12% decrease in the worldwide trading volume, proving the company's resilience[19]. Regardless of the Covid-19 related headwinds in 2020, Symrise grew organically by 3.3% during the first nine months of 2020. Symrise was able to keep up with market leader Givaudan who reported 3.7% organic growth and performed better than IFF with 3.0% organic growth.

Management Board

Symrise benefits from an experienced management

Symrise has a dual management structure with an Executive Board and a Supervisory Board. The Supervisory Board oversees the activities of the Executive Board, who manages the company. The management has extensive experience in running the company. Current CEO Dr. Heinz-Jürgen Bertram has held various management positions at Symrise since 1985, including being a member of the Executive Board. After being appointed as CEO in August 2009, Bertram

[17] (Cook's Illustrated, 2019)
[18] (Symrise AG, 2020)
[19] (Symrise AG, 2009)

successfully managed the company out of the 2009 Financial Crisis. Currently, there is no information on a new CEO replacing Bertram after the end of his current contract in 2022.

Remuneration of the Executive Board is not excessive

Analysing the remuneration of the Executive Board, we concluded that their compensation is not disproportionate, as the vertical target remuneration is approximately 28 times the average remuneration of Symrise's employees in 2019. The average compensation for the Executive Board of the MDAX has been ranging around a factor of 34 during the timespan from 2009 to 2017, indicating that Symrise's Executive Board receives a lower remuneration[20]. For members of the Executive Board, there are no termination payments or pension contributions made by Symrise at this time.

Shareholder Structure

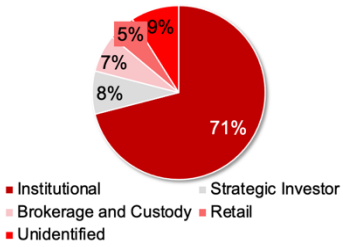


Figure 3: Shareholder Structure by Investor Type
Source: Company Factbook

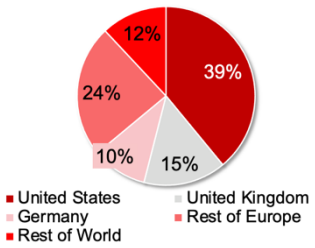


Figure 4: Shareholder Structure by Region
Source: Company Factbook

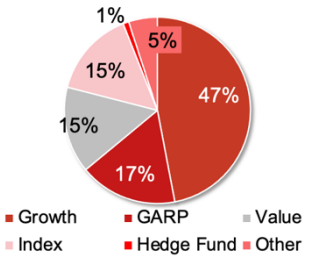


Figure 5: Shareholder Structure by Investment Strategy
Source: Company Factbook

Symrise's shareholder structure is very fragmented with 95% of its shares in free float[21]. Currently, no shareholder owns a significant position exceeding 10%. Total ownership is composed by institutional investors (71%), strategic investors (8%) and others (21%). The largest owners are US-based Massachusetts Financial Services Company and BlackRock Inc. with 9.96% and 5.95% ownership, respectively. Horst-Otto Gerberding, grandson of the founder of Dragoco Gerberding & Co. AG, still holds 5.24% of Symrise, making him the 3rd largest shareholder. The majority of Symrise's shareholders is located in the USA (39%), while German shareholders account for approx. 10%. The high share of institutional investors corresponds with the fact that groups of investors are from the US. While only 15% of Symrise's investors are index investors, the majority follows a growth strategy, believing in the high growth potential of Symrise (47%). Recently, there have been no major changes in the shareholder structure.

Currently, Symrise is listed in the MDAX. After Wirecard AG had to leave the DAX in August 2020, Symrise was a potential candidate to replace the company in the DAX. Although Symrise has not been selected to replace Wirecard AG, it may rise to DAX in September 2021, as ten companies will be added to the DAX, which will then include 40 instead of 30 major German companies. To be included in DAX, companies must meet certain criteria, such as a minimum level of liquidity and market capitalization, being is the most important criteria[22]. As Symrise fulfils these criteria and has a market capitalization of 14.8bn, exceeding the market capitalization of two companies currently listed in DAX index, we expect Symrise to rise to the DAX in September 2021[23].

Although being a well-known company among investors due to its position in the MDAX, we believe that the company's reputation would increase and gain more attention from investors and analyst coverage. Nevertheless, the fundamentals of Symrise would not change.

We deem ETFs that replicate the DAX to have an impact, as trading volume will increase and lead to possible share price increases. The expectation of increased share prices is opposed by the efficient market hypothesis of Fama, stating that in an efficient market, the price of a stock reflects all information available to the public. As the decision about entering the DAX is made based upon information already available to the public, the share price should not be affected[24]. Nevertheless, as markets are not perfect, there is a high possibility that the share price is subject to increases in the short-term.

[20] (Prof. Dr. Götz & Stahl, 2018)
[21] (Financial Times, 2020)
[22] (Manager Magazin, 2020)
[23] (Markets Insider, 2021)
[24] (Lauter, 2015)

Customer Base

Symrise largest customer accounts for 5% of total sales

Symrise sells its products to a wide variety of customers, including manufacturers of food, such as baby food and pet food, cosmetic products, parfums, household products, nutritional supplements and pharmaceuticals. The company benefits from a highly diversified customer base, with no single customer accounting for more than 5% of sales, leading to a high degree of independence. In contrast, the largest customer of International Flavors and Fragrances (IFF), one of Symrise closest competitors, accounts for 10% of its total sales, making the company more dependent on a single customer. Further diversification is achieved by the fact that global, regional and local customers account equally for one-third of total sales. Among the global customer base are established blue chip companies such as Unilever, Danone and Nestle with high sales volumes. We assume the count of global customers to be lower while the sales per customer are higher, compared to regional and local customers.

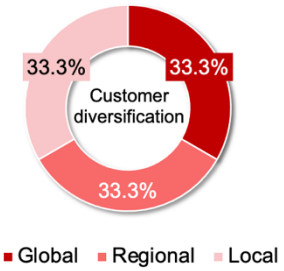


Figure 6: Customer Split
Source: Company Factbook

Although global fast-moving consumer goods (FMCG) brands have a strong position in developed and emerging markets, they are continuously losing market share to smaller, more agile brands. Since 2010, the three largest FMCG brands in China, Brazil, India and Indonesia have lost 5% market share[25]. Consumers, who are younger than 35 years, are more likely to buy from newly founded brands than from big food companies[26]. Through increasing e-commerce purchases, we expect smaller, local and regional brands to gain more attention from customers. Therefore, small FMCG brands are showing faster organic growth than large, established brands. In the US, from 2012 to 2016, smaller companies with a revenue between USD 0.4bn to USD 2bn grew with a CAGR of 3.0%, while large FMCG companies with revenue of more than USD 8bn per year grew with a CAGR of 1.5%[27]. Due to the faster growth, we deem local and regional customers to be beneficial for Symrise's growth. Additionally, we expect local customers to respond faster to local demands due to their proximity to the trends and preferences[28]. With research centres and production sites worldwide, Symrise can develop region specific ingredients to respond to regional preferences.

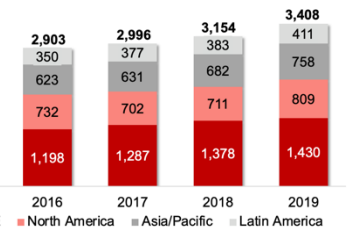


Figure 7: Sales per Region in EURm
Source: Company Report

In 2019, EAME accounted for 42% of sales, North America for 24%, Asia Pacific for 22% and Latin America for 12%. Compared to 2006, Symrise increased its global presence, as 55.6% of sales were created in Europe. Overall, 44% of sales were generated in emerging markets in 2019.

Figure 8: Sales Split
Source: Company Report

Cyber Attack

On December 15th 2020, Symrise announced that a cyber-attack affected its communication systems in Germany and other countries.

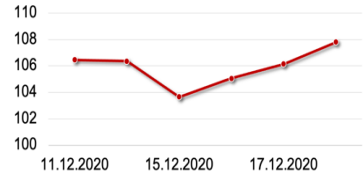


Figure 9: Share Price Development after Cyber-Attack in Dec 2020
Source: Bloomberg

Although Symrise's ERP system, SAP, as well as production systems have not been attacked, the company partly stopped production for safety reasons. The full extent of the attack is still uncertain in terms of data breaches and reputational issues.

With a share price as of 106.4 EUR on December 14th 2020, the date before the announcement, the share price dropped by 2.7 percentage points to 103.7 EUR on December 15th 2020. Two days after the announcement, the share price has recovered and even exceeded the pre-announcement level three days after the announcement (107.8 EUR).

[25] (Gupta & Oliver Wright, 2019)
[26](Gupta & Oliver Wright, 2019)
[27](Kelly, Kopka , Küpper, & Moulton, 2018)
[28] (Kelly, Kopka , Küpper, & Moulton, 2018)

Segment Analysis

The company's operating activities are divided into three segments: Scent & Care, Nutrition and Flavor. Symrise holds one of the most diversified product portfolios in the flavor and fragrance (F&F) industry. Being the first mover to expand into areas such as pet food, UV filters and probiotics, the company added high-growth products to its portfolio and thereby expanding outside of the traditional F&F industry to capitalize on these growth opportunities. Symrise is the global market leader in certain areas, such as the production of mint and vanilla flavor compositions. Moreover, Symrise has leading positions in UV sun filters and pet food.

Scent & Care

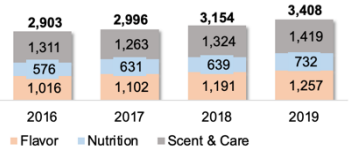


Figure 10: Sales Development per Segment in EURm
Source: Company Report

Symrise was a first mover to expand into pet food, UV filters and probiotics

The Scent & Care segment is the company's largest segment, as its sales contribution of EUR 1,419m in 2019 represents 42% of the company's total sales. With sales of EUR 1,074m in 2015, this segment grew at a 7.2% CAGR from 2015 to 2019. Although Scent & Care is Symrise largest segment, it is the company's least profitable one with an average EBITDA margin of 19.9% from 2015 to 2019, which is below the company's average of 21.1%. In comparison to Symrise's peers, we find that the segments related to fragrances have the lowest EBITDA margins (i.e., Givaudan's Fragrance segment with an EBITDA margin of 19.8% in 2019 compared to the Givaudan's total EBITDA margin of 21.1%). Due to the high proportion of sales, Scent & Care has a strong impact on Symrise overall profitability.

More than 15,000 Scent & Care products are produced across 30 sites for customers located in 126 countries. The segment has three sub-segments: Fragrances, Cosmetic Ingredients as well as Aroma Molecules. In the Fragrance sub-segment, Symrise creates fine fragrances for perfumes, consumer fragrances for personal care and household cleaning products as well as oral care ingredients, such as toothpaste or chewing gum. The cosmetic ingredient sub-segment includes products such as sun protection or ingredients for product conservation. In the aroma molecules sub-segment, Symrise mainly manufactures nature-identical menthol for oral care products such as toothpaste or aroma chemicals that are used for perfumes.

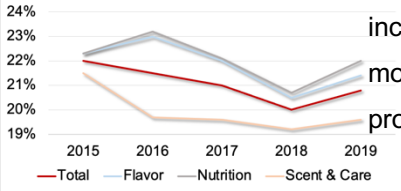


Figure 11: EBITDA Development per Segment in %
Source: Company Report

Flavor

The Flavor segment ranks as the second largest segment, with sales amounting to EUR 1,257m in 2019, representing a share of 37% of Symrise's total sales. In 6.45% CAGR from 2015 to 2019, little below the CAGR of the Scent & Care segment. With an average EBITDA margin of 21.8% from 2015 to 2019, the Flavor segment is more profitable than the company's respective total EBITDA margin.

The segment produces 13,000 products at 40 production sites, serving customers in 143 countries. The three business units of this segment are beverages, sweet and savory. Beverages focuses on soft drinks, tea, coffee or brewery, sweet focuses on chocolate and milk products as well as baked goods and cereals while savory focuses on ready-made meals, snacks and plant-based proteins.

Nutrition

The Nutrition segment is the fastest growing segment of Symrise

The Nutrition segment was established in 2016, after a split from the combined Flavor & Nutrition segment. With sales of EUR 732m in 2019, accounting for 21% of total sales, this segment is the company's smallest segment. Having sales of EUR 548m in 2015, the Nutrition segment grew at

a CAGR of 7.5% from 2015 to 2019. It should be mentioned that especially the growth from 2018 to 2019 is notable, with an increase of 14.6% in sales. The Nutrition segment is also Symrise's most profitable segment, as its average EBITDA margin of 22% from 2015 to 2019 is 0.9 percentage points above the company's respective EBITDA margin. The last year shows a trend that the discrepancy is increasing. The combination of rapid growth and high margins makes the Nutrition segment the segment that we deem to have the highest potential in the future. In 2019, Symrise expanded this segment by acquiring ADF/IDF, an US-American manufacturer of protein specialties.

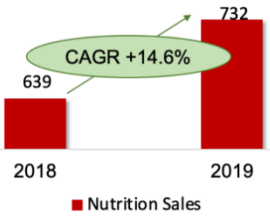


Figure 12: Nutrition Segment Sales Development in EURm
Source: Company Report

The 2,992 employees in the nutrition segment serve customers in 100 countries globally. The 35 production sites of this segment are located across 25 countries. The Nutrition segment has five business units: pet food, food, aqua, ADF/IDF and Probi. While the pet food unit creates products to improve taste and health of pet food as well as fragrances for pet care, the food unit produces solutions for food and beverage manufactures as well as baby food products. In aqua, Symrise creates ingredients for food used in aquacultures. Newly acquired ADF/IDF is the leading provider of egg-based protein specialties and produces meat-based ingredients for food and pet food. The Probi unit develops and produces probiotics, including nutritional supplements aiming for health benefits.

Covid-19 Impact on Segments

During the Covid-19 pandemic, Nutrition accounted the highest growth out of all segments

Covid-19 has changed consumer behavior and had an impact on Symrise's segments. Measured in terms of organic growth, the Nutrition segment had the strongest performance during the first nine months of 2019 with 9.1% organic growth, followed by Scent & Care with 3.1% and Flavor with 0.6%. The Scent & Care segment profited from increasing demand in personal hygiene and oral care products, while demand in cosmetic ingredients decreased especially in UV filters, due to the limited travelling in 2020. Moreover, demand for fine fragrances for luxury perfumes decreased. The sales of the Flavor segment reflect the change in consumer behavior during the lockdowns and restrictions, as consumers prepared their meals at home, leading to a good performance in savory and baking products. In return, decreasing out-of-home consumption resulted in less demand for beverages and sweets. In the Nutrition segment, pet food continues to be the main driver for growth.

While the shares of the segments of total sales were relatively constant from 2015 to 2019, Covid-19 has had an impact. Based on Q3 2020 numbers, Scent & Care lost around 3 percentage points to only account for 39% of total sales and Flavor lost around 2 percentage points to account for 35% of total sales. The Nutrition segment confirmed its strong growth with now accounting for almost 26% of total sales, an increase of 5 percentage points.

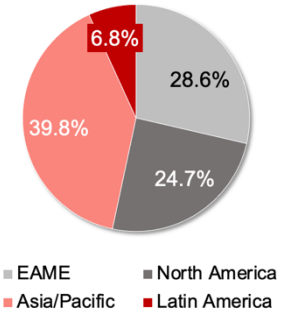


Figure 13: Share of Sales per Region in the F&F market
Source: IAL Consultants

Industry Overview

The global flavor and fragrances industry had a sales volume of EUR 27.6bn in 2019, while the global aroma molecules market accounted for EUR 7.4bn. Combined, the total market relevant for Symrise, the aroma, fragrance and flavor (AFF) market, had a size of EUR 35.0bn in 2019. In the past 20 years, the F&F industry has been growing at a CAGR of 4.9%, increasing from a market volume of EUR 12.9bn in 2000 to a market volume of EUR 27.6bn in 2019. Thereby, the CAGR from 2000 to 2010 as well as the CAGR from 2010 to 2019 are both at 4.9%, which highlights a constant market growth over the last 20 years. As of 2019, 39.8% of F&F sales

worldwide were generated in Asia/Pacific[29]. We attribute this to be due to the high number of individuals living in large cities, large overall population figures and a higher demand in seasoned foods. Analysing the market share that Symrise has in the respective regions, we find that Symrise serves only 6% of the total Asian F&F market. In contrast, Symrise serves 19% of the Latin American F&F market.



Source: Company Report, Analyst Estimates

As the ten largest players in the F&F industry, measured by revenue, increased their market share from 64.0% in 2000 to 77.0% in 2017, we expect the consolidation to continue in the future. The four major players in the F&F market are Givaudan (21%), IFF (17%), privately held Firmenich (13%) and Symrise (12%), holding 63% market share in the F&F market in 2019. In contrast, the top four F&F players of 2000 held only 39.2% of the market[30]. In the AFF market relevant to Symrise's operations, the four top companies hold 49% market share, of which 9.7% are attributable to Symrise. The trend towards consolidation in the industry is exemplified by IFF's announced merger with DuPont's Nutrition and Bioscience segment, which is expected to be closed in Q1 2021. DuPont's Nutrition and Bioscience segment is, among others, active in animal nutrition (mainly livestock), pharma solutions, dietary supplements and food and beverages. Although it is not certain what impacts the merger will have on the F&F industry, it is very certain that the newly merged company will be the largest F&F company after the closing of the deal.

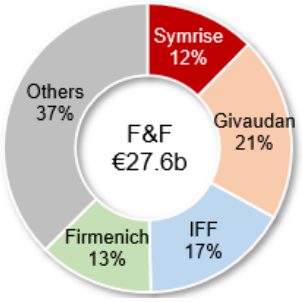


Figure 15: F&F Market Shares of the Top Four Companies
Source: Company Report, Analyst Estimates

Competitive Landscape

Symrise's main competitors in terms of market share are Givaudan, IFF and Firmenich. Kerry Group, Tate & Lyle and Robertet are the closest companies to the top four in terms of revenue. Although competition is high, there are around 500 companies active in the F&F industry, especially smaller regional and local players as well as companies specialized on certain ingredients. We expect smaller players to benefit from regional and local trends, as they can better respond due to the proximity to regional and local customers. Besides competitors from the traditional F&F market, consumer chemical companies start to enter the F&F market. For example, BASF entered the F&F market in 2019 through the acquisition of Isobionics in 2019.

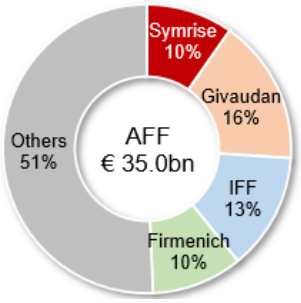


Figure 16: AFF Market Shares of the Top Four Companies
Source: Company Report, Analyst Estimates

Customers in the F&F industry demand unique, customized ingredients for their products. We estimate that around 95% of Symrise sales are generated through customized ingredients. For the B2B customer, flavor and fragrance ingredient costs account for approximately 1% and 2%-5% of the final product, respectively. Nevertheless, FMCG companies rely on F&F companies, as flavors and fragrances are a key buying criteria for end-consumers, considering that consumers base their final purchasing decision the on their preferred taste or smell. The exact formulas are not published and competitors cannot simply imitate products. As a result, although switching costs for customers are low, they typically remain with the same supplier for the life cycle of the product.

▪ Barriers of Entry

While the steady growth of the F&F industry seems to be attractive for new entrants, we deem barriers of entry to be high, due to continuous regulatory requirements, core list systems, the importance of an effective supply chain and the relevance of innovations.

[29] (IAL Consultants, 2020)
[30] (Leffingwell Associates , 2003)

The regulatory requirements and therefore increasing product standards demand companies to spend high amounts of fixed costs on the documentation and monitoring of the production processes, making it difficult for smaller companies to handle these costs due to lower revenues.

Core list systems drive competition among the four top players

Core list systems are used by large, multinational clients, mostly customers that purchase fragrances. On average, four F&F suppliers are preselected by a potential customer to pitch their products and compete for the respective customer. As the F&F suppliers on core lists are often the top F&F suppliers, competition among all players decreases. As a result, smaller companies are increasingly excluded from supplying global FMCG companies. However, core list systems will increase competition among the top players, as they directly compete against each other. We expect that more customers will use core list systems in the future, making it even more difficult for smaller companies to gain market share.

Another barrier of entry are complex supply chains that companies must manage. The production of ingredients requires a wide range of raw materials from sources in several countries around the globe. As supply chains must be monitored to receive high quality raw materials at reasonable prices, we believe that smaller companies face more difficulties as they do not have established relationships to raw material suppliers and great bargaining power.

- Pricing Power

Suppliers are divided into suppliers of synthetic raw materials and natural raw materials. We expect the majority of synthetic raw materials to be widely available, due to a large number of suppliers worldwide. The availability of certain raw materials is limited to geographical regions, resulting in a lower number of suppliers and dependence on harvesting conditions. As a result, raw material prices are subjects to fluctuations.

In case of increasing raw material prices, AFF companies increase prices for their products to pass on higher raw material prices to customers. However, Symrise and its peers have limited pricing power due to high market power of their B2B customers who most of the time define prices. Based on the limiting pricing power, we expect sales increases in the F&F industry because of higher volumes sold instead of price increases.

Corporate Strategy

The strategy of Symrise is based on growth, efficiency and portfolio

Symrise targets to further build on its leading position in the F&F market, while simultaneously capitalizing on strong growth trends beyond the traditional F&F market. The company's corporate strategy is based on targets which should be achieved by 2025 and focuses on growth, efficiency and portfolio. In addition to financial targets, Symrise set targets in terms of sustainability, in order to achieve long-term competitiveness and to reduce risks.

Growth

Due to the low pricing power in the industry, Symrise must achieve future growth in sales volume through quantity, rather than price increases. To attain growth, Symrise plans to further exploit the market potential in existing and new areas segments.

Firstly, Symrise aims to gain market share, which is planned to be achieved through maximizing the customer spectrum, expanding production capacity, increasing sales in emerging markets and innovations. Nine out of twelve of Symrise's largest customers purchase products from more

than one division. The company aims to strengthen the existing customer relationships by further exploiting cross selling opportunities in other divisions.

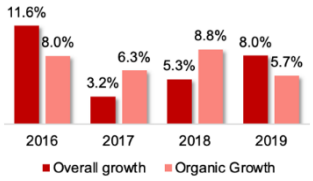


Figure 17: Symrise R&D Expenses in EURm
Source: Company Reports

Secondly, emerging markets present a very significant growth opportunity, as one billion new consumers are expected by 2025, due to increasing living standards and urbanization[31]. Symrise aims to increase its share in emerging markets from currently 44% to more than 50% by 2025. The global FMCG market is expected to reach EUR 12.6tn by 2025e, growing at a CAGR of 5.4%[32].

The increase in sales voluminal highly depends on successful research and development (R&D) activities, as 16.4% of Symrise's total sales in 2019 were generated by new product developments introduced from 2017 to 2019. Symrise has close relationships with its customers, as they work together to develop new ingredients in accordance with current trends. In addition to in-house developments, the company has a research network including relationships with leading FMCG companies and universities. In 2019, R&D expenses amount to EUR 213m, compared to EUR 200m in 2018. From 2015 to 2019, Symrise spent on average 6.42% per year of sales on R&D. Each of the company's segments has its own R&D department. The highest percentage of R&D expenses per segment in 2019 is attributable to the Scent & Care segment (49%), followed by the Flavor segment (37%) and the Nutrition segment (14%). Analysing the time span from 2015 to 2019, competitors Givaudan and IFF spent a significantly higher percentage of sales on R&D with 8.49% and 7.86% per year on average, respectively. Comparing the ratios to the ratio of 2006, we observe that no company has increased or decreased their R&D to sales ratio. Therefore, we expect Symrise to remain a R&D to sales ratio ranging between 6% to 7% in the future.

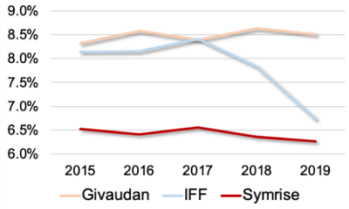


Figure 18: R&D to Sales Ratio
Source: Company Reports

Patents in the F&F industry mainly relate to processes and methods, rather than formulas, opposite to the pharma industry where formulas are more powerful. From 2015 to 2019, 260 of Symrise's patent applications were granted, compared to 308 for Givaudan and 119 for IFF. When dividing the total R&D costs of each of the companies (Symrise EUR 1.0bn, Givaudan EUR 2.0bn and IFF EUR 1.3bn) during the respective timespan by the number of granted patents, we find that Symrise was able to spend less R&D costs per granted patent (EUR 3.7 million), followed by Givaudan (EUR 6.6 million) and IFF (EUR 10.8 million). Nevertheless, it is necessary to conduct further analysis in order to conclude on the commercial success of the patents. PatentSight conducted an external intellectual property assessment to evaluate the results and quality of patents from several F&F companies in terms of global coverage and positive impact. With a share of 33.8%, Symrise's intellectual property is the most competitive in the F&F industry[33]. We conclude that Symrise is highly competitive in terms of innovations, despite spending a lower percentage of sales on R&D than competitors. Hence, Symrise is using its R&D budget more effectively.

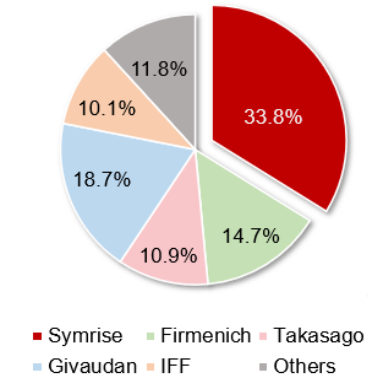


Figure 19: Patent Index of the Most Innovative F&F Player 2017
Source: PatentSight

Efficiency

Symrise developed two perfumes for a Brazilian company using Artificial Intelligence

In terms of efficiency, Symrise intends to optimize processes and access to raw materials.

Despite leading to an increase in market share, successful R&D activities made Symrise a leader in adopting Artificial Intelligence (AI) within the F&F industry. In cooperation with IBM, Symrise

[31] (Research and Markets, 2019)
[32] (Allied Market Research, 2018)
[33] (PatentSight, 2017; Symrise, 2018)

was the first company that used AI to create two new fragrances, which were launched in Brazil in June 2019. The AI Philyra contains 1.7m formulas of Symrise's database, which can be used to calculate up to 50,000 to 70,000 new formulas for fragrance mixtures within one second, while including factors such as age, gender or country of the targeted market[34]. It is expected that product development time can be reduced from three years to six months, which is a significant increase in terms of productivity. Although further development of Philyra is needed and it is not yet possible to quantify the impact in terms of sales and costs, Symrise is ahead of competitors, which leads us to strengthen Symrise's competitiveness and ultimately benefit sales and profitability.

Most of Symrise's cost of goods sold are attributable to raw materials, both natural and synthetic, for production. In the past years, increasing demand for natural ingredients and bad harvests led to supply shortages, resulting in significantly higher prices. As Symrise works with about 5,000 raw material suppliers in more than 40 countries, backward integration is crucial in order to reduce risks related to raw material prices. Symrise's key raw materials are base chemicals derived from crude oil, natural vanilla beans and citral. In 2018, BASF, one of the leading producers of citral, was not able to continue production for several months due to a fire at the production plant. Through the acquisition of Pinova, Symrise was able to internalize citral production and avoid any delays in production. Although producing citral in-house has been more expensive than simply purchasing it, Symrise was able to continue its productions and deliver products to customers to avoid reputational losses. Hence, we deem Symrise's efforts in backward integration to be important to manage raw materials competitively and decreased dependence on external suppliers for key raw materials.

The acquisition of Pinova enabled Symrise to produce citral

Portfolio

To expand its portfolio outside the traditional F&F market, Symrise targets strategic acquisitions into high growth areas. Through pet food, probiotics, active cosmetic ingredients as well as nutritional ingredients, Symrise already generates one-third of its sales from products that go beyond the traditional F&F market. We expect the company to increase the share in the future.

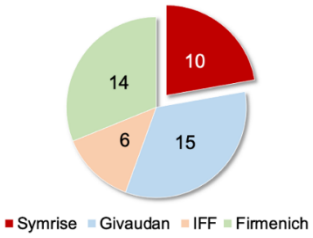


Figure 20: Number of Acquisitions of the Top Four Companies from 2015 to 2019
Source: Mergermarket, Analyst Estimates

As M&A has long been a crucial part of Symrise's strategy, the company has acquired ten companies since 2015. Compared to its close competitors, Symrise ranks third after Givaudan (15 acquisitions) and Firmenich (14 acquisitions). All peers show very high M&A activity, proving that inorganic value creation is an important growth factor in the AFF industry to expand into new markets. Considering the relevance of the transaction size, we analyze that IFF, the company with the lowest transaction count, has made the largest acquisition. In 2018, IFF acquired Frutarom Industries Ltd. for a transaction value of EUR 5.9bn, resulting in a gain of 2 percentage points in market share, rising from 11% to 13%.

In 2019, Symrise acquired ADF/IDF, a leading producer of protein-based specialities, for a transaction value of EUR 784m with exit multiples of 4.1x sales and 17.6x EBITDA. In 2019 ADF/IDF had an EBITDA margin of 23.2%, exceeding Symrise EBITDA margin of 20.8%. The acquisition led to an improvement of Symrise's EBITDA margin in the Nutrition segment from 20.7% to 22.0%. The transaction was EPS accretive, after closing with an increase in EPS of 0.1. To refinance the bridge facility used to finance the acquisition, Symrise issued new shares in February 2019 for the capital increase.

[34] (Wintermaier, 2019)

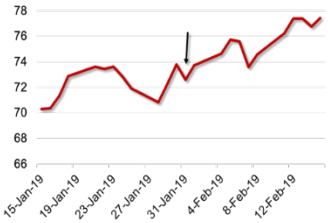


Figure 21: Share Price Development after the Acquisition of ADF/IDF
Source: Bloomberg

The transaction rationale was to expand the Nutrition segment in terms of exposure to nutritional supplements, food industries and pet food industry as well as to gain new customers globally and in the US.

Although Symrise's share price rose after the announcement, no significant reaction was seen.

To assess Symrise's capacity for future investments, we determine Symrise's debt fire and overall fire power, considering Symrise's maximum target net leverage of 2.8x. The increase in financial debt to finance the acquisition of ADF/IDF led to a surpass of this target in 2019 (3.1x). Additionally, Symrise issued a new bond in 2020 with a face value of EUR 500m, further increasing net leverage and decreasing Symrise fire power. We expect Symrise to be able to continuously repay its debt. Combined with an increase in EBITDA through organic growth, we expect Symrise to have a fire power of EUR 644m in 2023e and of EUR 1,401m in 2025e to finance future investments. Nevertheless, we expect Symrise to accept a higher net leverage, if profitable M&A opportunities arise, as with ADF/IDF.

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Debt Fire & Total Fire Power	2023	2025
Target leverage ratio	2.8x	2.8x
EBITDA (in EURm)	1,051	1,276
Max. Net Debt	**2,944**	**3,573**
Expected Cash	492	584
Max. Debt	3,435	4,157
Current financial debt	2,582	2,582
Pensions	605	605
Max. additional Debt	249	970
Expected Excess Cash	395	431
Fire Power	644	1,401

Table 1: Symrise's Total Debt Fire & Total Fire Power 2023 and 2025
Source: Symrise, Analyst Estimate

Value Driver

Different value driver apply to different regions in which Symrise operates. In emerging markets, increasing urbanization and GDP drive demand for products that contain flavors and fragrances to align with the continuously improving living standard of the population. In developed markets, factors such as GDP or urbanization do not have a significant effect on demand of products covering basic human needs, such as nutrition or personal care, but on more expensive products in the luxury segment, such as fine fragrances or beauty care products, as they are more reliant on disposable income. In fact, beauty, naturalness, wellbeing and new innovations are drivers for growth in developed markets.

Urbanization

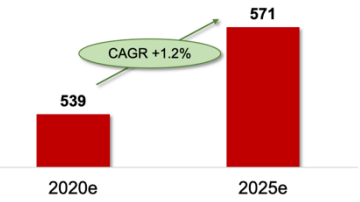


Figure 22: Growth of the Urban Population in Latin America
Source: Our World in Data

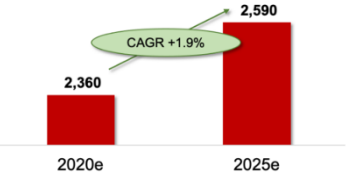


Figure 23: Growth of the Urban Population in Asia
Source: Our World in Data

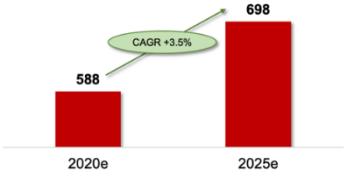


Figure 24: Growth of the Urban Population in Africa
Source: Our World in Data

Symrise benefits from a growing global population, especially in urban areas. As of 2015, 4.0bn individuals lived in urban regions, which represents 53% of the total population. By 2025e, 4.4bn individuals will be living in urban regions, which equals 58% of the total world population. However, there are regional differences, as urbanization in Europe and North America grows with a CAGR of 0.3% and 1.0% from 2020e to 2025e, respectively. During the timespan from 2020e to 2025e, Latin America is expected to grow at a CAGR of 1.2%, followed by Oceania with a CAGR of 1.3% and Asia with a CAGR of 1.9%. The highest CAGR is attributable to Africa, growing at 3.5% during the respective timespan[35].

In rural areas, people are able to grow their own food instead of purchasing it, as the availability and financial ability to buy processed foods is significantly lower than in urban areas. Additionally, individuals will face more employment opportunities, resulting in a higher percentage of people working. This especially applies for women, breaking traditional family patterns. Hence, we assume that it leads to an increase in demand of ready-to-eat meals, as individuals will have less time available to prepare their meals.

We expect urbanization to result in an increase in consumption and new consumers. Specifically, in emerging markets, we expect new consumers that have not purchased any products from FMCG companies in the past. With rising income, we expect these individuals to buy low-cost products such as snacks and bottled drinks, increasing demand for flavor and nutrition[36].

Real GDP Growth

The effect of GDP as a value driver depends on segments and regions. We assume that real GDP growth will lead to growth in disposable income and reflects the continued global population growth.

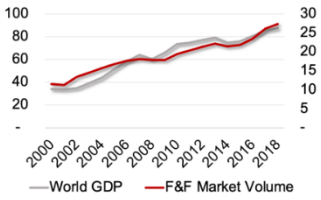


Figure 25: World GDP in EURtn and F&F Market Volume in EURbn
Source: Our World in Data and Leffingwell Associates

From 2021e to 2025e, Asia and Latin America have the highest annual GDP growth, ranging from 5.0% to 6.7% and 3.6% to 4.1%[37], respectively. For 2020e, all regions show negative real GDP growth due to the Covid-19 pandemic, resulting in a decrease in the AFF market growth rate.

Our expectation of 1.3% total AFF market growth in 2020e is supported by the IAL forecast expecting a market growth of 1.2% in 2020e. Overall, the flavor consumption is expected to grow by 1.6%, while fragrances are more affected by a decreasing GDP, resulting in a 0.8% growth rate[38]. We expect that luxury goods, such as fine fragrances, are more dependent on real GDP than products that cover basic, daily needs such as baby food or oral care products.

Plant-based Meat Alternatives

The plant-based meat alternatives market is highly dependent of flavors

Strong growth in demand in meat alternatives is arising from the growing population of vegans, vegetarians and consumers who want to reduce their meat consumption due to health, environmental or sustainability aspects. As the F&F industry does not have a lot of opportunities to sell its products to the fresh meat industry, apart from the processed meals market, the meat alternatives market offers potential for extensive market growth and an opportunity to introduce new products. F&F companies are of utmost significance to the meat alternatives market, as taste and texture are important characteristics to attract more customers.

[35] (Our World in Data, 2019)
[36] (Kelly, Kopka , Küpper, & Moulton, 2018)
[37] (International Monetary Fund, 2020)
[38] (IAL Consultants, 2020)

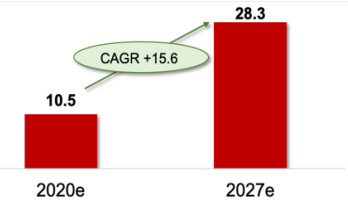


Figure 26: Growth of the Plant-based Meat Alternatives Market
Source: Statista

As of today, the animal meat market is worth USD 1.2tn p.a. and is expected to grow at a CAGR of 0.9% until 2025e, as worldwide animal meat consumption is expected to still increase slightly[39]. However, individuals tend to consume more plant-based substitutes to decrease their meat consumption. From 2020e to 2027e, the market value for meat substitutes is expected to grow from EUR 10.5bn to EUR 28.3bn, corresponding to a CAGR of 15.6% for the respective period, significantly exceeding the growth of meat-based products[40]. We expect developed countries to have the highest growth in consumption of plant-based alternatives, specifically in the USA and Europe. Considering the sizes of the two proteins markets equal to the overall protein market, we believe there is much upside potential for the plant-based meat industry to capture market share from the animal meat market. As the costs for flavor ingredients account for approximately 1% to 5% of products, we expect opportunities for the F&F industry that ranges between EUR 282.6m and EUR 1.515bn in 2027. The importance of flavors for plant-based proteins is highlighted by the fact that 68% of consumers stated that taste is the most important factor when buying animal meat alternatives, followed by natural ingredients (41%) and protein content (35%)[41].

Due to its presence in the pet food market, Symrise has significant exposure to palatability enhancers. Additionally, in December 2018, Symrise opened its Protein Center of Excellence, where the company aims to create authentic taste solutions for products based on alternative proteins leading to the assumption that Symrise can at least maintain its current market share in the AFF market also in the plant-based protein market. In 2025e, North America is expected to have a market share of almost 45% and Europe is expected to have a market share of 40%. The remaining 15% are distributed among Asia pacific, Latin America and Africa.

Natural Ingredients

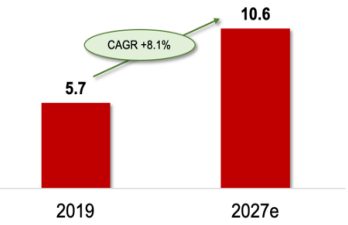


Figure 27: Growth of the Natural and Organic Flavor Market
Source: Statista

End consumers' rising awareness of health and wellbeing results in a higher demand in products with natural ingredients and clean labels across all categories, from food to personal care products. Although relevant in all regions, we expect the demand for natural products to be the most significant in developed countries, due to consumers' willingness and financial ability to pay for natural products, as they perceive artificial ingredients to have negative effects on their health. The natural and organic flavor market is expected to reach a market volume of EUR 8.7bn in 2027e, corresponding to a CAGR of 8.1% for the period from 2019 to 2027e[42].

We expect that a lot of new brands that offer natural products to be founded, challenging global, established FMCG brands. In the US alone, 3,600 new brands were created, resulting in an increased availability of natural products and more choice for consumers[43]. With its backward integration in natural raw materials Symrise already included this market trend in its key strategy to ensure responsible procurement.

Pet Food

In recent years, humanizations of pets among pet owners had led to significant growth of the pet market. 74% of pet owners expect the food for their pets to be of the same quality as their own food, resulting in an increasing demand for innovative, new pet food products[44]. Nutritional and

[39] (UBS, 2020)
[40] (Polaris Market Research, 2020)
[41] (Symrise AG, 2020)
[42] (Coherent Market Insights, 2020)
[43] Cote, Marcus, Royston & von Koeller, 2019
[44] (Symrise AG, 2020)

organic ingredients have become important for owners, as they highlight the importance of their pets' health and are therefore willing to spend on pet food.

This leads to an increase in pet food sales volume. With a volume of EUR 75.4bn in 2019, the global pet food market is expected to reach of EUR 99.1bn by 2025e, growing at a CAGR of 4.7%. While North America and EAME account for about 60% sales of the total pet food market in 2020e, growth is observable in all regions, with the strongest performance observable in Latin America (CAGR of 6.1%), followed by Europe (CAGR of 4.7%)[45]. Assuming 1% to 5% of the sales volume to be attributable to ingredient costs, it is to expect that opportunities between EUR 991m and EUR 4.96bn arise for the F&F industry. Although uncertain how much market share is attributable to Symrise, Symrise is the market leader in pet food palatability. Due to the high market volume and Symrise's leading position, we deem this division to be one of the main drivers of growth of the Nutrition segment. With the acquisition of DIANA in 2014, Symrise secured a first mover advantage over its F&F competitors in pet food nutrition. Through the acquisition of ADF/IDF, Symrise further demonstrated its focus on pet food and strengthened its leading position.

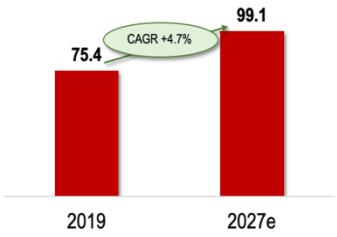


Figure 28: Growth of the Pet Food Market
Source: Statista

Cosmetics Industry

The worldwide prestige cosmetics market is growing at a CAGR of 5.0% from 2019 until 2025e, resulting in a sales volume of EUR 28.3bn, while the beauty and personal care market is expected to grow with a lower CAGR of 3.3% from 2020e to 2024e, reaching a sales volume EUR 471.1bn. The cosmetic industry is more affected by the Covid-19 pandemic than the personal care industry, resulting in a growth rate of -1.6%[46]. Especially fine fragrances depend on the disposable income of consumers whereas fast moving consumer goods such as toilettes paper or household products, are less cyclical as they cover daily needs.

In the future, we expect the cosmetics and personal care ingredients divisions to gain further relevance. Due to increasing awareness for wellbeing, supported by the fact that 87% of consumers worldwide aim to avoid signs of skin aging, we expect further demand in skin care products and opportunities for Symrise[47]. Symrise has experience in the cosmetic ingredient sector, after being one of the first F&F companies to expand into this sector.

Financial Analysis

Capital Structure



Figure 29: Development of Symrise's Equity Ratio
Source: Company Report, Analyst Estimates

Between 2015 and 2019, the equity ratio of Symrise ranges between 36.4% and 41.4%. The peak in 2019 is caused by a capital increase in 2019. Symrise actively targets a specific equity ratio, which allows the company to operate flexible and independent. Although not communicated by Symrise, we assume the target ratio to be 40%, based on past financial data. Symrise is categorized as a levered company and corresponds to industry peers Givaudan (35.2%) and IFF (46.9%). Symrise issued a new bond in 2019, which led to a significant increase in debt. According to our estimates, we assume that ratio to be below the target in 2020 but to recover until 2024. A high share of external capital is an indicator that lenders trust a company to manage

[45] (Statista, 2020)
[46] (Statista, 2020)
[47] (Symrise AG, 2020)

its cash effectively. Institutions and lenders assess the company as solvent and assume future cash flows to be high enough to pay back debt.

PPE and Intangible Assets

Intangible assets accounted for 42% of the total amount of invested capital in 2019. The large share of intangible assets is caused by high M&A activity and proofs the major importance of intellectual knowledge such as patents and recipes as well as customer base in the company's value creation. Intangible assets, twice as high as PPE, account for 20% of the invested capital in 2019. We expect intangible assets to decrease without acquisitions and the share of PPE to slightly increase since machinery will replace human work due to automation.

Return on Invested Capital

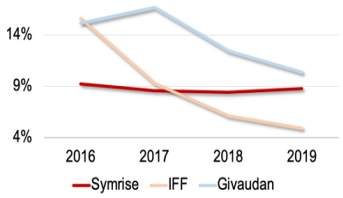


Figure 30: ROIC Development of Symrise, IFF and Givaudan
Source: Bloomberg, Analyst Estimates

The return on invested capital (ROIC) indicates how much investors earn on each Euro invested in Symrise. Hence, capital intensive businesses require higher investments to increase revenue (e.g., to expand capacity), especially when pricing power is low. From 2016 to 2018, Symrise's ROIC decreased from 9.2% to 8.4%. Since costs reduce ROIC, we expect an increase in raw material costs such as vanilla and crude oil to be responsible for the decrease in ROIC. As raw material prices started to decrease in 2019 and are expected to continue to decrease, we await an increase in ROIC resulting in a terminal ROIC of 12.9%, which is slightly below the industry average of specialty chemicals of 13.0%[48]. If we compare Symrise's ROIC with that of its competitors, we see that Givaudan's ROIC as well as IFF's ROIC are subject to an even stronger downward trend in the years 2016 to 2019 supporting the hypothesis that raw material costs are responsible for the downwards trend. The ROIC of IFF and Givaudan seems to be subject to another factor, as their ROIC has developed similarly since 2016, while Symrise's ROIC is only subject to minor fluctuations. Considering recent years, Symrise has a competitive advantage to IFF earning a higher ROIC but a disadvantage to Givaudan. A higher ROIC can either indicate higher prices or a more efficient production. However, Givaudan shows a significant downwards trend converging with Symrise. We used ROIC incl. intangible assets, as they account for a large share of invested capital. RONIC, indicating the return on new deployed capital, is less steady than ROIC. We expect the terminal growth rate to be above the weighted average cost of capital.

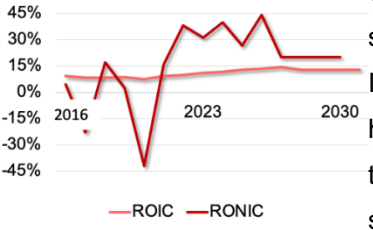


Figure 31: ROIC and RONIC Development of Symrise
Source: Company Report, Analyst Estimates

Working Capital

From 2015 to 2019, net working capital (NWC) nearly doubled, reaching a value of EUR 1.1bn, amounting approximately one third of sales. Investigating Symrise's cash conversion cycle, we find an upwards trend in days of sales outstanding with 69.4 days in 2019 and days of inventory outstanding with 159.0 days in 2019 leading to a cash conversion cycle of 168.9 days. This implies that a lot of capital is tied up in the sales process. Symrise's competitors have significantly lower cash conversion cycles of 111.7 days (Givaudan) and 131.7 days (IFF), mainly due to lower days of inventory outstanding. Although uncertain, we deem backward integration as the reason for building up inventory. We expect Symrise to slightly reduce its cash conversion cycle and consequently its working capital to stay competitive and converge with its competitors. However, we made conservative assumptions regarding improvement.

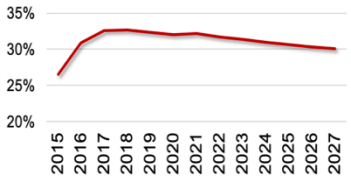


Figure 32: Working Capital to Sales
Source: Financial Report, Analyst Estimates

	DSO	DIO	DPO	CCC
Symrise	69.37	159.04	59.47	168.94
Givaudan	166.94	114.18	82.78	111.72
IFF	62.22	127.29	57.84	131.66

Table 2: CCC of Symrise, Givaudan and IFF in days
Source: Company Report, Analyst Estimates

[48] (Damodaran, 2020)

Profitability

We measure Symrise's profitability using the gross margin and the EBITDA margin. While Symrise had a lower gross margin than Givaudan and IFF in 2015, gross margins converged since the margins of IFF and Givaudan decreased until reaching the same level. In 2019, Symrise had a gross margin of 40.1% compared to 40.8% and 41.1% for Givaudan and IFF, respectively. In the AFF industry, raw materials account for a large share of cost of goods sold. Looking deeper into the effect of raw material costs, we consider increases to be the main reason for the downward trend in gross margins of Givaudan, IFF and Symrise before the latter started recovering in 2019. Although it is not certain how many of the 10,000 raw materials used by Symrise were affected by rising raw material prices, we expect rising prices to be reflected in the margins. Prices for vanilla beans, one of Symrise's most important natural raw ingredients, increased by 625.7% from USD 87.5 per kilo in Q1 2015 to reaching its peak at USD 635 per kilo in Q2 2017. The current price level in Q4 2020 is at USD 250 per kilo, indicating that prices have decreased, although still above 2015 levels. In addition, base chemicals, which are derived from crude oil, are used by the F&F industry for solvents and several processes during the production. Analyzing prices from 2015 to 2019, we observe increasing prices before a drop in 2019. This drop is attributable to the Covid-19 related decrease in demand in crude oil in Q1 and Q2 2020. Raw materials costs are expected to remain below previous levels, further decreasing. Additionally, due to a more efficient production processes and optimization of the supply chain, we expect further savings in COGS.

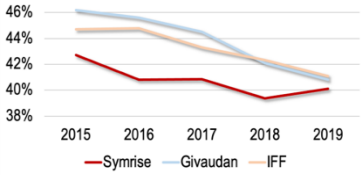


Figure 33: Gross Margin of Symrise, Givaudan and IFF
Source: Company Report, Analyst Estimates



Figure 34: Vanilla Price Development in USD
Source: Thomson Reuters

The EBITDA margins of Symrise, IFF and Givaudan are at a similar level, fluctuating little above 20%. Symrise's EBITDA margin increased from 20.0% in 2018 to 20.8% in 2019 of which a part can be attributed to the introduction of IFRS 16, requiring the balancing of operating leases. From 2006 to 2019, the company's EBITDA margin remained stable at around 20.5%. Comparing the EBITDA margins to the top competitors, Symrise's EBITDA margin is lower than the EBITDA margin of Givaudan (average EBITDA margin of 22,4% from 2015 to 2019) but slightly higher than of IFF (average EBITDA margin of 20,3% from 2015 to 2019). Furthermore, smaller companies show lower profitability and more volatility in EBITDA margins. For example, the EBITDA margin of Sensient was at 13.3% in 2019 and had an average of 16.0% from 2015 to 2019. Symrise defined a target EBITDA margin range of 20.0% to 23.0% from 2020 to 2025. According to our estimations, Symrise will reach this goal with an EBITDA margin of 22.3% in 2025. With an EBITDA margin of 22%, Nutrition currently is the most profitable, also showing the highest growth, followed by Flavor with 21.4% and Scent and Care with 19.6%.

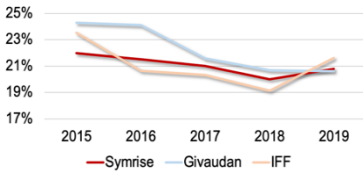


Figure 35: EBITDA Margin of Symrise, Givaudan and IFF
Source: Company Report, Analyst Estimates

Organic Growth

Organic growth implies that portfolio effects and currency effects are not considered. As Symrise shows strong M&A activity and produces and distributes globally, organic growth can deviate significantly from overall growth. In 2019, 5.7% of the total growth of 8.0% were attributable to organic growth, while the remaining 2.3% of growth were due to currency effects (1.3%) and M&A activity (1.0%). With an organic growth of 5.7%, Symrise managed to exceed market growth, not considering positive currency effects. Strong organic growth proves that Symrise is able to grow through internal value creation in terms of process optimization and successful R&D activities improving current products and expanding current product range. Q3 2020 numbers highlight that Symrise has a high-risk exposure to FX rates since currency effects decrease the overall growth by 6.3 percentage points. Organic growth accounted for 3.1% and portfolio effects for 5.8%.

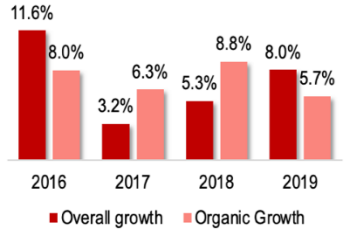


Figure 36: Overall Sales Growth vs. Organic Sales Growth
Source: Company Report, Analyst Estimates

Since one-third of Symrise's total sales are generated in USD, Symrise has a high exposure to USD fluctuations. Although the company is exposed to natural hedging, since the company party produces in countries where it sells its products, Symrise manages risk exposure through hedging on a case-by-case basis. In Q1 2019 Symrise implemented an inhouse bank to improve risk management[49].

Valuation

We conduct a DCF valuation to determine the intrinsic value of Symrise and the fair target price as of December 31st, 2021. To validate our analysis and take market perception into account, we include a sensitivity analyses and relative valuation measures. Analyzing different future scenarios which significantly affect our target price, we include a scenario analysis to understand the impact of external factors on future sales and costs. We include the acquisition of Sensient's Spain based fragrance and aroma business SAU as the deal is already signed and expected to be closed in 2021 with a very high probability. The enterprise value (EV) of SAU of EUR 230.4m is projected by using SAU's 2019 sales published by Symrise, multiplied with the EV/Sales median multiple of comparable transactions during the recent years[50] [51]. We expect Symrise to pay EUR 175m equity value assuming that the remaining amount is net debt[52]. We incorporated SAU's sales in our model assuming the same growth rate as for Symrise's sales.

DCF

We calculate a detailed forecast for the years from 2020e to 2027e and used a four-year annuity to smooth-out growth rates. For determination of the terminal value, the Gordon growth approach is used. We forecast sales with special attention to the value drivers we defined and analyzed previously and to the WACC and its components. Subsequently, we derive and discount Symrise's future free cash flows.

Revenue Forecast

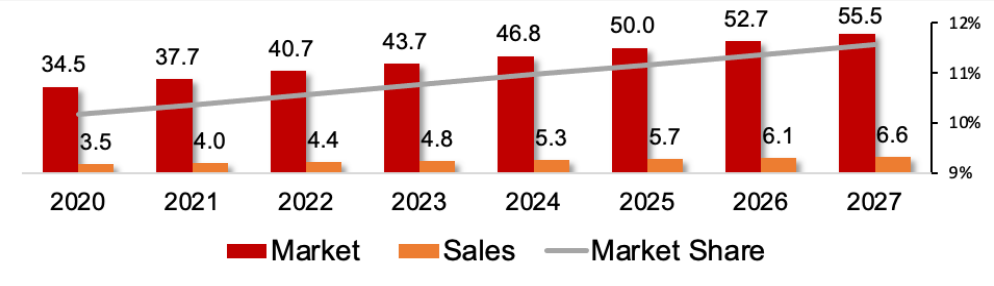


Figure 37: AFF Market Growth, Symrise Sales Forecast and Market Share
Source: Company Report, Analyst Estimates

Global AFF market is expected to reach sales of EUR 55.5bn by 2027e

We derive Symrise's sales by using a top-down approach, projecting the total sales volume of the market and multiplying it with the expected market share of Symrise. Under consideration of the Covid-19 pandemic, we forecast the AFF market to grow by 1.3% in 2020e, reaching EUR 34.5bn. AFF market growth is expected to recover in 2021. From 2021e to 2027e, the AFF market grows at a CAGR of 6.7%, leading to a global sales volume of EUR 55.5bn in 2027e. We project total AFF market sales by analyzing annual AFF growth rates in the regions EAME, North America,

[49] (Backhaus, 2019)
[50] (Symrise press release, 2020)
[51] (Mergermarket, 2020)
[52] (Onvista, 2020)

Asia/Pacific and Latin America. The growth rates of the respective regions were weighted according to their share of the total AFF market, resulting in the AFF market growth rate. Analyzing Symrise's market share from 2015 to 2018, we observe a decrease from 11.7% to 9.5% before increasing by 20 basis points in 2019 to a 9.7% market share. In 2020e, Symrise is expected to grow by approximately 3.0% organically, resulting in a market share of 10.2%. The gain in market share is caused by the fact that in 2020e, Symrise's growth rate exceeds the growth rate of the AFF market, resulting in an increase in market share. We attribute this effect to the Covid-19 crisis, which allows large firms with a deep value chain and a high degree of independence from suppliers to continue operating. Smaller competitors suffer from supply chain delays and lower access to liquidity. As Symrise's market share grew by 20 basis points in the year before the Covid-19 pandemic, we expect the market share growth to continue at the same level in the future, resulting in a market share of 11.6% by 2027e. We consider this level of increase as being reasonable, as Symrise had a market share of 11.7% in the past and it is likely to reach this level again, due to the company's leading position in the fast-growing pet food market and abilities to exploit the opportunities in the meat alternatives market.

Sales in 2027e are estimated at EUR 6.6bn after the acquisition of SAU

Not considering portfolio effects, Symrise sales are anticipated to increase from EUR 3.4bn in 2019 to EUR 6.4bn in 2027e with a CAGR of 9.0%. Including the acquisition of SAU in 2020e in our forecast, we expect sales to further increase by 0.2bn, reaching EUR 6.6bn in 2027e.

Cost of Capital

We used the WACC to discount Symrise's future cash flows. The overall WACC is composed of Symrise's cost of equity, calculated with the CAPM and Symrise's cost of debt, derived from the YTM of a 15-year composite BBB+ bond. To determine the levered beta of Symrise, we conduct a regression of excess stock returns of companies operating in the AFF industry against the market excess return. The regression of the peers leads to values between 0.99 and 1.00 without outliers. The small range of betas supports our results, which reflect that the AFF industry is strongly correlated with the market, meaning that returns fluctuate with market returns. We de-levered these betas with each companies' specific debt-to-equity ratios. Then, the median of 0.82 was re-levered with Symrise's market debt-to-equity ratio of 13.6%. The re-levered beta of 0.9 is in line with the betas of the peer group. For the estimation of the current risk-free rate, we used the return of a 10-year German Government Bond as a proxy leading to a negative risk-free rate of -0.6%. The market return is derived from MSCI World Index. With our results, we estimate a cost of equity of 5.6%. For the derivation of the cost of debt, Symrise's bonds are plotted against BBB+ and BB+ Europe composite, finding that the yields of the Symrise bonds are close to the BBB+ 15-year composite yields. We adjust this value to Symrise's probability of default, arriving at a cost of debt of 0.6%. To validate the result, we apply additional methods to find the cost of debt: the YTM of Symrise's bond with the longest duration, maturing in 2027 as well as a synthetic rating combined with the credit spread and Reuters rating combined with the credit spread. The methods give us a range from 0.2% to 0.6%, where we use 0.6% for further calculations resulting in a WACC of 5.0%. A sensitivity analysis shows that with a steady D/EV ratio, cost of debt ranging between 0.2% and 1.2% gives a WACC ranging between 5.96% and 5.05%.

Perpetual growth rate	WACC				
123.19	4.80%	4.90%	**5.00%**	5.10%	5.20%
2.30%	121.02	115.50	110.38	105.64	101.22
2.45%	128.22	122.08	116.41	111.18	106.32
2.60%	136.40	129.51	**123.19**	117.38	112.02
2.75%	145.78	137.98	130.88	124.38	118.41
2.90%	156.64	147.73	139.66	132.33	125.64

Table 3: Sensitivity Analysis on WACC with Respect to Cost of Debt
Source: Bloomberg, Analyst Estimates

Terminal Growth Rate

We estimate the terminal growth rate by analyzing Symrise's past reinvestment rate as well as the return on new invested capital (RONIC), ranging between 2.5% and 44.1% with one outlier of -42.0% in 2021e and a median of 29.0%. With our calculations, we obtain a median growth rate of 9.6% for the years from 2020e to 2027e, which is why we incorporate a transition period from 2028e to 2031e, revising our expectations regarding ROIC and RONIC downwards. We end up with a terminal growth rate of 2.6%. In the long run, we expect RONIC to decrease significantly compared to current numbers and convert with WACC. However, we expect that RONIC remains higher than WACC, since we expect Symrise to make profitable investments and to create economic value for its shareholders.

Considering the period from 2021e to 2027e, the relevant market grows with a CAGR of 6.7% while the global nominal GDP is expected to grow by 5.2% in 2022e showing a flat development in its growth rate[53]. However, assuming perpetuity, Symrise can neither grow faster than the overall economy nor than the relevant market.

DCF Calculation

The operating free cash flow of Symrise was negative in 2019, as the acquisition of ADF/IDF caused strong cash outflows. We expect free cash flows to be positive from 2020e onwards, assuming no high extraordinary investments (e.g. significant M&A transactions). However, due to the acquisition of SAU, partly paid in cash, the free cash flow in 2021e was very low, compared to the following years. Considering all the assumptions above and the acquisition of SAU, we obtain an enterprise value of EUR 19.9bn and an equity value of EUR 17.0bn. With our intrinsic valuation and a dividend of EUR 0.95, we target a share price of EUR 125.73, implying a return of 15.9%. Based on this valuation, we recommend an investment in Symrise.

WACC Inputs	
Risk Free Rate	-0.57%
Beta	0.902
Market Risk Premium	6.86%
Return on Equity	5.62%
Return on Debt	0.62%
Debt / Equity	13.64%

Table 4: WACC Inputs
Source: Bloomberg, Analyst Estimates

Without the acquisition we expect a return of 13.6%, emphasizing Symrise's ability to grow organically as well as the fact that the acquisition is a profitable investment.

Sensitivity Analysis

We perform a sensitivity analysis to understand the impact on the target share price with respect to changes in factors we consider as having the highest impact on our valuation. Therefore, we analyze WACC and the terminal growth rate. The WACC consists of many different components underlying our assumptions. Since it is used to discount all cash flows, it has a significant impact on the enterprise value. The growth rate has a high influence on the terminal value which accounts for 80.6% of the total enterprise value. Additionally, we analyze how changes in the

The sensitivity analysis indicates that the DCF valuation is very sensitive regarding WACC and the terminal growth rate

[53] (OECD, 2020)

target price and the current price, reflecting investors initial investment, influence shareholder's expected return.

The target price of EUR 125.7 results from a WACC of 5.0% and a growth rate of 2.6%. The sensitivity analysis shows that the DCF valuation is very sensitive regarding WACC and the terminal growth rate. A decrease of more than 0.1 percentage points in growth leads to a share price of than EUR 119.7 and a return of 10.3%. With a higher increase in cost of capital, return would recede under 10%. However, the high sensitivity also brings a large upside potential for future returns.

Perpetual growth rate	WACC				
125.7	4.80%	4.90%	**5.00%**	5.10%	5.20%
2.30%	123.5	117.8	112.5	107.6	103.1
2.45%	130.9	124.6	118.7	113.4	108.4
2.60%	139.3	132.2	**125.7**	119.7	114.2
2.75%	149.0	141.0	133.6	127.0	120.8
2.90%	160.2	151.0	142.7	135.1	128.2

Table 5: Sensitivity Analysis on Share Price with Respect to WACC and Perpetuity Growth Rate
Source: Bloomberg, Analyst Estimates

Entry price	Share Price 2021				
15.87%	119.73	122.73	**125.73**	128.73	131.73
107.40	12.4%	15.2%	17.9%	20.7%	23.5%
108.40	11.3%	14.1%	16.9%	19.6%	22.4%
109.40	10.3%	13.0%	**15.8%**	18.5%	21.3%
110.40	9.3%	12.0%	14.7%	17.5%	20.2%
111.40	8.3%	11.0%	13.7%	16.4%	19.1%

Table 6: Sensitivity Analysis on Return with Respect to Share Price and Entry Price
Source: Bloomberg, Analyst Estimates

Multiples

We compare trading multiples of Symrise and its competitors in the AFF market in 2020e. We calculate equity value using market capitalization, while for Symrise we use our estimates for EBITDA, sales and net debt. For our analysis, we divide the competitors in two groups to improve comparability. Tier 1 reflects Symrise's closest competitors and Tier 2 Symrise's broader competitors. The classification was made with respect to accordance in product range, sales volume as well as global reach. According to the core list system in the AFF industry, Tier 1 companies are in higher competition with Symrise. The Tier 1 group has a median EV/sales multiple of 4.0x, compared to 2.7x for Tier 2, reflecting that Symrise and its close competitors are traded superior to Tier 2 competitors. Among its close competitors, Symrise is above median with a sales multiple of 4.8x, indicating that Symrise is also traded higher than its close competitors with respect to sales. Tier 1 flavor companies have a median EBITDA multiple of 18.3x, while Tier 2 companies trade at 17.4x EBITDA. Again, Symrise is traded at a higher multiple than its closest competitors. In terms of sales multiples and EBITDA multiples, Symrise is traded at a discount to Givaudan, currently the biggest player in the industry in terms of revenue. All peers show very high P/E ratios with a median of 29.1x for Tier 1 and 38.9x for Tier 2, indicating that the industry is overvalued. Valuing Symrise according to the median of its closest competitors, implies a downside in share price compared to the actual price and DCF valuation. The share prices we obtain by using multiple valuation ranges between EUR 86.5 and EUR 93.6 and therefore give a coherent indication that Symrise is traded approximately 20% above its peers.

Symrise is traded at a discount to Givaudan

Comparable Company Analysis			
TIER 1	**EV / Sales**	**EV / EBITDA**	**P / E**
Symrise	4.8x	22.7x	45.45x
Givaudan SA	6.2x	27.9x	46,78x
International Flavors & Fragrances In	3.1x	15.3x	24,06x
Tate & Lyle PLC	1.2x	7.4x	12.69x
Average	**3.8x**	**18.3x**	**29.1x**
Median	**4.0x**	**19.0x**	**29.1x**
Share price with median	*86.50*	*88.94*	*93.6*
Upside (downside) of actual share p	*26%*	*22.9%*	*17%*
TIER 2			
Takasago International Corporation	0.6x	0.0x	9.73x
Kerry Group Plc Class A	3.3x	23.2x	38.98x
Robertet SA	4.1x	n/a	38.93x
Sensient Technologies Corporation	2.8x	17.4x	27.25x
Oriental Aromatics Ltd.	n/a	n/a	21.67x
Huabao International Holdings Limit	n/a	n/a	53.36x
Average	**2.7x**	**13.5x**	**36.0x**
Median	**3.1x**	**17.4x**	**38.9x**

Table 7: Comparable Company Analysis
Source: Bloomberg, Analyst Estimates

We expect the occurrence of the base scenario to be the most probable outcome. However, different scenarios with significant effects on shareholder's return can occur. We investigate scenarios we expect to have a long-lasting effect on future cash flows. First, we take a closer look at the loss of customers due to the ESG factor environment. Furthermore, we show the impact of changes in raw material costs.

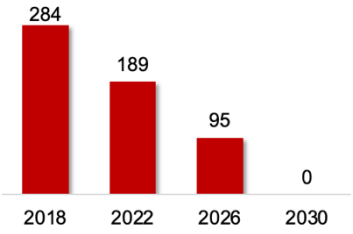


Figure 38: CO2 Emission
Source: Company Report

Out of 424 chemical companies, Symrise ranks 27 in the Sustainalytics ESG rating

- Loss of Customers

Symrise aims to achieve environmental standards set by customers in terms of sustainability and emission reduction. We expect Symrise to benefit from these efforts, as the company can further reduce costs through saving resources and reduce the risk to lose customers due to reputational risks. Goals set, such as reducing greenhouse emissions by 33% as of 2020 were already ached one year prior. Until 2030, Symrise wants to produce climate neutral. Symrise reached goal of 100% traceability of raw materials in 2019, one year earlier than targeted. Although the company has received several certifications for its efforts and ranks as number 27 out of 424 chemical companies in the Sustainalytics ESG rating, Symrise still falls behind competitors Givaudan and IFF, who rank 9 and 24, respectively[54]. Currently, up to 8% of Symrise's sales are generated by customers who require its suppliers to fulfil environmental standards, especially with the focus on reducing greenhouse gases and sustainable resources. If Symrise is not able to comply with these standards or is not working on complying and informing customers about climate-relevant achievements, the company may lose customers and market share to competitors. To quantify this loss, we incorporate an 8% sales loss from 2021 onwards. We believe that it would be unlikely to win back customers lost to competitors due to reputational issues. A loss in sales of 8% changes the target price to EUR 116.2, indicating a return of 6.3%. In 2027e, Symrise would lose market share of 0.63 percentage points



Figure 39: Share Price Comparison
Source: Analyst Estimates

- Change of Raw Material Costs

Cumulated costs per unit sold excluding D&A are more than 55% of sales in 2019. Although the tual share of raw material of COGS is unknown to us, Symrise states that the income statement sition costs of goods sold mainly consists of costs for raw materials. Since raw material prices are subject to underlying factors such as harvesting conditions, we assume a scenario of changing raw material prices as likely. To evaluate how an increase or decrease in raw material costs affect equity holders' returns we calculate a 2% up and 2% down scenario. An increase of 2% in COGS (less D&A) leads to a share price of EUR 122.8. As shareholders' return amounts

[54] (Sustainalytics, 2020)

13.15%, still exceeding 10%, an increase of 2 % would not change the buy recommendation. A decrease of 2% leads to a share price of 128.8 increasing the return by 2.74 percentage points compared to the base case.