A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from the NOVA – School of Business and Economics.

Adidas AG: Powerful brand making strides in key markets

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Abstract

This work project is an equity research report on Adidas AG. The aim of the equity research is to issue a buy/hold/sell recommendation to investors by evaluating whether Adidas is currently over- or undervalued by the market. First, we did a company overview and a thorough analysis of the global sportswear industry as well as Adidas' competitive landscape. Then, we identified and evaluated Adidas' main business drivers, which include macroeconomic factors, sportswear industry growth drivers and the company's marketing investments and corporate strategy. Based on these, we developed a detailed forecast by geographical segment and obtained a fair equity value for Adidas using a Discounted Cash Flow (DCF) valuation model. Our investment thesis is that the Adidas Group will experience growth by capturing the athleisure and e-commerce trends in its key markets North America and Greater China. Based on the outcome of our DCF model, which implies a fair value of EUR 304 per share compared to Adidas' current share price of EUR 273, we issue a BUY recommendation to investors.

Keywords

- Adidas AG
- Global sportswear industry
- E-commerce
- Athleisure

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ADIDAS AG

COMPANY REPORT

GLOBAL SPORTSWEAR INDUSTRY

3 JANUARY 2020

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Powerful brand making strides in key markets

Capturing e-commerce and athleisure opportunities

- We issue a BUY recommendation for Adidas AG, with a target share price of EUR 304, indicating an upside potential of 11.3% from its current share price of EUR 273.
- Adidas' strong performance is driven by market share expansion in North America (3.0% to 4.1% from 2015 to 2018) and a fast-growing sportswear market in Greater China (industry CAGR of 14.3% over the past 3 years).
- We expect continuing sales growth, with an overall revenue CAGR of 5.5%, a revenue CAGR of 8.7% in the North American segment and a revenue CAGR of 6.4% in the Chinese segment over the next 3 years.
- Adidas maintains a competitive edge through its intangible brand asset and capitalizes on the athleisure and e-commerce industry trends. We expect Adidas' e-commerce channel to reach 16% of the group's total sales by 2020.
- The fair value of EUR 304 is an outcome of a DCF model based on revenue and operating margin projections by segment, a WACC of 4.0% and a terminal growth rate of 1.5%.

Company description

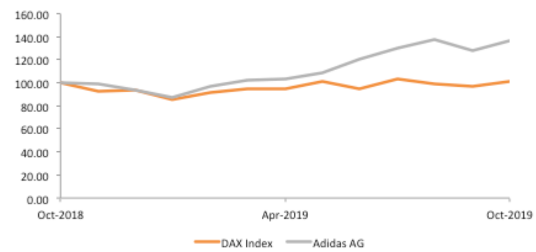
Adidas AG, the holding company for the Adidas Group (adidas and Reebok), is one of the world's largest sportswear manufacturers. Its product portfolio ranges from casual athletic clothing and shoes to high-performance sports gear. Founded in 1949, the company is headquartered in Herzogenaurach, Germany.

Recommendation:	**BUY**
Price Target FY17:	**304 €**
Price (as of 9-Dec-19)	**273 €**

Reuters: ADSGn.DE, Bloomberg: ADS

52-week range (€)	178 - 297
Market Cap (€m)	54,340
Outstanding Shares (m)	199
Total shareholder return	13.2%

Source: Bloomberg, analyst estimates



Dax Index 1y return: 1.7% ADS Equity 1y return: 36.7%

Source: Bloomberg

(Values in € millions)	2018A	2019E	2020F
Revenues	21.92	23.12	24.46
EBITDA	2.84	3.17	3.49
EBITDA margin	13.0%	13.7%	14.3%
Net Profit	1.70	1.83	1.99
EPS	8.6	9.2	10.0
P/E	32	30	27

Source: company information, analyst estimates

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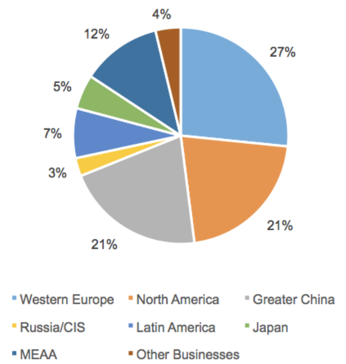
Company overview

Adidas AG, founded in 1949 in Herzogenaurach, Germany, is the world's second largest sportswear manufacturer, after Nike. In 2018, the company generated revenue of EUR 21,195 million, while Nike generated revenue of EUR 34,350 million.

Exhibit 1: Revenue by segment as a % of total revenue (2018)

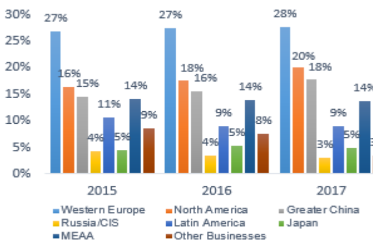


Source: Company Data (Annual Reports)

The company was founded by Adolf Dassler and joined by his brother Rudolf Dassler in 1924 under the name Dassler Brothers Shoe Factory. However, following a breach of their relationship, Adolf founded Adidas in 1949, whilst Rudolf created its rival company Puma. Initially, Adolf mainly focused on producing football shoes with three parallel stripes, which later became the trademark of the adidas brand. After the shoes were worn by the German national football team at the World Cup in 1954 and by athletes at the Olympic Games in Germany in 1972, Adidas gained worldwide brand awareness and recognition.

Currently, Adidas produces over 900 million sports products a year. The company has 7 key locations, which are Herzogenaurach, Shanghai, Hong Kong, Portland, Boston, Amsterdam and Panama. Adidas employs more than 76,000 people in over 150 countries.

Exhibit 2: Revenue by segment as a % of total revenue (2015-2017)

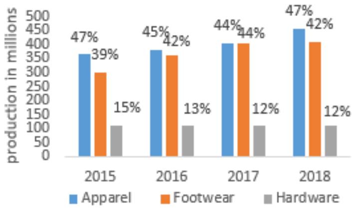


Source: Company Data (Annual Reports)

The Adidas group consist of two brands: adidas and Reebok (see: **Brand overview**). Including both brands, Adidas' business is divided into 7 geographical segments around the world: Western Europe, Greater China, North America, Latin America, Russia/CIS, Japan and MEAA. Between 2015 and 2018, the most important market for Adidas was Western Europe, accounting for 27% to 28% of total sales, followed by North America and Greater China, accounting for 16% to 20% and 15% to 18% of total sales respectively (**Exhibits 1 & 2**).

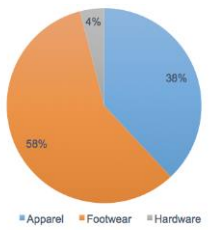
Adidas' product portfolio consists of footwear, apparel and hardware. Over the observed period (2015-2018), apparel and footwear accounted for the majority of the total portfolio. Since 2015, apparel products accounted for 44% to 47% and footwear products for 39% to 44% of the total output. The share of hardware products dropped from 15% in 2015 to 12% in 2018 (**Exhibit 3**). In 2018, the company produced 457 million apparel products, 409 million footwear products and 113 million hardware products. Even though apparel accounts for the largest share in the portfolio, more than 50% of Adidas' revenue is generated by footwear (**Exhibit 4**).

Exhibit 3: Production by type in volume and as a % of total output (2015-2018)



Source: Company Data (Annual Reports)

Exhibit 4: Sales in % by product category (2018)



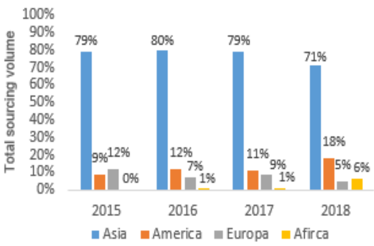
Source: Company Data (Annual Reports)

Exhibit 5: Financial performance summary (in EUR million)

	2015	2016	2017	2018
Sales	16,915	19,291	21,218	21,915
Gross Profit	8,167	9,379	10,704	11,363
EBITDA	1,039	1,491	2,511	2,882
Net Income	638	1,020	1,100	1,703

Source: Company Data (Annual Reports)

Exhibit 6: Manufacturing partners by geography



Source: Company Data (Annual Reports)

Adidas went public in November 1995. Currently, the company is listed on 13 stocks around the world, the most important being the DAX-30 index, which includes the largest publicly listed companies in Germany, EURO STOXX 50, which consists of the largest and most liquid stocks in Europe, MSCI World Textiles and the Apparel & Luxury Goods index. In 2018, Adidas outperformed the market, ending the year with an increase of 9%, while DAX-30 dropped by 18%, EURO STOXX by 14% and the MSCI index by 5%.

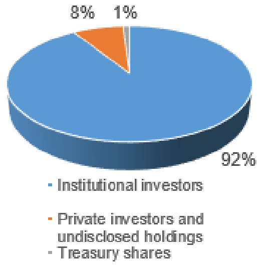
Over the observed period (2015-2018), Adidas' sales have been continuously increasing. In 2018, the company generated revenue of EUR 21,195 million, which represents an increase of 8% on a currency-neutral basis and an increase of 3% in euro terms from 2017. In the same year, Adidas' gross profit amounted to EUR 11,363 million, which represents an increase of 6% from 2017 (**Exhibit 5**). This result was mainly achieved through a better pricing strategy, concentration on the core product mix and lower input costs. Out of adidas branded products, 74% of sales were generated through products sold at full prices.

Adidas engages in global operations outsourcing almost 100% of its production process with an aim to minimize production costs and increase efficiency. Thus, the company only owns two production sites located in Germany and the United States. The majority of independent manufacturing partners are located in Asia (71%), followed by America (18%), Africa (6%) and Europe (5%). Over the observed period, manufacturing decreased in Asia and Europe by 8% and 7% respectively, while it increased in America and Africa by 9% and 6% respectively (**Exhibit 6**). Out of a total of 130 partners, 26 are considered to be key strategic partners, out of which 84% have long-term agreements with Adidas. The largest sourcing continent for all three product types is Asia. The largest sourcing country for footwear is Vietnam (42% of total volume), for apparel is Cambodia (24% of total volume) and for hardware is China (38% of total volume).

Shareholder structure

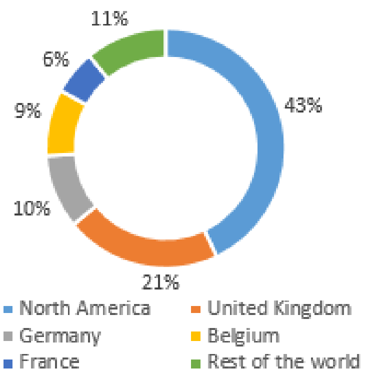
The CEO of Adidas is Kasper Rorstead. Adidas Group currently has ca. 80,000 shareholders, which represents an increase of 10,000 shareholders from 2017. Adidas recognizes 3 different investor groups, namely institutional investors (92%), private investors and undisclosed holdings (8%) and treasury shares (1%) (**Exhibit 7**). In 2017, 3% of shares were held by Adidas. However, this percentage declined due to a share buyback program, which was announced in March 2018. Regarding

Exhibit 7: Shareholder structure in 2018



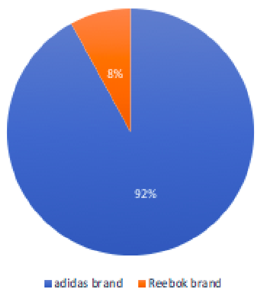
Source: Company Data (Annual Reports)

Exhibit 8: Geographical distribution of Adidas' shareholders



Source: Company Data (Annual Reports)

Exhibit 10: Sales adidas vs Reebok in 2018

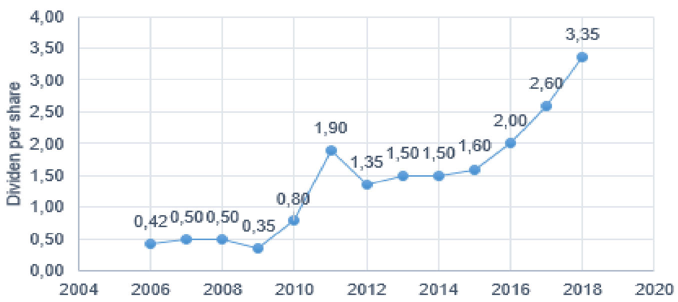


Source: Company Data (Annual Reports)

the geographical distribution of institutional investors, the largest group comes from North America (43%) (**Exhibit 8**).

Based on a strong financial performance and a bright future outlook, Adidas' Executive and Supervisory board proposed a dividend per share of EUR 3.35 in 2018, which represents an increase of 29% from 2017 as well as the highest dividend ever paid (**Exhibit 9**).

Exhibit 9: Dividend per share- development per year



Source: Company Data (Annual Reports)

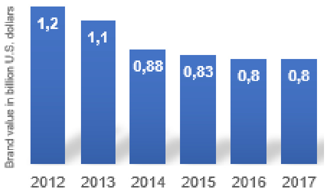
Brand overview

The Adidas group is made up of two brands: adidas and Reebok. While adidas is the group's original brand, the company acquired Reebok in 2005 with an aim to boost the company's market share in Reebok's home market North America.

adidas' goal is to become the best sports brand worldwide. The brand's broad portfolio includes sports products for professional athletes as well as sports lifestyle products. Currently, the brand's main strategic focus is on footwear franchising. Through franchising, adidas aims to boost collaborative innovation, while also increasing efficiency by focusing on key franchises and long-term strategic partners. In 2018, Adidas' key footwear franchises included UltraBOOST and PureBOOST. The Boost shoes series was launched in 2013 in cooperation with the chemical company BASF. Looking forward, adidas expects its footwear franchise business to account for 30% of total sales by 2020.

While adidas' focus is on sports, Reebok's goal is to become the world's best fitness brand. In order to realize the mission, the company has completed a transformation process from general sports to 100% fitness, focusing exclusively on products for fitness training, running and walking. Its target group are female "Game Changers", which refers to fitness-centric women incorporating fitness routines into their lifestyles. Rebook seeks to generate 50% of its net sales through its female business. In 2016, after Reebok's value dropped (**Exhibit 11**) and the brand did not experience sales growth in its home market North America, Adidas announced a turnaround strategy called "Muscle Up", aimed at improving the Reebok's profitability in the region. The company closed almost 50% of its less profitable stores in North America, which led to a drop of 15% in sales in this segment in 2017. However, in the same year, Reebok's sales in China and Western Europe rose by 25% and 24% respectively. As part of the strategy, Reebok started focusing on digital business, innovation and collaboration (See: **Marketing investments**). For instance, Reebok set apparel and footwear franchising a key priority, expecting key apparel franchises such as Lux Tights, Epic Short and PureMove Bra to account for at least 25% of the brand's total apparel business. As such, PureMove Bra won TIME's 'Best Inventions of 2018' award. Following these initiatives, Reebok improved its gross margin by 7% to 44% from 2016 to 2018.

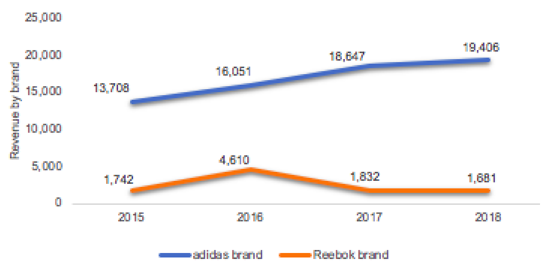
Exhibit 11: Reebok's brand value (2012-2017)



Source: Statista

Compared to the adidas, Reebok's overall revenues remain low (**Exhibit 12**). In 2018, Reebok accounted for only 8% of the group's total sales (**Exhibit 10**). Over the observed period, adidas has continuously accounted for over 75% of the company's total revenue (**Exhibit 12**).

Exhibit 12: Revenue by brand from 2015 to 2018 (in EUR million)

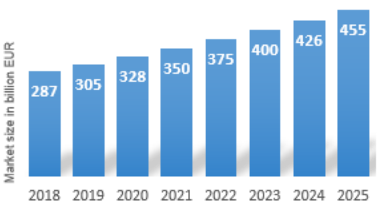


Source: Company Data (Annual Reports)

Industry overview

Adidas AG operates in the global sportswear industry, which includes the design and manufacturing of footwear, clothing and sports equipment. The sportswear industry has grown significantly since 2010 and is expected to continue growing in the coming years. In 2018, the global sportswear market reached a size of EUR 287,000 million up from EUR 208,000 million in 2011 and is expected to reach EUR 455,000 million by 2025, growing at a CAGR of 6.8% between 2018

Exhibit 13: Global sportswear market size projections (2018-2025)

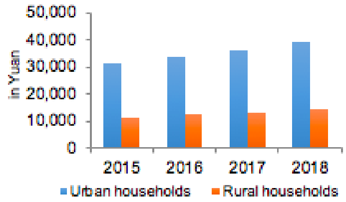


Source: Passport Euromonitor

and 2025 (**Exhibit 13**).[1]

Currently, North America represents the largest sportswear market. Its market size amounts to EUR 111,000 million, followed by Europe and China, whose market sizes amount to EUR 57,000 million and EUR 40,000 million respectively. In the future, China is forecasted to experience the most significant growth in the sportswear industry, growing at a CAGR of 10% between 2018 and 2025, whilst North America and Europe are forecast to increase at a CAGR of 5.3% and 2.9% respectively.[2] Key factors explaining China's high growth projections are the improved living standards, westernization of lifestyles and increasing levels of disposable income in the region (**Exhibit 14**).

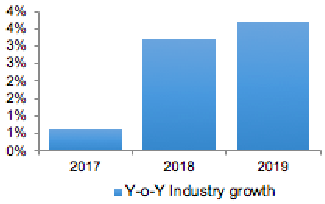
Exhibit 14: Per capita disposable income of households in China (2015-2018)



Source: Statista

The sportswear industry is highly attractive due to multiple global trends and growth drivers, such as the rise of health consciousness, well-being and weight management among consumers (**Exhibit 15**), the 'athleisure' trend, according to which athletic apparel is also worn in casual and more professional settings (See: **Athleisure**), e-commerce penetration (See: **E-commerce**), influencer marketing (See: **Marketing investments**) and increasing sports participation rates as demonstrated by the observed global increase in the number of fitness clubs from 133 thousand in 2010 to 203 thousand in 2018.[3]

Exhibit 15: Global weight management and well-being industry



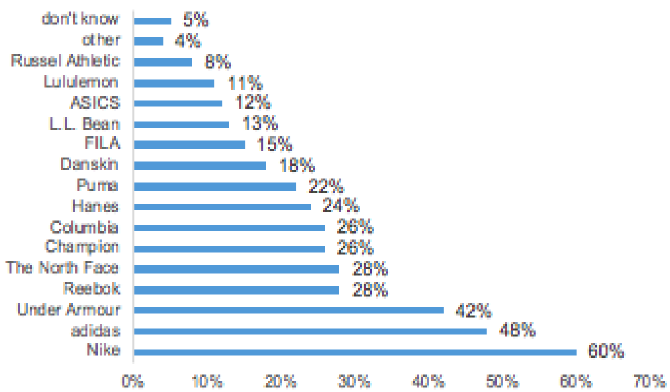
Source: Passport Euromonitor

The sportswear market is divided into a market for men, women and kids. Currently, the market for men accounts for the largest share with ca. 50% of the sportswear market, explained by the high popularity of various sports and sport related events, as well as increasing interest in a healthy lifestyle among men. However, the markets for kids and especially for women are forecast to increase in the next years.[4] From 2010 to 2015, women's activewear market grew by 26%, while men's activewear market only grew by 23%. The activewear market for women is expected to further increase by 23% until 2020, compared to 20% for men.[5] The surge in popularity of activewear among women is mainly driven by the athleisure trend and demand for fashionable sportswear. Segmenting the industry by distribution channel, retail still accounts for the larger share. However, the online sportswear market channel is forecast to grow at a CAGR of 11% from 2019 to 2025, making it the fastest-growing distribution channel (See: **E-commerce**).

[1] Passport Euromonitor – Sportswear market size world
[2] Passport Euromonitor – Sportswear market size by region
[3] Statista – Health & Fitness Clubs: Statistics and Facts
[4] Sportswear Market Size, Share & Trends Analysis Report by Product (Shoes, Clothes), by End User (Men, Women, Kids), by Distribution Channel (Online, Retail), By Region, And Segment Forecasts" Grand vue research (2019)
[5] "The rise of women's activewear", Drapers Online (2016)

The global athletic wear industry is highly fragmented and consists of a high number of larger and smaller players in each region **(Exhibit 16)**. These players differ in their product portfolio, prices and quality, allowing consumers to choose from a large range of brands offering basic discount apparel to more luxurious fashion products. The industry is characterized by high barriers of entry and low switching costs. In order to gain and maintain market share, new entrants and existing players need to bring innovative products to the market and be trend setters rather than trend followers. However, establishing themselves as a trend setter next to the existing dominant players in the industry is difficult. Nike and Adidas have a well-established name and a strong position in the market, allowing them to benefit from long-lasting and trusty relationships with customers, retailers, suppliers and other business partners. Furthermore, Nike and Adidas have the resources needed to invest large amounts of capital in R&D. For instance, in 2018, Adidas invested EUR 153 million in R&D. Such investments allow Adidas to gain competitive advantage by developing innovative, fashionable and technically advanced products, but also by developing new processes which optimize production processes, reduce costs and boost sales.

Exhibit 16: Most popular sportswear brands in the U.S. (2018)



Source: Statista

Peer Group

Besides Adidas' main rival Nike, a broader list of comparable industry players operating in the global sportswear industry comprises the European brands Puma and Fila, the American brands Under Armour, VF Corporation and Skechers, and the Asian sports apparel companies Anta sports and Asics.[6] However, taking into account several factors such as size, product portfolio and

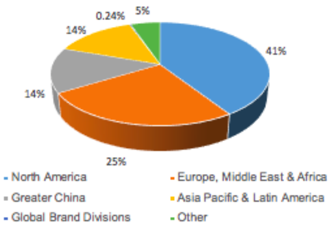
[6] Bloomberg

geographical focus, the list of Adidas' peer group to be further analysed for valuation purposes is reduced to Nike, Puma and Under Armour.

- Nike

Nike, incorporated in 1964 in the U.S., is one of the largest and most recognizable sports brands in the world. Over the last decade, Nike has kept the largest market share in the global sportswear industry. In 2018, the company was able to generate revenue of EUR 36,397 million, which is almost 1.5x more than Adidas' revenue, 6x more than Under Armour's revenue and 7x more than Puma's revenue (**Exhibit 17**). Nike's varied product portfolio comprises footwear, clothing and sports equipment for men, women and kids. The footwear products account for majority of the revenue (48%). The products are separated into six categories, namely Running, Training, Nike Basketball, the Jordan Brand, Football (Soccer), and Sportswear. Most of Nike's products are sold under the Nike brand, but the company also has niche brands such as Converse and Jordan.

Exhibit 17: Nike's net sales by region (2018)



Source: Company Data (Annual Reports)

Exhibit 18: Nike's financial performance summary (2015-2018)

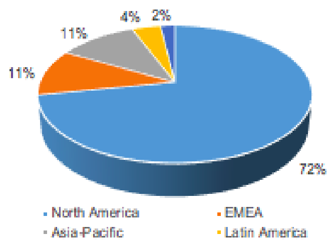
Financial Performance	2014	2015	2016	2017	2018
Revenue (in EUR mn)	24,993	27,541	29,138	30,915	32,757
Net income (in EUR mn)	2,375	2,945	3,384	3,816	1,793
Price per share (in EUR)	34.7	47.9	49.3	49.5	65.4

Source: Company Data (Annual Reports)

Nike's strong performance (**Exhibit 18**) can be explained by innovative and high-quality products, as well as strong sponsorships of sports events around the globe and partnerships with celebrities. By working with names such as CR7, LeBron James, Roger Federer, Michael Jordan and Kobe Bryant, Nike is continuously increasing brand awareness and recognition.

The company is present in 120 countries, covering 5 continents. The major part of its revenue comes from North America (41%), followed by Europe, Middle East and Africa (25%), Greater China and Asia-Pacific & Latin America (14%) (**Exhibit 17**). Looking forward, the company has announced increases in investments in Greater China, as well as a clear strategic focus on product lines for women.[7]

Exhibit 19: Under Armour's net sales by region (2018)



Source: Company Data (Annual Reports)

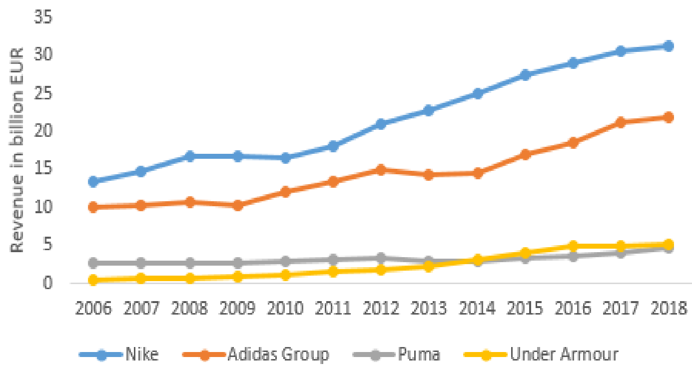
- Under Armour

Under Armour, founded in 1996 in the United States, is the youngest sportswear manufacturer among Adidas' close competitors. The company's founder Kevin

[7] Nike annual report

Plank, a former University football player, simply aimed to make high-quality t-shirts allowing him to avoid wearing uncomfortable cotton shirts on the football field. However, he ended up creating one of the most liked brands by teens in the 21st century. Under Armour's key focus market is North America (**Exhibit 19**). According to a survey, over the last 12 months, 21% of U.S. consumers have purchased Under Armour products, while 14% said they like buying Under Armour's footwear products.[8] Since going public in 2005, Under Armour managed its way through fierce competition and has established itself as the 3rd most significant sports manufacturer worldwide with a current brand value of EUR 3,900 million and a sales level of EUR 4,000 million in 2018. (**Exhibit 20**).

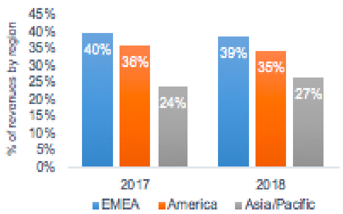
Exhibit 20: Historical performance of peer group (2006-2018)



Source: Company Data (Annual Reports)

- Puma

Exhibit 21: Puma's net sales by region (2017-2018)



Source: Company Data (Annual Reports)

Puma, founded in 1948, is Germany's second most valuable sportswear manufacturer, after Adidas. With net sales of EUR 4,648 million in 2018 (**Exhibit 21**), Puma represents the 4th largest sportswear manufacturer in the world. After a period of slowing growth, Puma has hired celebrities such as Rihanna, Selena Gomez and Adriana Lima as brand ambassadors and creative directors of the company, allowing the company to accelerate growth, increase earnings and achieve higher margins. Puma's main focus markets are Europe, Middle East and Africa, and America. Asia/Pacific accounts for the lowest share in sales, however, it experienced the largest growth of 3% from 2017 to 2018 (**Exhibit 21**).

An overview of Adidas' main competitors sets the ground for a detailed analysis of Adidas' market share developments by segment. Since market share is an important growth driver for Adidas, this can directly affect the company's sales.

[8] Statista – Under Armour: Statistics & Facts

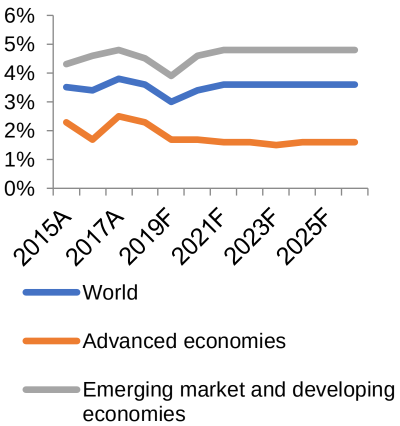
Adidas' historical market share developments in each region are calculated using Passport Euromonitor's market growth estimations by region and Adidas' reported segmental revenues. The resulting analysis is presented in the forecast section.

Value drivers

Understanding the company's key growth drivers will result in better assumptions about revenue growth, gross and operating margin improvements, as well as Capex and NWC developments and therefore in a more reliable forecast model overall.

Macroeconomic drivers

Exhibit 22: Real GDP Growth



Source: IMF

In 2018, the global economy grew at a GDP growth rate of 3.5%, which is close to the average of the GDP growth over the previous years. However, there is a difference in the speed of growth between developed and emerging/developing economies. In 2018, developed economies grew by 2.3% (**Exhibit 22**). While strong labour markets and fiscal policy supported GDP growth, risks related to international politics such as trade barrier disputes and Brexit negotiations posed a constraint to economic activity. Emerging markets and developing countries grew by 4.5% (**Exhibit 22**), although in some segments in which adidas is present, such as Latin America, macroeconomic conditions worsened (**Exhibit 23**).[9]

Looking forward, global GDP and consumer expenditure is expected to moderate slightly due to a slowdown in trade and industrial economic activity. Average GDP growth in developed countries is expected to decrease to 1.7% next year, explained by monetary tightening and capacity constraints, leading to financial market turbulences. Emerging markets and developing economies are forecasted to grow at 3.9% in 2019 but then recover and grow at 4.8% until 2026.[9] In particular, in developing commodity-exporting countries, the economy is expected to benefit from more stabilized prices of commodity goods such as oil.

To mitigate the risks related to adverse effects on the global economy, adidas is balanced across regions and considers adjustments such as reallocations of product manufacturing, price changes and store closures in some regions. For

[9] IMF - World Economic Outlook

example, adidas is adjusting its supply chain by improving distribution in the UK and minimizing shipments from the EU.[10]

For the purpose of Adidas' valuation, data on the real GDP growth projections by region in which Adidas operates was retrieved. Each region's real GDP growth is deflated using annual inflation rates. The resulting nominal GDP growth rates are then used to forecast industry growth by segment after 2023, assuming that the sportswear industry growth will converge to the growth of the overall economy in the long-run.

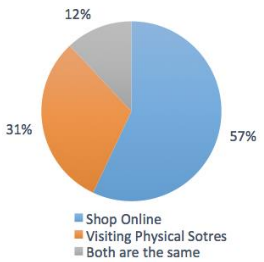
Exhibit 23: Nominal GDP growth by segment

Nominal GDP growth	2015A	2016A	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Western Europe	2.4%	2.3%	4.0%	3.6%	2.5%	3.0%	3.1%	3.2%	3.2%	3.2%	3.2%
North America	2.8%	3.0%	4.3%	5.2%	4.0%	4.2%	4.2%	4.0%	4.0%	4.0%	4.0%
Greater China	7.7%	8.3%	8.1%	8.5%	8.3%	8.3%	8.6%	8.4%	8.4%	8.4%	8.4%
Russia/CIS	12.6%	7.3%	5.4%	5.3%	6.4%	5.3%	5.7%	5.7%	5.7%	5.7%	5.7%
Latin America	5.8%	5.0%	7.3%	7.3%	8.7%	9.3%	8.2%	8.0%	7.7%	7.7%	7.7%
Japan	2.0%	0.5%	2.4%	1.8%	2.0%	1.8%	1.2%	1.7%	1.8%	1.8%	1.8%
MEAA	10.5%	10.8%	12.1%	14.5%	12.0%	14.2%	12.9%	12.4%	12.2%	12.2%	12.2%
World	6.4%	6.3%	7.1%	7.3%	6.5%	7.1%	7.2%	7.2%	7.1%	7.1%	7.1%

Source: IMF

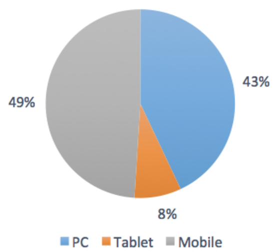
Sportswear industry drivers

Exhibit 24: Preferred ways of shopping (2018)



Source: BrizFeel

Exhibit 25: Preferred device for online shopping (2018)



Source: BrizFeel

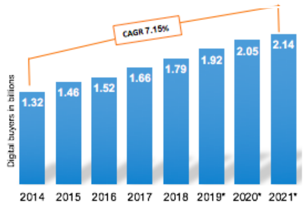
Incorporating several consumer trends and industry factors in addition to GDP growth into the analysis, it becomes clear that the sportswear industry can outperform or underperform the overall economy in a region. As mentioned in the industry overview, two important factors to be considered are e-commerce and the athleisure fashion trend.

- E-commerce

The rise of e-commerce has changed shopping and spending habits of consumers in the 21st century. According to a study by BrizFeel, 57% of consumers see online shopping as a preferred way of shopping when compared to in-store shopping (**Exhibit 24**). The reasons include the possibility to shop at any time (32%), the ability to find better prices (29%) and to save time (17%). A drawback of online shopping is the fact that customers cannot touch or try the product (51%). Moreover, mobile phones are seen as the preferred platform for online shopping (49%), followed by computers (43%) and Tablets (8%) (**Exhibit 25**). [11]In 2021, the number of digital buyers is expected to amount to 2,140 million, which is 1,6x more than in 2014, growing at a CAGR of 7.2% from 2014 to 2021.[12] (**Exhibit 26**).

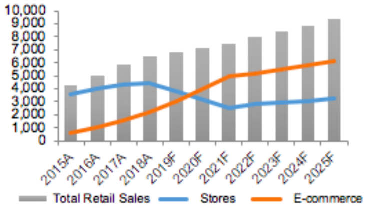
[10] Adidas annual report 2018
[11] BrizFeel-50 Consumers Expenditure Survey, Online Shopping & E-Commerce Trends
[12] Statista - Number of digital buyers worldwide from 2014-2021

Exhibit 26: Number of digital buyers (2014-2021)



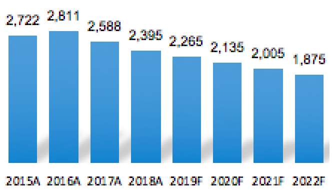
Source: Statista

Exhibit 27: Retail sales by channel - historical/projections (in EUR million)



Source: Company Data (Annual Report), Analyst Estimates

Exhibit 28: Adidas number of stores projections



Source: Statista, analyst estimates

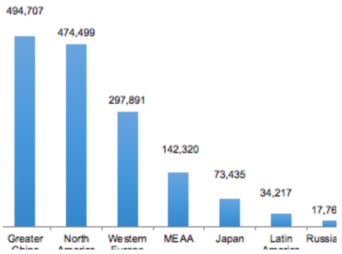
Adidas has been able to capitalize on the e-commerce trend. With an increase of 36% in revenue on a currency-neutral basis from 2017, Adidas' digital shopping platform presented the fastest-growing channel in 2018. The company's e-commerce business tripled between 2015 and 2018 from EUR 600 million to over EUR 2,000 million (**Exhibit 27**). In addition to online shopping, Adidas has launched a digital membership program called the creators club, through which customers receive invitations to exclusive events, special online offers, access to limited-edition products, faster online check-out processes and new order-tracking possibilities. Moreover, Adidas launched its mobile application in 2017, which currently has more than 7 million downloads and is present in 25 countries around the world. Through digital transformation, Adidas can directly connect with customers and access information about their preferences and shopping habits, which enables the company to better reach and serve specific target groups. The shift towards e-commerce also allows for better pricing, which will have a favorable impact on the gross margin forecast (See: **Gross margin**).

Adidas' goal is to reach EUR 4,000 million in revenue through online sales by 2020. Conducting a channel analysis, we confirm that Adidas' goal can be reached. We expect sales from e-commerce to increase from 33% of retail sales (10% of total sales) in 2018 to 44% of retail sales (16% of total sales) in 2020, which however leads to a cannibalization of sales through physical retail stores. Sales through retail stores are expected to decrease from 20% of total revenue in 2018 to 13% of total revenue in 2020 (**Exhibit 27**). By shifting sales to e-commerce and based on Adidas' net store openings/closings over the period 2015-2018, we forecast Adidas to close 130 stores per year in average until 2022 (**Exhibit 28**).

Greater China currently represents the largest market for online retail, with a market size of EUR 494,707 million, followed by North America and Western Europe (**Exhibit 29**). However, in North America, the online retail market is forecast to grow at a CAGR of 13.3% from 2018 to 2025, reaching a market size of EUR 1,140 million in 2025 (**Exhibit 30**).[13] As presented in further detail in the forecast section, in regions characterized by high e-commerce penetration rates, the sportswear industry is expected to grow faster, which in turn will lead to higher sales growth.

[13] Passport Euromonitor

Exhibit 29: Online retail market size by segment (2018)



Source: Passport Euromonitor

Exhibit 30: Online retail market growth projections by region

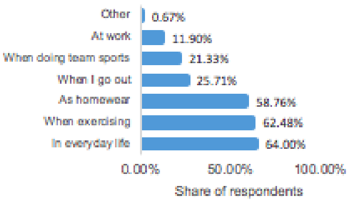
Online retail market growth	2015A	2016A	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Western Europe	11.9%	12.0%	10.6%	9.3%	10.1%	8.4%	7.8%	6.7%	5.9%	5.9%	5.9%
North America	16.1%	14.3%	13.5%	13.3%	13.0%	13.2%	13.3%	13.4%	13.5%	13.5%	13.5%
Greater China	46.4%	26.0%	28.4%	20.1%	17.5%	13.2%	12.0%	10.2%	7.4%	7.4%	7.4%
Russia/CIS	-7.4%	13.1%	11.5%	15.7%	16.6%	15.1%	13.9%	12.8%	11.6%	11.6%	11.6%
Latin America	21.7%	17.4%	17.9%	19.0%	23.0%	20.7%	17.9%	15.7%	14.4%	14.4%	14.4%
Japan	7.9%	10.4%	9.2%	7.7%	8.7%	8.5%	8.4%	8.3%	8.2%	8.2%	8.2%
MEAA	24.1%	25.4%	24.3%	19.3%	14.9%	12.8%	12.1%	12.6%	13.2%	13.2%	13.2%
World	13.9%	15.9%	19.1%	29.1%	25.2%	18.5%	19.0%	17.0%	15.6%	15.6%	15.6%

Source: Passport Euromonitor

- ## Athleisure

Athleisure refers to the "athletic leisure" trend of wearing sports clothes not only while exercising, but also in more formal settings and everyday life (**Exhibit 31**). Reflecting the modern and busy lifestyle and the demand for more comfortable clothing, athleisure allows customers to switch effortlessly between work and home, and gym and bar. The trend is highly present in North America. A study by the National Purchase Diary (NPD), conducted in the U.S., showed that over the last 12 months, sales of casual footwear in the U.S. increased by 7%, while sales of high heels and other modern sneakers declined by 5%. The same study showed that the percentage of women preferring to buy a sports bra grew from 38% in 2015 to 45% in 2018.[14]

Exhibit 31: Survey results: Ways of wearing sportswear



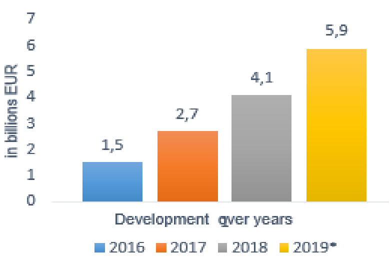
Source: Statista

Adidas has been able to keep up with the athleisure trend. Through the launch of retro designs such as Stan Smith and Adidas Superstar, as well as modern designs such as Kanye West's "Yeezys", Adidas has been able to take some market share from regular apparel and footwear brands. In order to compete as a fashion business, Adidas has partnered with celebrities (See: **Marketing expenditures**).

Marketing expenditures

Adidas' sales are highly dependent on its marketing investments in partnership assets. Currently, partnerships account for ca. 50% of Adidas' total marketing expenditures. These include sponsorships of sports events with a global influence such as the UEFA, the FIFA World Cup, the Olympic Games, football teams such as Real Madrid, Manchester United, Arsenal, as well as individual athletes including Lionel Messi, Paul Pogba, Aaron Rodgers, Caroline Wozniacki and James Harden. Since Adidas is not just an athletic brand, but also a casual fashion brand, the company has signed sponsorships with celebrities and

Exhibit 32: Influencer marketing industry size



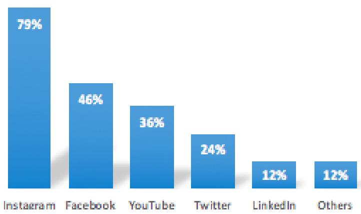
Source: Statista

[14]"Consumer Tracking Service, January-June 2018", The NPD Group (2018)

designers such as Kylie and Kendall Jenner, Kayne West, Stella McCartney, and Pharrell Williams. In 2019, Adidas succeeded to win a sponsorship with Beyoncé over Nike. Such partnerships enable Adidas to increase sales through brand exposure and recognition among consumers, as well as to increase gross margins by selling products at premium prices.

In order to strengthen the Reebok brand, the Adidas group has entered into partnerships with fashion icon Victoria Beckham, model Adriana Lima and singer Selena Gomez, as well as fitness brands such as CrossFit and Les Mills. By focusing on digital ecosystem developments, Reebok is planning a redesign of the online platform in 2019 and the release of a new membership program. However, Reebok's main focus is on its marketing and communication 'Be more human' platform, which is promoted through important influencers in the online world.

Exhibit 33: Channels used for Influencer Marketing



Source: Benchmark Report, The state of influencer marketing 2019

Through its involvement in the digital ecosystem, Adidas benefits from the growing influencer marketing industry. Besides a significant increase in Google searches for the term "influencer marketing" (325% increase), 86% of women rely on social media when making purchasing decisions and 49% of consumers look for influencer recommendations when purchasing. The influencer industry is expected to be worth EUR 5,900 million in 2019, which is 4x higher compared to 2016 (**Exhibit 32**) and is expected to reach EUR 9,000 million in 2020. Instagram, whose usage multiplied by 10 since 2014, is considered the most important and impactful app for influencer marketing, followed by Facebook and YouTube (**Exhibit 33**). Adidas is currently followed by more than 36 million users on Facebook and by 25 million users on Instagram.[15]

Following its 'mean more by doing less' strategy, Adidas plans to decrease its marketing expenditure on promotion partners to less than 45%, and instead step up its local activation efforts. However, in order to gain and maintain its share in several markets, we believe that it is crucial for Adidas to continue investing in important partnership assets (See: **Operating margin**).

Speed factories

In order to accelerate growth and increase brand recognition, Adidas has implemented a strategic plan called "Creating the New", which is supposed to last from 2015 to 2020. As part of the plan, Adidas aims to increase efficiency and reduce costs in its production and supply chain processes, which allows the

[15] "The State of Influencer Marketing 2019: Benchmark Report", Influencer Marketing Hub (2019)

company to react more quickly to changing fashion trends, as well as to accelerate the delivery of products to its customers. For this purpose, Adidas started opening speed factories, which, using smart manufacturing, increase the speed of the production process and shorten lead times. Adidas currently owns two plants located in Ansbach, Germany, and in Atlanta, the U.S., and is forecast to open more plants in the next years.[16]

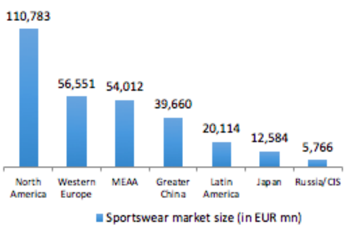
Increasing the speed of product delivery and production affects Adidas' value through several channels. The company is forecast to improve its sales performance by ensuring higher product availability through wholesale, retail as well as e-commerce. It will also be able to increase the sale of newly launched products, which are sold at full prices and thus lead to higher gross margins. Finally, speed-to-market capabilities reduce the risk of overproduction, which will positively affect operating working capital. The impact will be analysed in more detail in the forecast section.

Forecast

Revenue projections by segment

In order to better forecast Adidas' sales, revenue projections are split into geographical segments, reflecting each region's market share and market growth developments. For valuation purposes, sportswear industry growth projections were retrieved from Passport Euromonitor (**Exhibits 34 & 35**). The figures take into account the value drivers presented above, including GDP growth per region, e-commerce penetration rates and the athleisure trend by segment.

Exhibit 34: Sportswear market size by segment (2018)



Source: Passport Euromonitor

Exhibit 35: Sportswear market growth projections

	2015A	2016A	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Western Europe	2.1%	2.6%	2.7%	2.9%	2.9%	2.8%	2.7%	2.9%	2.9%	3.3%	3.3%
North America	7.2%	5.5%	5.8%	7.4%	6.9%	6.0%	5.4%	5.0%	4.6%	4.6%	4.6%
Greater China	12.5%	14.1%	16.3%	19.5%	11.1%	10.9%	10.4%	10.1%	9.6%	9.6%	9.6%
Russia/CIS	4.5%	9.2%	4.9%	2.9%	3.9%	4.3%	4.5%	4.6%	4.7%	4.7%	4.7%
Latin America	3.1%	1.6%	10.3%	7.1%	8.9%	7.9%	7.3%	6.8%	6.4%	6.4%	6.4%
Japan	4.6%	3.3%	2.7%	3.1%	4.2%	5.8%	1.9%	1.6%	1.5%	1.5%	1.5%
MEAA	4.0%	4.3%	3.3%	4.8%	5.4%	5.7%	5.3%	5.0%	5.3%	5.3%	5.3%
World	-2.7%	3.5%	7.5%	8.3%	6.3%	7.6%	6.9%	6.8%	6.7%	6.7%	6.7%

Source: Passport Euromonitor

- Western Europe

As Adidas' home market, Western Europe currently accounts for the largest share with 27% of the company's overall revenues (**Exhibit 1**).

[16] Adidas Annual Report 2018

Exhibit 36: CAGR Adidas vs. market Western Europe

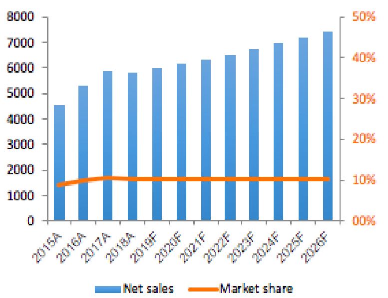
CAGR	2015 - 2018	2019-2025
Adidas	8.7%	3.0%
Sportswear market	2.5%	3.0%

Sources: Passport Euromonitor, Analyst Estimates

The sportswear market size in Western Europe amounted to EUR 56,551 million in 2018. While the market has grown slowly over the past years, Adidas significantly outperformed the market with a revenue CAGR of 9.1% compared to an industry CAGR of 2.5% between 2015 and 2018 (**Exhibit 36**). However, after years of continued growth, Adidas struggled and recorded a negative revenue growth of 0.8% in 2018. Taking into account the athleisure trend presented above, we believe that a reason for the slight fall in 2018 was the shift away from the retro fashion trend, which led to a drop in the sales of Adidas' Stan Smith and Superstar products. However, sales in Europe returned to growth in the third quarter of 2019, which shows that through continuing anticipation of trends and product innovation, Adidas' future success is not just dependent on specific fashion product lines.

Regarding Adidas' position in the region, after its market share grew significantly from 8.6% in 2015 to 10.7% in 2017, it stagnated at 10.3% in 2018, making it the second largest sportswear company after Nike (**Exhibit 37**). As part of the continuing market battle between Adidas and Nike over the past years, Adidas' revenues in 2018 were affected by Nike's heavy marketing investments in the World Cup in 2018, which allowed the company to take some market share from Adidas in the football category.

Exhibit 37: Market share and net sales (in EUR million) Western Europe



Sources: Company data (annual reports), Analyst estimates

Looking forward, we believe that due to the stagnating GDP growth (see: **Macroeconomic drivers**), the sportswear market in Western Europe will grow at a slower rate compared to some other regions (**Exhibit 35**). Regarding Adidas' share in the market, we believe that the Group has reached its market saturation point, however, considering Adidas' continuing marketing efforts, we anticipate the company to be able to maintain a market share of 10.3% and that revenues will grow in line with the projected sportswear industry growth of 2.9% in 2019. We believe that due to the continuing athleisure trend and e-commerce market growth in the region, demand for sportswear will persist and the industry will grow at a higher rate compared to the overall economy in 2019.

- North America

North America represents 21% of Adidas' overall revenues (**Exhibit 1**). With a sportswear market size of EUR 110,783 million in 2018, North America is the largest sportswear market globally (**Exhibit 34**). In order to capture the full potential of the market, Adidas has set 'adidas North America' as a strategic priority in its "Creating the New" acceleration plan. In the past years, Adidas has invested in its company set-up, including a development of US headquarters in

Exhibit 38: Market share Adidas vs. Peers North America

Market share	2016	2017	2018
Adidas	3.4%	4.1%	4.2%
Nike	14.9%	14.5%	13.4%
Under Armour	4.0%	3.6%	3.4%

Sources: Passport Euromonitor, Company Data (Annual reports)

Portland, increased its marketing efforts and invested in a distribution system in the region.

Exhibit 39: CAGR Adidas vs. market North America

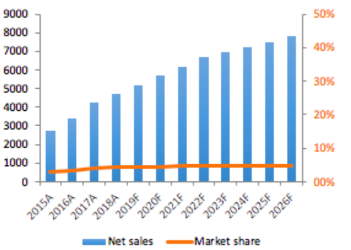
CAGR	2015 - 2018	2019-2025
Adidas	19.4%	6.0%
Sportswear market	6.2%	3.8%

Sources: Passport Euromonitor, Analyst Estimates

Adidas' key challenge in penetrating the North American market has been to compete with its North American rivals Nike and Under Armour. While Nike's and Under Armour's market shares fell between 2016 and 2018 from 14.9% to 13.4% and from 4.9% to 3.4% respectively, Adidas' share in the market increased from 3.4% to 4.2% (**Exhibit 38**). With the help of significant marketing investments (See: **Operating margin**), Adidas has put pressure on its peers in their home market. It has established itself as a beneficiary as well as promoter of the retro and athleisure trends that transformed the North American sportswear market. Since North America is known for setting fashion trends with a global influence, the strong market position can have additional benefits by increasing consumer demand for sportswear products globally. While the market in North America grew at a CAGR of 6.2% from 2015 to 2018, Adidas significantly outperformed the market with a revenue CAGR of 19.4% by gaining market share (**Exhibit 39**).

A more recent challenge was the slowdown in revenue growth in 2018, explained by supply chain problems, which resulted in lost sales (See: **Operating working capital**), and the cooling off of Stan Smith and Superstar sales. However, we consider these challenges as temporary problems, which do not significantly affect Adidas' value. In 2019, supply chain weaknesses were overcome and through the introduction of innovative fashionable apparel, such as the Yeezy and Boost shoes, we expect the company to continue anticipating new fashion trends and boost sales.

Exhibit 40: Market share and net sales (in EUR million) North America



Sources: Company data (Annual Reports), Analyst Estimates

Taking into consideration the value drivers presented in the prior section, we expect Adidas to further increase their sales levels in the region over the next years. Looking at its recent market share developments and marketing efforts, such as winning the sponsorship with Beyoncé over Nike in 2019, we believe that Adidas will further increase its brand awareness and gain share from its competitors until it reaches a market share of 4.8% in 2022 (**Exhibit 40**), considering that the casual athletic space is crowded and competition from its main rivals as well as smaller niche brands such as Lululemon and VFC's vans are expected to cut into Adidas' growth in the future.

Regarding market growth projections, we believe that the outperformance of the sportswear industry compared to the stagnating overall economy growth is driven by the strong e-commerce penetration rate in the region. We expect Adidas to fully capitalize on the trend and increase its overall revenues in North America to be over EUR 7.500 million in 2025 (**Exhibit 40**).

- Greater China

With an overall high nominal GDP growth of 8.5% (**Exhibit 23**) and an exceptionally high sportswear industry growth of 19.5% in 2018 (**Exhibit 35**), Greater China represents the fastest growing region in which Adidas operates. Over the past years, demand for athletic wear in China has grown significantly due to the westernization of lifestyles, continuing urbanisation, improved living standards and increased levels of disposable income (**Exhibit 14**). In China, Adidas is viewed as a premium fashion brand with high pricing. Additionally, over the past years, several government initiatives have boosted sports participation rates and increased interest in sport in the country, which in turn increased demand for sports apparel and footwear. For example, Basketball has increased in popularity with NBA being supported by around 800 million fans and the sport being played by 300 million people in the country in 2019.[17]

Exhibit 41: Adidas' market share vs. selected local sportswear companies

Market share	2016	2017	2018
Adidas AG	10.1%	11.1%	11.6%
Li Ning Co Ltd	6.6%	6.2%	6.1%
Hongxing Erke Group	2.4%	1.9%	1.4%
Guirenniao Co Ltd	1.5%	1.1%	0.8%

Source: Passport Euromonitor

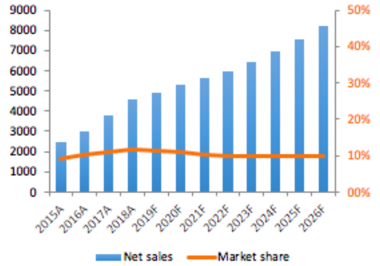
Regarding Adidas' position in the market, the company's market share expanded from 10.1% in 2016 to 11.6% in 2018 by taking some share from smaller brands in the region that could not afford the same level of marketing and store base as large players such as Adidas (**Exhibit 41**). As a result, Adidas' revenues in the region grew at a CAGR of 23.1% (**Exhibit 42**), outperforming the overall industry growth. Adidas has helped to shape the athletic lifestyle trend by launching the "Republic of Sport" in 2017 in Beijing and other major cities, through which it engages with consumers offering them a unique experience such as run programmes and other trainings. Moreover, Adidas has engaged with social media to build its brand on WeChat.

Currently, Greater China makes up 21% of the company's overall revenues (**Exhibit 1**). Looking forward, we anticipate the region to present the largest portion of the company's revenues (24%) by 2026. Greater China is Adidas' key focus region and we expect more store openings in major cities such as the Shanghai flagship store, which opened in 2018, as well as female-orientated marketing and product lines. Moreover, Adidas benefits from its sponsorship with international football teams, as the Chinese government plans to invest in sports and aims to turn the country into a football superpower in the coming years.[18] However, we believe that ambitious marketing strategies by competitors remain a

[17] "Why Everyone is Mad at the NBA About China", Time (2019)
[18] "Opportunity for Big Growth in China's Sports Industry", China Briefing (2019)

threat to Adidas. For instance, Nike has announced important marketing investments in the region, related to marathons, store innovation, local social media integration (WeChat) and the female business. Due to exceptionally high industry growth rates, we also expect further companies to exploit the athletics trend in the market in the future. Adidas' market share is thus estimated to stagnate and gradually stabilize at 10% in 2022 (**Exhibit 42**).

Exhibit 42: Market share and net sales (in EUR million) Greater China



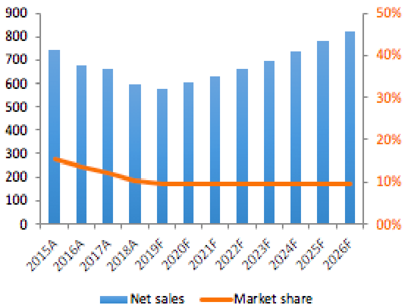
Sources: Company Data (Annual Reports), Analyst Estimates

We expect the global slowdown in trade, GDP growth and consumer spending to also affect the economy in China (**Exhibit 23**) and in turn the Chinese sportswear industry, which is expected to drop from 19.5% in 2018 to 11.1% in 2019 (**Exhibit 35**). However, the sportswear industry will continue to grow as China remains a leader in online retail and e-commerce (**Exhibit 34**). Moreover, we believe that the fitness boom and trend of transforming classic athletic brands into lifestyle brands is still at an early stage in this region. Finally, demand for sportswear is expected to further increase as with rising household income, new outdoor activities such as skiing and tennis are expected to gain in popularity over the next years.

- Russia/CIS

With 3% of Adidas' total revenues in 2018, Russia and the Commonwealth of Independent States (CIS) represent Adidas' smallest segment (**Exhibit 1**). Adidas once had about 1,000 stores in Russia but was hurt by the country's economic problems (**Exhibit 23**) and political events such as sanctions related to Russia's invasion of Ukraine, which negatively affected the sportswear industry growth (**Exhibit 35**). With strategic store closures across the region, segmental revenue fell at a CAGR of -7% between 2015 and 2018.

Exhibit 43: Market share and net sales (in EUR million) Russia/CIS



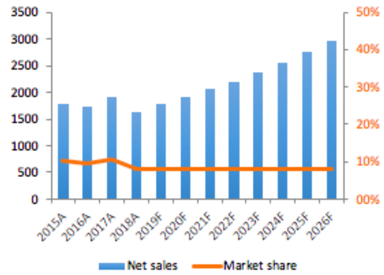
Sources: Company Data (Annual Reports), Analyst Estimates

Looking forward, we anticipate revenue to return to growth as economic prospects in the region are recovering (**Exhibit 23**) and e-commerce penetration rates are increasing (**Exhibit 30**), which we expect to translate itself into higher sportswear industry growth (**Exhibit 35).** However, due to the small market size (EUR 5,766 million in 2018), we do not expect developments in Russia/CIS to have a very large impact on Adidas' valuation.

- Latin America

Adidas' Latin American segment has experienced significant ups and downs over the past years. In 2016, the sportswear industry suffered from to a negative GDP growth of -0.6% (**Exhibit 23**), currency effects negatively affecting sales and recessions in large markets such as Brazil. However, in following year, GDP growth recovered, with the sportswear industry growth outperforming the nominal growth of the overall economy (10.3% compared to 7.3%), reaching a market size of EUR 20,114 million in 2018.

Exhibit 44: Market share and net sales (in EUR million) Latin America



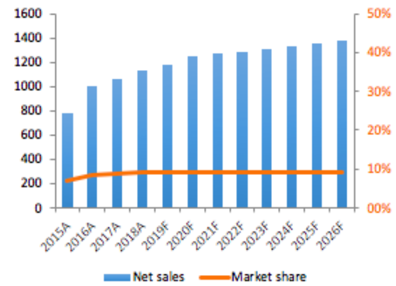
Sources: Company Data (Annual Reports), Analyst Estimates

The segment currently represents 7% of Adidas' total revenue (**Exhibit 1**). A main challenge is the rivalry between Adidas and Nike, since both invest in advertising campaigns in Brazil seeking to benefit from the country's addiction to sports, most notably football. In 2018, Adidas' market share fell from 10.5% to 8.1%, which can be partly explained by Nike's success and market share gain in Latin America in 2018, which offset that year's sluggish growth in its home market. As we expect the battle to continue, we forecast Adidas' market share to remain stable and revenue in the segment to grow in line with the recovering sportswear industry growth (**Exhibit 35**).

- Japan

With a total sportswear market size of EUR 12,584 million in 2018, Japan is one of Adidas' smaller markets. With revenues increasing at a CAGR of 13.3%, Japan was one of Adidas' highest growing segments from 2015 to 2018. Taking into account the value drivers presented above, the sportswear industry growth in the region was mainly driven by the athleisure trend. In addition to shifts in consumer preferences towards a healthy lifestyle, the Japanese government implemented initiatives encouraging casual wear in the workplace, which further boosted demand for athleisure apparel. In 2018, Adidas was the second largest leader with a market share of 9%, after Nike with a share of 10.2% (**Exhibit 45**). Looking forward, we expect the market share to remain at 9% and revenues to grow in line with the region's industry growth projections (**Exhibit 35**).

Exhibit 45: Market share and net sales (in EUR million) Japan

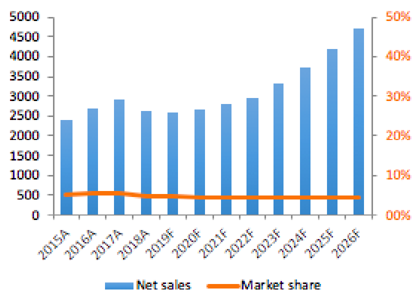


Sources: Company Data (Annual Reports), Analyst Estimates

- MEAA

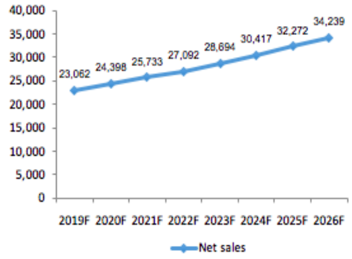
Currently, 10% of Adidas' revenues come from the Middle East, Africa and Other Asian Markets (MEAA) (**Exhibit 1**). The region's revenues experienced a relatively low CAGR of 3.3.% from 2015 to 2018 (**Exhibit 35**). Regarding Adidas' position in the market, the company's market share decreased from 5.6% in 2017 to 4.9% in 2018, which can be explained by important strategic moves taken by Nike, including powerful campaigns and the introduction of products targeting the needs and preferences of women in the Middle East. As MEAA is not Adidas' priority focus, we expect market share to remain stable at 4.9% and revenues to grow in line with the overall industry growth in the region (**Exhibit 23**).

Exhibit 46: Market share and net sales (in EUR million) MEAA



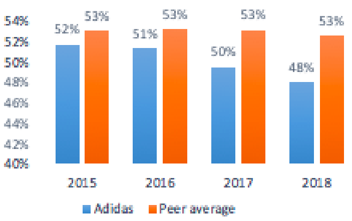
Sources: Company Data (Annual Reports), Analyst Estimates

Exhibit 47: Total revenue growth projections



Sources: Company Data (Annual Reports), Analyst Estimates

Exhibit 48: COGS as a % of sales (Adidas vs Peers)



Source: Company Data (Annual Reports)

Exhibit 49: Gross margin by segment (2015–2018)

	2015A	2016A	2017A	2018A
Western Europe	49%	48%	47%	51%
North America	39%	41%	43%	44%
Greater China	60%	62%	59%	54%
Russia/CIS	55%	69%	65%	76%
Latin America	46%	43%	45%	49%
Japan	53%	56%	61%	60%
MEAA	55%	56%	55%	60%
Other	33%	19%	43%	41%

Source: Company Data (Annual Reports)

- Other businesses

This segment refers to adidas' Runtastic business and other centrally managed activities. In 2016, in the context of Adidas' 'Creating the New' acceleration plan, Adidas divested two brands that once belonged to the segment, namely CCM Hockey and the golf brand Taylormade. The divestment has allowed Adidas to operate with a narrow focus on its core brands. With no planned M&A activities in the near future, we estimate sales in the segment to grow in line with the overall industry growth rate and not significantly affect Adidas' value.

Gross margin

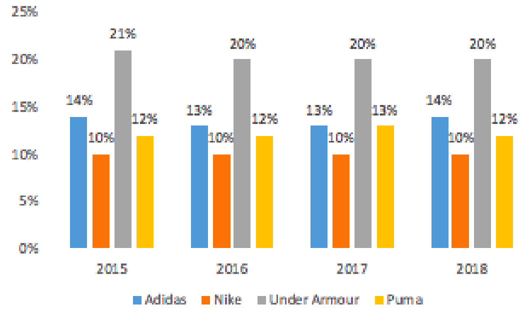
The Adidas group has the lowest costs of goods sold as a percentage of sales compared to its peers, which include Nike, Under Armour and Puma (**Exhibit 48**). Adidas' overall gross margin has gradually improved from 48% in 2015 to 52% in 2018. While the positive trend can be observed in all regions, the levels strongly differ depending on the market. In 2018, Russia/CIS and Greater China showed the highest gross margins (76% and 58% respectively), whilst the levels in Europe, Latin America and North America are below the global gross margin (**Exhibit 49**). COGS reduced as a percentage of revenue in North America from 61% in 2015 to 59% in 2018 and Adidas is committed to infrastructure improvements in the region allowing for a better cost structure. We thus expect COGS in North America to decrease and stabilize at 53% of revenue in 2021.

In all other regions, we forecast gross margins to stay at the improved levels of 2018. On the distribution side, the shift towards controlled space and e-commerce allows for better pricing, choice of channel and product mix, as well as lower cost of inputs. On the production and supply chain side, the focus on speed factories (see: **Speed**) positively impacts revenue growth as demand can be met faster. However, these efficiency gains are offset by factors related to developments in sourcing countries, such as increasing labor expenditures and gher commodity prices in exporting countries.

Operating margin

The operating margin mainly refers to Adidas' marketing investments presented in the value drivers section. Adidas operates in a fashion business, which typically requires a company to invest in the launch of new products and marketing campaigns in order to strengthen brand presence and brand desire among consumers. Expenditure on marketing activities in the industry can present as much as 20% of total revenue (**Exhibit 50**).

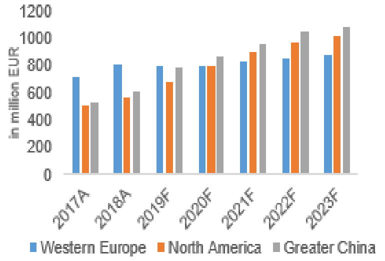
Exhibit 50: Marketing expenses as a % of revenue (2018)



Source: Company Data (Annual Reports)

Currently, marketing expenditures represent almost a third of Adidas' total operating expenses and slightly more than 13% of total sales. From 2015 to 2017, Adidas' marketing expenses as a percentage of revenue decreased (**Exhibit 50**), which can be explained by 'ONE adidas', a set of measures taken to simplify different business processes, including a standardization of advertising and marketing initiatives. However, within the context of the FIFA World Cup in Russia in 2018, the decrease in Adidas' marketing expenses was reversed and reached almost 14% of total sales. Considering Nike's lower marketing expenditures of 10% of total revenue, it seems reasonable to assume that there is potential for further savings on marketing activities if Adidas shifts its marketing initiatives from partnerships and sponsorships with global reach towards less costly grassroots and local activation efforts (See: **Marketing investments**).

Exhibit 51: Marketing expenses by segment

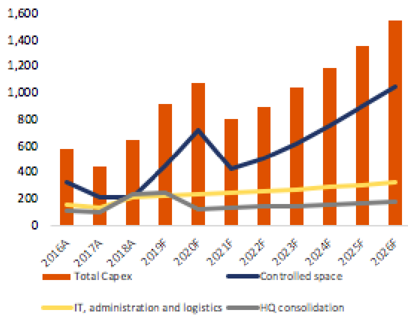


Sources: Company Data (Annual Reports), Analyst Estimates

However, we believe that in order to grab and maintain share in its key markets Greater China and North America, it is crucial for Adidas to invest in important partnership assets. In the context of Adidas' 'North America initiative' and taking into account Adidas' partnership with Beyoncé, we expect the company to increase marketing investments in North America to 14% of the region's revenues in 2019. In order to survive the growing competition in China and with the Beijing Olympics taking place in 2022, we forecast marketing expenses in Greater China to increase to 14% of the region's revenues in 2019 and to 15% of the region's revenues in 2022. Western Europe, which is not Adidas' key focus market, also requires marketing investments in order to maintain market share. Thus, we expect marketing expenditure to return to 13% of sales in 2019. In addition, due to the Olympics in Tokyo, we assume an increase in marketing expenses in 2020 in Japan (**Exhibit 51**).

Capital Expenditure

Exhibit 52: Capex projections (in EUR million)

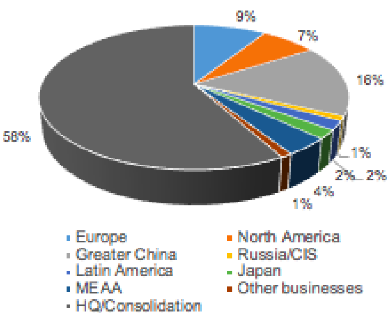


Sources: Company Data (Annual Reports), Analyst Estimates

In order to grow as a company, it is crucial for Adidas to use a large portion of its excess cash to finance capital investments. In 2018, Adidas' total capital expenditure amounted to EUR 645 million (**Exhibit 52**), which represented 2.9% of the company's revenues. CapEx is divided into 3 categories, namely Controlled Space, IT, administration and logistics, and HQ Consolidation. In 2018, the largest portion of CapEx was attributed to HQ consolidation (36%) due to an expansion of Adidas' corporate headquarters facilities in Herzogenaurach and Portland. However, in line with Adidas' corporate strategy 'Creating the New', Controlled Space has been Adidas' investment focus since 2015, and is supposed to last until 2020. The controlled space initiative refers to investments in redesigned and new stores, as well as presentations of the products in Adidas' customers' stores. The group's goal is to expand such initiatives to other channels, including their own e-commerce retail and wholesale space online. Investment in Controlled Space accounted for 32% of total CapEx in 2018.

Looking forward, we forecast CapEx on controlled space to grow at an increasing percentage of revenue until 2020. We believe that Adidas will reach its reported goal, which is that by 2020, 60% of Adidas' income will come from Controlled Space. Expenditure in IT, administration and logistics is assumed to grow in line with revenues. Since the expansion of corporate facilities in Herzogenaurach and Portland is not yet completed, CapEx on HQ Consolidation is expected to remain a large part of total CapEx in 2019 (**Exhibit 52**).

Exhibit 53: Capex breakdown (2018)

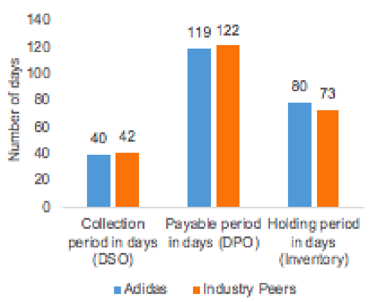


Source: Company Data (Annual report)

In 2018, Adidas invested mostly in Greater China (16% of total CapEx and over 2% of the region's revenues), followed by Europe and North America (9% of total CapEx and 7% of total CapEx respectively, both below 1% of the respective regions' revenues). This can be explained by Adidas' clear focus on the Asia-Pacific and China markets, which also includes the opening of Adidas' largest brand centre, namely the Adidas Asia-Pacific Brand Centre in Shanghai last year (**Exhibit 53**).

Operating Working Capital

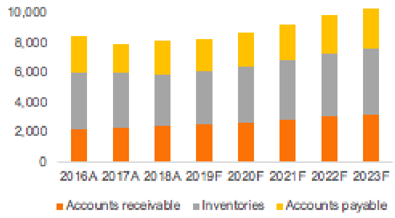
Exhibit 54: DSO, DPO, IDL (Adidas vs. Peer Group) in 2018



Source: Company Data (Annual reports)

Adidas' efficiency heavily depends on Adidas' management of operating working capital. The focus is on three ratios, namely Days of Sales Outstanding (DSO), representing the amount of accounts receivable that are not collected, Days Payable Outstanding (DPO), which is the time Adidas takes to pay its bills, and Inventory Days Lasting (IDL), which is the number of days products stay in

Exhibit 55: Working capital projections



Sources: Company data (Annual reports), Analyst Estimates

inventory before they are sold. A comparison between Adidas and its peers, which include Nike, Puma and Under Armour, shows that in 2018, Adidas 'collects earlier', 'pays later', and has a below industry average holding period, all of which are signs of efficient working capital management (**Exhibit 54**). Thus, regarding accounts receivable and accounts payable forecasts, we expect the collection period and holding period to remain at the levels in 2018 (**Exhibit 55**).

For Adidas, managing inventory levels to meet market demand is particularly important. Adidas' speed factories and global operations are designed to enable product availability through various channels and to enhance speed-to-market capabilities. However, in the first half of 2018, Adidas experienced inventory capacity and supply chain issues, which curbed sales growth in its North American market, in which the company had doubled its business in the last 3 years. Chief Executive Kasper Rorsted explained that suppliers were not able to keep up with the quicker than anticipated market demand as Adidas expanded from more high-end branded shoes and products into mid-priced apparel.[19] As the supply chain issues have been resolved and allowing Adidas to keep up with potential growth in demand, we expect inventory levels to slightly increase again in 2019, up from a very low level in 2018 (**Exhibit 55**).

Valuation

Discounted Cash Flow

- WACC

In order to discount the company's cash flows at an appropriate discount rate, the Weighted Average Cost of Capital (WACC) was calculated. Since WACC refers to the return required by both equity and debt holders, the required inputs are the cost of equity and the cost of debt, as well as the target debt to equity ratio.

Exhibit 56: Unlevered Industry Beta

	Unlevered Beta
Adidas	0.56
Nike	0.85
Puma	0.48
Lululemon Athletica	1.31
Average	**0.80**

Sources: CapitalIQ (retrieved on 30/11/19), Analyst Estimates

The cost of equity was calculated using the Capital Asset Pricing Model. The inputs needed are the risk-free rate, the levered beta and the market risk premium. The risk-free rate was estimated using the 10-year German Treasury Bond (retrieved on 20/11/2019) with a yield of 0.49% as a proxy. The market risk premium used was 5.50%, an estimate published in a report by KPMG.[20] Adidas'

[19] Source: "Supply Chain Problems to slow Adidas sales growth", Reuters (2019)
[20] Source: KPMG- Equity Market Risk Premium, 2019

levered beta was calculated using an industry median of comparable companies, excess returns of a market proxy and confidence interval.

Exhibit 57: Cost of equity calculation

Relevered beta	
Target D/E	9.63%
Relevered beta	0.86
Cost of equity	4.40%

Source: CapitalIQ (retrieved on 30/11/19), Analyst Estimates

Comparable companies were identified based on risks they face, product portfolio and segments they operate. Thus, in our analysis Nike, Under Armour, Puma and Lululemon Athletica were included. Using weekly data on stock prices from the past 3 years, excess returns of the above-mentioned companies' stocks were calculated and then regressed against the excess returns of a carefully selected market index. For Adidas and Puma, the MSCI World index was used, while for Nike and Under Armour the S&P 500 index was considered more appropriate. The reasoning lies behind the fact that Adidas' North American peers Nike and Under Armour are included in the S&P 500 list, but also because regressing Nike against the MSCI World Index yielded erroneous results, which would not be useful for further analysis. The resulting betas were unlevered using each company's current D/E ratio, ensuring that the unlevered betas are not influenced by a company's capital structure and focus solely on the operating risk faced by peers in the specific sector (**Exhibit 56**). Using an average of the peers' unlevered betas (0.8) and Adidas' target D/E ratio, Adidas' levered beta could be obtained (**Exhibit 57**). Adidas' target D/E ratio is expected to be 9.63%, which corresponds to its current capital structure and is just slightly below Puma's D/E ratio of 10.38%. Adidas is not a highly leveraged company, which means that it does not have to reduce its debt levels but is not expected to suffer operating losses having to take on more debt either. As a result, a releveled beta for Adidas of 0.86 was reached. Regressing Adidas' stock directly against the MSCI World index, a raw beta of 0.57 was obtained. Including the standard error of 0.16 into the analysis, Adidas' 95% confidence interval for beta ranges from 0.26 to 0.89 (**Exhibit 58**). Thus, the releveled beta obtained through the comparable method lies within the confidence interval. Using the above inputs, Adidas' estimated cost of equity is 4.40%.

Exhibit 58: Beta 95% Confidence Interval

Adidas Beta Confidence Interval		
Raw Beta	0.5763	
SE	0.1558	
Confidence Interval	0.26	0.89

Sources: CapitalIQ (retrieved on 30/11/19), Analyst Estimates

The cost of debt was calculated by subtracting the credit loss rate from Adidas' debt yield (**Exhibit 59**). In order to calculate the credit loss rate (Probability of default * by the loss given default) it was necessary to assign a credit rating to Adidas. However, since Adidas' debt is not rated, a synthetic credit rating method, in which a credit rating is based on a company's financial ratios (interest coverage ratio), was applied. This led to a AAA credit rating for Adidas, which implies a probability of default of 0.18% and a recovery rate of 49.50%. As a result, Adidas' cost of debt is 0.40% (**Exhibit 59**).

Exhibit 59: Cost of debt calculation

Interest Coverage Ratio	37.12x
Credit Rating	AAA
Probability of Default	0.18%
Recovery Rate	49.50%
LGD	50.50%
Debt Yield	0.49%
Cost of debt	0.40%
Beta D	13.62%

Sources: Bloomberg (retrieved on 20/11/19), Analyst Estimates

Finally, using the above inputs, a cost of capital of 4.04% was obtained and used to discount Adidas' future cash flows.

- Growth Rate

Exhibit 60: Perpetual growth rate

	Real GDP growth 2025	Current revenue by segment
Western Europe	1.4%	5,836
North America	1.8%	4,689
Greater China	1.4%	4,602
Russia/CIS	0.6%	595
Latin America	1.2%	1,634
Japan	1.1%	1,128
MEAA	1.8%	2,630
Other	1.4%	829
Total		**21,943**
Growth rate	**1.48%**	

Sources: IMF (retrieved on 1/11/19), Company Data (Annual Reports)

Adidas' long-term growth rate is based on an average of the GDP growth rate forecasts for 2025 by IMF for each region in which Adidas operates, weighted by the share of the region's revenue compared to the company's total revenue. This led to a growth rate of 1.48% (**exhibit 60**), used to obtain the terminal value of Adidas' free cash flow projections.

The appropriateness of applying a perpetual growth rate in 2026 is confirmed by our ROIC developments. Over the period 2023 to 2026, ROIC gradually stabilizes at ca. 25%. Moreover, RONIC stabilizes at ca. 5%, which is slightly above the WACC of 4.04%.

Including the above described inputs into the DCF model, we arrived at an enterprise value of EUR 60,994 million and an equity value of EUR 60,481 million, hence a target share price of EUR 304 (See**: Appendix 4**). Adidas stock is currently trading at EUR 273 and is thus undervalued. With a capital gain of 11.3% and a cash gain of 1.8%, we expect a total shareholder return of 13.2%.

Relative valuation

Exhibit 61: Relative valuation

	EV/EBITDA	EV/EBIT	P/E
Adidas	15.9x	21.8x	28.2x
Nike	25.2x	28.8x	32.6x
Puma	20.6x	25.0x	39.1x
Under Armour	20.6x	38.1x	67.5x
VF Corporation	15.4x	19.2x	26.9x
Skechers	11.0x	13.2x	18.6x
Lululemon Athletica	29.7x	35.1x	49.7x
Median	**20.6x**	**26.9x**	**35.8x**
Adidas			
Equity Value	69,670	65,938	68,680
Share price	**350**	**331**	**345**

Sources: CapitalIQ (retrieved on 30/11/19), Analyst Estimates

This methodology allows us to value Adidas in comparison to its peers, assuming that similar companies operating in the same industry should trade at similar multiples. Consequently, the EV/EBITDA, EV/EBIT and the P/E ratios taking into account the financials of 2018 of Nike, Puma, Under Armour, Sketchers, Lululemon Athletica and VF Corporation were used.

Adidas' multiples are below the industry's median multiples, already indicating that Adidas may be undervalued by the market (**Exhibit 61**). Controlling for outliers, the median of multiples of the peer group was applied to Adidas' financials, which resulted in share prices of EUR 350, EUR 331 and EUR 345. Since all three results are above Adidas' current share price of EUR 273, we can confirm hat Adidas is undervalued, which is in line with our DCF analysis.

Appendix

Appendix A: Balance sheet

Balance Sheet (amounts in € million)	2015A	2016A	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Cash and cash equivalents	1,365	1,510	1,598	2,629	2,731	2,984	3,711	4,334	4,976	5,573	6,148	6,675
Short-term financial assets	5	5	5	6	6	6	7	7	7	8	8	9
Accounts receivable	2,049	2,200	2,315	2,418	2,548	2,696	2,843	2,990	3,167	3,357	3,562	3,779
Other current financial assets	367	729	393	542	594	652	616	686	730	771	807	866
Inventories	3,113	3,763	3,692	3,445	3,618	3,814	4,019	4,235	4,468	4,730	5,012	5,306
Income tax receivables	97	98	71	48	52	56	60	62	67	71	75	80
Other current assets	489	581	498	726	668	707	745	785	831	881	935	992
Assets classified as held for sale	12	0	72	0	21	21	21	21	21	21	21	21
Total current assets	**7,497**	**8,886**	**8,644**	**9,814**	**10,237**	**10,936**	**12,022**	**13,120**	**14,267**	**15,413**	**16,569**	**17,727**
Property, plant and equipment	1,638	1,915	2,001	2,237	2,547	3,085	3,310	3,584	3,937	4,368	4,880	5,475
Goodwill	1,392	1,412	1,220	1,245	1,245	1,393	1,471	1,548	1,640	1,738	1,844	1,957
Trademarks	1,628	1,680	806	844	884	935	986	1,038	1,100	1,166	1,237	1,313
Other intangible assets	188	167	154	196	252	365	552	709	827	942	1,044	1,141
Long-term financial assets	140	194	236	276	243	257	271	285	302	321	340	361
Other non-current financial assets	99	96	219	256	254	269	284	299	316	335	356	378
Deferred tax assets	637	732	630	651	810	857	904	951	1,008	1,068	1,133	1,203
Other non-current assets	124	94	108	94	125	132	139	147	155	165	175	185
Total non-current assets	**5,846**	**6,290**	**5,374**	**5,799**	**6,359**	**7,292**	**7,917**	**8,561**	**9,285**	**10,103**	**11,010**	**12,012**
Short-term borrowings	366	636	137	66	78	88	99	110	122	134	147	160
Accounts payable	2,024	2,496	1,975	2,300	2,230	2,351	2,477	2,612	2,755	2,917	3,091	3,271
Other current financial liabilities	143	201	362	187	252	267	282	297	314	332	352	374
Income taxes	359	402	424	268	640	694	742	767	822	873	928	988
Other current provisions	455	573	741	1,232	854	904	953	1,004	1,063	1,127	1,196	1,268
Current accrued liabilities	1,683	2,023	2,180	2,304	2,368	2,505	2,642	2,782	2,946	3,123	3,314	3,516
Other current liabilities	331	434	473	477	497	526	555	584	619	656	696	739
Liabilities classified as held for sale	0	0	0	0	0	0	0	0	0	0	0	0
Total current liabilities	**5,361**	**6,765**	**6,292**	**6,834**	**6,919**	**7,334**	**7,750**	**8,156**	**8,641**	**9,162**	**9,723**	**10,317**
Long-term borrowings	1,463	982	983	1,609	1,221	1,384	1,557	1,736	1,921	2,113	2,312	2,520
Other non-current financial liabilities	18	23	22	103	20	21	23	24	25	27	28	30
Pensions and similar obligations	273	355	298	246	259	274	289	305	323	342	363	385
Deferred tax liabilities	368	387	190	241	441	466	492	518	548	581	617	654
Other non-current provisions	50	44	80	128	86	91	96	101	107	113	120	127
Non-current accrued liabilities	121	120	85	19	104	110	116	122	129	137	146	154
Other non-current liabilities	41	46	53	68	60	64	67	71	75	79	84	89
Total non-current liabilities	**2,334**	**1,957**	**1,711**	**2,414**	**2,191**	**2,410**	**2,640**	**2,876**	**3,128**	**3,392**	**3,670**	**3,961**
Share capital	200	201	204	199	199	199	199	199	199	199	199	199
Reserves	592	749	-29	123	451	477	504	530	562	595	632	670
Retained earnings	4,874	5,521	5,858	6,054	6,845	7,815	8,854	9,928	11,029	12,173	13,361	14,597
Shareholders' equity	**5,666**	**6,471**	**6,033**	**6,376**	**7,496**	**8,492**	**9,556**	**10,657**	**11,789**	**12,967**	**14,191**	**15,467**

Appendix B: Income statement

Income Statement (amounts in € million)	2015A	2016A	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Net sales	16,915	19,291	21,218	21,915	23,121	24,461	25,801	27,165	28,772	30,501	32,362	34,336
Cost of sales	- 8,748	- 9,912	- 10,514	- 10,552	- 11,005	- 11,600	- 12,224	- 12,888	- 13,596	- 14,393	- 15,252	- 16,145
Gross profit	**8,167**	**9,379**	**10,704**	**11,363**	**12,116**	**12,861**	**13,577**	**14,277**	**15,175**	**16,108**	**17,111**	**18,191**
Royalty and commission income	119	109	115	129	139	147	155	163	173	183	194	206
Other operating income	96	266	133	48	161	171	180	190	201	213	226	240
Other operating expenses	- 7,290	- 8,263	- 8,883	- 9,173	- 9,791	- 10,360	- 10,891	- 11,497	- 12,185	- 12,924	- 13,721	- 14,574
Goodwill impairment losses	- 34	-	-		-	-	-	-	-	-	-	-
Operating profit	**1,058**	**1,491**	**2,069**	**2,367**	**2,625**	**2,819**	**3,021**	**3,133**	**3,364**	**3,580**	**3,809**	**4,063**
Financial income	46	28	46	57	62	55	58	61	64	68	72	77
Financial expenses	- 67	- 74	- 93	- 47	- 78	- 61	- 69	- 77	- 86	- 95	- 105	- 115
Income before taxes	**1,037**	**1,445**	**2,022**	**2,377**	**2,609**	**2,813**	**3,010**	**3,117**	**3,342**	**3,553**	**3,777**	**4,025**
Income taxes	- 353	- 426	- 668	- 669	- 774	- 821	- 881	- 915	- 983	- 1,047	- 1,116	- 1,190
Net income from continuing operations	**684**	**1,019**	**1,354**	**1,708**	**1,835**	**1,992**	**2,129**	**2,202**	**2,359**	**2,505**	**2,661**	**2,834**
Losses from discontinued operations, net of tax	- 46	1	- 254	- 5	-	-	-	-	-	-	-	-
Net income	**638**	**1,020**	**1,100**	**1,703**	**1,835**	**1,992**	**2,129**	**2,202**	**2,359**	**2,505**	**2,661**	**2,834**

Appendix C: Free Cash Flow map - Core business

Free Cash Flow Map												
(amounts in € million)	2015A	2016A	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Core cash flow												
NOPLAT	593	803	1,246	1,588	1,661	1,787	1,919	1,986	2,137	2,275	2,422	2,584
D&A	342	373	420	471	545	672	780	879	1,003	1,107	1,237	1,376
Operational Gross Cash Flow	**935**	**1,176**	**1,666**	**2,059**	**2,206**	**2,459**	**2,699**	**2,865**	**3,139**	**3,382**	**3,659**	**3,960**
Growth (in %)		*25.7%*	*41.7%*	*23.6%*	*7.1%*	*11.4%*	*9.8%*	*6.2%*	*9.6%*	*7.7%*	*8.2%*	*8.2%*
Net CAPEX		-676	552	-813	-911	-1,533	-1,333	-1,449	-1,640	-1,832	-2,044	-2,271
Changes in NWC		53	-235	651	-71	-21	-30	-53	-35	-49	-54	-52
Investment Cash Flow		**-623**	**317**	**-162**	**-981**	**-1,553**	**-1,363**	**-1,503**	**-1,675**	**-1,881**	**-2,098**	**-2,323**
Free Cash Flow Core Business		**553**	**1,983**	**1,898**	**1,225**	**905**	**1,336**	**1,363**	**1,464**	**1,501**	**1,561**	**1,637**

Appendix D: DCF

Discounted Cash Flow Model												
(amounts in € million)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Free Cash Flow		553	1,983	1,898	1,225	905	1,336	1,363	1,464	1,501	1,561	1,637
Present value of FCF						905	1,284	1,259	1,300	1,281	1,281	1,291
Sum of PV of FCF						8,601						
Continuing Value						64,913						
PV of Continuing Value						51,185						
Enterprise Value						**60,994**						
Financial part						526						
Non-controlling interests						13						
Equity value						**60,481**						
Number of shares outstanding						199						
Share price						**304**						
Current share price						273						
Expected Capital Gain						11.3%						
Shareholders Cash in/Cash Out per share						5.0						
Expected Cash gain						1.8%						
Total Shareholder Return						**13.2%**						

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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Adidas' market penetration in North America: A Scenario analysis

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Abstract

The aim of the research is to incorporate the key risks associated with Adidas' market penetration in North America into Adidas' valuation model, leading to a revised expected share price and return to investors. A scenario analysis methodology presenting a base case, a worst case and a best case is used. The risks identified as the most relevant are strategic risks such changes in consumer demand and competition for sponsorships in the market, as well as operational risks triggered by Adidas' promotion partnerships and the company's supply chain inefficiencies in the region. These risks are included into the DCF model by modifying four value drivers: Market share, market growth, gross margin improvements and marketing investments. Based on all three scenarios and their respective assigned probabilities of occurrence, a new expected share price of EUR 300, compared to the actual share price of EUR 274, is obtained. The BUY recommendation derived from the base forecast still holds.

Keywords

- Adidas North America
- 'Athleisure' trend
- Promotion partnerships
- Supply Chain inefficiencies

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1. Introduction

As part of Adidas' 'acceleration plan'[1], North America is a key region where the company is looking to capture the benefits of the large sportswear market. To assess the opportunity of penetrating the market, the purpose of this research is to identify the key risks involved and to incorporate them into Adidas' financial model. The report begins with a literature review on four risk types, followed by a scenario analysis leading to a new valuation of Adidas' stock.

2. Typology of risks

Generally, risk is defined as the potential occurrence of an event that can affect a company's ability to achieve its business goals[1]. For Adidas North America, the relevant risks include:

- **Changes in consumer demand**

In the sportswear field, companies must continuously develop innovative products in order to meet consumer demand, which can fluctuate suddenly and unexpectedly[2]. Regarding changes in the 'athleisure' trend, opportunities have arisen as corporate dress code policies have shifted towards casual wear[3] and sports companies have expanded into the high-end fashion market, allowing them to sell at premium prices[4]. However, due to a high income elasticity of demand for premium products, meaning that lower income can lead to an overproportionate drop in demand, the falling household income growth forecast in North America (from 2.4% in 2019 to 1.4% in 2021[5]) creates a critical risk for Adidas' 'athleisure' business.

- **Competition for sponsorships**

In the competitive sportswear industry, in addition to price wars driving down companies' margins, bidding wars for sponsorships enable them to grab market share from one another. For example, after winning sponsorship deals with stars such as Andy Murray, Under Armour gained market share from Adidas and Nike[6]. Product lines that have strengthened Adidas'

[1] Adidas group. 2019. Annual report 2018. Available from: https://report.adidas-group.com/2018/fileadmin/user_upload/adidas_Annual_Report_GB-2018-EN.pdf
[2] Wood, L. 2016. Global Sports Footwear Market 2016-2020 - Rising Cost of Raw Materials - Key Vendors are Adidas, Asics & Nike - Research and Markets. *Business Wire*. Available from: https://www.businesswire.com/news/home/20160725005756/en/Global-Sports-Footwear-Market-2016-2020---Rising
[3] Rastello, S. 2018. People are wearing sneakers everywhere, and it's shaking up shoe retail. *Bloomberg*. Available from: https://www.bloomberg.com/news/articles/2018-05-30/wear-sneakers-everywhere-trend-upends-shoe-retail-aldo-ceo-says
[4] Lim, C. H. L., Kim, K. Cheong, Y. 2016. "Factors affecting sportswear buying behavior: A comparative analysis of luxury sportswear" *Journal of Business Research*, vol. 69(12): 5793-5800
[5] Passport Euromonitor – Statistics: USA disposable income [accessed 2 Dec. 2019]
[6] Venugopal, A. 2018. Under Armour to cut 400 more jobs in turnaround push, shares rise. *Reuters*. Available from: https://www.reuters.com/article/us-under-armour-layoffs/under-armour-to-cut-400-more-jobs-in-turnaround-push-shares-rise-idUSKCN1M01QV

position include the Bayern Munich jerseys in 2016[7] and the US Open tennis collection in 2019[8]. Competition for sponsorships puts companies in a position of low bargaining power, which drives up their marketing costs. In order to mitigate such risks, Adidas may enter long-term contracts. However, as the popularity of partners changes, one can expect Adidas to further negotiate deals in order to continuously update its sponsorship portfolio.

- **Promotion partner reputation**

Although promotion partnerships are crucial for the growth of a brand's reputation[9], they can also negatively affect a brand's attractiveness if the partner engages in improper behavior or underperforms at sports events. Adidas' risk-carrying relationships include its agreement with the FIFA association[10], which was signed after FIFA's corruption scandals went public[11], and its partnership with Kanye West, who has made controversial political statement in social media and in a meeting with President Trump[12]. A case demonstrating that reputational issues outside the control of a company can even disrupt business activities is Nike's cancellation of a shoe release in China after its partner, a Japanese designer, expressed strong opinions in regards to the Hong Kong protests in 2019[13]. Although Adidas could reduce its dependence on particular collaborators by diversifying its partnerships, the company has announced plans to focus on key partners in the near future[1]. Thus, by collaborating with only a few impactful figures such as Beyoncé, one can expect consumers to associate the brand even more closely with the values of the particular partner[14].

- **Supply chain inefficiencies**

In addition to fluctuations in the prices of raw materials such as oil[15] and the pressure to

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[7] 2016. Adidas and Parley launch Real Madrid and Bayern Munich home jerseys. *Marketline.* Available from: https://fesrvsd.fe.unl.pt:2126/News/adidas-and-parley-launch-real-madrid-and-bayern-munich-home-jerseys
[8] 2019. adidas Unveils NY Collection For US Open. *The News Market*, Available from: https://www.thenewsmarket.com/global/latest-news/all/adidas-unveils-ny-collection-for-us-open/s/edbb8701-4e7c-42bd-9579-d8855b257027
[9] Hynes, T., Bruce, M. 2007. The process of trend development leading to a fashion season. *Fashion Marketing*, Abington: Routledge, p.178
[10] Poltz, J. 2015. Investors concerned as Adidas declines to join Blatter exit call. *Reuters.* Available from: https://www.reuters.com/article/us-soccer-fifa-adidas/investors-concerned-as-adidas-declines-to-join-blatter-exit-call-idUSKCN0S11FD20151007
[11] Hobbs, T. 2016. Adidas looks to avoid reputational risk with move to end sponsorship. *Marketingweek.* Available from: https://www.marketingweek.com/adidas-looks-to-avoid-reputational-risk-with-move-to-end-athletics-sponsorship/
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[14] 2019. Beyonce announced new collaboration with Adidas. *Marketline.* Available from: https://fesrvsd.fe.unl.pt:2126/News/beyonce-announces-new-collaboration-with-adidas
[15] 2019. Footwear Market 2019 Industry Research, Share, Trend, Global Industry Size, Price, Analysis, Regional Outlook to 2025. *Marketwatch*. Available from: https://www.marketwatch.com/press-release/footwear-market-2019-industry-research-share-trend-global-industry-size-price-analysis-regional-outlook-to-2025-2019-09-13

increase wages in order to meet ethical standards in its supply chain**[16]**, a risk affecting Adidas' gross margins in North America is the company's inability to improve its supply chain processes. Through 'ONE adidas', Adidas has succeeded to optimize processes and reduce costs in other regions[1]. However, in North America, Adidas has experienced supply chain issues over the past year, which necessitated expensive airfreight negatively affecting its margins[17]. Considering Nike's high gross margins despite its slowdown in revenue growth[18], Adidas may have the potential to improve its margins in the region as well.

3. Scenario analysis

Due to the risks outlined above, Adidas' sales, gross margins and operating margins in North America are likely to deviate from our initial forecast. As such, in addition to our base case, two further scenarios, with assigned probabilities of 15% for each, are set out. The assumptions, analysis and results of each of the three scenarios are presented below.

- **Base case**

Revenue: Based on continuing growth of the 'athleisure' trend and Adidas' positive brand image driving up its market share, Adidas' revenue growth in North America is expected to reach 10.8% in 2019, leading to an increase in overall revenue growth from 3.4% in 2018 to 5.4% in 2019. By 2026, the segment's net sales are forecasted to represent 23% of overall revenues, as compared to 21% in 2018.

Gross margin: Assuming upgrades in supply chain efficiencies, the gross margin in North America is forecasted to improve from 44% in 2018 to 45% in 2019, reaching 47% in 2021.

Operating margin: Projected increases in operating expenses are driven by marketing investments needed to gain market share. Marketing costs are forecasted to grow from 12% of the segment's revenue in 2018 to 14% of its revenue in 2019.

[16] 2019. Adidas tops list of garment brands ensuring living wage in supply chain. *Marketline.* Available from: https://fesrvsd.fe.unl.pt:2126/News/adidas-tops-list-of-garment-brands-ensuring-living-wage-in-supply-chain_3079
[17] Thomasson, E. 2019. Supply Chain problems to slow Adidas' sales growth. *Reuters.* Available from: https://www.reuters.com/article/us-adidas-results/supply-chain-problems-to-slow-adidas-sales-growth-idUSKBN1QU0LH,
[18] Badkar, M. 2019. Nike's North America growth cools. *Finanical Times.* Available from: https://www.ft.com/content/ee0187d0-4c12-11e9-bbc9-6917dce3dc62

- **Worst case**

Revenue: Assuming slowing income growth and a weakening of the 'athleisure' trend, I decreased the sector's growth forecast to 6% in 2019. Due to heavy competition for sponsorship assets and a drop in popularity of key promotion partner Kanye West, I forecast Adidas' market share to stagnate at 4.4% in 2019. As a result, in this scenario, the segment's revenue growth reaches 10.2% in 2019, but then falls to 5.7% in 2020. The segment's revenue only represents 20% of overall net sales in 2026, which is 3% less than in the base case.

Gross margin: Assuming that Adidas will encounter further supply chain issues and not be able to implement any cost improvements, I forecast Adidas' COGS in the region to stay at 56% of the segment's revenue in 2019, hence gross margins to remain at 44%.

Operating margin: Due to fierce competition giving higher bargaining power to the desired promotion partners and in turn leading to more expensive deals for Adidas, I increase the marketing cost forecast to 15% of the segment's revenue in 2019, which leads to an increase in operating expenses in North America to 42% of the segment's revenue in 2019.

- **Best case**

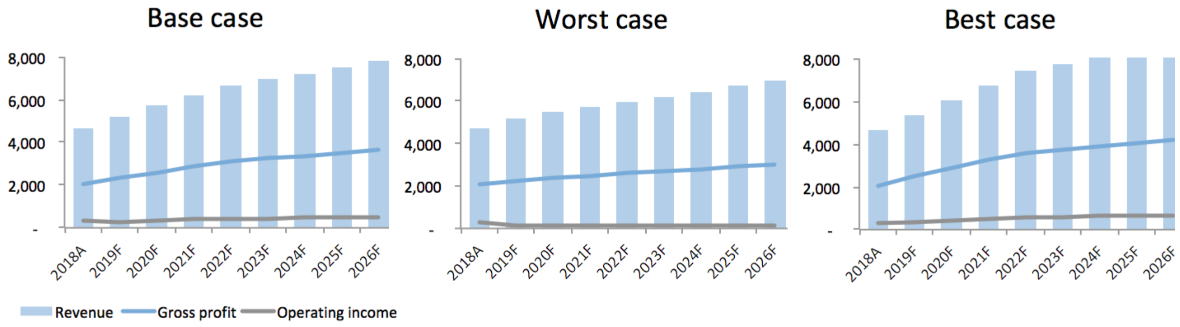
Revenue: Assuming that Adidas will benefit from Beyoncé's strong reputation, I expand Adidas' market share forecast to 4.5% in 2019, further increasing to 5.3% in 2022. Expecting accelerated growth in demand for casual athletic wear, I increase the sector's growth to 7.2% in 2019. As a result, in this scenario, the segment's revenue growth reaches 14.7% in 2019, leading to an overall revenue growth of 6.1% in 2019. In 2026, net sales in North America represent 25% of total net sales, which is 4% more than in the base case.

Gross margin: Expecting Adidas to successfully implement supply chain improvements, I decrease COGS in the region to 54% of the segment's revenue in 2019, reaching 52% in 2021, which corresponds to an improved segmental gross margin of 48% in 2021.

Operating margin: To capture the growing demand, I expect Adidas to increase its marketing as in the base case, leading to operating costs of 40% of the segment's revenue in 2019.

A comparison between the three scenarios is presented below (**Exhibit I**).

Exhibit I: Three scenarios for Adidas North America



Sources: Company data (annual report), analyst estimates[19]

Adjusting the DCF model according to the changes in inputs for each scenario, one can observe that in the worst case, the target share price decreases to EUR 262, which is below Adidas' current share price of EUR 273, changing the recommendation to investors from buy to sell. In the best case, however, the share price increases to EUR 321, leading to an even stronger buy recommendation. Taking into account all three scenarios and their assigned probabilities, the expected share price amounts to EUR 300, which implies a buy recommendation with an expected return to investors of 12.5% (**Exhibit II**).

Exhibit II: Expected share price

	Probability	Share price (in EUR)	Shareholder return	Recommendation
Base case	70%	304	13.2%	BUY
Worst case	15%	262	-2.2%	SELL
Best case	15%	321	19.5%	BUY
Expected share price		300	12.5%	BUY

Source: Analyst estimates

4. Limitation and recommendation for future research

A limitation of the analysis is the assumption about other inputs remaining constant, which would not necessarily hold in practice. For example, if Adidas' marketing costs increased considerably, management would possibly decide to reduce other operating costs in order to support margins. Finally, a recommendation for future research is to include political risks currently affecting the region, an example being the effect of trade barriers on Adidas' value.

[19] 'Analyst estimates' refers to my own analysis