

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

UNDER ARMOUR

Conquering the Sportswear Market

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DATE

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## Abstract

The valuation of a company is based on theoretical models and analyst assumptions that aim to predict future events as accurately as possible. The current work project is designed to estimate the fair value of Under Armour's stock on December 31<sup>st</sup>, 2022. Two methods of valuation were used to reach the final recommendation: Discounted Cash-Flow (DCF) and Multiples. The DCF outcome, the primary valuation method, reached a target price of \$27.07 per share, suggesting that Under Armour is undervalued by the market when compared to the price of \$24.45 per share as of December 16, 2021. The Multiples valuation also confirmed that UA is currently undervalued. As a result, the conclusion of Under Armour's Equity Valuation is that the Work Project discloses a BUY recommendation.

## Keywords (up to four)

Sportswear, Valuation, Pandemic, Expansion

This report is part of the Report – Part 2 and should be read as an integral part of it.

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# Valuation

To value Under Armour, we determined that the Discounted Cash Flow (DCF) method was best suited to the company. This section will explain and discuss a set of inputs critical to the DCF analysis. To forecast the company's value from 2022 onwards, we examined past data from 2018 to 2020 and created an estimation value for 2021 using information from the first three quarters of 2021. The forecasted results in this report range from 2022 to 2036, but we will focus on the short term the majority of the time.

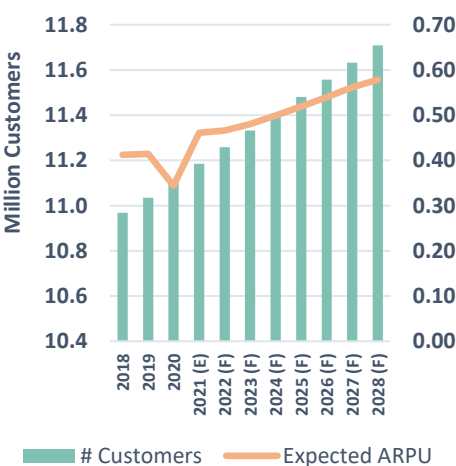
## Forecasts

### Revenues

Revenues are one of the most important inputs for our valuation model since most financial statement captions rely on them. UA is in the Sportswear sector, where trends can be difficult to predict due to the constant shift in consumer preferences. Thus, a company's ability to predict emerging trends determines its future performance.

Our analysis began by estimating the total number of Under Armour customers. As previously stated, UA is a global company. However, we believed that using the entire population in these areas would not provide a reliable analysis, so we chose a smaller sample, specifically the US population. Using available US data, we calculated UA's market share to be 4.79%, with apparel accounting for 4.19% and footwear accounting for 6.63%. We believe that this value is a good approximation of the company's market share because a study conducted by CSI Market reached a value of 4.25%<sup>1</sup> using only the information provided until the third quarter of 2021. Assuming that UA will improve its performance while focusing on global expansion, we believe that 4.79% is reasonable.

**Exhibit 20:** ARPU and Number of Customers



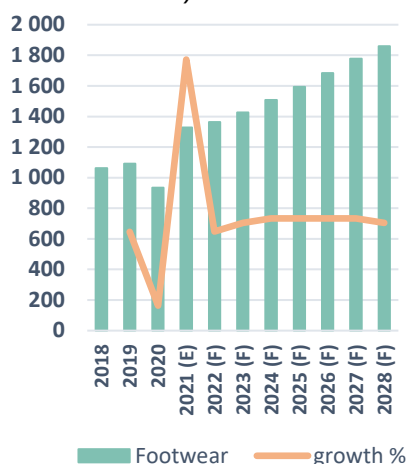
Source: Company Data and Own Estimations

The Baltimore-based company continues to offer premium and performance products, and it will succeed by investing in these products rather than following the athleisure trend. The focused performer mind is now fully integrated into the goals and culture of UA. As previously stated, the focused performer is a consumer unlike any other, focused on performance and pursuing a great physical and psychological future. As a result, the focused performer serves as the basis for all of our estimations.

Because of the increased focus on this athlete, Under Armour has introduced innovative products that are focused on quality and consumer experience, such as the HOVR technology and The Project Rock collection, resulting in a shift in product mix toward more expensive products. UA has been heavily investing in its performance shoes in recent years. As a consequence, the **Average Revenue per User (ARPU)** will change significantly in the future. The Covid-19 pandemic reduced ARPU by 17% between 2019 and 2020. However, in 2021, the ARPU increased by 34%, indicating that the company is attempting to battle the last two

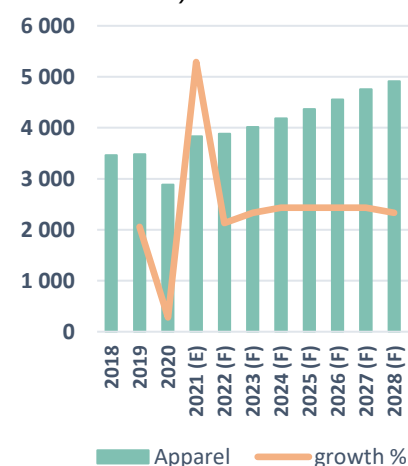
<sup>1</sup>CSI Market. 2021. Retrieved from: [https://csimarket.com/stocks/compet\\_glance.php?code=UA](https://csimarket.com/stocks/compet_glance.php?code=UA)

**Exhibit 21: Footwear Revenues**  
Forecast and its growth (in millions of \$)



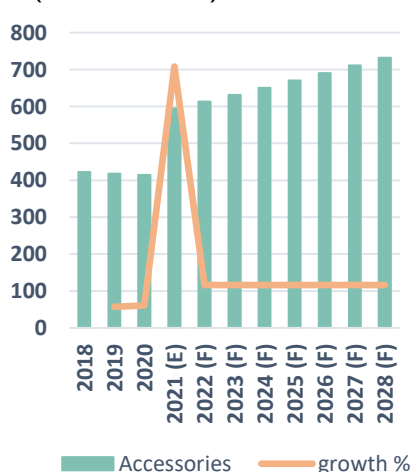
Source: Company Data and Own Estimations

**Exhibit 22: Apparel Revenues**  
Forecast and its growth (in millions of \$)



Source: Company Data and Own Estimations

**Exhibit 23: Accessories**  
Revenue Forecast and its growth (in millions of \$)



Source: Company Data and Own Estimations

years of the pandemic and move forward in the right direction (Exhibit 20).

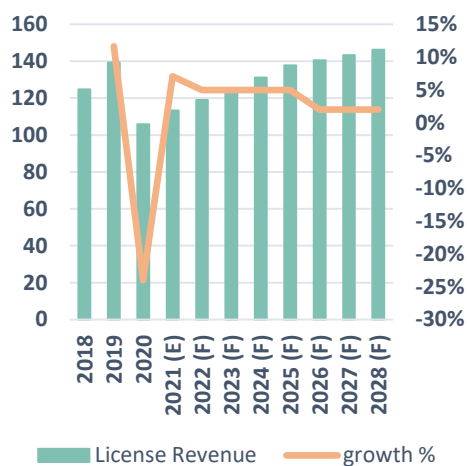
Apparel and footwear account for the majority of UA's revenues. They accounted 50% for 65% and 23% of total revenues in 2021, respectively. That is, small changes in one of these products can have a significant impact on UA's overall financial performance. As previously stated, shifting product mix will cause these weights in total revenues to change, so it is expected that the total weight of Footwear products increases, as it is the current focus of UA's investments. Furthermore, the company reached a record-breaking **footwear** revenues level of approximately \$1.3 billion in 2021, as shown in Exhibit 21, predicting that consumer trends are changing, benefiting UA's strategy. This product's revenue increased by 42% between 2020 and 2021. This massive increase was caused not only by new HOVR technology, but also by the 2020 pandemic. The unexpected appearance of the pandemic in 2020 frightened many consumers, lowering the CCI and increasing unemployment rates globally, as seen previously. However, these indexes improved in 2021 as consumers began to adapt to the pandemic and economies began to recover and learn how to deal with Covid-19. This resulted in a significant revenue disparity between these two years. With the economy stabilizing, we anticipate that the rise of this product's revenues will slow, compared to the 42% growth, and remain about flat from 2021 onwards. We estimate that growth will range from 3% to 6% from 2022 to 2024, with the UA's expansion plan resulting in a stabilization at around 6%.

**Apparel**, the biggest revenue stream, with about \$4 billion in sales in 2021, will also expand positively in the next years. Considering the pre-pandemic state, the growth rate will be 1% from 2021 to 2022, increasing to 4% in 2024. This expansion is explained by the healthy living mentality, increased market share, and improved supply chain management, which allows for better demand responsiveness. In Exhibit 22, is worth noting that the growth from 2020 to 2021 was approximately 33%, equating to a change from \$2 884 million to \$3 832 million as a result of the previously described Covid pandemic chock, in 2020. Due to the new HOVR footwear technology, this growth from 2020 to 2021 was lower than the footwear growth. Several statements made by Under Armour lead us to believe that the company is attempting to differentiate its apparel products with new technology in order to improve performance and the consumer experience. The strong sell-through of Iso-Chill running products, which keep consumers cooler in hot conditions and are ideal for a larger integration in the Latin American market, along with Project Rock apparel, which continues to build on strong momentum with new product releases and marketing strategies, are good indicators that this sector will not be forgotten and will play an important role in UA's future strategies. As a result, this product line is expected to generate \$4 910 million in revenue, in 2028.

**Accessories** are the third largest revenue source, accounting for nearly 10% of overall UA revenues in 2021, amounting to \$595 million. From 2020 to 2021, sales increased by 44%, for the same reason mentioned for apparel and footwear, the pandemic (Exhibit 23).

Despite not being Under Armour's core focus, these goods have a substantial impact on the company's financial performance. This segment is expected to increase slowly over time, since UA, as previously said, wants to expand globally and is pursuing a strategy for better inventory management. With expanded market share and global recognition, the accessories section, like the rest of the company's segments, will see a growth in demand. However, since hats, bags, and sports masks drive this business sector and there are no significant changes that can be made, as consumer trends do not benefit much from these products, we anticipate the growth rate will remain steady at a 3% level from 2021 onwards. It should be noted that the overall weight of this product on UA's total sales is predicted to fall slightly, from 10.1% in 2021 to 9.6% in 2028, as other UA products gain greater weight on the company's total revenues.

**Exhibit 24: Licensing Revenues Forecast and its growth (in millions of \$)**



Source: Company Data and Own Estimations

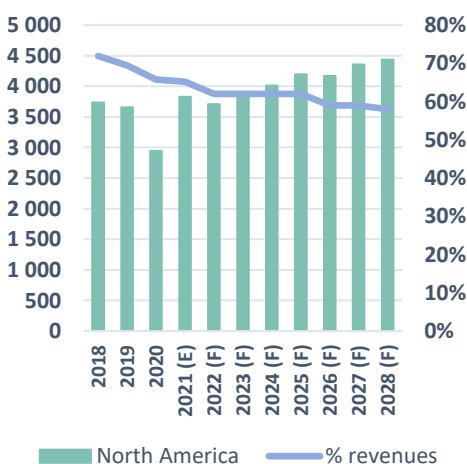
As previously stated, **Connected Fitness** will not have revenues from 2021 onwards due to the previously described sale of a portion of this business line. This was not deemed a significant loss because connected fitness only accounted for roughly 3% of the company's total revenues in 2019 and 2020.

**Licensing Revenues** have the lowest weight of all business categories, accounting for about 2% of total revenues, from 2021 onwards. In Exhibit 24, this category's growth rate increased 7% between 2020 and 2021, owing to the overcoming of the pandemic shock and the expansion of its partner businesses globally, particularly in the North American market. As the market stabilizes, we predict this growth to fall from 7% to 5% between 2021 and 2022.

Aside from the segmentation, we conducted a further in-depth examination by geographical region. As consumer trends, spending power, and economic conditions differ greatly between regions, as their revenues and weight in UA's total revenues shift.

As previously stated, the **North American** market consists of Under Armour's biggest source of revenues, representing in 2021, approximately, 65% of the total revenues, corresponding to \$3 828 million. Despite being one of the company's main focuses and having a significant impact on UA's performance, it is the most difficult market to grow significantly, as brand awareness is quite high. As seen in Exhibit 25, the revenues in this market are expected to grow, at a rate of approximately 4% per year, from 2021 to 2028. Still, the weight in the overall revenues will drop, due to the other regions' expected growth. From 2021 to 2022, the weight of this region on the company's overall revenues will decrease from 65.2% to 62%, reaching the lowest weight, of 58%, in 2028. UA is attempting to optimize every aspect of this market through a variety of measures. To begin, the company is working to improve inventory planning and execution. Second, it is investing in and developing footwear and women's businesses, delivering differentiation at all points of distribution, and controlling premium growth through selective distribution expansion. This leads us to believe that it will experience a growth in the coming years.

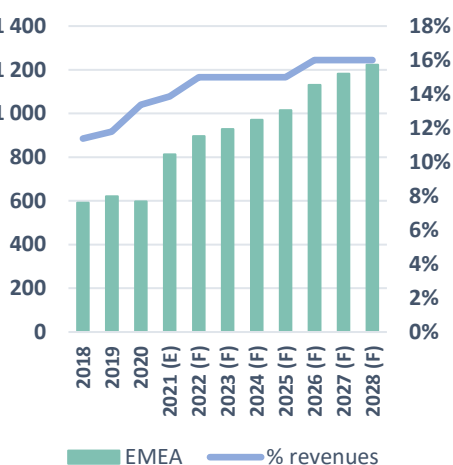
**Exhibit 25: North American Revenues and its percentage on Total Revenues (in millions of \$)**



Source: Company Data and Own Estimations

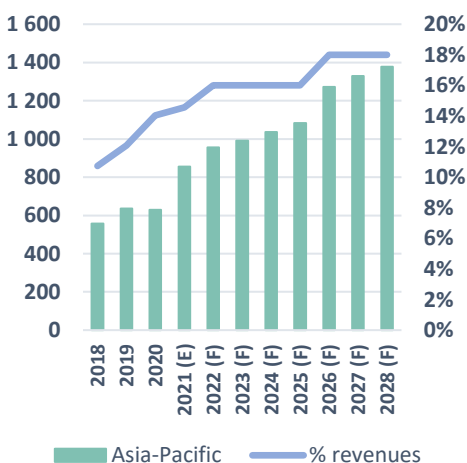
**EMEA** has a lot of potential, in 2021, the region accounted for about 14% of the total revenues, meaning \$813 million. We believe that the revenues in this region

**Exhibit 26: EMEA Revenues and its percentage on Total Revenues (in millions of \$)**



Source: Company Data and Own Estimations

**Exhibit 27: Asia-Pacific Revenues and its percentage on Total Revenues (in millions of \$)**



Source: Company Data and Own Estimations

will continue to increase, as well as the weight this segment has on total revenues. From 2021 to 2022, the EMEA region will represent more 1.1% of the total revenues, moving from 13.9% to 15%. From 2026 onwards, we consider that the region would account for 16% of the total revenues (Exhibit 26). Regarding the revenues' growth, the rate will be around 4% over the years. This slight increase of revenues over the years can be justified over the growth in wholesale and DTC business, partially due to e-commerce, with significant strength across wholesale and distributor partners. UA is investing in service level excellence and brand awareness to lay the groundwork for strategic growth and the creation of a profitable brand in EMEA. Furthermore, global health consciousness and the casualization of dress codes, particularly in Europe, as well as increased funding to inactive populations, particularly the elderly, will contribute to the potential growth of this region. From 2025 to 2026, the growth rate will increase significantly to 11.4%, since e-commerce will triple in 2025, as we will better explain in the next region.

**Asia-Pacific** is the geographical region with the most potential, as the consumer trends change quickly in this area, especially in the digital business.

From 2020 to 2021 the Asia Pacific's net revenues grew 36%. This growth can be explained by the investment of a huge amount of money, by the government, in sports. According to the data issued, in February 2020, by the Economic Times, \$401.6 million, were allocated by the Indian government to the sports budget.<sup>2</sup> Furthermore, the growth of certain sports domains, such as cricket, led people to start playing the sport whether professionally or as a hobby, which increases the purchase of sportswear products, including UA's.

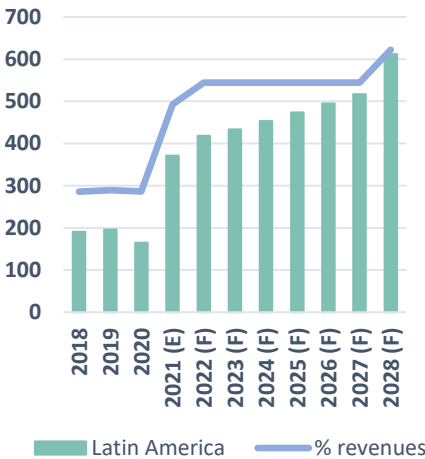
In 2021, it accounts for 14.6% of the total revenues, which represents \$855 million. In 2022, we consider that Asia Pacific can reach a percentage of 16% of UA's total revenues, increasing to 18% of total revenues from 2026 onwards (Exhibit 27). Regarding this segment's growth rate, it is expected to reach a 5% growth from 2022 until 2025. However, from 2025 to 2026, this growth will increase significantly to 17.4%, returning to 4% after 2026. Similarly to EMEA, this sudden growth, and increase in weight regarding the company's total revenues, in 2026, can be justified by a study, conducted by Facebook and Bain&Co.<sup>3</sup> According to this study, e-commerce spending will triple by 2025, creating numerous opportunities for UA to differentiate itself in its DTC digital business. Furthermore, several countries in this region, such as India and China, are seeing an increase in demand for sportswear products as their disposable income rises. Under Armour is attempting to broaden the market and instill fitness in people's minds. We see the company driving demand through localized brand heat, satisfying consumer desire through controlled expansion, and delivering balanced growth with higher profitability.

**Latin America** is currently the region that represents less of the company's total

<sup>2</sup> Fortune Business Insights. Retrieved from: <https://www.fortunebusinessinsights.com/sportswear-market-102571>

<sup>3</sup>Bain & Company. 2020. Retrieved from: <https://www.bain.com/globalassets/noindex/2020/report-riding-the-digital-wave.pdf>

**Exhibit 28:** Latin America Revenues and its percentage on Total Revenues (in millions of \$)



Source: Company Data and Own Estimations

revenues, generating, in 2021, 6% of total revenues, corresponding to \$372 million. The economic crisis in Argentina and Brazil, that led to a reduction of the region’s GDP, is one of the reasons for the lower revenues’ level, once compared with the aforementioned regions. This market is also expected to increase its weight, mostly driven by the digital sector and economic recoveries. In 2022, this region will account for more 0.7% of the company’s total revenues, when compared to 2021. From 2027 to 2028, this percentage is expected to increase 9% from 7% to 8%. Additionally, this segment’s net revenues are expected to grow 18.4%, from 2027 to 2028 (Exhibit 28). This increase is justified by positive market forecasts, which are good indicators of future growth. According to these projections, consumer disposable household income in Latin America will increase by 22% by 2028,<sup>4</sup> resulting in increased middle-class growth and final consumption. To drive sustainable revenue growth while improving profitability, UA is willing to invest in full-price DTC experiences and build brand awareness through premium distribution.

Once we compare the weights of the international regions and North America, which account for 34.8% and 65.2% of UA's total 2021 revenues, respectively, we see a significant difference. This disparity, along with the examined indexes and UA's competitor's international influence, demonstrate that investing in international expansion, with a focus on innovation and digitalization, is the best strategy for the company to increase its market share and performance.

■ Cost of Goods Sold

Our COGS estimates were influenced by the prospects’ costs of the various business divisions. As previously stated, Under Armour will introduce innovative products that emphasize quality, moving the product mix toward more expensive products. As a result, more costlier products may result in a rise in COGS.

The **Apparel** sector has the greatest COGS, with a gross margin of 51% relative to its revenues. Clothing products will cost the corporation \$1 894 million in 2021. This value is predicted to rise by roughly 3% per year as a result of developments in the apparel sector and rising customer demand. As customers push themselves to participate in physical activities such as running, aerobics, and yoga, as well as their desire to retain a sporty look by following fashion trends, the sports apparel market will be pushed to grow these trends even further<sup>5</sup>. We expect that COGS will continue to rise in absolute terms in the future, but that the gross margin will rise above 50% due to the strongest revenue growth, as can be seen in Exhibit 29. We project that the cost of apparel will reach \$2 400 million by 2028.

**Footwear** is predicted to be UA's key investment; hence it is expected to have the largest COGS growth, at 6% in the next three years and 4% beyond that. In 2021, they grew their COGS by 36%, reaching a total value of \$656 million. As stated in the revenue section, the company is pushing the boundaries of innovation and technology in footwear in order to boost its gross margin. Although the footwear

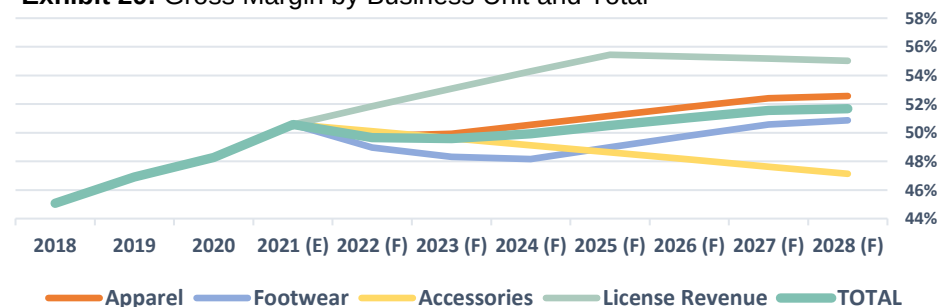
<sup>4</sup> World Development Indicators and OECD  
<sup>5</sup> Market Research Report. Retrieved from: <https://www.factmr.com/report/276/sports-apparel-market>



goods use raw materials acquired from a varied range of third-party sources, they are prone to price swings due to the usage of petroleum-based components, which are likely to become more expensive in the future. Furthermore, the majority of the materials used in UA's products are technically advanced and can only be obtained from a few number of suppliers<sup>6</sup>. These two factors lead us to think that the cost of footwear will rise dramatically. As a result of this massive expenditure, the gross margin will remain below the 50% threshold in the coming years when compared to revenues, but it is predicted to reach that mark in 2027 (Exhibit 29).

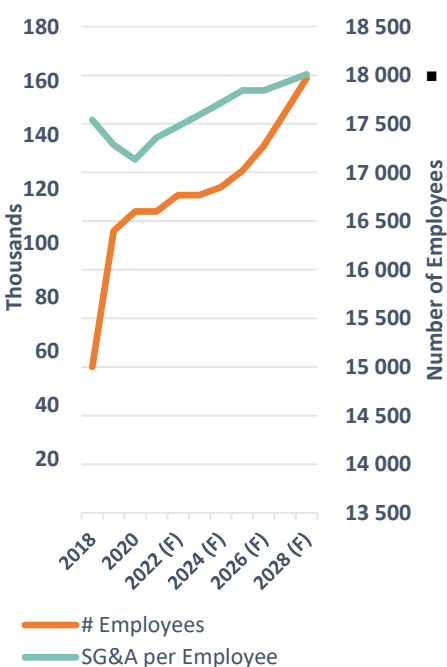
We anticipate a consistent 4% increase in **Accessories**. Because of the complexity of various accessories and the materials used, this sector has a high COGS. In 2021, the costs reached almost \$300 million, with a gross margin of roughly 51%. Nonetheless, as more people participate in sports, consumer expenditure on sports accessories will increase, not only for utility but also for aesthetic purposes. Furthermore, a greater emphasis on the integration of technology and changing needs will drive the market for additional types of accessories, driving the COGS even higher. However, as demonstrated in prior years, the gross margin for Accessories has always been less than 50%, and we expect this to continue for at least the next few years (Exhibit 29).

**Exhibit 29: Gross Margin by Business Unit and Total**



Source: Company Data and Own Estimations

**Exhibit 30: Number of Employees and SG&A per Employee**



Source: Company Data and Own Estimations

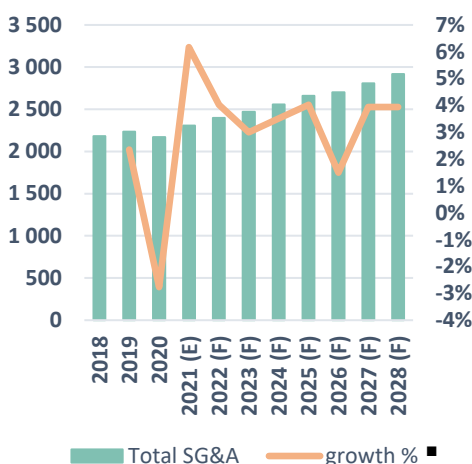
## Selling, General and Administrative Expenses

Another major category in Under Armour's financial reports is Selling, General, and Administrative costs. Obviously, with a global and domestic expansion strategy, additional brand stores will open, and current ones will be renovated and/or enlarged. As a result, the **Number of Employees**, as well as sales and general operations, will rise to meet demand. They increased from 15 000 to 16 600 employees between 2018 and 2021. We soon estimate a slight increase as a result of the Covid-19 epidemic, as the priority is to reintroduce existing personnel to their workplaces. However, with the end of the pandemic and UA's global expansion strategy, growth is projected to accelerate even more. By 2026, we predict this growth to reach 2%, and it will gradually increase until it stabilizes at 3% by the conclusion of the projected period (Exhibit 30). UA is expected to have 18 000 employees by 2028.

The decrease in the unemployment rate will also follow along with the expected rise in **SG&A per Employee**. In recent years, the SG&A per employee has been

<sup>6</sup> Knoema. 2021. Retrieved from: <https://pt.knoema.com/infographics/yxtpab/crude-oil-price-forecast-2021-2022-and-long-term-to-2050>

**Exhibit 31:** Total SG&A and its growth (in millions of \$)



relatively stable, never exceeding \$140 thousand, but as operations become more profitable, we expect the corporation to increase employee expenses such as salaries. We also have to keep up with the inflation rate, so we anticipated the growth of SG&A per employee in the next years based on the inflation estimates for the next several years. According to HIS Markit, inflation will be 3% until 2024/25, when it will begin to drop<sup>7</sup>. According to the company's proxy papers, UA also plans to enter both foreign and female markets. As a result, we anticipate that the company will consistently grow SG&A per person by 3% over the next few years. Later, the SG&A per employee will slow down its increase. We expect the SG&A per employee to reach \$150 thousand in 2024.

These two captions will majorly affect the overall growth of SG&A, which will be at a CAGR of 4% over the years. This growth is reasonable once we consider the company's strategy. In 2021, the company accounted for \$2 306 million in SG&A and in 2028 almost \$3 000 million (Exhibit 31).

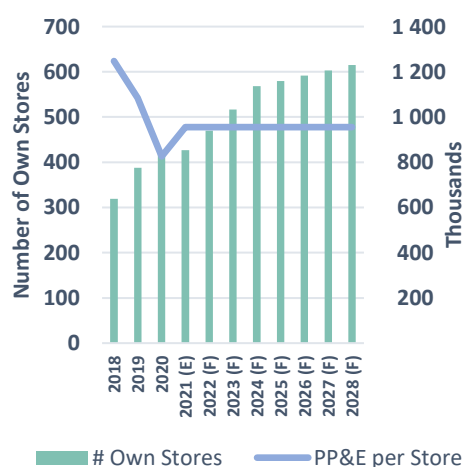
### Property, Plant & Equipment

Under Armour's strategy to expand at a rapid pace will require huge investments in CAPEX. The overall PP&E is divided into three categories: store-related PP&E, headcount-related PP&E, and other PP&E. In previous years, the company's PP&E did not increase; for example, from 2019 to 2020, it dropped 17 percent, and the next year, it declined 11 percent. Mostly due to a drop in investment as a result of the pandemic. However, we predict it will begin to rise after 2022.

The **Store-related PP&E**, driven by the growth of stores, includes leasehold improvements, furniture, fixtures, displays, and buildings. As previously stated, Under Armour has a defined expansion target, thus store-related PP&E is likely to expand. UA has spent around \$400 million per year on store-related PP&E over the last four years. However, with the conclusion of the pandemic and future expansion plans, we anticipate a 10% increase in the overall number of own stores until 2024, followed by a smaller but consistent 2% increase thereafter. They had 427 own stores in 2021 and are planned to reach 615 by 2028. We expect the PP&E per Store to remain constant at \$955 thousand per store. The prospects seen in Exhibit 32 will cause the store-related PP&E to be slightly more than half a billion dollars throughout the same time period.

**Headcount-related PP&E** is the cost of PP&E per employee, which is determined by the number of employees, software, and office equipment. As stated in the SG&A section, the number of employees is likely to rise somewhat in the coming years before stabilizing at 3%. The PP&E per employee will also rise slightly compared to 2021, when it was \$11 000. As the businesses become more profitable, so will the fixed asset conditions offered to employees increase. We anticipate that the PP&E per employee will be \$12 000 after the epidemic, or from 2022 onward. These two variables, when combined, will dramatically increase headcount-related PP&E to levels comparable to those witnessed in 2018/2019.

**Exhibit 32:** Number of Own Stores and PP&E per store



Source: Company Data and Own Estimations

<sup>7</sup> IHS Markit. 2021. Retrieved from: <https://ihsmarkit.com/research-analysis/global-economic-growth-inflation-will-slow-in-2022.html>

**Other PP&E** accounts, such as plant equipment, land, and work in progress, are long-term assets critical to business operations and will remain stable, following the same pattern as in previous years.

In Exhibit 33, we can see that these factors will drive up the total PP&E, in 2022, to numbers only seen in 2018. From 2021 to 2022, we expect a total increase of 42% and after that a single-digit growth. In 2027, the total PP&E is expected to reach \$1 billion. Nevertheless, it is a crucial and mandatory expense for an efficient expansion and performance.

### Net Working Capital

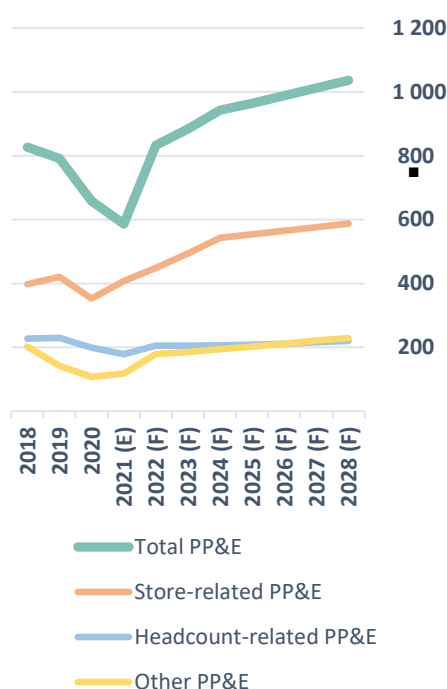
Under Armour's capacity to manage its working capital is another critical determinant of value creation. The changes in this input are impacted by the variations in Inventories, Accounts Receivable, Accounts Payable, Operating Cash, Prepaid Expenses and Other Current Assets, Customer Refund Liabilities and Accrued Expenses.

**Inventory management** is critical to a company's financial health and operating success, but as previously noted, Under Armour has struggled in this area in recent years. Nonetheless, the corporation indicated that a strategy is in place to address this issue. It involves maintaining inventory levels based on existing orders, predicting sales, and meeting the company's customers' needs for quick delivery. The inventory strategy focuses on meeting consumer demand while improving inventory efficiency over time by implementing systems and processes to improve inventory management<sup>8</sup>. These systems and processes, which include worldwide operating and financial reporting information technology platforms, are intended to boost forecasting and supply planning capabilities. In addition to systems and processes, UA believes that adding discipline around product acquisition, reducing production lead times, and improving planning and execution in the sale of excess inventory through factory house stores and other liquidation channels will improve inventory performance.

These efforts will allow the **Average Holding Period (AHP)** to drop at a consistent rate of 2% over the years. The AHP in 2021 was the lowest compared to prior years since an inventory lasted in the company for an average of 103 days. We predict that it will reach standard levels in 2022, with 129 days, and thereafter decrease at the rate already specified by implementing the inventory strategy. In 2028, we expect the AHP to be 115 days (Exhibit 34). Despite the fall in AHP, which should reduce the value of inventories, this account is predicted to grow dramatically, from \$820 million in 2021 to \$1 161 million in 2028, as COGS are expected to rise at a quicker rate.

The **Average Collection Period (ACP)**, which has a direct impact on Accounts Receivable, has risen in two of the last three years. In 2021, it took the corporation 49 days on average to collect client sales. We anticipate that it will remain the same in the future because the company will retain its trade terms management

**Exhibit 33: Total PP&E and its divisions (in millions of \$)**



Source: Company Data and Own Estimations

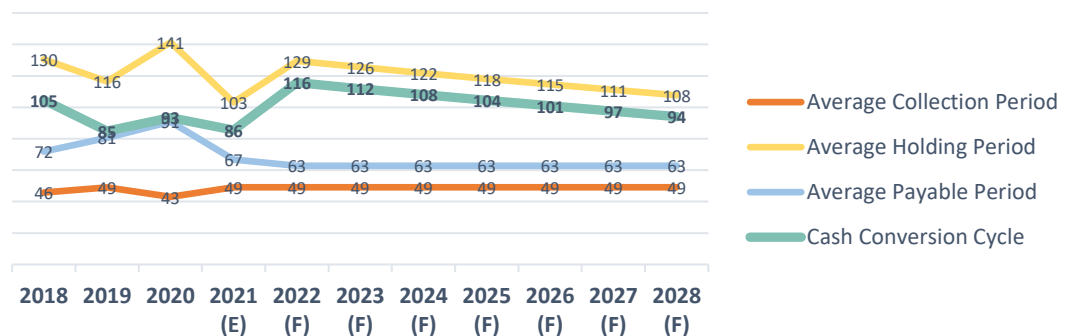
<sup>8</sup> Under Armour Annual Report

conditions (Exhibit 34). Accounts Receivable are likewise predicted to rise, from \$790 million in 2021 to \$1 029 million in 2022, as a result of the absolute growth in Sales.

The **Average Payable Period (APP)** is expected to fall slightly in 2022, as in 2021, and then remain constant thereafter, with the corporation typically taking 63 days to settle with its suppliers (Exhibit 34). Because of the increase in COGS from \$531 million in 2021 to \$636 million in 2028, Accounts Payable follows the same rising trend as the two prior accounts.

All of these events will have a substantial impact on the company's **Cash Conversion Cycle (CCC)**. There are significant changes from 2018 to 2021, due to the Covid-19. In 2018, the company took an average of 105 days to complete its typical trade cycle. In 2021, however, it only took 86 days (Exhibit 34). Overall, the CCC has been falling, which is a favorable indication that Under Armour is reducing its risk and placing less pressure on liquidity, allowing cash flow to generate faster to support the company's needs. We anticipate that Under Armour will take an average of 94 days to complete the usual trading cycle in 2028.

**Exhibit 34:** Forecast of CCC, AHP, ACP and APP (in days)



Source: Company Data and Own Estimations

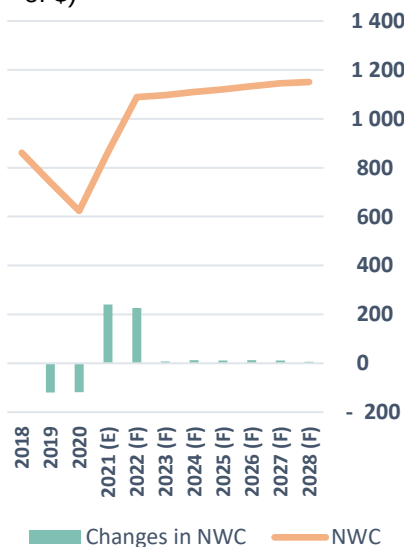
The other accounts vary according to sales and cost of sales, so their changes are not driven by any particular strategy or action the company tends to make.

As a result, we can see that Under Armour's Net Working Capital is increasing year after year. Despite the unfavorable shifts from 2019 to 2020, 2021 has already shown promising signs, with a \$240 million rise over the previous year. Furthermore, the numbers will become even more positive in the next years, implying that there is less risk that the company would be unable to pay its short-term loans. The total NWC will move slightly but will virtually always remain near the \$1 billion threshold (Exhibit 35). This adequate handling of short-term debt will allow Under Armour to invest this capital in marketing, IT, and expanding its foreign DTC footprints.

## Cost of Capital & Growth Rate

Under Armour has a mid-low level of leverage, as evidenced by their debt-to-value ratio of 0.22. As a result, it is a corporation that finances its activities and investments with little debt and excess cash. This is Under Armour's current capital structure. We anticipate that it will remain stable because it is the optimal

**Exhibit 35:** Net Working Capital Predictions (in millions of \$)



Source: Company Data and Own Estimations

combination of debt and equity financing for maximizing the company's market value while lowering its cost of capital.

The Capital Asset Pricing Model (CAPM) is used to calculate the cost of equity. There are three inputs required: the Risk-free Rate, the Market Risk Premium, and the Beta.

According to Bloomberg, the most appropriate **Risk-free Rate (Rf)** is the most recent 10-year US government bond yield of 1.53%.

We found three reliable studies for the **Market Risk Premium (MRP)**, namely KPMG Corporate Finance NL, Duff & Phelps, and a survey conducted among economic/finance academics, analysts, and managers, which are going to be discussed further in the sensitivity analysis. Because they assume different values based on different assumptions, we found that the MRP ranged from 5% to 6%. Based on this range, we believe that 5.5% is the most appropriate figure for the MRP, given two of the aforementioned studies, Duff & Phelps and the survey, which see this percentage as the most accurate.

Regarding the **Levered Beta**, we regress Under Armour's stock returns, using data from the last 6 years. The market proxy appropriate to proceed with the regression is the MSCI World Index, which captures large and mid-cap representation across 23 Developed Markets countries and covers approximately 85% of the free float-adjusted market capitalization in each country. To prevent biases associated with shorter time periods, monthly results are preferred over weekly or daily returns. The raw beta is 0.122, whereas the standard error of the regression is 0.037. Thus, depending on the confidence interval, the true beta might have a wide range of values, making this method quite imprecise and creating a significant impact on the company's worth.

The solution to improve the beta estimation and cross-check the result achieved is to analyze 6 industry peers<sup>9</sup>: Lululemon, ASICS, Puma, Adidas, Nike and Columbia. By doing so, we decrease the effect of idiosyncratic shocks. The comparables' betas led to an industry **Unlevered Beta** of 0.544. A beta of this value implies that these securities' prices are half as volatile as the overall market. When we take a look back at the Sportswear Industry, we can perceive the correlation between the overall state of the economy and sports apparel. People with less purchasing power, for example, are more focused on the consumption of primary products as a result of the present pandemic, whereas fashion and sports items become an afterthought.

Lastly, the unlevered beta is re-levered by applying UA's target debt-to-equity ratio of 0.22, yielding a levered beta of 0.669.

The **Cost of Debt** of 1.42% has as inputs the company's yield to maturity (YTM), the probability of default and the recovery rate. Under Armour's YTM is determined by the 10-year Corporate Bond issued by the company at 2.09%. The probability of default is 16.72%, found on Moody's average cumulative issuer-weight global

**Exhibit 36:** Cost of Capital Inputs Table

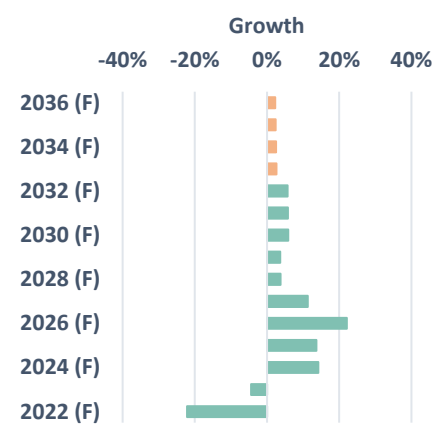
| Inputs              |              |
|---------------------|--------------|
| Target D/E          | 0.22         |
| Risk-free Rate (Rf) | 1.53%        |
| Corporate Tax Rate  | 21%          |
| MRP                 | 5.50%        |
| Beta Levered        | 0.669        |
| Beta Unlevered      | 0.544        |
| Cost of Equity (Re) | 5.21%        |
| Cost of Debt (Rd)   | 1.42%        |
| <b>WACC</b>         | <b>4.47%</b> |

Source: Bloomberg and Own Calculations

<sup>9</sup> Yahoo Finance



**Exhibit 37:** Expected Annual Growth Rate



Source: Own Calculations

default rate graph, as UA's credit rating is Ba3. The recovery rate, based on Moody's annual defaulted corporate bond and loan recoveries, is 56.50%.

The parameters aforementioned, helped to find Under Armour's **Cost of Equity** of 5.21%. Which together with a MRP of 5.5% and a beta levered of 0.669, reached a **WACC** level of 4.47% (Exhibit 36).

The **Perpetual Growth Rate** is the annual rate at which Under Armour is predicted to grow in perpetuity. We arrived at the prospective growth of the company by combining the terminal RONIC with the Investment Rate of New Capital. We saw some stability in the last four years of our estimate (2033 to 2036), so we averaged those years into the expected terminal growth rate of 2.44% (Exhibit 37). Given its importance, this parameter will be tested further in the sensitivity analysis section.

## Valuation Outcome

### ■ Discounted Cash Flow Method

Under Armour's value was calculated using the DCF approach, which is a model that discounts the expected free cash flow at the WACC. Based on the company's goal and all that has been said so far, we expected that Under Armour will manage its capital structure to a target level, making the DCF the best model to assess its worth. Based on the forecasted values, we can conclude that UA is expected to have inconsistency in FCF during the next three years. This inconsistency is understandable given that it will take several years for the corporation to achieve consistent cash flows following the Covid-19 outbreak. Nonetheless, we anticipate an increasing trend in the long run. This development is mostly due to a rise in sales, a favorable result of net working capital, and CAPEX investment. The terminal value, which indicates steady-state performance, is a key estimation that is critical to a good valuation.

In our case, we expect a terminal FCF value of \$212 million and an enterprise value of \$10 453 million in 2036 (Exhibit 38). After deducting the value of financial debt and discounting the FCF until 2022, the equity value was \$6 850 million. We assumed that the number of shares outstanding of Under Armour's Class A stock would remain constant in the future at 253.020 million. We used a WACC of 4.47% and a terminal growth rate of 2.44% to arrive at a final target price, as indicated in the cost of capital and growth rate section.

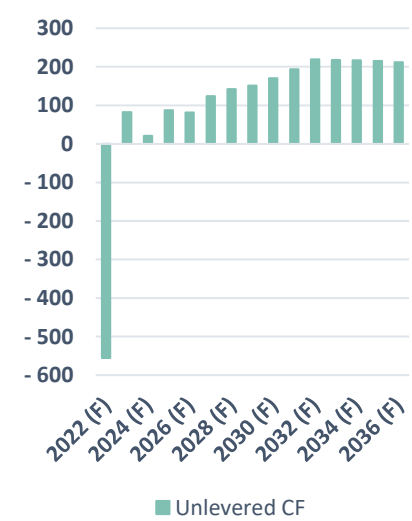
The outcome was a YE2022 target price of \$27.07 per share, a total capital gain of \$2.62 per share, given the current share price of \$24.45 per share (Exhibit 39).

With a final return of 11%, our model discloses a **BUY recommendation**.

We conducted a **Value Creation Analysis** (figure in the Appendix) and determined that Under Armour is expected to create value by 2024 which is a good indicator that the strategies implemented will reward the company in due time. In prior years, the RONIC was lower than the cost of capital (WACC), making value creation impossible.

### ■ Multiples Valuation

**Exhibit 38:** Under Armour's Expected Unlevered FCF (in thousands of \$)



Source: Own Calculations

**Exhibit 39:** DCF Valuation Outcome Table

| in thousands, except per share values |  | DCF       |
|---------------------------------------|--|-----------|
| Value of equity in 2022               |  | 6 850 228 |
| Price per share (implied)             |  | 27.07     |
| # of Class A outstanding shares       |  | 253 020   |
| Current Price per share               |  | 24.45     |
| Capital Gain per share                |  | 2.62      |
| Return per share                      |  | 11%       |

Source: Bloomberg and Own Calculations

We performed a multiples valuation to complement the DCF method.

To make a good choice of UA's comparables, we considered the business model, which is based on an investment in a good R&D department with an emphasis on innovation; the revenue level obtained by selling similar types of products; and the target customers. Nike, Adidas, Puma, Lululemon, Asics, and Colombia were the chosen comparables.

Several factors were considered to determine which multiples would be better suited to the valuation. To begin with, because sales are volatile, especially during a pandemic, when the global economic situation can suddenly worsen, negatively affecting the CCI, and decreasing sales, we decided not to base ourselves on this metric. Second, because UA and its peers have a significantly high level of investment, particularly in marketing and R&D, we found EV/EBIT to be more accurate than EV/EBITDA, as EBITDA may lead to an overvaluation of the firm's value by not taking into account the investments made. As a result, we concluded that **P/E** and **EV/EBIT** are the most reasonable multiples, based on the company's value and capital structure, even though earnings can change based on a one-time event. Note that, associating the EV multiple with the equity multiple is essential, as the first allows for a direct comparison between firms regardless of capital structure and is less affected by any accounting differences that may arise.

Puma is the most accurate comparable of the company when comparing the EBITDA margin deviation, the D/E and revenue deviations of UA's peers to UA. Its EBITDA margin deviation to Under Armour is 1.70%, the D/E deviation is 0.67%, and the revenue percentage deviation is 35%, which appears to be significantly high, but when compared to Nike's revenue deviation to UA, it becomes acceptable.

To calculate the UA's share price, we decided to use the median, as the ratios were quite different among UA's peers. Under Armour would reach a share price of \$22.62 through the EV/ EBIT ratio and \$41.55 with the P/E ratio (Exhibit 40). The average of both ratios leads to a UA share price of \$32.08. This value is higher than the actual share price achieved by the company, which is approximately \$24.45, on 16 December 2021. This emphasizes the importance of ensuring that the chosen comparables are of sufficient quality to estimate the firm's future conditions and that the time reference on which the estimations are based is appropriate. One period will almost certainly not provide an accurate estimate of UA's value, especially with the pandemic situation affecting the accuracy of these results even more. In fact, 5 of the 6 comparables have a higher P/E ratio than UA, resulting in an overvaluation of Under Armour's value.

The outcome was a YE2022 target price of \$32.08 per share, a total capital gain of \$7.63 per share, given the current share price of \$24.45 per share (Exhibit 41).

With a final return of 31%, our model discloses a **BUY recommendation**.

**Exhibit 40:** EV/EBIT and P/E multiples of Under Armour and its comparables

|                    | EV/EBIT      | P/E          |
|--------------------|--------------|--------------|
| Under Armour       | 23.67x       | 29.50x       |
| Lululemon          | 51.32x       | 69.70x       |
| ASICS              | 20.85x       | 85.06x       |
| Puma               | 28.24x       | 46.79x       |
| Adidas             | 24.21x       | 33.61x       |
| Nike               | 36.33x       | 43.37x       |
| Columbia           | 17.46x       | 23.53x       |
| Median             | 26.23x       | 45.08x       |
| <b>Share Price</b> | <b>22.62</b> | <b>41.55</b> |

Source: Bloomberg and Own Calculations

**Exhibit 41:** Multiples Valuation Outcome Table

| in thousands, except per share values | Multiples |
|---------------------------------------|-----------|
| Price per share (implied)             | 32.08     |
| # of Class A outstanding shares       | 253 020   |
| Current Price per share               | 24.45     |
| Capital Gain per share                | 7.63      |
| Return per share                      | 31%       |

Source: Bloomberg and Own Calculations

## Sensitivity Analysis

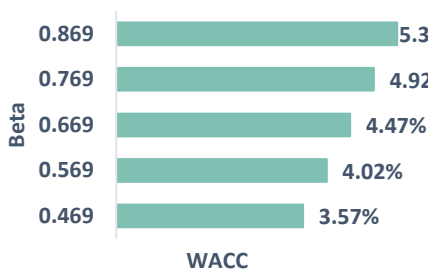
Under Armour, like other companies in the same industry, is facing a number of

changes that could have a significant impact on the company's expected value. These changes can be triggered not just by internal difficulties such as supply chain management, but also by external factors such as changes in customer preferences, the CCI, the unemployment rate, and even the PMI. In this section, we will examine how the price of UA's stock changes when variables change.

Before jumping to conclusions, we thought it would be best to examine an essential major driver of valuation, the WACC. Because this rate was mostly influenced by the Beta and the Market Risk Premium (MRP), we created two more sensitivity analyses on it, one with a changing Beta and the other with a changing MRP.

We **changed the Beta** from 0.469 to around 0.868 in the first sensitivity analysis. The Levered Beta is calculated using industry statistics and UA's capital structure. Because the company's capital structure is not expected to change, the only conclusion is that there may be some deviations from the comparables. Furthermore, we wanted to see how the WACC would react to securities with half the volatility of the general market - beta of about 0.5 - against securities with half the volatility of the whole market - beta of about 1. In this case, the WACC ranged from 3.57% to 5.37% (Exhibit 43).

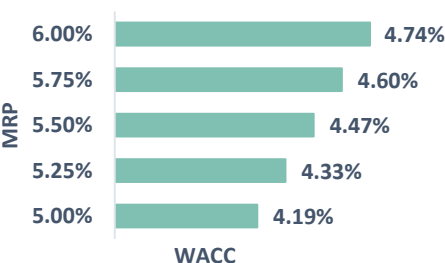
**Exhibit 42:** WACC variation with Changing Beta



Source: Own Calculations

In the latter analysis, we wanted to understand the reaction of the WACC when the **MRP changes**. After some research, it seems that there is not a consensus regarding the current MRP in the US. KPMG Corporate Finance NL<sup>10</sup> released a study recommending a MRP of 5%; a survey<sup>11</sup> that gathered 1756 answers from finance/economic professors, analysts and managers averaged the MRP of the US to 5,5%; Duff & Phelps<sup>12</sup> recommended a 6% to 5,5% MRP when developing discount rates. Based on these 3 reliable studies, we can understand that the current MRP stands between 5% and 6%. By considering this range for the MRP, we analyzed the influence it has on our discount rate. The results of the WACC, in this situation, ranged from 4.19% to 4.74% (Exhibit 42).

**Exhibit 43:** WACC variation with Changing MRP



Source: Own Calculations

Ultimately, these 2 gaps were used to see the overall impact of the WACC on the final value of the company.

The Terminal Growth is the second major component that has a substantial impact on Under Armour's final target price. Thus, a reasonable proxy for understanding that influence would be to see how the target price changes once faced with the forecast's minimum growth rate (2.26%) and the maximum growth rate achieved in the same period (2.61%).

The green zone represents a return higher than 10%, meaning the potential investor should BUY, the yellow zone stands for a return between 0% and 10%, meaning the potential investor should HOLD, and finally the red zone guarantees a negative return, meaning the potential investor should SELL.

<sup>10</sup> KPMG Report. 2021. Retrieved from:

<https://indialogue.io/clients/reports/public/5d9da61986db2894649a7ef2/5d9da63386db2894649a7ef5>

<sup>11</sup> SSRN. 2021. Retrieved from: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3861152](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3861152)

<sup>12</sup> Duff&Phelps. 2021. Retrieved from: <https://www.duffandphelps.com/insights/publications/valuation-insights/valuation-insights-first-quarter-2021/duff-and-phelps-recommended-us-equity-risk>



Because the previously indicated rates are quite volatile, the goal price will be particularly sensitive to both parameters. When the rates fluctuate marginally, the share price shows a distinct progression.

According to our analysis, the share price of Under Armour can range between \$16.64 (-32% return) and \$39.80 (63% return) per share. In Exhibits 44 and 45, one can see the Share Price and its Returns, as the variables change values. In regards of the final price, the sensitivity analysis uses the same reasoning as the DCF valuation approach, yielding a value of 4.47% and terminal growth of 2.44%. By taking these two variables, which we believe are the best fit for Under Armour's valuation, as stated in the previous two sections, we arrive at a final price of \$27.07 per share. As this price is included in the green zone, with a return higher than 10%, we remain with a **BUY recommendation**.

**Exhibit 44:** Under Armour's share price with Changing WACC and Terminal Growth

|       | 2.26% | 2.38% | 2.44% | 2.50% | 2.61% |
|-------|-------|-------|-------|-------|-------|
| WACC  | 32.13 | 34.48 | 35.67 | 37.01 | 39.80 |
| 4.02% | 28.88 | 30.81 | 31.78 | 32.86 | 35.06 |
| 4.19% | 26.73 | 28.42 | 29.26 | 30.18 | 32.05 |
| 4.33% | 24.85 | 26.35 | 27.07 | 27.88 | 29.49 |
| 4.47% | 23.20 | 24.53 | 25.17 | 25.87 | 27.27 |
| 4.60% | 21.72 | 22.92 | 23.49 | 24.11 | 25.34 |
| 4.74% | 20.05 | 21.10 | 21.60 | 22.14 | 23.20 |
| 4.92% | 16.64 | 17.45 | 17.82 | 18.21 | 18.97 |
| 5.37% |       |       |       |       |       |

Source: Own Calculations

**Exhibit 45:** Under Armour's return per share with Changing WACC and Terminal Growth

|       | 2.26% | 2.38% | 2.44% | 2.50% | 2.61% |
|-------|-------|-------|-------|-------|-------|
| WACC  | 31%   | 41%   | 46%   | 51%   | 63%   |
| 4.02% | 18%   | 26%   | 30%   | 34%   | 43%   |
| 4.19% | 9%    | 16%   | 20%   | 23%   | 31%   |
| 4.33% | 2%    | 8%    | 11%   | 14%   | 21%   |
| 4.47% | -5%   | 0%    | 3%    | 6%    | 12%   |
| 4.60% | -11%  | -6%   | -4%   | -1%   | 4%    |
| 4.74% | -18%  | -14%  | -12%  | -9%   | -5%   |
| 4.92% | -32%  | -29%  | -27%  | -26%  | -22%  |
| 5.37% |       |       |       |       |       |

Source: Own Calculations

## Scenario Analysis

**Exhibit 46:** Revenue Growth in Best, Base and Worst Case Scenarios



Source: Own Calculations

To better understand Under Armour and its stock sensitivity to external drivers, we created a best-case and worst-case scenario. After analysing the risk factors faced by the company, we concluded that the demand and consumer preferences, the Covid 19 pandemic and the Macroeconomic conditions are the best drivers for our scenario analysis.

### Best Case Scenario

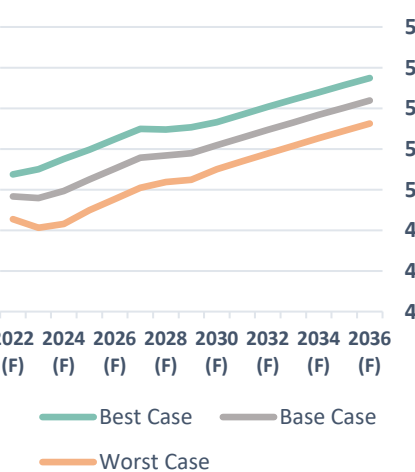
In the best-case scenario, demand would rise faster, the pandemic situation would improve, Covid-related restrictions would be lifted, and existing trade, tariff, and tax regulations would be followed. For a higher increase in demand, we considered that UA could further expand the business, driving brand awareness in other countries, having the ability to launch innovative products. And, the global population's concerns regarding a healthy lifestyle would rise. These factors would lead to a faster increase in revenues. The improved pandemic situation and the removal of Covid 19-related restrictions would result in a faster increase in revenues due to improved financial health of UA's customers, an increase in the CCI, and a decrease in the unemployment rate. Furthermore, the cost of sales would be reduced due to the stabilization of supply chains, as fabrics and stores would remain open, there would be no failure of suppliers and manufacturers to produce or deliver the products in a timely and cost-effective manner, and inventory management would be more efficient. Finally, because international trade would be facilitated, there would be good compliance with existing trade, tariff, and tax regulations, resulting in a decrease in the cost of sales.

**Exhibit 47: COGS Growth in Best, Base and Worst Case Scenarios**



Source: Own Calculations

**Exhibit 48: Gross Margin in Best, Base and Worst Case Scenarios**



Source: Own Calculations

As mentioned before, the change implied by these assumptions would impact the company's revenues and the COGS, with a consequent change of the expected gross margin. We considered that the revenues growth rate, would be 40% higher than the expected growth rate. Therefore, the growth would be 5%, in 2023, increasing to 6%, from 2023 to 2024 (Exhibit 46), reaching a steady state of 5% in 2028. Regarding the COGS growth rate, we assumed it would decrease 40% compared to the base case, yielding a constant growth of around 2% over the years (Exhibit 47). As an obvious consequence of these changes, the gross margin will change as well, increasing on average 1.26% compared to the expected growth rate (Exhibit 48).

■ **Worst Case Scenario**

Regarding the worst-case scenario, the revenues would increase slower, due to the decrease in the healthy concerns, UA would not expand globally, not increasing its market share and no innovative products would be launched. Furthermore, there would be a worsening of the Covid 19 pandemic and governments imposing restrictions, leading to a slower revenue increase caused by more caution with spending, as costumers would lose confidence in the market. The cost of sales would increase, due to the disruptions in the supply chains. Furthermore, existing trade tariffs and tax regulations would be violated, raising the cost of sales.

Once again, the assumptions will negatively impact the revenues and COGS growth rate, leading to a lower gross margin. Starting by the revenues' growth rate, we assumed a decrease of 40% compared to the base case, leading to an approximate 3% growth rate from 2024 to 2027, decreasing to a growth of around 2%, in 2028 (Exhibit 46). Moving on to the COGS, the growth rate would increase 40% compared to the base case, yielding a constant growth of approximately 5% until 2029, reaching the steady state in this year with a 4% growth (Exhibit 47). As a consequence, the gross margin would decrease, on average, 1.29% compared to the current UA's gross margin (Exhibit 48).

# Final Recommendations

In our opinion, **Under Armour is on the right track**. By implementing cost-cutting initiatives, supply chain optimization, marketing investments, and developing innovative products, UA was able to beat earnings estimates in 2021. The company is actively avoiding the athleisure trend and gain a competitive advantage by focusing on investing capital in fitness technology and the new focused performer athlete. We are confident that this investment will be worthwhile because differentiation is essential for good positioning in the sportswear industry. The company should continue to collaborate with its suppliers to ensure supply chain optimization, particularly in terms of inventory control. In the long run, we advise the company to prioritize investments in product digitalization, not just in footwear, but also in the remaining products. Furthermore, Under Armour should invest more in international expansion, particularly in new markets.

## UNDER ARMOUR

### SPORTSWEAR

STUDENT: MARGARIDA PIRES & TOMÁS PEREIRA

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## COMPANY REPORT

17 DECEMBER 2021

### Conquering the Sportswear Market

#### *The Expansion to Uncharted Horizons & The New Concept of Performance Athletes*

- We initiate Under Armour's coverage with a BUY recommendation, given our target price of 27.07\$ per share, included in the maximum 52-week range. This consists of a 11% investor return, which includes a capital gain of \$2.62 per share, given the current share price of \$24.45 per share.
- Under Armour shows an outstanding capacity of overcoming the COVID-19 pandemic. Despite the net revenues' decline by 15% in 2020, the company was able to surpass the negative pandemic impact, as evidenced by an increase in its revenues by 31%, from 2020 to 2021.
- The revenues level, from 2021-2028, will continue to increase, at a slower pace than from 2020-2021, reaching a steady rate of approximately 4%, in 2026. The main drivers for this growth over the years are UA's expansion strategy, the improved inventory management, the differentiation, through the focused performance and the digital innovations.
- The DCF computed to target UA's share price by the end of 2021, assumed a 4.47% WACC and a 2.44% terminal growth rate.

#### Company description

Under Armour, Inc. is a market leader in the sportswear industry. The Baltimore-based company specializes in the wholesale, direct-to-customer, and licensing sales of apparel, footwear, and accessories. UA operates in four geographical regions: North America, EMEA, Latin America, and Asia Pacific. Connected Fitness, the company's digital business line, is comprised of the app MapMyFitness.

**Recommendation:** **BUY**

*Vs Previous Recommendation*

**Price Target FY22:** **27.07 €**

*Vs Previous Price Target*

**Price (as of 16-Dec-21)** **24.45 €**

Reuters: Bloomberg: UAA US

|                        |             |
|------------------------|-------------|
| 52-week range (€)      | 16.72-27.28 |
| Market Cap (€M)        | 6 186.34    |
| Outstanding Shares (M) | 253.02      |
| Total Share Return     | 11%         |

Source: Bloomberg and Company Data



Source: Bloomberg

| (Values in € millions) | 2020  | 2021E | 2022F |
|------------------------|-------|-------|-------|
| Revenues               | 4 475 | 5 869 | 5 978 |
| Gross Margin           | 2 160 | 2 969 | 2 969 |
| EBITDA                 | (12)  | 663   | 570   |
| Net Profit             | (549) | 388   | 147   |
| RONIC                  | -85%  | -158% | -120% |
| ROIC                   | -6%   | 21%   | 16%   |
| WACC                   | 4.47% | 4.47% | 4.47% |
| EPS                    | -1.21 | 0.95  | 0.84  |
| Dividends              | -     | -     | -     |

Source: Company Data and Bloomberg

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY MARGARIDA PIRES AND TOMÁS PEREIRA, MASTER IN FINANCE STUDENTS OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

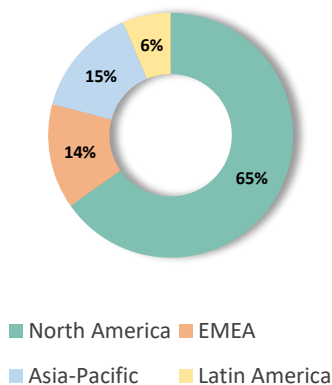
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## Company Overview

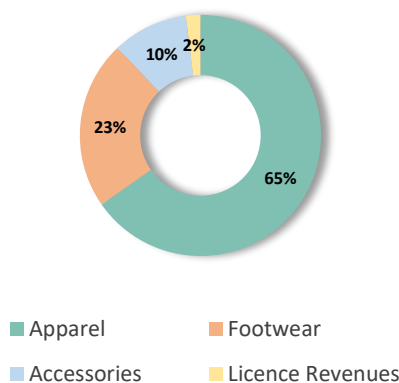
**Under Armour, headquartered in Baltimore, focuses on the sale of apparel, footwear and accessories.**

**Exhibit 1:** Revenues by geographical area in 2021



Source: Company Data

**Exhibit 2:** Revenues by business category in 2021



Source: Company Data

Under Armour is an American sports equipment company founded on September 25, 1996, by Kevin A. Plank, the company's current chairman and former CEO. Its headquarters were originally in Washington, D.C., but are now in Baltimore, Maryland. Kevin Plank was named captain of the University of Maryland football team. Kevin Plank, who was tired of sweating through his t-shirts at practice, decided to design moisture-wicking sports apparel that would keep athletes cool and dry while they exercised. After several tries, he created Under Armour's first T-shirt prototype, which featured a synthetic base layer. The company began to focus on athlete apparel with a specific fabric that improved performance regardless of the weather. To accomplish this goal, three different types of products were developed: HotGear® fabric to keep them cool when the weather was hot, ColdGear® fabric to keep them warm when the weather was cold, and, most recently, AllSeasonGear®, a mixed fabric to keep them comfortable regardless of the weather conditions.<sup>1</sup>

Under Armour's primary business operates essentially in four different geographic segments: North America; Europe, Middle East and Africa ("EMEA"); Asia Pacific and Latin America. These segments operate mostly in the industry of design, development, marketing and distribution of performance apparel, footwear and accessories. As shown in exhibit 1, North America is the market with the highest net revenue, representing 65% of UA's total revenues, in 2021. In the same year, the Asia Pacific region represents 15%, followed by EMEA, 14% and finally Latin America, representing 6% of the company's total revenues. Regarding the revenues by business category in 2021, Apparel represents 65% of the company's revenues, footwear yields 23%, accessories 10% and licence revenues represent only 2% of the company's revenues (Exhibit 2).

Focusing now on **Connected Fitness**, UA's digital business line, the company acquired the app MapMyFitness, in 2013, followed by the MyFitnessPal and EndoMondo's, in 2015, and the launch of UA Record. These acquisitions transformed UA's Connected Fitness into the largest digital community in the world, by 2017.<sup>2</sup> More recently, in 2021, the company sold the MyFitnessPal business to Francisco Partners for 345 million dollars<sup>3</sup>. Additionally, UA shut down EndoMondo, by the end of 2021. However, the MayMyFitness platform will

<sup>1</sup> Under Armour Fact Sheet. Retrieved from: <http://investor.underarmour.com/static-files/849ba90f-4641-48ea-887f-9bc926151b16>

<sup>2</sup> Forbes. (2017). Retrieved from: <https://www.forbes.com/sites/sap/2017/03/15/under-armour-transforms-into-worlds-largest-digital-fitness-brand/>

<sup>3</sup> TC. (2020). Retrieved from: <https://techcrunch.com/2020/10/30/under-armour-to-sell-myfitnesspal-for-345-million-after-acquiring-it-in-2015-for-475-million/>

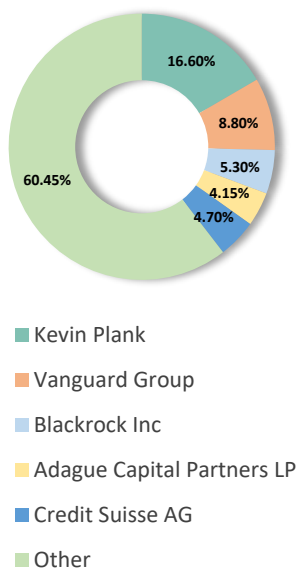
continue to be an essential element for UA's digital strategy. Note that, from 2021, included, onwards, the company does not register connected fitness revenues.

On November 18, 2005 UA went Public through an **Initial Public Offering (IPO)**, opening at a \$13 price per share, trading at NASDAQ under "UARM", becoming the first US-based IPO in five years to double in its first days of trading.<sup>4</sup> The company raised 157 million US dollars, by offering 12.1 million shares through an underwriting group led by Goldman Sachs. The IPO's price almost doubled to a 25\$ closing one, reaching the maximum price of \$31 during that day. This IPO allowed Under Armour to increase its credibility and exposure, marking the beginning of the company's growth.

More recently, Kevin A. Plank stepped down as the CEO and was replaced by the chief operating officer (COO) Patrik Frisk, on 1st January 2020. Despite this change, Under Armour's mission remains the same over the years: "To make all athletes better through passion, design and the relent pursuit of innovation".<sup>5</sup>

**UA's stock classes A and C (no voting rights) are publicly traded in the NYSE. Class B gives the voting control.**

**Exhibit 3:** Shareholder Structure – Major holders of UA



Source: 2021 Annual Meeting of Stakeholders

## Stock classes and structure

Under Armour's common stock is divided into three classes: **Class A (UAA)**, **Class B**, and **Class C (UA)**. Classes A and C are both publicly traded on the New York Stock Exchange (NYSE), with the main distinction being voting rights. While Class C shares have no voting rights, Class A shares have one vote per share, allowing shareholders to vote on governance issues. This results in a disparity in voting power. However, none of the shareholders will have the authority to direct the company's operations. This is due to Kevin Plank's ownership of more than 35 million shares, the majority of which are Class B common stock, which has ten times the voting rights of Class A common stock. This gives the former CEO 16.6% of the firm's outstanding shares and approximately 67% of the voting power. Class C common stock (no voting rights) is intended to prevent the dual structure from dissolving if Kevin Plank's ownership of Classes A and B shares falls below 15%. As a result, voting control is granted by Class B common stock.<sup>6</sup>

Regarding the **dividend payment policy**, the company retains the earnings for reinvesting in the business. As a result, no cash dividends will be distributed or paid in the foreseeable future. By focusing on reinvestment in the business, UA can use those funds to invest in marketing strategies and R&D, increasing brand

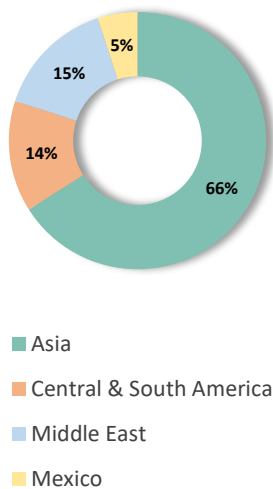
<sup>4</sup> Market Watch. (2005). Retrieved from: <https://www.marketwatch.com/story/under-armour-up-100-in-biggest-us-open-since-2000>

<sup>5</sup> Under Armour's website

<sup>6</sup> FDRA. (2021). Retrieved from: <https://fdra.org/latest-news/under-armour-investors-approve-new-shares-as-ceo-keeps-control/>

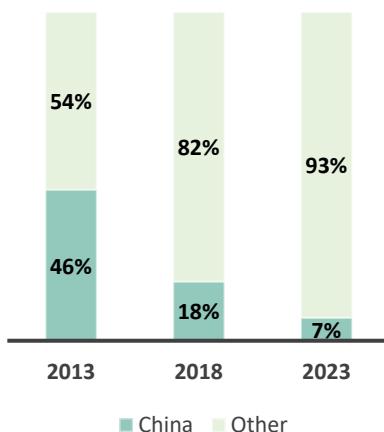


**Exhibit 4:** Main suppliers' location



Source: Yahoo Finance

**Exhibit 5:** Sourcing from China and Other Countries



Source: Yahoo Finance

recognition and producing innovative products, thereby positively contributing to the company's future revenues.

Focusing on the company's shareholder structure, as seen on Exhibit 3, the major holders of Under Armour are Kevin Plank (16.6%), the Vanguard Group (8.8%), Adague Capital Partners L.P (5.3%), Blackrock Inc (5.3%) and Credit Suisse AG (4.7%).<sup>7</sup>

## Supply Chain

Under Armour's **raw materials** include synthetic fabrics, petroleum-based products, and cotton fabrics, all of which are subject to price fluctuations and scarcity. The company's raw material and fabric supplier base is small, but it includes countries with low labor costs such as China, Malaysia, Mexico, Taiwan, and Vietnam. This enables UA to reduce its costs and, as a result, increase its margins. The company is attempting to find new suppliers in order to strengthen and diversify its supply base.

Most of the company's products are manufactured by unaffiliated manufacturers, being 14 of these responsible for 65% of the products' manufacturing. Their products are manufactured by 26 primary manufacturers, that operate in 19 countries: approximately 66% of the products are manufactured in Asia, 14% in Central and South America, 15% in the Middle East and 5% in Mexico (Exhibit 4).<sup>8</sup>

Focusing now on **sourcing**, Vietnam, Jordan, the Americas, Indonesia and China are the company's main sources of supply. In 2013, 46% of Under Armour's sourcing came from China. However, in 2018 this number decreased to a value of 18%. By 2023 the company plans to reduce this value, even more, reaching a 7% level (Exhibit 5).<sup>9</sup> This decline occurs as the company attempts to limit the impact of trade conflicts and tensions between China and the United States on its operations and to reduce its exposure to China's trade risk.

In 2021, the company encountered some issues concerning the **pandemic-related restrictions** imposed by the Vietnam government.<sup>10</sup> As Vietnam accounts for a third of UA's footwear and clothing production, the mandatory shutdown of Vietnamese fabrics, from July to September, impacted severely UA's ability to meet the customers' expectations.

<sup>7</sup> Stakeholders Annual Meeting. 2021. Retrieved from: <https://underarmourinc.gcs-web.com/static-files/20477eb3-d771-4deb-8019-54918344c893>

<sup>8</sup> Yahoo Finance

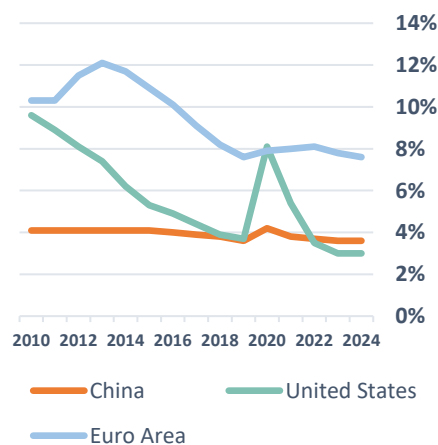
<sup>9</sup> Yahoo finance. Retrieved from: <https://finance.yahoo.com/news/armour-will-use-trumps-trade-war-shift-production-away-china-170324290.html>

<sup>10</sup> CNN Business. 2021. Retrieved from: <https://edition.cnn.com/2021/10/02/business/vietnam-supply-chain-disruptions/index.html>

**To overcome the supply chain complications, UA is implementing a strategy to control the inventory.**

**Some indicators, such as the Unemployment rate, CCI and PMI can help UA reduce the uncertainty regarding the future.**

**Exhibit 6:** Unemployment Rate from 2010 to 2024



**Controlling the inventory** seems to be the right strategy for the company to overcome the supply chain complications during the Coronavirus pandemic.<sup>11</sup> The idea is to limit inventory, despite high demand, and manage how much inventory flows through supply chains, allowing for better control over the inventory in reserves, limiting low demand products and expanding high demand ones. The primary goal of this strategy is to consolidate vendors and reduce SKUs. This strategy, according to David Bergman, Chief Financial Officer, results in items selling faster and returns being reduced. As a result, instead of relying on promotional sales to sell excess inventory, the company can set more favorable prices. The supply chain is critical for service optimization and a major driver of gross margin; with good inventory management and COGS optimization, UA can significantly improve its performance.

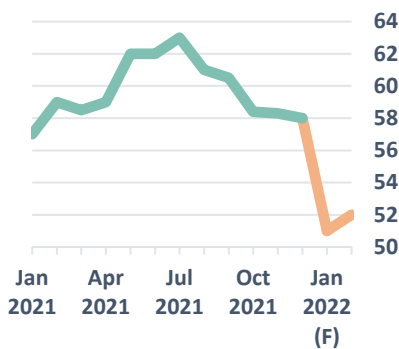
## Economic Overview

Under Armour, as a global company, is vulnerable to changes in economic conditions, which can have an impact on the company's performance. Fortunately, some indicators can help to reduce uncertainty about the company's future performance. We believe that three economic indicators, the Unemployment Rate, the Consumer Confidence Index (CCI), and the Purchasing Managers Index (PMI), can help us understand UA's future performance.

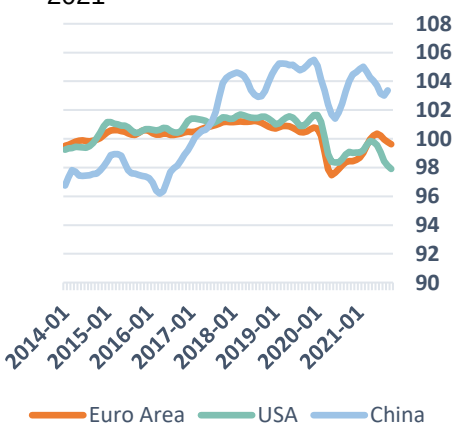
Starting with the **Unemployment Rate**, this indicator is a useful measure of labor supply underutilization, which affects consumer income and, as a result, consumption. As shown in Exhibit 6, the unemployment rate has fluctuated over time. Due to the coronavirus pandemic, there was a slight increase in 2020, with the United States (US) being the most affected, increasing its value from 3.7% to 8.1% from 2019 to 2020. Nonetheless, according to the projections, the US will have a 3% unemployment rate in 2024, indicating a healthy economy ahead with a possible increase in consumer spending. The Euro area experienced a minor increase during the pandemic, rising from 7.6%, in 2019 to 8.1%, in 2020. This area is the one that presents a higher unemployment rate and forecasted lower decrease, reaching 2024 with a percentage of 7.6%. That is, consumers will be incentivized to spend less money than in other regions. Overall, China has the lowest unemployment rate over the years, with a small increase during the pandemic, from 3.6% to 4.2%, in 2019 and 2020, respectively. This country is expected to have a rate of 3.6% in 2024, indicating future economic stability.<sup>12</sup>

<sup>11</sup> Supply chain Dive. 2021. Retrieved from: <https://www.supplychaindive.com/news/under-armour-tightens-inventory-demand/599947/>

<sup>12</sup> International Monetary Fund

**Exhibit 7: Monthly PMI of US from 2021 to 2022**


Source: Trading Economics

**Exhibit 8: Consumer Confidence from 2014 to 2021**


Source: OECD

**UA belongs to the sportswear sector, which is highly competitive, fragmented and constantly changing, as consumer preferences change.**

Moving on to the **PMI**, this is the leading indicator of future economic trends. It is a monthly indicator, that measures the general direction of the manufacturing economic trends. In the last quarter of 2021, this indicator yields a value of 58 points, according to Trading Economics global macro models.<sup>13</sup> In 2022, this value is expected to decrease to approximately 51 points, as we can see in exhibit 7. This decrease is not prejudicial to the North American market, as any value above 50 points represents a stable economy.<sup>14</sup> Nonetheless, it emphasizes the importance of UA expanding internationally to reach future healthier regions.

By observing exhibit 8, we can see that **consumer confidence** dropped substantially in 2020, once again due to the pandemic. However, the Euro Area seems to be recovering that confidence, moving from a value of less than 97.5 in 2020 to 102 in 2021. In the US and China, the Consumer Confidence Index suffered a decline in 2020, however, this index is decreasing after a slight increase at the beginning of 2021. It is important to note that China, despite the decrease, still presents the highest CCI, when compared to the other regions, with a value of 102.4. The US has the lowest confidence index by the end of 2021, with a value of 97.8, showing that consumers still have not fully recovered their confidence in the market.<sup>15</sup> As we can see in exhibit 7, from 2021 onwards, the US CCI will be the lowest once compared with the other regions. Once again, this highlights the importance for UA to expand to other regions, as will be mentioned further in the report.

## Sector

Under Armour belongs to the **sportswear sector**, which includes the production and retailing of sporting goods such as footwear, apparel, accessories, and equipment. This industry is distinguished by high competition and market niches, fragmentation, and constant change, owing primarily to changes in consumer preferences.

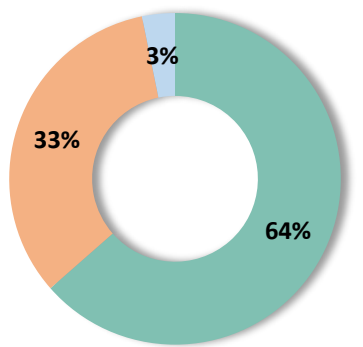
To perform well in this competitive sector, being able to combine the products' design, quality, variety and price with the supply chain effectiveness becomes essential. Nike and Adidas are the sector's top performers, providing innovative and revolutionary products that follow and influence consumer preferences.

<sup>13</sup> Trading Economics. 2021. Retrieved from: <https://tradingeconomics.com/united-states/manufacturing-pmi#:~:text=Manufacturing%20PMI%20in%20the%20United,points%20in%20April%20of%202020>

<sup>14</sup> MPRA. 2020. Retrieved from: [https://mpra.ub.uni-muenchen.de/97924/1/MPRA\\_paper\\_97924.pdf](https://mpra.ub.uni-muenchen.de/97924/1/MPRA_paper_97924.pdf)

<sup>15</sup> OECD. Retrieved from: <https://data.oecd.org/leadind/consumer-confidence-index-cci.htm>

**Exhibit 9:** Global Sportswear Market Share by Product Category



■ Apparel ■ Footwear ■ Wearables

Source: Statista

***The increase in the female participation in sports and the population health consciousness will promote the rise of the sportswear sector.***

***Athleisure is one of the biggest industry trends.***

The capital and human requirements for **innovation**, that have become the major competitive weapon for a company in this industry, and Research and Development (R&D) appear as one of the major barriers for new entrants, protecting the incumbents from external competition. Additionally, the **marketing strategies** of these companies, which include sponsorship agreements with professional teams, universities and athletes, are crucial to increase their customers and possible future customers' brand awareness. Thus, the marketing costs are also considerably high. The high customer bargaining power associated with the high number of competitors, that provide substitutes from which customers can choose and switch at no cost, make **differentiation** a key driver for success in this market. Under Armour aims to achieve this differentiation, mainly through the focus on the focused performer consumer and products' digitalization, mentioned later on.

Focusing now on the evolution and growth of the sportswear sector globally, in 2020 the market size of this sector was approximately \$353.5 billion. This market is expected to reach revenues of \$544 billion, by the end of 2026. From 2020 to 2026, the sportswear market is expected to grow at a CAGR of more than 7%.<sup>16</sup>

There are two significant driving factors for the expected increase in the sportswear market size. The first one is related to the increase in female participation in sports, while the second to the increasing health-conscious among population. Note that, the women's sportswear segment is expected to reach the fastest growth rate of 7%. Regarding the men's sportswear segment, it contributes with the highest share to the global sportswear market. The rising number of counterfeit products is a stumbling block to further market size growth. Note that, 33.27% of the global sportswear market share belongs to footwear, 3.20% to wearables, and the highest market share, 63.53%, is held by the apparel segment (Exhibit 9).<sup>17</sup>

Moving on to the trends that define this industry, the most notable is athleisure<sup>18</sup> - the distinction between traditional gym clothing and casual wear is becoming less noticeable, especially in light of the pandemic. The global athleisure market, in 2020, had a value of 284.73 billion US dollars and is expected to grow at a CAGR of 8.6%, from 2021 to 2028.

<sup>16</sup> Bloomberg. 2021. Retrieved from: <https://www.bloomberg.com/press-releases/2021-05-20/sportswear-market-size-to-reach-revenues-of-around-usd-544-billion-by-2026-arizton>

<sup>17</sup> Statista

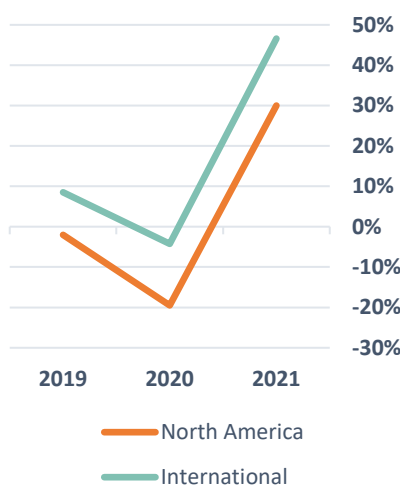
<sup>18</sup> Mckinsey&Company. 2021. Retrieved from: <https://www.mckinsey.com/industries/retail/our-insights/sporting-goods-2021-the-next-normal-for-an-industry-in-flux>

## Opportunities & Challenges

UA's operational results, as well as the company's financial condition, are impacted by numerous challenges and risks.

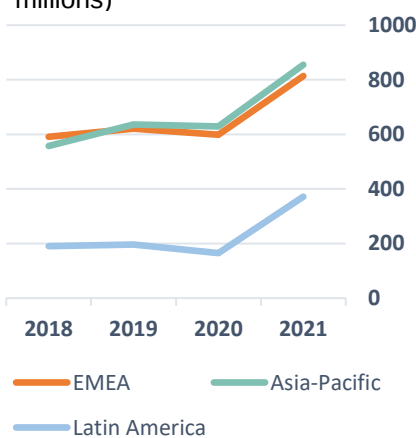
*By displaying strength in the domestic market, Under Armour can fuel its global ambition.*

**Exhibit 10:** Revenue growth of North America vs International Revenues



Source: Company Data

**Exhibit 11:** Revenue of each Region from 2018 to 2021 (in millions)



Source: Company Data

### North-America

As the brand's region of origin, the US and Canada are the major players in UA's net revenue portfolio. In 2021, the region accounted for about 65% of the company's total net revenues.

UA sells apparel, footwear and accessories in North America through **wholesale** and **direct-to-consumer channels**. The direct-to-consumer sales are generated by the brand, the factory house stores and the e-commerce website. Under Armour ended 2021 with 18 brand houses and 179 factory house stores in this region. Also, the 13 500 distribution points cover about 50% of all the places where consumers can buy athletic apparel and footwear.<sup>19</sup>

An improvement in the North American market is key to maintain UA's good results, as displaying strength in the domestic market, can be used to fuel the company's global ambition. However, recent changes in consumer preferences, internal intensified competition in the region and the pandemic situation, which resulted in a decrease in the CCI and an increase in the unemployment rate, harmed UA's North American objectives, resulting in a lower overall revenue growth than the international business, as can be seen in Exhibit 10.

In the past few years, Nike has been the North American market leader, followed by Adidas and Under Armour. However, as of September 2021, UA managed to surpass the combined apparel and footwear sales of Adidas<sup>20</sup>, becoming the second biggest sports brand in North America.

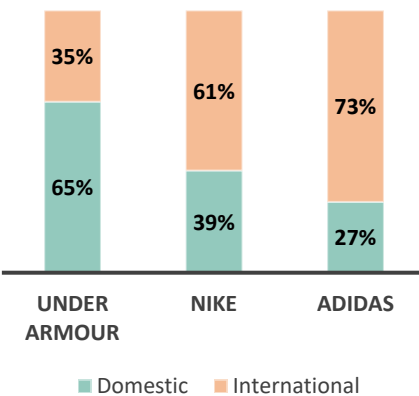
### International Expansion

Expansion outside North America remains a critical component of Under Armour's growth strategy. To meet increased consumer demand around the world, UA should focus on how to successfully manage the operational challenges that come with expanding the business internationally. Nonetheless, the company's limited brand recognition, as well as its lack of experience in foreign regions in terms of operations, regulatory requirements, and market practices, may pose a challenge to its international expansion.

<sup>19</sup> Under Armour's Annual Report 2021

<sup>20</sup> DFRA. 2021. Retrieved from: <https://fdra.org/latest-news/under-armour-surpasses-adidas-to-become-no-2-sports-brand/>

**Exhibit 12:** UA and Competitors weight in International business



The international business includes Asia-Pacific, EMEA and Latin America. In 2021, their respective revenues were \$855 million (14.6%), \$814 million (13.9%) and \$372 million (6.3%) making a total of 34.8% of UA's revenues (Exhibit 11). Despite the unfavorable Covid-19 pandemic impact on the company's international business growth, in 2021 UA managed to recover and increase the revenues of each region.

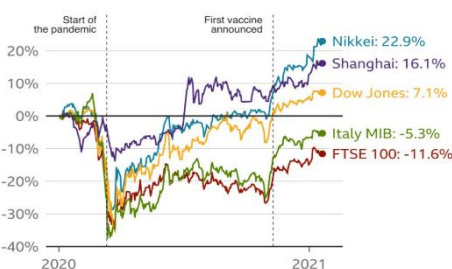
In 2018, UA appointed Jason Archer, Manuel Ovalle and Massimo Baratto as the new managing directors for Asia-Pacific, Latin America and EMEA, respectively, to fuel the **international expansion**. Moreover, there were inaugurated two new headquarters (HQ) to help balance the international business, one in Hong Kong, as the Asia-Pacific HQ and the other in Amsterdam, as the EMEA HQ.

Despite these efforts, most of UA's revenues, in 2021, are still being generated in its domestic market, only 35% are generated internationally. Contrariwise, its main competitors, like Nike and Adidas, present higher revenues in the international markets, in 2021, of 61% and 73%, respectively (Exhibit 12).

When it comes to global expansion, UA must consider some **risk factors**. Not only related to a country's foreign exchange, interest, and inflation rates, but also to different consumer preferences, a country's high unemployment rate, or even a low CCI. These, by reducing demand for the company's products, can increase the risk of a large number of unsold inventories, particularly in light of UA's recent supply chain issues, resulting in a decrease in the company's margin.

## Covid-19

**Exhibit 13:** The impact of coronavirus on stock markets since the start of the outbreak



From 2008 until 2019, Under Armour grew steadily, reaching a net revenue of \$5.27 billion by the end of 2019. This performance level was impacted by the **Coronavirus pandemic**, which led to a decrease of the net revenue worldwide by \$0.79 billion.<sup>21</sup>

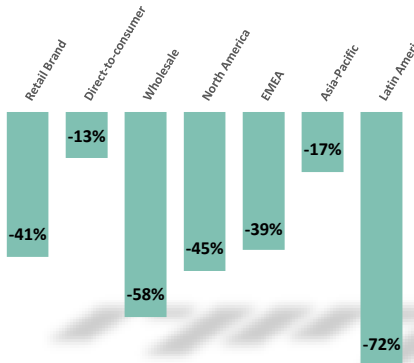
The resulting economic disruption forced some volatility in the world's biggest capital markets (Exhibit 13) and adversely impacted UA's stock price. Despite the measures taken to maintain operations, as well as preserve and enhance access to liquidity, the cash generated from operations had been negatively impacted in 2020. However, as we will further see, UA managed to outshine these challenges, having a profitable YE2021.

As seen in Exhibit 14, in the 2<sup>nd</sup> quarter of 2020 (during lockdown), the retail brand suffered a decrease in sales by 41% when compared to the same time in 2019,

<sup>21</sup> Statista 2020



**Exhibit 14:** The impact of coronavirus on UA's business divisions from 2<sup>nd</sup> quarter of 2019 to 2<sup>nd</sup> quarter of 2020



Source: Internet Retailing and Company Data

**Exhibit 15:** UA's Reestructuring Plan



Recognized Remaining

Source: Company Data

**The focused performer is the company's new key customer.**

with a consequent decrease in revenues to \$707.6 million. Regarding the company's direct-to-customer sales, the decrease was 13%, compared to the previous year, with the revenues reaching a value of \$368 million. Meanwhile, the wholesales revenues fell to \$299 million, a decrease of 58%. Focusing on its geographical segmentation, the most accentuated decrease in revenues was in Latin America, suffering a drop of 72%. However, the other segments also suffered a huge decline: European division fell 39%, in North America the decrease was by 45% and Asia Pacific 17%. UA reported a net loss of approximately \$183 million, which comes down to \$141 million if we exclude the impact of restructuring and asset write-downs.<sup>22</sup>

During the pandemic, the **digital business line** alleviated the sales decrease in the second quarter of its fiscal year, thanks to significant online sales growth that ended up partially compensating for the decrease in store sales caused by the lockdown and store closures. Aside from these closures, the uncertainty in consumer shopping dynamics and the cancellation of mega sponsorship deals all contributed to the company's revenue and overall performance decline.

In mid-pandemic season, Under Armour announced a **restructuring plan** designed to rebalance its cost base, to improve profitability and cash flow. From the estimated \$600 million restructuring range, the company has recognized about \$500 million up until the first 3 quarters of 2021 (Exhibit 15).

## Focused Performer

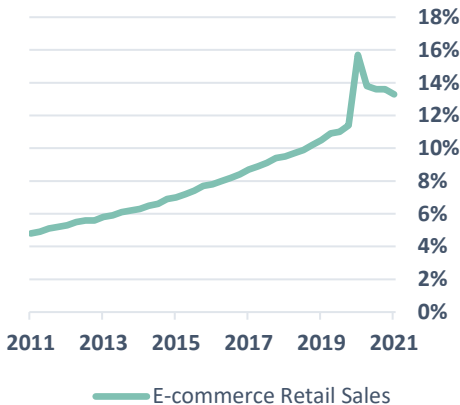
On the Investor Day 2018, UA introduced the company's new key customer: "The **focused performer**". As the company describes it, "This athlete is hardwired to keep fighting and, in train, they compete with themselves and their peers to benchmark progress. They only care about performance apparel."<sup>23</sup> Also, these athletes are younger, diverse, and spend more on equipment. Therefore, UA focuses on performance-enhancing sportswear, while its competitors follow the athleisure trend. For the focused performer, the market represents a \$92 billion opportunity globally and a \$29 billion market in North America. If engaged correctly and by creating a personalized experience for each focused performer, Under Armour can be reinventing itself as a brand and improving its financial position.

## Digitalization

<sup>22</sup>Internet Retailing. 2020. Retrieving from: <https://internetretailing.net/covid-19/covid-19/under-armour-reports--significant-online-growth-but-sales-fall-across-its-markets-amid-covid-19-lockdowns-21799>

<sup>23</sup> Investor day 2018

**Exhibit 16:** E-commerce Retail Sales as percent of Total Sales



Source: FRED Economic data

***In 2021, UA sold the app MyFitnessPal and shut down Endomondo. The company's business line is now constituted only by the app MapMyFitness.***

**Digitalization** is inevitable and during the pandemic, the world battled it out by improving the digital world again, as seen in exhibit 16, with the switch from stores to e-commerce and personal help to personalized apps. Companies will need to adapt to these **technological transformations** to keep up with the competition.

Under Armour's motivation are its consumers, especially the focused performer. In its strategic growth plan, UA aims to be consumer-centric. Thus, the digital business is key, as it allows for a closer and more personalized consumer service. The company already engages through various channels, such as the website, which serves as the foundation of Under Armour's e-commerce experience, and the app, which provides personalized experiences for the focused performer.

**Connected Fitness** is currently comprised of an app called MapMyFitness, which includes MapMyRun and MapMyRide and records and stores fitness activities. This app is critical in assisting customers in achieving their goals, whether they are tracking sleep, workouts, or nutrition. Furthermore, the amount of data and insight that the company can gather about its customers via MapMyFitness is unparalleled. This data can be used to help develop new and innovative products that meet the needs of consumers. Since 2018, Connected Fitness has accounted for approximately 3% of the company's net revenues.

As previously mentioned, the company **sold MyFitnessPal**, at a discount, for \$345 million and **shut down Endomondo**. This decision may be questionable, still once we observe the company's strategy and the digital competition it becomes clearer. MyFitnessPal and Endomondo were focused on serving more casual consumers and beginners, who concentrate on improving their health rather than becoming professionals. Nevertheless, as stated before, UA's strategy is moving towards the focused performer, consumers who work towards becoming professional athletes. So, these apps' purpose was not aligned with the company's new strategy.

Some argue that UA might see diminishing value in this segment over the long term. One of the possible reasons is that Apple has been more assertive in targeting entry-level fitness users, through the Apple Health Software and Apple Watch Hardware.<sup>24</sup> Consumers have access to these products for free or at a low subscription level once they purchase the hardware, making it more difficult for them to select UA's apps. Others argue that the MyFitnessPal sale can be a move to shed assets and liabilities, as sales decreased, in 2020.

Finally, the company states that this decision on shrinking the Connected Fitness business simplifies the consumers' brand journey and increases the ability to

<sup>24</sup> TC. 2020. Retrieved from: <https://techcrunch.com/2020/10/30/under-armour-to-sell-myfitnesspal-for-345-million-after-acquiring-it-in-2015-for-475-million/>

exploit the power of MapMyFitness, as the company works towards a cohesive ecosystem.

Another important step, that Under Armour has been implementing, is to connect the digital world with the non-digital one. UA's **HOVR footwear technology** is a piece of innovative equipment with a sensor, installed on UA's shoes, which gathers the athlete's information, storing it in the MapMyRun app, creating a full consumer experience where oneself can keep up with their results and objectives.<sup>25</sup> Through this digitally connected footwear, the company can create a competitive advantage over its peers, increasing its revenues.

As mentioned before, during the Covid-19 pandemic, a bright spot for Under Armour has been the success of the sportswear's digital fitness applications and technology-connected footwear. When the pandemic hit in March 2020, Under Armour launched a campaign called "through this together" and the objective was, as Paul Fipps (Chief Experience Officer) stated, "to really develop content around mindfulness, around nutrition and around movement and give our core consumers the ability to live a healthier lifestyle while people were at home". The company used social media and apps to help people follow their workouts and training. The digitally connected footwear has also seen significant increases, from the first to the second half of the year, the activations doubled and the number of customers completing their first workout increased 150%.<sup>26</sup>

## Innovation

Successful **innovations** are core to all companies' success. Under Armour's goal is beyond creating new products; it is about changing the consumer experience, providing them solutions "you never knew you needed and cannot imagine living without".<sup>27</sup> To achieve the best results, innovation must be aligned with a company's culture. Under Armour fosters an innovative environment in which creative people are encouraged to turn their ideas into reality and make an impact, thereby increasing the company's value. These innovations are part of UA's restructuring process, including a go-to-market strategy.

This creative path can be easily seen in UA's products. The most notorious ones are **UA's HOVR** and **UA's Athletic Recovery**.<sup>28</sup> HOVR, as stated before, revolutionized the footwear sector, with its foam technology integrated into the

<sup>25</sup> Retrieved from: <https://www.highsnobiety.com/p/under-armour-hovr-launch/>

<sup>26</sup> Baltimore Business Journal. 2020. Retrieved from: <https://www.bizjournals.com/baltimore/news/2020/09/25/how-under-armour-used-technology-to-help-consumers.html>

<sup>27</sup> UA's Website

<sup>28</sup> Insider. 2021. Retrieved from: <https://www.maybeyesno.com/articles/under-armour-athletic-recovery-sleepwear-review-inspired-by-tom-brady>

**Exhibit 17: Top Most Followed Instagram accounts and their Endorsements**

| Position | Nr of Followers | Name                      | Endorsed by  |
|----------|-----------------|---------------------------|--------------|
| 1        | 373M            | Cristiano Ronaldo         | Nike         |
| 2        | 287M            | Lionel Messi              | Adidas       |
| 4        | 282M            | Dwayne "The Rock" Johnson | Under Armour |

Source: Wikipedia

shoes and the possibility to connect the shoes to an app. In terms of Athletic Recovery, it employs Far Infrared energy to alleviate long-term pain, improve blood flow, and boost muscle recovery and strength.

The **Project Rock** is another of UA's innovative strategies to date. In 2021, along with the brand's ambassador Dwayne "The Rock" Johnson, UA launched the 3rd collection of apparel, footwear, and training gear, a major success worldwide. Dwayne Johnson, in 2021, is the 5th most followed person on Instagram, with about 275 million followers<sup>29</sup>, where he promotes its partnership with UA, creating a massive awareness for the company's collection. As shown in Exhibit 17, this is a common digital strategy used by the industry. Nike and Adidas also use it.

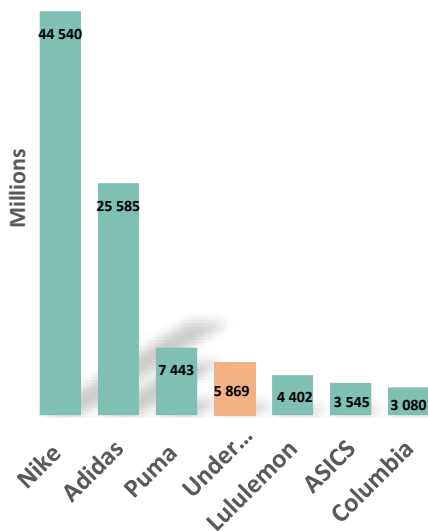
## Comparables

Nike and Adidas are the major players in this sportswear industry, presenting significantly higher net revenues than their competitors (Exhibit 18).

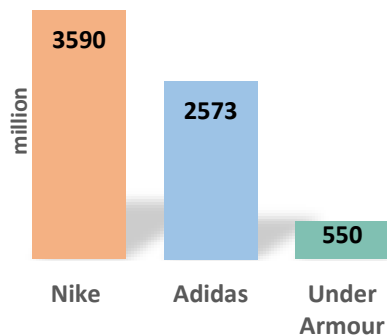
**Nike** is one of the world's biggest athletic shoes and apparel suppliers, as well as a major manufacturer of sports equipment. In 2021, the company's revenues reached \$44 540 million<sup>30</sup>. At the heart of Nike's business growth strategy is innovation, with significant investments in R&D. The company is increasing the investment in digital marketing, reaching a value of \$3 590 million in marketing costs to improve the consumer's experience (Exhibit 19). Furthermore, providing a diverse range of products for various sports appears to be a strategy for Nike to increase market share. Furthermore, the company has endorsement deals with well-known athletes such as Cristiano Ronaldo.

**Adidas** is Nike's main competitor, as it is one of the best sportswear companies. In 2021, the company's revenues total \$25 485 million. To compete, the company focuses on a broad differentiation strategy, innovation, and the best marketing, yielding \$2573 million in marketing costs to develop a close relationship with their audience (Exhibit 19). Adidas recently announced plans to invest more than \$1 billion in digital transformation until 2025, with the goal of doubling its e-commerce sales to \$9 billion. The company employs strategic cities by determining which products sell best in each area based on the specific tastes and preferences of each city. Furthermore, it collaborates with Lionel Messi and other prestigious athletes, which allows the company to better position itself.

**Puma's** revenues are growing, yielding a value of \$7 443 million, in 2021; however, these are still way lower than the two biggest competitors. The company has a

**Exhibit 18: Revenues of UA and Comparables in 2021**


Source: Yahoo Finance

**Exhibit 19: Marketing Costs of UA, Nike and Adidas in 2020**


Source: Statista and Company Data

<sup>29</sup> BrandWatch. 2021. <https://www.brandwatch.com/blog/top-most-instagram-followers/>

<sup>30</sup> Yahoo Finance – including the other comparables' revenues

huge R&D sector and a strong marketing department. Moreover, it is associated with many stellar brands worldwide and supplies the racing suits for NASCAR and Formula 1, which allows for great visibility and brand positioning. Yet, this tough competition makes it harder for the company to increase its market share, is often seen as a brand with lesser value than the aforementioned.

**Lululemon** also provides high-quality and innovative products, the company has a huge R&D department and follows a consumer-oriented business model. However, the high product prices compared with other competitors and the weak marketing strategy hold back the company's revenues. In 2021, the company reached a revenue of \$4 402 million.

Finally, **Asics** and **Columbia** are the competitors with the lowest net revenues, approximately \$3 545 million and \$3 080 million, respectively. Asics is a popular brand and uses its strong global brand positioning and financial resources to expand to potential markets. However, it faces some gender discrimination and diversity issues, having a strict look policy and high prices. Columbia's brand is not as well-known as its competitors, except in America, owing to a lack of advertising. This has an impact on the company's revenues, making it more difficult to compete with its peers.

## Valuation

To value Under Armour, we determined that the Discounted Cash Flow (DCF) method was best suited to the company. This section will explain and discuss a set of inputs critical to the DCF analysis. To forecast the company's value from 2022 onwards, we examined past data from 2018 to 2020 and created an estimation value for 2021 using information from the first three quarters of 2021. The forecasted results in this report range from 2022 to 2036, but we will focus on the short term the majority of the time.

### Forecasts

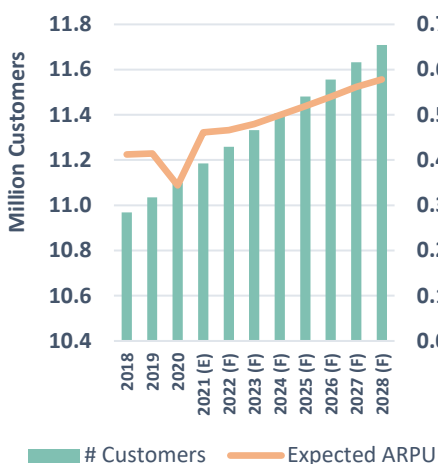
- Revenues

Revenues are one of the most important inputs for our valuation model since most financial statement captions rely on them. UA is in the Sportswear sector, where trends can be difficult to predict due to the constant shift in consumer preferences. Thus, a company's ability to predict emerging trends determines its future performance.

Our analysis began by estimating the total number of Under Armour customers. As previously stated, UA is a global company. However, we believed that using

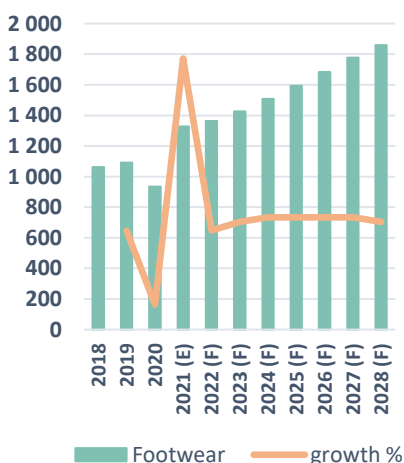
the entire population in these areas would not provide a reliable analysis, so we chose a smaller sample, specifically the US population. Using available US data, we calculated UA's market share to be 4.79%, with apparel accounting for 4.19% and footwear accounting for 6.63%. We believe that this value is a good approximation of the company's market share because a study conducted by CSI Market reached a value of 4.25%<sup>31</sup> using only the information provided until the third quarter of 2021. Assuming that UA will improve its performance while focusing on global expansion, we believe that 4.79% is reasonable.

**Exhibit 20: ARPU and Number of Customers**



Source: Company Data and Own Estimations

**Exhibit 21: Footwear Revenues Forecast and its growth (in millions of \$)**



Source: Company Data and Own Estimations

The Baltimore-based company continues to offer premium and performance products, and it will succeed by investing in these products rather than following the athleisure trend. The focused performer mind is now fully integrated into the goals and culture of UA. As previously stated, the focused performer is a consumer unlike any other, focused on performance and pursuing a great physical and psychological future. As a result, the focused performer serves as the basis for all of our estimations.

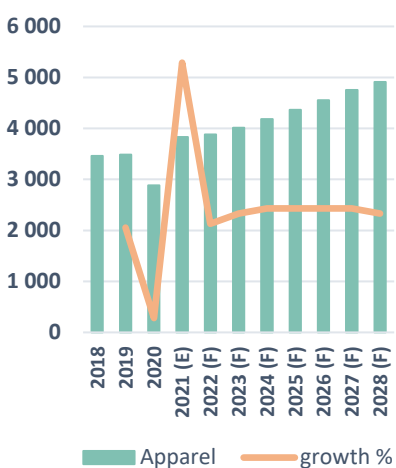
Because of the increased focus on this athlete, Under Armour has introduced innovative products that are focused on quality and consumer experience, such as the HOVR technology and The Project Rock collection, resulting in a shift in product mix toward more expensive products. UA has been heavily investing in its performance shoes in recent years. As a consequence, the **Average Revenue per User (ARPU)** will change significantly in the future. The Covid-19 pandemic reduced ARPU by 17% between 2019 and 2020. However, in 2021, the ARPU increased by 34%, indicating that the company is attempting to battle the last two years of the pandemic and move forward in the right direction (Exhibit 20).

Apparel and footwear account for the majority of UA's revenues. They accounted for 65% and 23% of total revenues in 2021, respectively. That is, small changes in one of these products can have a significant impact on UA's overall financial performance. As previously stated, shifting product mix will cause these weights in total revenues to change, so it is expected that the total weight of Footwear products increases, as it is the current focus of UA's investments. Furthermore, the company reached a record-breaking **footwear** revenues level of approximately \$1.3 billion in 2021, as shown in Exhibit 21, predicting that consumer trends are changing, benefiting UA's strategy. This product's revenue increased by 42% between 2020 and 2021. This massive increase was caused not only by new HOVR technology, but also by the 2020 pandemic. The unexpected appearance of the pandemic in 2020 frightened many consumers, lowering the CCI and

<sup>31</sup>CSI Market. 2021. Retrieved from: [https://csimarket.com/stocks/compet\\_glance.php?code=UA](https://csimarket.com/stocks/compet_glance.php?code=UA)

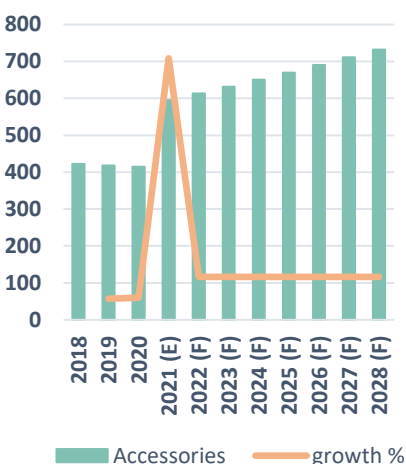


**Exhibit 22: Apparel Revenues**  
Forecast and its growth (in  
millions of \$)



Source: Company Data and Own  
Estimations

**Exhibit 23: Accessories**  
Revenue Forecast and its growth  
(in millions of \$)



Source: Company Data and Own  
Estimations

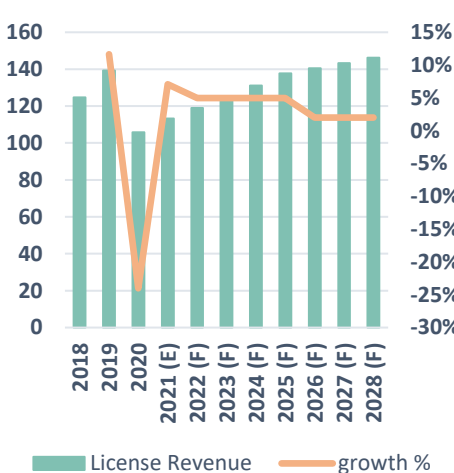
increasing unemployment rates globally, as seen previously. However, these indexes improved in 2021 as consumers began to adapt to the pandemic and economies began to recover and learn how to deal with Covid-19. This resulted in a significant revenue disparity between these two years. With the economy stabilizing, we anticipate that the rise of this product's revenues will slow, compared to the 42% growth, and remain about flat from 2021 onwards. We estimate that growth will range from 3% to 6% from 2022 to 2024, with the UA's

40% expansion plan resulting in a stabilization at around 6%.

**Apparel**, the biggest revenue stream, with about \$4 billion in sales in 2021, will also expand positively in the next years. Considering the pre-pandemic state, the growth rate will be 1% from 2021 to 2022, increasing to 4% in 2024. This expansion is explained by the healthy living mentality, increased market share, and improved supply chain management, which allows for better demand responsiveness. In Exhibit 22, is worth noting that the growth from 2020 to 2021 was approximately 33%, equating to a change from \$2 884 million to \$3 832 million as a result of the previously described Covid pandemic chock, in 2020. Due to the new HOVR footwear technology, this growth from 2020 to 2021 was lower than the footwear growth. Several statements made by Under Armour lead us to believe that the company is attempting to differentiate its apparel products with new technology in order to improve performance and the consumer experience. The strong sell-through of Iso-Chill running products, which keep consumers cooler in hot conditions and are ideal for a larger integration in the Latin American market, along with Project Rock apparel, which continues to build on strong momentum with new product releases and marketing strategies, are good indicators that this sector will not be forgotten and will play an important role in UA's future strategies. As a result, this product line is expected to generate \$4 910 million in revenue, in 2028.

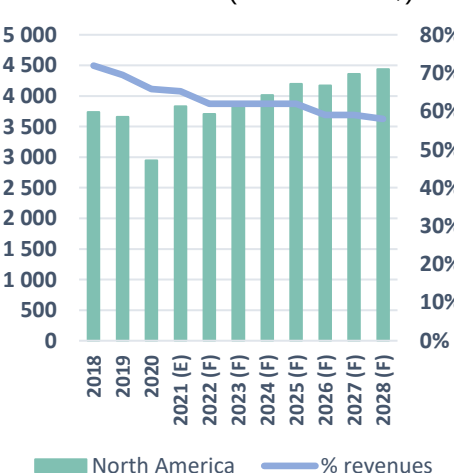
**Accessories** are the third largest revenue source, accounting for nearly 10% of overall UA revenues in 2021, amounting to \$595 million. From 2020 to 2021, sales increased by 44%, for the same reason mentioned for apparel and footwear, the pandemic (Exhibit 23). Despite not being Under Armour's core focus, these goods have a substantial impact on the company's financial performance. This segment is expected to increase slowly over time, since UA, as previously said, wants to expand globally and is pursuing a strategy for better inventory management. With expanded market share and global recognition, the accessories section, like the rest of the company's segments, will see a growth in demand. However, since hats, bags, and sports masks drive this business sector and there are no significant changes that can be made, as consumer trends do not benefit much from these products, we anticipate the growth rate will remain steady at a 3% level from 2021

**Exhibit 24: Licensing Revenues Forecast and its growth (in millions of \$)**



Source: Company Data and Own Estimations

**Exhibit 25: North American Revenues and its percentage on Total Revenues (in millions of \$)**



Source: Company Data and Own Estimations

onwards. It should be noted that the overall weight of this product on UA's total sales is predicted to fall slightly, from 10.1% in 2021 to 9.6% in 2028, as other UA products gain greater weight on the company's total revenues.

As previously stated, **Connected Fitness** will not have revenues from 2021 onwards due to the previously described sale of a portion of this business line. This was not deemed a significant loss because connected fitness only accounted for roughly 3% of the company's total revenues in 2019 and 2020.

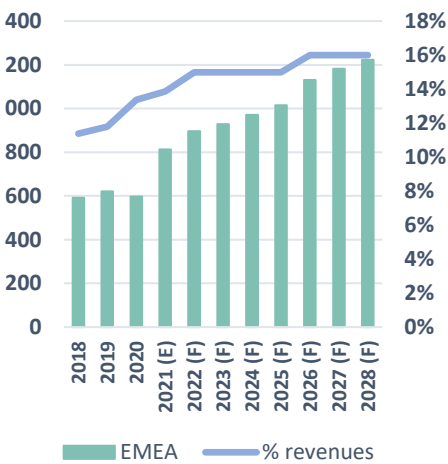
**Licensing Revenues** have the lowest weight of all business categories, accounting for about 2% of total revenues, from 2021 onwards. In Exhibit 24, this category's growth rate increased 7% between 2020 and 2021, owing to the overcoming of the pandemic shock and the expansion of its partner businesses globally, particularly in the North American market. As the market stabilizes, we predict this growth to fall from 7% to 5% between 2021 and 2022.

Aside from the segmentation, we conducted a further in-depth examination by geographical region. As consumer trends, spending power, and economic conditions differ greatly between regions, as their revenues and weight in UA's total revenues shift.

As previously stated, the **North American** market consists of Under Armour's biggest source of revenues, representing in 2021, approximately, 65% of the total revenues, corresponding to \$3 828 million. Despite being one of the company's main focuses and having a significant impact on UA's performance, it is the most difficult market to grow significantly, as brand awareness is quite high. As seen in Exhibit 25, the revenues in this market are expected to grow, at a rate of approximately 4% per year, from 2021 to 2028. Still, the weight in the overall revenues will drop, due to the other regions' expected growth. From 2021 to 2022, the weight of this region on the company's overall revenues will decrease from 65.2% to 62%, reaching the lowest weight, of 58%, in 2028. UA is attempting to optimize every aspect of this market through a variety of measures. To begin, the company is working to improve inventory planning and execution. Second, it is investing in and developing footwear and women's businesses, delivering differentiation at all points of distribution, and controlling premium growth through selective distribution expansion. This leads us to believe that it will experience a growth in the coming years.

**EMEA** has a lot of potential, in 2021, the region accounted for about 14% of the total revenues, meaning \$813 million. We believe that the revenues in this region will continue to increase, as well as the weight this segment has on total revenues. From 2021 to 2022, the EMEA region will represent more 1.1% of the total

**Exhibit 26:** EMEA Revenues and its percentage on Total Revenues (in millions of \$)



Source: Company Data and Own Estimations

revenues, moving from 13.9% to 15%. From 2026 onwards, we consider that the region would account for 16% of the total revenues (Exhibit 26). Regarding the revenues' growth, the rate will be around 4% over the years. This slight increase of revenues over the years can be justified over the growth in wholesale and DTC business, partially due to e-commerce, with significant strength across wholesale and distributor partners. UA is investing in service level excellence and brand awareness to lay the groundwork for strategic growth and the creation of a profitable brand in EMEA. Furthermore, global health consciousness and the casualization of dress codes, particularly in Europe, as well as increased funding to inactive populations, particularly the elderly, will contribute to the potential growth of this region. From 2025 to 2026, the growth rate will increase significantly to 11.4%, since e-commerce will triple in 2025, as we will better explain in the next region.

**Asia-Pacific** is the geographical region with the most potential, as the consumer trends change quickly in this area, especially in the digital business.

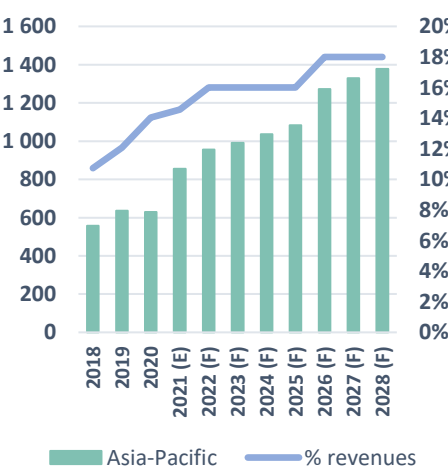
From 2020 to 2021 the Asia Pacific's net revenues grew 36%. This growth can be explained by the investment of a huge amount of money, by the government, in sports. According to the data issued, in February 2020, by the Economic Times, \$401.6 million, were allocated by the Indian government to the sports budget.<sup>32</sup>

Furthermore, the growth of certain sports domains, such as cricket, led people to start playing the sport whether professionally or as a hobby, which increases the purchase of sportswear products, including UA's.

In 2021, it accounts for 14.6% of the total revenues, which represents \$855 million. In 2022, we consider that Asia Pacific can reach a percentage of 16% of UA's total revenues, increasing to 18% of total revenues from 2026 onwards (Exhibit 27).

Regarding this segment's growth rate, it is expected to reach a 5% growth from 2022 until 2025. However, from 2025 to 2026, this growth will increase significantly to 17.4%, returning to 4% after 2026. Similarly to EMEA, this sudden growth, and increase in weight regarding the company's total revenues, in 2026, can be justified by a study, conducted by Facebook and Bain&Co.<sup>33</sup> According to this study, e-commerce spending will triple by 2025, creating numerous opportunities for UA to differentiate itself in its DTC digital business. Furthermore, several countries in this region, such as India and China, are seeing an increase in demand for sportswear products as their disposable income rises. Under Armour is attempting to broaden the market and instill fitness in people's minds. We see the company driving

**Exhibit 27:** Asia-Pacific Revenues and its percentage on Total Revenues (in millions of \$)

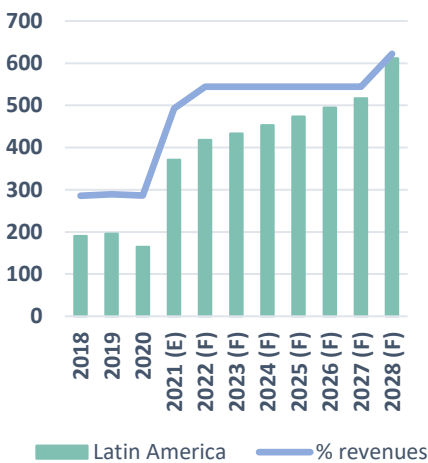


Source: Company Data and Own Estimations

<sup>32</sup> Fortune Business Insights. Retrieved from: <https://www.fortunebusinessinsights.com/sportswear-market-102571>

<sup>33</sup> Bain & Company. 2020. Retrieved from: <https://www.bain.com/globalassets/noindex/2020/report-riding-the-digital-wave.pdf>

**Exhibit 28:** Latin America Revenues and its percentage on Total Revenues (in millions of \$)



Source: Company Data and Own Estimations

demand through localized brand heat, satisfying consumer desire through controlled expansion, and delivering balanced growth with higher profitability.

**Latin America** is currently the region that represents less of the company's total revenues, generating, in 2021, 6% of total revenues, corresponding to \$372 million. The economic crisis in Argentina and Brazil, that led to a reduction of the region's GDP, is one of the reasons for the lower revenues' level, once compared with the aforementioned regions. This market is also expected to increase its weight, mostly driven by the digital sector and economic recoveries. In 2022, this region will account for more 0.7% of the company's total revenues, when compared to 2021. From 2027 to 2028, this percentage is expected to increase from 7% to 8%. Additionally, this segment's net revenues are expected to grow 18.4%, from 2027 to 2028 (Exhibit 28). This increase is justified by positive market forecasts, which are good indicators of future growth. According to these projections, consumer disposable household income in Latin America will increase by 22% by 2028,<sup>34</sup> resulting in increased middle-class growth and final consumption. To drive sustainable revenue growth while improving profitability, UA is willing to invest in full-price DTC experiences and build brand awareness through premium distribution.

Once we compare the weights of the international regions and North America, which account for 34.8% and 65.2% of UA's total 2021 revenues, respectively, we see a significant difference. This disparity, along with the examined indexes and UA's competitor's international influence, demonstrate that investing in international expansion, with a focus on innovation and digitalization, is the best strategy for the company to increase its market share and performance.

#### ▪ Cost of Goods Sold

Our COGS estimates were influenced by the prospects' costs of the various business divisions. As previously stated, Under Armour will introduce innovative products that emphasize quality, moving the product mix toward more expensive products. As a result, more costlier products may result in a rise in COGS.

The **Apparel** sector has the greatest COGS, with a gross margin of 51% relative to its revenues. Clothing products will cost the corporation \$1 894 million in 2021. This value is predicted to rise by roughly 3% per year as a result of developments in the apparel sector and rising customer demand. As customers push themselves to participate in physical activities such as running, aerobics, and yoga, as well as their desire to retain a sporty look by following fashion trends, the sports apparel

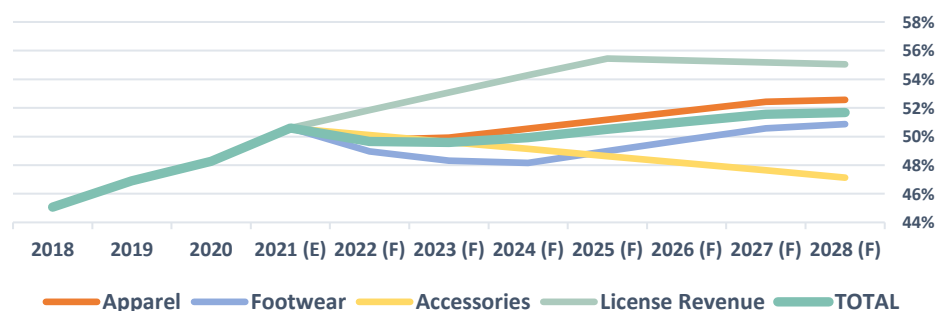
<sup>34</sup> World Development Indicators and OECD

market will be pushed to grow these trends even further<sup>35</sup>. We expect that COGS will continue to rise in absolute terms in the future, but that the gross margin will rise above 50% due to the strongest revenue growth, as can be seen in Exhibit 29. We project that the cost of apparel will reach \$2 400 million by 2028.

**Footwear** is predicted to be UA's key investment; hence it is expected to have the largest COGS growth, at 6% in the next three years and 4% beyond that. In 2021, they grew their COGS by 36%, reaching a total value of \$656 million. As stated in the revenue section, the company is pushing the boundaries of innovation and technology in footwear in order to boost its gross margin. Although the footwear goods use raw materials acquired from a varied range of third-party sources, they are prone to price swings due to the usage of petroleum-based components, which are likely to become more expensive in the future. Furthermore, the majority of the materials used in UA's products are technically advanced and can only be obtained from a few number of suppliers<sup>36</sup>. These two factors lead us to think that the cost of footwear will rise dramatically. As a result of this massive expenditure, the gross margin will remain below the 50% threshold in the coming years when compared to revenues, but it is predicted to reach that mark in 2027 (Exhibit 29).

We anticipate a consistent 4% increase in **Accessories**. Because of the complexity of various accessories and the materials used, this sector has a high COGS. In 2021, the costs reached almost \$300 million, with a gross margin of roughly 51%. Nonetheless, as more people participate in sports, consumer expenditure on sports accessories will increase, not only for utility but also for aesthetic purposes. Furthermore, a greater emphasis on the integration of technology and changing needs will drive the market for additional types of accessories, driving the COGS even higher. However, as demonstrated in prior years, the gross margin for Accessories has always been less than 50%, and we expect this to continue for at least the next few years (Exhibit 29).

**Exhibit 29: Gross Margin by Business Unit and Total**



Source: Company Data and Own Estimations

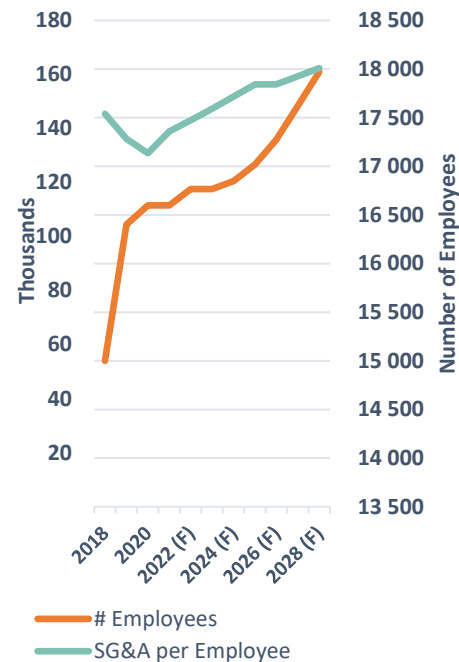
<sup>35</sup> Market Research Report. Retrieved from: <https://www.factmr.com/report/276/sports-apparel-market>

<sup>36</sup> Knoema. 2021. Retrieved from: <https://pt.knoema.com/infographics/yxtpab/crude-oil-price-forecast-2021-2022-and-long-term-to-2050>



## ▪ Selling, General and Administrative Expenses

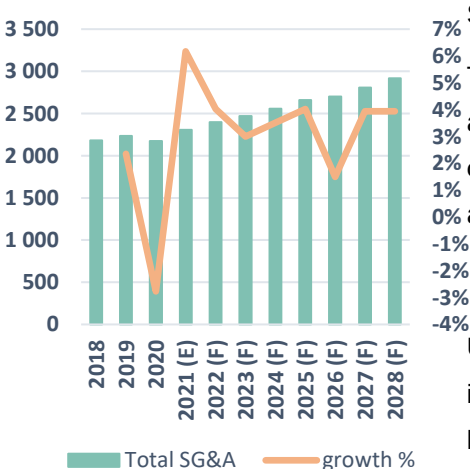
**Exhibit 30:** Number of Employees and SG&A per Employee



Another major category in Under Armour's financial reports is Selling, General, and Administrative costs. Obviously, with a global and domestic expansion strategy, additional brand stores will open, and current ones will be renovated and/or enlarged. As a result, the **Number of Employees**, as well as sales and general operations, will rise to meet demand. They increased from 15 000 to 16 600 employees between 2018 and 2021. We soon estimate a slight increase as a result of the Covid-19 epidemic, as the priority is to reintroduce existing personnel to their workplaces. However, with the end of the pandemic and UA's global expansion strategy, growth is projected to accelerate even more. By 2026, we predict this growth to reach 2%, and it will gradually increase until it stabilizes at 3% by the conclusion of the projected period (Exhibit 30). UA is expected to have 18 000 employees by 2028.

The decrease in the unemployment rate will also follow along with the expected rise in **SG&A per Employee**. In recent years, the SG&A per employee has been relatively stable, never exceeding \$140 thousand, but as operations become more profitable, we expect the corporation to increase employee expenses such as salaries. We also have to keep up with the inflation rate, so we anticipated the growth of SG&A per employee in the next years based on the inflation estimates for the next several years. According to HIS Markit, inflation will be 3% until 2024/25, when it will begin to drop<sup>37</sup>. According to the company's proxy papers, UA also plans to enter both foreign and female markets. As a result, we anticipate that the company will consistently grow SG&A per person by 3% over the next few years. Later, the SG&A per employee will slow down its increase. We expect the SG&A per employee to reach \$150 thousand in 2024.

**Exhibit 31:** Total SG&A and its growth (in millions of \$)



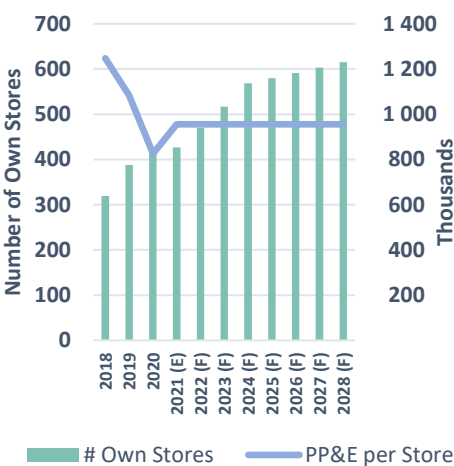
These two captions will majorly affect the overall growth of SG&A, which will be at a CAGR of 4% over the years. This growth is reasonable once we consider the company's strategy. In 2021, the company accounted for \$2 306 million in SG&A and in 2028 almost \$3 000 million (Exhibit 31).

## ▪ Property, Plant & Equipment

Under Armour's strategy to expand at a rapid pace will require huge investments in CAPEX. The overall PP&E is divided into three categories: store-related PP&E, headcount-related PP&E, and other PP&E. In previous years, the company's PP&E did not increase; for example, from 2019 to 2020, it dropped 17 percent, and

<sup>37</sup> IHS Markit. 2021. Retrieved from: <https://ihsmarkit.com/research-analysis/global-economic-growth-inflation-will-slow-in-2022.html>



**Exhibit 32: Number of Own Stores and PP&E per store**


Source: Company Data and Own Estimations

the next year, it declined 11 percent. Mostly due to a drop in investment as a result of the pandemic. However, we predict it will begin to rise after 2022.

The **Store-related PP&E**, driven by the growth of stores, includes leasehold improvements, furniture, fixtures, displays, and buildings. As previously stated, Under Armour has a defined expansion target, thus store-related PP&E is likely to expand. UA has spent around \$400 million per year on store-related PP&E over the last four years. However, with the conclusion of the pandemic and future expansion plans, we anticipate a 10% increase in the overall number of own stores until 2024, followed by a smaller but consistent 2% increase thereafter. They had 427 own stores in 2021 and are planned to reach 615 by 2028. We expect the PP&E per Store to remain constant at \$955 thousand per store. The prospects seen in Exhibit 32 will cause the store-related PP&E to be slightly more than half a billion dollars throughout the same time period.

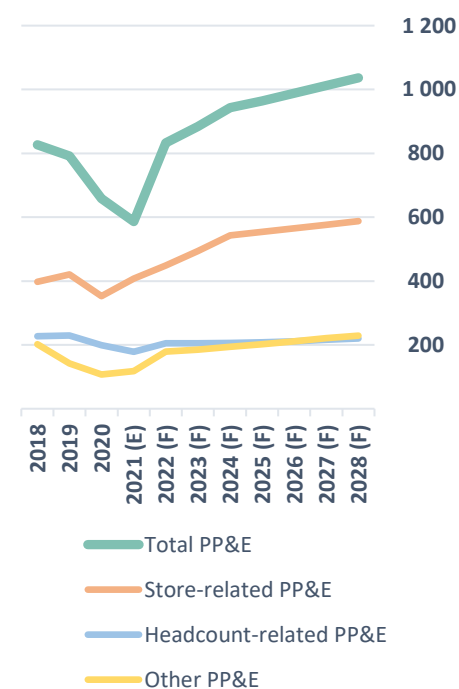
**Headcount-related PP&E** is the cost of PP&E per employee, which is determined by the number of employees, software, and office equipment. As stated in the SG&A section, the number of employees is likely to rise somewhat in the coming years before stabilizing at 3%. The PP&E per employee will also rise slightly compared to 2021, when it was \$11 000. As the businesses become more profitable, so will the fixed asset conditions offered to employees increase. We anticipate that the PP&E per employee will be \$12 000 after the epidemic, or from 2022 onward. These two variables, when combined, will dramatically increase headcount-related PP&E to levels comparable to those witnessed in 2018/2019.

**Other PP&E** accounts, such as plant equipment, land, and work in progress, are long-term assets critical to business operations and will remain stable, following the same pattern as in previous years.

In Exhibit 33, we can see that these factors will drive up the total PP&E, in 2022, to numbers only seen in 2018. From 2021 to 2022, we expect a total increase of 42% and after that a single-digit growth. In 2027, the total PP&E is expected to reach \$1 billion. Nevertheless, it is a crucial and mandatory expense for an efficient expansion and performance.

#### ▪ Net Working Capital

Under Armour's capacity to manage its working capital is another critical determinant of value creation. The changes in this input are impacted by the variations in Inventories, Accounts Receivable, Accounts Payable, Operating Cash, Prepaid Expenses and Other Current Assets, Customer Refund Liabilities and Accrued Expenses.

**Exhibit 33: Total PP&E and its divisions (in millions of \$)**


Source: Company Data and Own Estimations

**Inventory management** is critical to a company's financial health and operating success, but as previously noted, Under Armour has struggled in this area in recent years. Nonetheless, the corporation indicated that a strategy is in place to address this issue. It involves maintaining inventory levels based on existing orders, predicting sales, and meeting the company's customers' needs for quick delivery. The inventory strategy focuses on meeting consumer demand while improving inventory efficiency over time by implementing systems and processes to improve inventory management<sup>38</sup>. These systems and processes, which include worldwide operating and financial reporting information technology platforms, are intended to boost forecasting and supply planning capabilities. In addition to systems and processes, UA believes that adding discipline around product acquisition, reducing production lead times, and improving planning and execution in the sale of excess inventory through factory house stores and other liquidation channels will improve inventory performance.

These efforts will allow the **Average Holding Period (AHP)** to drop at a consistent rate of 2% over the years. The AHP in 2021 was the lowest compared to prior years since an inventory lasted in the company for an average of 103 days. We predict that it will reach standard levels in 2022, with 129 days, and thereafter decrease at the rate already specified by implementing the inventory strategy. In 2028, we expect the AHP to be 115 days (Exhibit 34). Despite the fall in AHP, which should reduce the value of inventories, this account is predicted to grow dramatically, from \$820 million in 2021 to \$1 161 million in 2028, as COGS are expected to rise at a quicker rate.

The **Average Collection Period (ACP)**, which has a direct impact on Accounts Receivable, has risen in two of the last three years. In 2021, it took the corporation 49 days on average to collect client sales. We anticipate that it will remain the same in the future because the company will retain its trade terms management conditions (Exhibit 34). Accounts Receivable are likewise predicted to rise, from \$790 million in 2021 to \$1 029 million in 2022, as a result of the absolute growth in Sales.

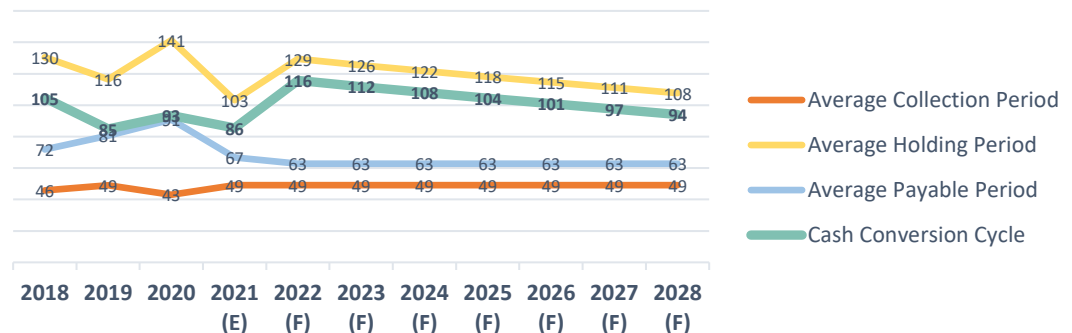
The **Average Payable Period (APP)** is expected to fall slightly in 2022, as in 2021, and then remain constant thereafter, with the corporation typically taking 63 days to settle with its suppliers (Exhibit 34). Because of the increase in COGS from \$531 million in 2021 to \$636 million in 2028, Accounts Payable follows the same rising trend as the two prior accounts.

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<sup>38</sup> Under Armour Annual Report

All of these events will have a substantial impact on the company's **Cash Conversion Cycle (CCC)**. There are significant changes from 2018 to 2021, due to the Covid-19. In 2018, the company took an average of 105 days to complete its typical trade cycle. In 2021, however, it only took 86 days (Exhibit 34). Overall, the CCC has been falling, which is a favorable indication that Under Armour is reducing its risk and placing less pressure on liquidity, allowing cash flow to generate faster to support the company's needs. We anticipate that Under Armour will take an average of 94 days to complete the usual trading cycle in 2028.

**Exhibit 34:** Forecast of CCC, AHP, ACP and APP (in days)



Source: Company Data and Own Estimations

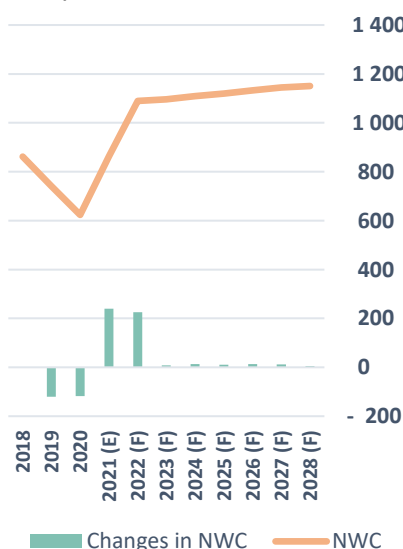
The other accounts vary according to sales and cost of sales, so their changes are not driven by any particular strategy or action the company tends to make.

As a result, we can see that Under Armour's Net Working Capital is increasing year after year. Despite the unfavorable shifts from 2019 to 2020, 2021 has already shown promising signs, with a \$240 million rise over the previous year. Furthermore, the numbers will become even more positive in the next years, implying that there is less risk that the company would be unable to pay its short-term loans. The total NWC will move slightly but will virtually always remain near the \$1 billion threshold (Exhibit 35). This adequate handling of short-term debt will allow Under Armour to invest this capital in marketing, IT, and expanding its foreign DTC footprints.

### Cost of Capital & Growth Rate

Under Armour has a mid-low level of leverage, as evidenced by their debt-to-value ratio of 0.22. As a result, it is a corporation that finances its activities and investments with little debt and excess cash. This is Under Armour's current capital structure. We anticipate that it will remain stable because it is the optimal combination of debt and equity financing for maximizing the company's market value while lowering its cost of capital.

**Exhibit 35:** Net Working Capital Predictions (in millions of \$)



Source: Company Data and Own Estimations

The Capital Asset Pricing Model (CAPM) is used to calculate the cost of equity. There are three inputs required: the Risk-free Rate, the Market Risk Premium, and the Beta.

According to Bloomberg, the most appropriate **Risk-free Rate (Rf)** is the most recent 10-year US government bond yield of 1.53%.

**Exhibit 36:** Cost of Capital Inputs Table

| Inputs              |              |
|---------------------|--------------|
| Target D/E          | 0.22         |
| Risk-free Rate (Rf) | 1.53%        |
| Corporate Tax Rate  | 21%          |
| MRP                 | 5.50%        |
| Beta Levered        | 0.669        |
| Beta Unlevered      | 0.544        |
| Cost of Equity (Re) | 5.21%        |
| Cost of Debt (Rd)   | 1.42%        |
| <b>WACC</b>         | <b>4.47%</b> |

Source: Bloomberg and Own Calculations

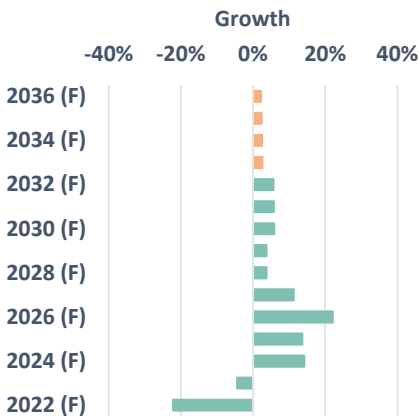
We found three reliable studies for the **Market Risk Premium (MRP)**, namely KPMG Corporate Finance NL, Duff & Phelps, and a survey conducted among economic/finance academics, analysts, and managers, which are going to be discussed further in the sensitivity analysis. Because they assume different values based on different assumptions, we found that the MRP ranged from 5% to 6%. Based on this range, we believe that 5.5% is the most appropriate figure for the MRP, given two of the aforementioned studies, Duff & Phelps and the survey, which see this percentage as the most accurate.

Regarding the **Levered Beta**, we regress Under Armour's stock returns, using data from the last 6 years. The market proxy appropriate to proceed with the regression is the MSCI World Index, which captures large and mid-cap representation across 23 Developed Markets countries and covers approximately 85% of the free float-adjusted market capitalization in each country. To prevent biases associated with shorter time periods, monthly results are preferred over weekly or daily returns. The raw beta is 0.122, whereas the standard error of the regression is 0.037. Thus, depending on the confidence interval, the true beta might have a wide range of values, making this method quite imprecise and creating a significant impact on the company's worth.

The solution to improve the beta estimation and cross-check the result achieved is to analyze 6 industry peers<sup>39</sup>: Lululemon, ASICS, Puma, Adidas, Nike and Columbia. By doing so, we decrease the effect of idiosyncratic shocks. The comparables' betas led to an industry **Unlevered Beta** of 0.544. A beta of this value implies that these securities' prices are half as volatile as the overall market. When we take a look back at the Sportswear Industry, we can perceive the correlation between the overall state of the economy and sports apparel. People with less purchasing power, for example, are more focused on the consumption of primary products as a result of the present pandemic, whereas fashion and sports items become an afterthought.

Lastly, the unlevered beta is re-levered by applying UA's target debt-to-equity ratio of 0.22, yielding a levered beta of 0.669.

<sup>39</sup> Yahoo Finance

**Exhibit 37:** Expected Annual Growth Rate


Source: Own Calculations

The **Cost of Debt** of 1.42% has as inputs the company's yield to maturity (YTM), the probability of default and the recovery rate. Under Armour's YTM is determined by the 10-year Corporate Bond issued by the company at 2.09%. The probability of default is 16.72%, found on Moody's average cumulative issuer-weight global default rate graph, as UA's credit rating is Ba3. The recovery rate, based on Moody's annual defaulted corporate bond and loan recoveries, is 56.50%.

The parameters aforementioned, helped to find Under Armour's **Cost of Equity** of 5.21%. Which together with a MRP of 5.5% and a beta levered of 0.669, reached a **WACC** level of 4.47% (Exhibit 36).

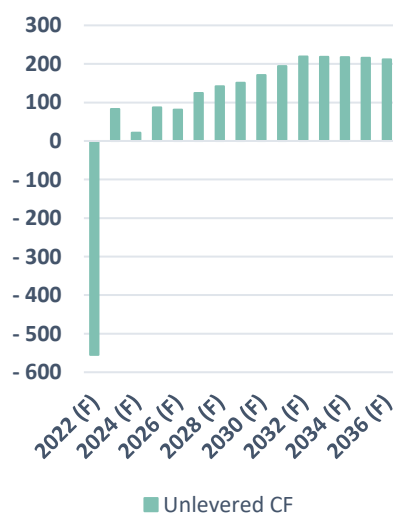
The **Perpetual Growth Rate** is the annual rate at which Under Armour is predicted to grow in perpetuity. We arrived at the prospective growth of the company by combining the terminal RONIC with the Investment Rate of New Capital. We saw some stability in the last four years of our estimate (2033 to 2036), so we averaged those years into the expected terminal growth rate of 2.44% (Exhibit 37). Given its importance, this parameter will be tested further in the sensitivity analysis section.

## Valuation Outcome

### ▪ Discounted Cash Flow Method

Under Armour's value was calculated using the DCF approach, which is a model that discounts the expected free cash flow at the WACC. Based on the company's goal and all that has been said so far, we expected that Under Armour will manage its capital structure to a target level, making the DCF the best model to assess its worth. Based on the forecasted values, we can conclude that UA is expected to have inconsistency in FCF during the next three years. This inconsistency is understandable given that it will take several years for the corporation to achieve consistent cash flows following the Covid-19 outbreak. Nonetheless, we anticipate an increasing trend in the long run. This development is mostly due to a rise in sales, a favorable result of net working capital, and CAPEX investment. The terminal value, which indicates steady-state performance, is a key estimation that is critical to a good valuation.

In our case, we expect a terminal FCF value of \$212 million and an enterprise value of \$10 453 million in 2036 (Exhibit 38). After deducting the value of financial debt and discounting the FCF until 2022, the equity value was \$6 850 million. We assumed that the number of shares outstanding of Under Armour's Class A stock would remain constant in the future at 253.020 million. We used a WACC of 4.47% and a terminal growth rate of 2.44% to arrive at a final target price, as indicated in the cost of capital and growth rate section.

**Exhibit 38:** Under Armour's Expected Unlevered FCF (in thousands of \$)


Source: Own Calculations

**Exhibit 39: DCF Valuation Outcome Table**

| <i>in thousands, except per share values</i> | <b>DCF</b>   |
|----------------------------------------------|--------------|
| <b>Value of equity in 2022</b>               | 6 850 228    |
| <b>Price per share (implied)</b>             | <b>27.07</b> |
| <b># of Class A outstanding shares</b>       | 253 020      |
| <b>Current Price per share</b>               | <b>24.45</b> |
| <b>Capital Gain per share</b>                | 2.62         |
| <b>Return per share</b>                      | <b>11%</b>   |

Source: Bloomberg and Own Calculations

The outcome was a YE2022 target price of \$27.07 per share, a total capital gain of \$2.62 per share, given the current share price of \$24.45 per share (Exhibit 39).

With a final return of 11%, our model discloses a **BUY recommendation**.

We conducted a **Value Creation Analysis** (figure in the Appendix) and determined that Under Armour is expected to create value by 2024 which is a good indicator that the strategies implemented will reward the company in due time. In prior years, the RONIC was lower than the cost of capital (WACC), making value creation impossible.

### ▪ Multiples Valuation

We performed a multiples valuation to complement the DCF method.

To make a good choice of UA's comparables, we considered the business model, which is based on an investment in a good R&D department with an emphasis on innovation; the revenue level obtained by selling similar types of products; and the target customers. Nike, Adidas, Puma, Lululemon, Asics, and Colombia were the chosen comparables.

Several factors were considered to determine which multiples would be better suited to the valuation. To begin with, because sales are volatile, especially during a pandemic, when the global economic situation can suddenly worsen, negatively affecting the CCI, and decreasing sales, we decided not to base ourselves on this metric. Second, because UA and its peers have a significantly high level of investment, particularly in marketing and R&D, we found EV/EBIT to be more accurate than EV/EBITDA, as EBITDA may lead to an overvaluation of the firm's value by not taking into account the investments made. As a result, we concluded that **P/E** and **EV/EBIT** are the most reasonable multiples, based on the company's value and capital structure, even though earnings can change based on a one-time event. Note that, associating the EV multiple with the equity multiple is essential, as the first allows for a direct comparison between firms regardless of capital structure and is less affected by any accounting differences that may arise.

**Exhibit 40: EV/EBIT and P/E multiples of Under Armour and its comparables**

|                    | <b>EV/EBIT</b> | <b>P/E</b>   |
|--------------------|----------------|--------------|
| Under Armour       | 23.67x         | 29.50x       |
| Lululemon          | 51.32x         | 69.70x       |
| ASICS              | 20.85x         | 85.06x       |
| Puma               | 28.24x         | 46.79x       |
| Adidas             | 24.21x         | 33.61x       |
| Nike               | 36.33x         | 43.37x       |
| Columbia           | 17.46x         | 23.53x       |
| Median             | 26.23x         | 45.08x       |
| <b>Share Price</b> | <b>22.62</b>   | <b>41.55</b> |

Source: Bloomberg and Own Calculations

Puma is the most accurate comparable of the company when comparing the EBITDA margin deviation, the D/E and revenue deviations of UA's peers to UA. Its EBITDA margin deviation to Under Armour is 1.70%, the D/E deviation is 0.67%, and the revenue percentage deviation is 35%, which appears to be significantly high, but when compared to Nike's revenue deviation to UA, it becomes acceptable.

To calculate the UA's share price, we decided to use the median, as the ratios were quite different among UA's peers. Under Armour would reach a share price



of \$22.62 through the EV/ EBIT ratio and \$41.55 with the P/E ratio (Exhibit 40). The average of both ratios leads to a UA share price of \$32.08. This value is higher than the actual share price achieved by the company, which is approximately \$24.45, on 16 December 2021. This emphasizes the importance of ensuring that the chosen comparables are of sufficient quality to estimate the firm's future conditions and that the time reference on which the estimations are based is appropriate. One period will almost certainly not provide an accurate estimate of UA's value, especially with the pandemic situation affecting the accuracy of these results even more. In fact, 5 of the 6 comparables have a higher P/E ratio than UA, resulting in an overvaluation of Under Armour's value.

**Exhibit 41:** Multiples Valuation Outcome Table

| in thousands, except per share values |           |
|---------------------------------------|-----------|
|                                       | Multiples |
| Price per share (implied)             | 32.08     |
| # of Class A outstanding shares       | 253 020   |
| Current Price per share               | 24.45     |
| Capital Gain per share                | 7.63      |
| Return per share                      | 31%       |

Source: Bloomberg and Own Calculations

The outcome was a YE2022 target price of \$32.08 per share, a total capital gain of \$7.63 per share, given the current share price of \$24.45 per share (Exhibit 41).

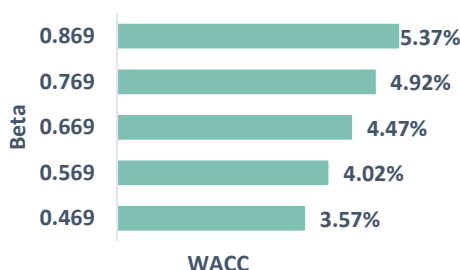
With a final return of 31%, our model discloses a **BUY recommendation**.

## Sensitivity Analysis

Under Armour, like other companies in the same industry, is facing a number of changes that could have a significant impact on the company's expected value. These changes can be triggered not just by internal difficulties such as supply chain management, but also by external factors such as changes in customer preferences, the CCI, the unemployment rate, and even the PMI. In this section, we will examine how the price of UA's stock changes when variables change.

Before jumping to conclusions, we thought it would be best to examine an essential major driver of valuation, the WACC. Because this rate was mostly influenced by the Beta and the Market Risk Premium (MRP), we created two more sensitivity analyses on it, one with a changing Beta and the other with a changing MRP.

**Exhibit 42:** WACC variation with Changing Beta

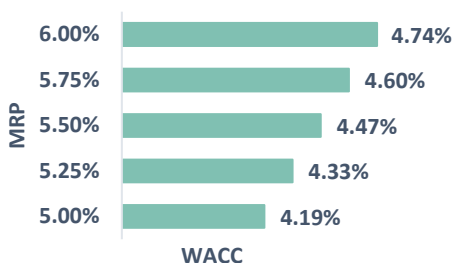


Source: Own Calculations

We **changed the Beta** from 0.469 to around 0.868 in the first sensitivity analysis. The Levered Beta is calculated using industry statistics and UA's capital structure. Because the company's capital structure is not expected to change, the only conclusion is that there may be some deviations from the comparables. Furthermore, we wanted to see how the WACC would react to securities with half the volatility of the general market - beta of about 0.5 - against securities with half the volatility of the whole market - beta of about 1. In this case, the WACC ranged from 3.57% to 5.37% (Exhibit 43).

In the latter analysis, we wanted to understand the reaction of the WACC when the **MRP changes**. After some research, it seems that there is not a consensus

**Exhibit 43: WACC variation with Changing MRP**



Source: Own Calculations

regarding the current MRP in the US. KPMG Corporate Finance NL<sup>40</sup> released a study recommending a MRP of 5%; a survey<sup>41</sup> that gathered 1756 answers from finance/economic professors, analysts and managers averaged the MRP of the US to 5,5%; Duff & Phelps<sup>42</sup> recommended a 6% to 5,5% MRP when developing discount rates. Based on these 3 reliable studies, we can understand that the current MRP stands between 5% and 6%. By considering this range for the MRP, we analyzed the influence it has on our discount rate. The results of the WACC, in this situation, ranged from 4.19% to 4.74% (Exhibit 42).

Ultimately, these 2 gaps were used to see the overall impact of the WACC on the final value of the company.

The Terminal Growth is the second major component that has a substantial impact on Under Armour's final target price. Thus, a reasonable proxy for understanding that influence would be to see how the target price changes once faced with the forecast's minimum growth rate (2.26%) and the maximum growth rate achieved in the same period (2.61%).

The green zone represents a return higher than 10%, meaning the potential investor should BUY, the yellow zone stands for a return between 0% and 10%, meaning the potential investor should HOLD, and finally the red zone guarantees a negative return, meaning the potential investor should SELL.

Because the previously indicated rates are quite volatile, the goal price will be particularly sensitive to both parameters. When the rates fluctuate marginally, the share price shows a distinct progression.

According to our analysis, the share price of Under Armour can range between \$16.64 (-32% return) and \$39.80 (63% return) per share. In Exhibits 44 and 45, one can see the Share Price and its Returns, as the variables change values. In regards of the final price, the sensitivity analysis uses the same reasoning as the DCF valuation approach, yielding a value of 4.47% and terminal growth of 2.44%. By taking these two variables, which we believe are the best fit for Under Armour's valuation, as stated in the previous two sections, we arrive at a final price of \$27.07 per share. As this price is included in the green zone, with a return higher than 10%, we remain with a **BUY recommendation**.

<sup>40</sup> KPMG Report. 2021. Retrieved from:

<https://indialogue.io/clients/reports/public/5d9da61986db2894649a7ef2/5d9da63386db2894649a7ef5>

<sup>41</sup> SSRN. 2021. Retrieved from: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3861152](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3861152)

<sup>42</sup> Duff&Phelps. 2021. Retrieved from: <https://www.duffandphelps.com/insights/publications/valuation-insights/valuation-insights-first-quarter-2021/duff-and-phelps-recommended-us-equity-risk>

**Exhibit 44: Under Armour's share price with Changing WACC and Terminal Growth**

|       | 2.26% | 2.38% | 2.44% | 2.50% | 2.61% |
|-------|-------|-------|-------|-------|-------|
| WACC  | 32.13 | 34.48 | 35.67 | 37.01 | 39.80 |
| 4.02% | 28.88 | 30.81 | 31.78 | 32.86 | 35.06 |
| 4.19% | 26.73 | 28.42 | 29.26 | 30.18 | 32.05 |
| 4.33% | 24.85 | 26.35 | 27.07 | 27.88 | 29.49 |
| 4.47% | 23.20 | 24.53 | 25.17 | 25.87 | 27.27 |
| 4.60% | 21.72 | 22.92 | 23.49 | 24.11 | 25.34 |
| 4.74% | 20.05 | 21.10 | 21.60 | 22.14 | 23.20 |
| 4.92% | 16.64 | 17.45 | 17.82 | 18.21 | 18.97 |
| 5.37% |       |       |       |       |       |

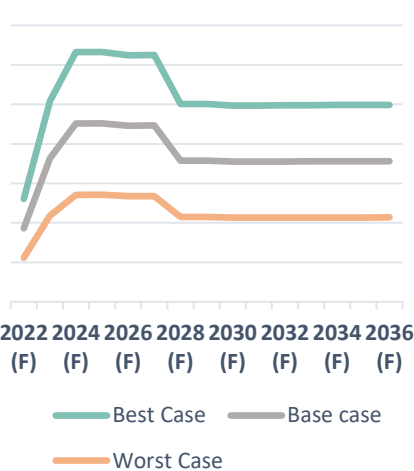
Source: Own Calculations

**Exhibit 45: Under Armour's return per share with Changing WACC and Terminal Growth**

|       | 2.26% | 2.38% | 2.44% | 2.50% | 2.61% |
|-------|-------|-------|-------|-------|-------|
| WACC  | 31%   | 41%   | 46%   | 51%   | 63%   |
| 4.02% | 18%   | 26%   | 30%   | 34%   | 43%   |
| 4.19% | 9%    | 16%   | 20%   | 23%   | 31%   |
| 4.33% | 2%    | 8%    | 11%   | 14%   | 21%   |
| 4.47% | -5%   | 0%    | 3%    | 6%    | 12%   |
| 4.60% | -11%  | -6%   | -4%   | -1%   | 4%    |
| 4.74% | -18%  | -14%  | -12%  | -9%   | -5%   |
| 4.92% | -32%  | -29%  | -27%  | -26%  | -22%  |
| 5.37% |       |       |       |       |       |

Source: Own Calculations

## Scenario Analysis

**Exhibit 46: Revenue Growth in Best, Base and Worst Case Scenarios**


Source: Own Calculations

To better understand Under Armour and its stock sensitivity to external drivers, we created a best-case and worst-case scenario. After analysing the risk factors faced by the company, we concluded that the demand and consumer preferences, the Covid 19 pandemic and the Macroeconomic conditions are the best drivers for our scenario analysis.

### Best Case Scenario

In the best-case scenario, demand would rise faster, the pandemic situation would improve, Covid-related restrictions would be lifted, and existing trade, tariff, and tax regulations would be followed. For a higher increase in demand, we considered that UA could further expand the business, driving brand awareness in other countries, having the ability to launch innovative products. And, the global population's concerns regarding a healthy lifestyle would rise. These factors would lead to a faster increase in revenues. The improved pandemic situation and the removal of Covid 19-related restrictions would result in a faster increase in revenues due to improved financial health of UA's customers, an increase in the CCI, and a decrease in the unemployment rate. Furthermore, the cost of sales would be reduced due to the stabilization of supply chains, as fabrics and stores would remain open, there would be no failure of suppliers and manufacturers to produce or deliver the products in a timely and cost-effective manner, and inventory management would be more efficient. Finally, because international trade would be facilitated, there would be good compliance with existing trade, tariff, and tax regulations, resulting in a decrease in the cost of sales.

As mentioned before, the change implied by these assumptions would impact the company's revenues and the COGS, with a consequent change of the expected gross margin. We considered that the revenues growth rate, would be 40% higher than the expected growth rate. Therefore, the growth would be 5%, in 2023, increasing to 6%, from 2023 to 2024 (Exhibit 46), reaching a steady state of 5% in 2028. Regarding the COGS growth rate, we assumed it would decrease 40%

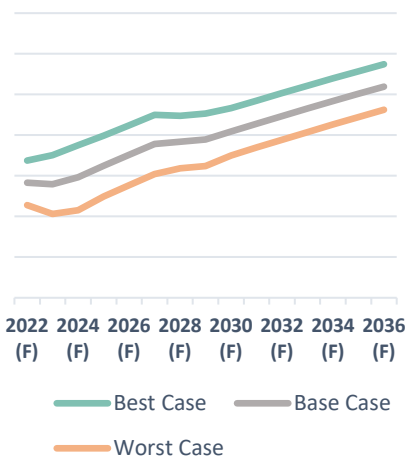
**Exhibit 47: COGS Growth in Best, Base and Worst Case Scenarios**


Source: Own Calculations

compared to the base case, yielding a constant growth of around 2% over the years (Exhibit 47). As an obvious consequence of these changes, the gross margin will change as well, increasing on average 1.26% compared to the expected growth rate (Exhibit 48).

#### ▪ Worst Case Scenario

**Exhibit 48:** Gross Margin in Best, Base and Worst Case Scenarios



Source: Own Calculations

Regarding the worst-case scenario, the revenues would increase slower, due to the decrease in the healthy concerns, UA would not expand globally, not increasing its market share and no innovative products would be launched. Furthermore, there would be a worsening of the Covid 19 pandemic and governments imposing restrictions, leading to a slower revenue increase caused by more caution with spending, as costumers would lose confidence in the market. The cost of sales would increase, due to the disruptions in the supply chains. Furthermore, existing trade tariffs and tax regulations would be violated, raising the cost of sales. Once again, the assumptions will negatively impact the revenues and COGS growth rate, leading to a lower gross margin. Starting by the revenues' growth rate, we assumed a decrease of 40% compared to the base case, leading to an approximate 3% growth rate from 2024 to 2027, decreasing to a growth of around 2%, in 2028 (Exhibit 46). Moving on to the COGS, the growth rate would increase 40% compared to the base case, yielding a constant growth of approximately 5% until 2029, reaching the steady state in this year with a 4% growth (Exhibit 47). As a consequence, the gross margin would decrease, on average, 1.29% compared to the current UA's gross margin (Exhibit 48).

## Final Recommendations

In our opinion, **Under Armour is on the right track**. By implementing cost-cutting initiatives, supply chain optimization, marketing investments, and developing innovative products, UA was able to beat earnings estimates in 2021. The company is actively avoiding the athleisure trend and gain a competitive advantage by focusing on investing capital in fitness technology and the new focused performer athlete. We are confident that this investment will be worthwhile because differentiation is essential for good positioning in the sportswear industry. The company should continue to collaborate with its suppliers to ensure supply chain optimization, particularly in terms of inventory control. In the long run, we advise the company to prioritize investments in product digitalization, not just in footwear, but also in the remaining products. Furthermore, Under Armour should invest more in international expansion, particularly in new markets.



# Appendix – Financial Statements

## Income Statement

| FORECASTED INCOME STATEMENT                  |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
|----------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <i>in thousands of \$</i>                    | 2018        | 2019        | 2020        | 2021 (E)    | 2022 (F)    | 2023 (F)    | 2024 (F)    | 2025 (F)    | 2026 (F)    | 2027 (F)    | 2028 (F)    | 2029 (F)    | 2030 (F)    | 2031 (F)    | 2032 (F)    | 2033 (F)    | 2034 (F)    | 2035 (F)    | 2036 (F)    |
| CORE                                         |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Revenues                                     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Apparel                                      | 3 462 954   | 3 482 709   | 2 883 914   | 3 832 443   | 3 883 002   | 4 012 089   | 4 185 665   | 4 366 701   | 4 555 514   | 4 752 435   | 4 910 139   | 5 073 016   | 5 241 233   | 5 414 962   | 5 594 382   | 5 779 677   | 5 971 035   | 6 168 653   | 6 372 731   |
| Footwear                                     | 1 062 817   | 1 090 441   | 934 771     | 1 327 610   | 1 362 782   | 1 426 454   | 1 507 461   | 1 592 925   | 1 683 088   | 1 778 202   | 1 860 469   | 1 946 381   | 2 036 095   | 2 129 774   | 2 227 589   | 2 329 716   | 2 436 341   | 2 547 656   | 2 663 862   |
| Accessories                                  | 422 354     | 417 845     | 414 276     | 595 314     | 613 174     | 631 569     | 650 516     | 670 032     | 690 132     | 710 836     | 732 162     | 754 126     | 776 750     | 800 053     | 824 054     | 848 776     | 874 239     | 900 466     | 927 480     |
| Connected Fitness                            | 120 317     | 136 866     | 135 877     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Licence Revenues                             | 124 743     | 139 272     | 105 829     | 113 336     | 119 003     | 124 953     | 131 200     | 137 760     | 140 516     | 143 326     | 146 192     | 149 116     | 149 862     | 150 611     | 151 364     | 152 121     | 152 882     | 153 646     | 154 414     |
| Net Revenues                                 | 5 193 185   | 5 267 132   | 4 474 667   | 5 868 703   | 5 977 961   | 6 195 065   | 6 474 843   | 6 767 419   | 7 069 250   | 7 384 799   | 7 648 962   | 7 922 640   | 8 203 940   | 8 495 400   | 8 797 390   | 9 110 290   | 9 434 497   | 9 770 421   | 10 118 488  |
| Costs of goods sold                          | (2 852 714) | (2 796 599) | (2 314 572) | (2 900 201) | (3 009 447) | (3 123 261) | (3 241 855) | (3 349 823) | (3 461 465) | (3 576 910) | (3 696 289) | (3 819 741) | (3 923 414) | (4 030 248) | (4 140 350) | (4 253 830) | (4 370 802) | (4 491 386) | (4 615 705) |
| Selling, General and Administrative Expenses | (2 182 339) | (2 233 763) | (2 171 934) | (2 305 995) | (2 398 927) | (2 470 895) | (2 557 747) | (2 660 824) | (2 700 736) | (2 807 091) | (2 917 634) | (3 032 531) | (3 151 952) | (3 276 076) | (3 405 088) | (3 573 878) | (3 751 035) | (3 936 974) | (4 132 129) |
| Core Result before taxes                     | 158 132     | 236 770     | (11 839)    | 662 507     | 569 587     | 600 909     | 675 241     | 756 772     | 907 049     | 1 000 798   | 1 035 038   | 1 070 368   | 1 128 574   | 1 189 077   | 1 251 952   | 1 282 582   | 1 312 660   | 1 342 061   | 1 370 653   |
| Statutory Taxes                              | (33 207)    | (49 722)    | 2 486       | (139 127)   | (119 613)   | (168 254)   | (189 068)   | (211 896)   | (253 974)   | (280 224)   | (289 811)   | (299 703)   | (316 001)   | (332 941)   | (350 547)   | (359 123)   | (367 545)   | (375 777)   | (383 783)   |
| Tax Adjustments                              | 12 060      | 22 560      | 172 194     | 17 310      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      | 56 031      |
| Core Result                                  | 112 865     | 164 488     | (181 547)   | 506 071     | 393 942     | 376 623     | 430 143     | 488 845     | 597 044     | 664 544     | 689 197     | 714 634     | 756 543     | 800 104     | 845 375     | 867 428     | 889 084     | 910 253     | 930 840     |
| NON CORE                                     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Restructuring and Impairment Charges         | (183 149)   |             | (601 599)   | (82 526)    | (105 413)   | (109 241)   | (228 349)   | (238 668)   | (399 914)   | (417 765)   | (432 709)   | (448 191)   | (464 104)   | (480 592)   | (497 676)   | (515 377)   | (533 718)   | (552 722)   | (572 412)   |
| Other Income                                 | (9 203)     | (5 688)     | 168 153     | (165 450)   | (179 339)   | (185 852)   | (194 245)   | (203 023)   | (212 078)   | (221 544)   | (229 469)   | (237 679)   | (246 118)   | (254 862)   | (263 922)   | (273 309)   | (283 035)   | (293 113)   | (303 555)   |
| Non Core Result before taxes                 | (192 352)   | (5 688)     | (433 446)   | (247 976)   | (284 752)   | (295 093)   | (422 595)   | (441 690)   | (611 991)   | (639 309)   | (662 178)   | (685 870)   | (710 223)   | (735 454)   | (761 598)   | (788 686)   | (816 753)   | (845 834)   | (875 967)   |
| Statutory Taxes                              | 40 393      | 1 194       | 91 023      | 52 075      | 59 798      | 82 626      | 118 327     | 123 673     | 171 358     | 179 006     | 185 410     | 192 044     | 198 862     | 205 927     | 213 247     | 220 832     | 228 691     | 236 834     | 245 271     |
| Tax Adjustments                              | (18 377)    | 3 397       | (19 373)    | (113 077)   | (36 858)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    | (11 451)    |
| OCI                                          | (776)       | (11 778)    | (8 420)     | (6 991)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     | (9 063)     |
| Income (loss) from equity method investment  | 934         | (47 679)    | (7 246)     | 48          | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    | (18 292)    |
| Non Core Result                              | (133 424)   | (67 348)    | (338 716)   | (89 767)    | (215 452)   | (228 372)   | (320 173)   | (333 921)   | (456 538)   | (476 207)   | (492 672)   | (509 731)   | (527 265)   | (545 432)   | (564 255)   | (583 758)   | (603 967)   | (624 905)   | (646 600)   |
| FINANCIAL                                    |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Interest Expense                             | (33 568)    | (21 240)    | (47 259)    | (44 286)    | (51 184)    | (46 915)    | (47 464)    | (52 187)    | (48 168)    | (51 353)    | (52 367)    | (53 369)    | (53 481)    | (54 858)    | (55 777)    | (56 708)    | (57 644)    | (58 787)    | (59 859)    |
| Financial Result before taxes                | (33 568)    | (21 240)    | (47 259)    | (44 286)    | (51 184)    | (46 915)    | (47 464)    | (52 187)    | (48 168)    | (51 353)    | (52 367)    | (53 369)    | (53 481)    | (54 858)    | (55 777)    | (56 708)    | (57 644)    | (58 787)    | (59 859)    |
| Statutory Taxes                              | 7 049       | 4 460       | 9 924       | 9 300       | 10 749      | 13 136      | 13 290      | 14 612      | 13 487      | 14 379      | 14 663      | 14 943      | 14 975      | 15 360      | 15 618      | 15 878      | 16 140      | 16 460      | 16 760      |
| Financial Result                             | (26 519)    | (16 780)    | (37 335)    | (34 986)    | (40 436)    | (33 779)    | (34 174)    | (37 575)    | (34 681)    | (36 974)    | (37 704)    | (38 425)    | (38 506)    | (39 498)    | (40 159)    | (40 829)    | (41 504)    | (42 327)    | (43 098)    |

## Balance Sheet

| FORECASTED BALANCE SHEET                  |            |            |              |            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
|-------------------------------------------|------------|------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <i>in thousands of \$</i>                 | 2018       | 2019       | 2020         | 2021 (E)   | 2022 (F)     | 2023 (F)     | 2024 (F)     | 2025 (F)     | 2026 (F)     | 2027 (F)     | 2028 (F)     | 2029 (F)     | 2030 (F)     | 2031 (F)     | 2032 (F)     | 2033 (F)     | 2034 (F)     | 2035 (F)     | 2036 (F)     |
| CORE                                      |            |            |              |            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| Operating Cash                            | 27 870     | 39 404     | 75 868       | 59 727     | 59 472       | 61 631       | 64 415       | 67 325       | 70 328       | 73 467       | 76 095       | 78 818       | 81 617       | 84 516       | 87 521       | 90 633       | 93 859       | 97 201       | 100 663      |
| Accounts Receivable                       | 652 546    | 708 714    | 527 340      | 789 798    | 804 501      | 833 719      | 871 371      | 910 745      | 951 365      | 993 831      | 1 029 381    | 1 066 212    | 1 104 069    | 1 143 293    | 1 183 934    | 1 226 044    | 1 269 675    | 1 314 883    | 1 361 725    |
| Inventories                               | 1 019 496  | 892 258    | 895 974      | 819 847    | 1 066 879    | 1 074 011    | 1 081 348    | 1 083 841    | 1 086 364    | 1 088 918    | 1 091 503    | 1 094 119    | 1 101 339    | 1 108 701    | 1 116 210    | 1 123 867    | 1 131 676    | 1 139 640    | 1 147 760    |
| Prepaid Expenses and Other Current Assets | 364 183    | 313 165    | 282 300      | 325 696    | 346 818      | 357 222      | 369 779      | 384 681      | 390 451      | 405 827      | 421 809      | 438 419      | 455 684      | 473 629      | 492 281      | 516 683      | 542 295      | 569 177      | 597 391      |
| Property, Plant and Equipment             | 826 868    | 792 148    | 658 678      | 586 232    | 832 682      | 884 041      | 942 788      | 964 463      | 987 693      | 1 012 659    | 1 036 398    | 1 060 738    | 1 079 636    | 1 098 988    | 1 118 807    | 1 141 487    | 1 164 782    | 1 188 710    | 1 213 293    |
| Operating Lease Right-of-use Assets       |            | 591 931    | 536 660      | 449 244    | 615 459      | 637 811      | 666 616      | 696 738      | 727 813      | 760 300      | 787 497      | 815 673      | 844 634      | 874 642      | 905 733      | 937 947      | 971 326      | 1 005 911    | 1 041 746    |
| Intangible Assets                         | 41 793     | 36 345     | 13 295       | 10 939     | 25 447       | 24 865       | 24 514       | 24 942       | 24 774       | 24 743       | 24 820       | 24 779       | 24 781       | 24 793       | 24 784       | 24 786       | 24 788       | 24 786       | 24 787       |
| Accounts Payable                          | ( 560 884) | ( 618 194) | ( 575 954)   | ( 530 628) | ( 517 579)   | ( 537 153)   | ( 557 549)   | ( 576 118)   | ( 595 319)   | ( 615 174)   | ( 635 705)   | ( 656 937)   | ( 674 767)   | ( 693 141)   | ( 712 077)   | ( 731 594)   | ( 751 711)   | ( 772 450)   | ( 793 831)   |
| Customer Refund Liabilities               | ( 301 421) | ( 219 424) | ( 203 399)   | ( 167 146) | ( 259 499)   | ( 268 924)   | ( 281 069)   | ( 293 769)   | ( 306 871)   | ( 320 569)   | ( 332 036)   | ( 343 916)   | ( 356 127)   | ( 368 780)   | ( 381 889)   | ( 395 471)   | ( 409 545)   | ( 424 127)   | ( 439 237)   |
| Accrued Expenses                          | ( 340 415) | ( 374 694) | ( 378 859)   | ( 433 825) | ( 411 590)   | ( 423 938)   | ( 438 839)   | ( 456 525)   | ( 463 373)   | ( 481 620)   | ( 500 586)   | ( 520 299)   | ( 540 789)   | ( 562 085)   | ( 584 220)   | ( 613 180)   | ( 643 575)   | ( 675 477)   | ( 708 960)   |
| Deferred Income Taxes                     | 112 420    | 82 379     | 23 930       | 43 880     | 74 893       | 77 613       | 81 118       | 84 783       | 88 565       | 92 518       | 95 827       | 99 256       | 102 780      | 106 432      | 110 215      | 114 135      | 118 197      | 122 405      | 126 766      |
| Goodwill                                  | 546 494    | 550 178    | 502 214      | 497 776    | 532 962      | 520 782      | 513 434      | 522 393      | 518 870      | 518 232      | 519 831      | 518 978      | 519 014      | 519 274      | 519 088      | 519 125      | 519 163      | 519 126      | 519 138      |
| Invested Capital Core Business            | 2 388 950  | 2 794 210  | 2 358 047    | 2 451 539  | 3 170 444    | 3 241 681    | 3 337 925    | 3 413 499    | 3 480 659    | 3 553 133    | 3 614 834    | 3 675 840    | 3 741 871    | 3 810 263    | 3 880 388    | 3 954 464    | 4 030 929    | 4 109 784    | 4 191 241    |
| NON CORE                                  |            |            |              |            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| Other Assets & Liabilities                | ( 172 778) | ( 93 569)  | ( 118 016)   | ( 175 130) | ( 160 285)   | ( 166 106)   | ( 173 607)   | ( 181 452)   | ( 189 545)   | ( 198 006)   | ( 205 089)   | ( 212 427)   | ( 219 969)   | ( 227 784)   | ( 235 881)   | ( 244 271)   | ( 252 964)   | ( 261 971)   | ( 271 303)   |
| Invested Capital Non Core Business        | ( 172 778) | ( 93 569)  | ( 118 016)   | ( 175 130) | ( 160 285)   | ( 166 106)   | ( 173 607)   | ( 181 452)   | ( 189 545)   | ( 198 006)   | ( 205 089)   | ( 212 427)   | ( 219 969)   | ( 227 784)   | ( 235 881)   | ( 244 271)   | ( 252 964)   | ( 261 971)   | ( 271 303)   |
| TOTAL INVESTED CAPITAL                    | 2 216 172  | 2 700 641  | 2 240 031    | 2 276 409  | 3 010 160    | 3 075 575    | 3 164 317    | 3 232 047    | 3 291 114    | 3 355 127    | 3 409 745    | 3 463 413    | 3 521 901    | 3 582 479    | 3 644 507    | 3 710 193    | 3 777 966    | 3 847 813    | 3 919 938    |
| FINANCIAL                                 |            |            |              |            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| Excess of Cash                            | 529 533    | 748 668    | 1 441 493    | 1 134 808  | 1 237 370    | 1 316 106    | 1 514 615    | 1 393 072    | 1 585 072    | 1 641 338    | 1 710 207    | 1 744 708    | 1 842 194    | 1 929 638    | 2 029 030    | 2 125 971    | 2 230 281    | 2 329 094    | 2 426 349    |
| Debt                                      | ( 728 834) | ( 592 687) | ( 1 003 556) | ( 540 141) | ( 919 859)   | ( 930 618)   | ( 1 023 226) | ( 944 412)   | ( 1 006 863) | ( 1 026 739) | ( 1 046 383) | ( 1 048 580) | ( 1 075 583) | ( 1 093 604) | ( 1 111 850) | ( 1 130 216) | ( 1 152 623) | ( 1 173 637) | ( 1 195 390) |
| Operating Lease Liabilities               |            | ( 706 535) | ( 1 001 975) | ( 832 212) | ( 1 144 073) | ( 1 157 455) | ( 1 272 636) | ( 1 174 611) | ( 1 252 284) | ( 1 277 005) | ( 1 301 437) | ( 1 304 170) | ( 1 337 755) | ( 1 360 169) | ( 1 382 862) | ( 1 405 704) | ( 1 433 573) | ( 1 459 709) | ( 1 486 764) |
| Net Financial Assets                      | ( 199 301) | ( 550 554) | ( 564 038)   | ( 237 544) | ( 826 562)   | ( 771 967)   | ( 781 246)   | ( 725 951)   | ( 674 074)   | ( 662 405)   | ( 637 613)   | ( 608 043)   | ( 571 145)   | ( 524 135)   | ( 465 682)   | ( 409 949)   | ( 355 914)   | ( 304 252)   | ( 255 805)   |
| Total Stockholders' equity                | 2 016 871  | 2 150 087  | 1 675 993    | 2 038 864  | 2 183 598    | 2 303 608    | 2 383 071    | 2 506 096    | 2 617 040    | 2 692 722    | 2 772 132    | 2 855 371    | 2 950 757    | 3 058 344    | 3 178 824    | 3 300 245    | 3 422 051    | 3 543 562    | 3 664 132    |



## Free Cash-Flow Map

| FORECASTED FREE CASH FLOW MAP                 |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|-----------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| in thousands of \$                            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|                                               | 2018       | 2019       | 2020       | 2021 (E)   | 2022 (F)   | 2023 (F)   | 2024 (F)   | 2025 (F)   | 2026 (F)   | 2027 (F)   | 2028 (F)   | 2029 (F)   | 2030 (F)   | 2031 (F)   | 2032 (F)   | 2033 (F)   | 2034 (F)   | 2035 (F)   | 2036 (F)   |
| CORE                                          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Core Result                                   | 112 865    | 164 488    | ( 181 547) | 506 071    | 393 942    | 376 623    | 430 143    | 488 845    | 597 044    | 664 544    | 689 197    | 714 634    | 756 543    | 800 104    | 845 375    | 867 428    | 889 084    | 910 253    | 930 840    |
| Operational Cash Flow                         | 112 865    | 164 488    | ( 181 547) | 506 071    | 393 942    | 376 623    | 430 143    | 488 845    | 597 044    | 664 544    | 689 197    | 714 634    | 756 543    | 800 104    | 845 375    | 867 428    | 889 084    | 910 253    | 930 840    |
| PP&E                                          | 826 868    | 792 148    | 658 678    | 586 232    | 832 682    | 884 041    | 942 788    | 964 463    | 987 693    | 1 012 659  | 1 036 398  | 1 060 738  | 1 079 636  | 1 098 988  | 1 118 807  | 1 141 487  | 1 164 782  | 1 188 710  | 1 213 293  |
| Changes in PP&E                               | ( 34 720)  | ( 133 470) | ( 72 446)  | 246 450    | 51 359     | 58 747     | 21 675     | 23 231     | 24 966     | 23 739     | 24 340     | 18 898     | 19 352     | 19 819     | 22 680     | 23 295     | 23 928     | 24 582     |            |
| NWC                                           | 861 375    | 741 229    | 623 270    | 863 468    | 1 089 002  | 1 096 569  | 1 109 455  | 1 120 180  | 1 132 945  | 1 144 680  | 1 150 460  | 1 156 416  | 1 171 025  | 1 186 134  | 1 201 760  | 1 216 983  | 1 232 674  | 1 248 846  | 1 265 512  |
| Changes in NWC                                | ( 120 147) | ( 117 959) | 240 198    | 225 534    | 7 567      | 12 887     | 10 725     | 12 765     | 11 735     | 5 780      | 5 956      | 14 609     | 15 109     | 15 626     | 15 223     | 15 691     | 16 172     | 16 666     |            |
| Intangible Assets                             | 41 793     | 36 345     | 13 295     | 10 939     | 25 447     | 24 865     | 24 514     | 24 942     | 24 774     | 24 743     | 24 820     | 24 779     | 24 781     | 24 793     | 24 784     | 24 786     | 24 788     | 24 786     | 24 787     |
| Changes in Intangible Assets                  | ( 5 448)   | ( 23 050)  | ( 2 356)   | 14 508     | ( 582)     | ( 351)     | 428        | ( 168)     | ( 30)      | 76         | ( 41)      | 2          | 12         | ( 9)       | 2          | 2          | ( 2)       | 1          |            |
| Deferred Income Taxes                         | 112 420    | 82 379     | 23 930     | 43 880     | 74 893     | 77 613     | 81 118     | 84 783     | 88 565     | 92 518     | 95 827     | 99 256     | 102 780    | 106 432    | 110 215    | 114 135    | 118 197    | 122 405    | 126 766    |
| Changes in income taxes                       | ( 30 041)  | ( 58 449)  | 19 950     | 31 013     | 2 720      | 3 505      | 3 665      | 3 781      | 3 953      | 3 309      | 3 429      | 3 524      | 3 651      | 3 783      | 3 920      | 4 062      | 4 209      | 4 361      |            |
| Operating Lease Right-of-use Assets           | 591 931    | 536 660    | 449 244    | 615 459    | 637 811    | 666 616    | 696 738    | 727 813    | 760 300    | 787 497    | 815 673    | 844 634    | 874 642    | 905 733    | 937 947    | 971 326    | 1 005 911  | 1 041 746  |            |
| Changes in lease right-of-use assets          | 591 931    | ( 55 271)  | ( 87 416)  | 166 215    | 22 352     | 28 804     | 30 122     | 31 075     | 32 487     | 27 197     | 28 176     | 28 961     | 30 007     | 31 091     | 32 215     | 33 379     | 34 585     | 35 835     |            |
| Goodwill                                      | 546 494    | 550 178    | 502 214    | 497 776    | 532 962    | 520 782    | 513 434    | 522 393    | 518 870    | 518 232    | 519 831    | 518 978    | 519 014    | 519 274    | 519 088    | 519 125    | 519 163    | 519 126    | 519 138    |
| Changes in Goodwill                           | 3 684      | ( 47 964)  | ( 4 438)   | 35 186     | ( 12 180)  | ( 7 349)   | 8 959      | ( 3 523)   | ( 638)     | 1 599      | ( 854)     | 36         | 261        | ( 186)     | 37         | 37         | ( 37)      | 12         |            |
| Changes in Non Current Assets and Liabilities | 560 126    | ( 184 734) | ( 74 260)  | 246 922    | 12 311     | 24 610     | 43 174     | 31 165     | 35 772     | 32 182     | 30 711     | 32 523     | 33 932     | 34 680     | 36 173     | 37 479     | 38 755     | 40 209     |            |
| Changes in Core invested Capital              | 405 260    | ( 436 163) | 93 492     | 718 906    | 71 237     | 96 243     | 75 574     | 67 161     | 72 474     | 61 701     | 61 006     | 66 030     | 68 393     | 70 125     | 74 076     | 76 465     | 78 855     | 81 457     |            |
| CORE FCF                                      | ( 240 772) | 254 616    | 412 579    | ( 324 963) | 305 387    | 333 900    | 413 271    | 529 884    | 592 070    | 627 496    | 653 628    | 690 512    | 731 712    | 775 250    | 793 352    | 812 619    | 831 398    | 849 383    |            |
| NON CORE                                      |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Non Core Result                               | ( 133 424) | ( 67 348)  | ( 338 716) | ( 89 767)  | ( 215 452) | ( 228 372) | ( 320 173) | ( 333 921) | ( 456 538) | ( 476 207) | ( 492 672) | ( 509 731) | ( 527 265) | ( 545 432) | ( 564 255) | ( 583 758) | ( 603 967) | ( 624 905) | ( 646 600) |
| Other Assets & Liabilities                    | ( 172 778) | ( 93 569)  | ( 118 016) | ( 175 130) | ( 160 285) | ( 166 106) | ( 173 607) | ( 181 452) | ( 189 545) | ( 198 006) | ( 205 089) | ( 212 427) | ( 219 969) | ( 227 784) | ( 235 881) | ( 244 271) | ( 252 964) | ( 261 971) | ( 271 303) |
| Changes in Other Assets & Liabilities         | 79 209     | ( 24 447)  | ( 57 114)  | 14 845     | ( 5 821)   | ( 7 502)   | ( 7 845)   | ( 8 093)   | ( 8 461)   | ( 7 083)   | ( 7 338)   | ( 7 542)   | ( 7 815)   | ( 8 097)   | ( 8 390)   | ( 8 693)   | ( 9 007)   | ( 9 333)   |            |
| Changes in Non Core Invested Capital          | 79 209     | ( 24 447)  | ( 57 114)  | 14 845     | ( 5 821)   | ( 7 502)   | ( 7 845)   | ( 8 093)   | ( 8 461)   | ( 7 083)   | ( 7 338)   | ( 7 542)   | ( 7 815)   | ( 8 097)   | ( 8 390)   | ( 8 693)   | ( 9 007)   | ( 9 333)   |            |
| NON-CORE FCF                                  | ( 146 557) | ( 314 269) | ( 32 653)  | ( 230 297) | ( 222 550) | ( 312 671) | ( 326 077) | ( 448 445) | ( 467 746) | ( 485 589) | ( 502 393) | ( 519 722) | ( 537 617) | ( 556 158) | ( 575 369) | ( 595 274) | ( 615 898) | ( 637 268) |            |
| FINANCIAL                                     |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Financial Result                              | ( 26 519)  | ( 16 780)  | ( 37 335)  | ( 34 986)  | ( 40 436)  | ( 33 779)  | ( 34 174)  | ( 37 575)  | ( 34 681)  | ( 36 974)  | ( 37 704)  | ( 38 425)  | ( 38 506)  | ( 39 498)  | ( 40 159)  | ( 40 829)  | ( 41 504)  | ( 42 327)  | ( 43 098)  |
| Net Financial Assets                          | ( 199 301) | ( 550 554) | ( 564 038) | ( 237 544) | ( 826 562) | ( 771 967) | ( 781 246) | ( 725 951) | ( 674 074) | ( 662 405) | ( 637 613) | ( 608 043) | ( 571 145) | ( 524 135) | ( 465 682) | ( 409 949) | ( 355 914) | ( 304 252) | ( 255 805) |
| Changes in Net Financial Assets               | ( 351 252) | ( 13 484)  | 326 494    | ( 589 018) | 54 595     | ( 9 279)   | 55 296     | 51 877     | 11 669     | 24 792     | 29 571     | 36 898     | 47 010     | 58 453     | 55 734     | 54 035     | 51 663     | 48 446     |            |
| Transactions in shareholders                  | 52 855     | 83 503     | ( 18 446)  | 6 678      | 5 538      | 3 667      | 5 677      | 5 119      | ( 75 681)  | ( 79 410)  | ( 83 239)  | ( 95 386)  | ( 107 587) | ( 120 480) | ( 121 420) | ( 121 807) | ( 121 511) | ( 120 570) |            |
| FINANCING FCF                                 | 387 328    | 59 653     | ( 379 926) | 555 260    | ( 82 836)  | ( 21 228)  | ( 87 194)  | ( 81 438)  | ( 124 324) | ( 141 906) | ( 151 235) | ( 170 790) | ( 194 095) | ( 219 092) | ( 217 983) | ( 217 345) | ( 215 500) | ( 212 115) |            |

## Growth Rate &amp; Value Creation Analysis

| Growth Rate                           |            |            |            |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------------------------|------------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| in thousands of \$                    |            |            |            |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|                                       | 2018       | 2019       | 2020       | 2021 (E)   | 2022 (F)  | 2023 (F)  | 2024 (F)  | 2025 (F)  | 2026 (F)  | 2027 (F)  | 2028 (F)  | 2029 (F)  | 2030 (F)  | 2031 (F)  | 2032 (F)  | 2033 (F)  | 2034 (F)  | 2035 (F)  | 2036 (F)  |
| WACC                                  | 4.47%      | 4.47%      | 4.47%      | 4.47%      | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     | 4.47%     |
| Core Result                           | 112 865    | 164 488    | ( 181 547) | 506 071    | 393 942   | 376 623   | 430 143   | 488 845   | 597 044   | 664 544   | 689 197   | 714 634   | 756 543   | 800 104   | 845 375   | 867 428   | 889 084   | 910 253   | 930 840   |
| Invested Capital                      | 2 388 950  | 2 794 210  | 2 358 047  | 2 451 539  | 3 170 444 | 3 241 681 | 3 337 925 | 3 413 499 | 3 480 659 | 3 553 133 | 3 614 834 | 3 675 840 | 3 741 871 | 3 810 263 | 3 880 388 | 3 954 464 | 4 030 929 | 4 109 784 | 4 191 241 |
| New Investment                        | 405 260    | ( 436 163) | 93 492     | 718 906    | 71 237    | 96 243    | 75 574    | 67 161    | 72 474    | 61 701    | 61 006    | 66 030    | 68 393    | 70 125    | 74 076    | 76 465    | 78 855    | 81 457    |           |
| RONIC                                 |            |            | -85%       | -158%      | -120%     | -2%       | 75%       | 61%       | 143%      | 101%      | 34%       | 41%       | 69%       | 66%       | 66%       | 31%       | 29%       | 28%       | 26%       |
| Investment Rate of New Capital (RRNC) |            |            | 246%       | 240%       | 18%       | 182%      | 19%       | 22%       | 15%       | 11%       | 11%       | 9%        | 9%        | 9%        | 9%        | 8%        | 9%        | 9%        | 9%        |
| ROIC                                  |            | 7%         | -6%        | 21%        | 16%       | 12%       | 13%       | 15%       | 17%       | 19%       | 19%       | 20%       | 21%       | 21%       | 22%       | 22%       | 22%       | 23%       | 23%       |
| Investment Rate (RR)                  |            |            | 240%       | 18%        | 182%      | 19%       | 22%       | 15%       | 11%       | 11%       | 9%        | 9%        | 9%        | 9%        | 8%        | 9%        | 9%        | 9%        | 9%        |
| Unlevered Free Cash Flow              | ( 240 772) | 254 616    | 412 579    | ( 324 963) | 305 387   | 333 900   | 413 271   | 529 884   | 592 070   | 627 496   | 653 628   | 690 512   | 731 712   | 775 250   | 793 352   | 812 619   | 831 398   | 849 383   |           |
| Growth Rate FCF                       |            | -206%      | 62%        | -179%      | -194%     | 9%        | 24%       | 28%       | 12%       | 6%        | 4%        | 6%        | 6%        | 6%        | 2%        | 2%        | 2%        | 2%        | 2%        |
| g (RONIC * RRNC)                      |            |            | -210%      | -379%      | -22%      | -4%       | 14%       | 14%       | 22%       | 11%       | 4%        | 4%        | 6%        | 6%        | 6%        | 2.6%      | 2.5%      | 2.4%      | 2.3%      |
| g (ROIC * RR)                         |            |            | -16%       | 4%         | 29%       | 2%        | 3%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        | 2%        |
| Value Creation (RONIC)                | -          | -          |            |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| Value Creation (ROIC)                 | -          |            |            |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |



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

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