

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

Lululemon Athletica

How a new competitor overperforms iconic names

Timothé Delcenserie - 46162

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

Rosário André

DATE

16 December 2022

Abstract

This work was conducted between September 2022 and December 2022. The objective of this equity analysis was to understand if Lululemon Athletica Inc's stock price was undervalued or overvalued. Thanks to this analysis, it was possible to determine if an investor should buy, hold or sell the company's stock. To determine the stock price, qualitative and quantitative information were used and Lululemon's financial forecasts were made by analysts for the next ten years. The discounted cash flow method was used to compute the stock price leading to a \$275.27 value, resulting in a SELL recommendation.

Keywords: Valuation, Forecast, Sportswear, China

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

This Work Project is an integral part of the report “The power of a great strategy”, developed by Timothé Delcenserie (46162) and Gwendal Pereira (44835) and should be read as an integral part of it.

Table of Contents

INTRODUCTION.....	3
9. SEGMENTATION ANALYSIS	4
9.1 COMPANY-OPERATED STORES	4
9.2 DIRECT-TO-CONSUMER	4
9.3 OTHERS	5
10. FORECAST.....	6
10.1 SALES FORECASTS	6
10.1.1 COMPANY-OPERATED STORES	6
10.1.2. DIRECT-TO-CUSTOMER.....	8
10.1.3. OTHERS	9
10.2 GROSS MARGIN	10
10.3 SG&A.....	11
10.4 CAPITAL EXPENDITURES.....	11
10.5 NET WORKING CAPITAL.....	12
11. VALUATION	13
11.1 MULTIPLES	13
11.2 WACC.....	14
11.3 TERMINAL GROWTH RATE	15
11.4 DISCOUNTED CASH FLOW	16
11.5 VALUATION OUTCOME	16
11.6 SCENARIO ANALYSIS.....	17
11.7 SENSITIVITY ANALYSIS.....	17

Introduction

This equity valuation was conducted as part of a Master's work project. Based on this valuation, the stock price is overvalued. To perform this analysis, the work has been separated into two different parts which are both part of the research and should not be read separately. Part one is more linked to the company understanding: its history, financial structure, share price performance and its strategy for the future. Part two (this part) was more related to the financials and forecasts. In this part was conducted the sales forecasts to understand how the different segments will grow but also the different costs and sales drivers like SG&A, NWC or Capital Expenditures. Once these parts were done, the next step was to understand the multiples and why Lululemon was overperforming its closest peers. Furthermore, a WACC analysis was performed to understand Lululemon's cost of capital. Finally, after using the Discounted Cash Flow method to compute the share price, a scenario analysis and a sensitivity were conducted to understand how the company would react in different scenarios such as a lower China market penetration or variations in the growth and WACC values.

9. Segmentation Analysis

9.1 Company-Operated Stores

At the end of 2021, Lululemon had **574 stores** in **17 countries** across the globe mainly located in streets, lifestyle centers, and malls. The company opened 53 new COS, including 43 new stores outside of NAM. COS generated 45% of Lululemon's total sales in FY21. With a 70.1% growth rate between FY20 and FY21, sales reached \$2.8bn. COS is expected to continue to grow over the next decade, but with a lower growth rate due to the development of E-Com. This channel remains key in the development of Lululemon due to the customers still willing to buy their items in physical stores (to be able to try new pieces and styles and to get them immediately). For the company to continue increasing its results and reach its goals, it will implement a real estate strategy over the next several years that will consist of opening new COS and increasing its Av. SQM through store expansions and relocations. Lululemon wanted to open new types of stores in the next few years such as pop-up of which 20 more were opened during the pandemic (from 50 to 70 pop-up stores), but also stores with a larger area of about 3K, 5.5K or even 25K SQF (square feet). For now, only one physical store of more than 25K SQF opened in Chicago and includes a restaurant, a gym and a meditation studio. The **Av. SQF per store is 3,406 in FY21** and Lululemon would like to **increase this area to 5.5K SQF** in the coming years.

9.2 Direct-to-Consumer

During the last five years (2017-21), **E-Com** is the distribution channel that knew the quickest increase in the total revenue breakdown. In 2017, for the apparel and footwear segments, E-Com represented 14.8% against 29.9% in 2021 (15.1% CAGR). For STW in 2017, we constate a similar result, E-Com represented 14.5% vs. 28.2% in 2021 (14.23% CAGR). For the apparel and footwear (2017-21), the store retailing CAGR was -3.81% and for the STW it was -3.40%. However, in 2021, store retail sales (30.9%) still have a weight more important than E-Com (30.1%). In the future, E-Com will continue to have more and more importance because of trends such as the wish to buy products directly online. For STW, E-Com is the fastest growing distribution channel with a 12.4% CAGR (2022-26). DTC accounted for 44% of Lululemon's sales in FY21. This segment has generated \$2.8bn, with a 21.6% growth rate (2020-21). This segment combined with COS cover all the company's activities.

DTC allows the company to reach and serve customers globally and where it has no physical retail extending its recognition. Lululemon offers their customers two ways to make their sales online via their E-Com website and mobile apps. E-Com websites and mobile apps are personalized according to the country or region. It is adapting to different cultures and lifestyles to offer a good customer experience. E-Com allows to reach another public (18-25 years old) which likes scrolling on different companies' websites and comparing the diverse products.

9.3 Others

“Others” segment increased its sales to €657m in FY21 (10.5% of total sales), which represents a growth of 48.2% from FY20. “Others” channel allows the company to implement temporary pop-ups in different locations where the company has not or very little presence and to offer fitness classes through the Mirror brand. The company uses the **outlets and warehouses** to sell unsold clothes from previous years at a discounted price. Lululemon has 37 outlets, the majority of which are in NAM. Pop-ups are **temporary locations** open for a short period of time. These locations allow the company to serve customers during busy periods in markets where Lululemon is not present with physical stores. **Mirror** launched in **September 2018** in New York and acquired by Lululemon in 2020 for **\$500m**. Mirror is integrated in the business units “**Lululemon Digital Fitness**” but operates as a standalone company. This M&A transaction allows Lululemon to expand and innovate their omni guest experience, having a dynamic platform to enhance and scale guest offerings. Thanks to it, it is possible to access 10K classes across 50 fitness categories. This content is made available to studio partners and at home. This new segment is important as it is key to enhancing the company brand recognition. To continue expanding this segment they partner with world class studios, trainers, and ambassadors. All these will lead to attracting and retaining more customers. **Wholesale** includes yoga studios, health clubs, and fitness centers. These sites, which are intended for a high-end clientele, offer an alternative distribution channel. This channel is not intended to grow further in the coming years as the company does not make it a priority. Rather, this channel is intended to expand Lululemon’s reputation. The company has entered into **licensing and supply agreements** with partners in the MEA and Mexico which in turn grant Lululemon the right to sell its products through their websites in the UAE, Kuwait, Qatar, Oman, Bahrain, and Mexico.

Exhibit 38: Lululemon Athletica's average shop space in feet from FY21 to FY31F (data in square foot)

10. Forecast

10.1 Sales Forecasts

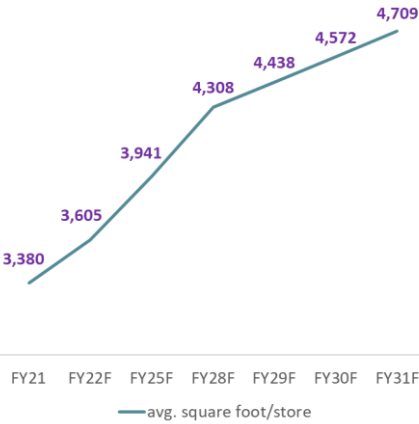
10.1.1 company-operated stores

The company is expecting to reach an **av. SQF per store** of 5,500 which we believe won't be possible soon due to the high store expansion strategy. From 3,380 in FY21, this metric will reach 4,709 by FY31, growing at a CAGR of 3% (Exhibit 38). As not every peer discloses this information and this data varies a lot every year, we have based our estimates on the average of the last four years, which represents a fair growth for a long run due to the continuing same strategy.

The sales per SQF were inconsistent taking into consideration FY20 and FY21 due to the covid-19 crisis with respectively -42% and +52% of variation. As this was due to the closing of various stores in every region, we believe that it is more consistent to use FY17 to FY19 as basis. We have found a 2.4% growth rate which we believe is fair and aligned with future economic growth. From Av. \$1.45m of sales per SQF in FY21, we forecast that the company will reach Av. Sales per SQF of \$1.84m in FY31 (Exhibit 39).

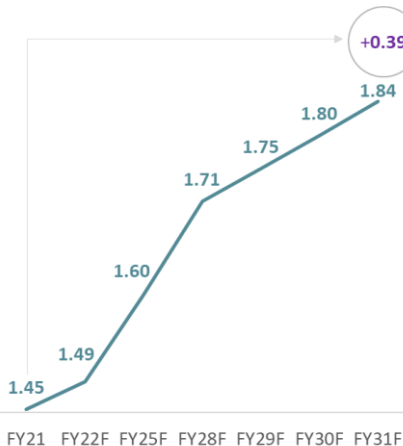
As the importance of this growth will remain low during the expansion time (2.4% out of 19.6% growth for COS segment in FY22), the more mature the company will become, the more this ratio will become important. As this data is highly related to the **productivity** of the stores, and then marketing and employees' experience, the only data leading to a decrease would be the global economic health, or a new trade war or pandemic, which we believe will not happen. In the long run, this metric will play an important role in the company growth forecasts contributing to 2.4% of COS segment growth over a total of 7.6%.

The third important metric to forecast the COS segment is the **opening and closing** of new stores (Exhibit 40). As it is not possible to forecast the closing of stores by geography, and it is only linked to economic health and company performance, this number is the average for the company last years. During the last four years the company has continuously opened new stores every year (between 30 to 53). During Q1, Q2 and Q3 of FY22, the company already opened 49 stores, leading us to believe that they will continue to expand their opening strategy this year but also at least next year before coming back to lower opening levels. More than that, a same move is happening for the company's peers, accentuating the competition and pushing to open new stores as fast as possible to gain market shares.



Sources: Lululemon's annual report FY21 and Own Estimation

Exhibit 39: Lululemon's Athletica sales per square foot from FY21 to FY31F (data in \$)



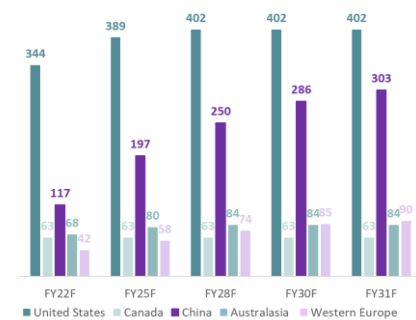
Sources: Lululemon's annual report FY21 and Own Estimation

Exhibit 40: Number of stores opened and closed by Lululemon Athletica from FY21 to FY31F



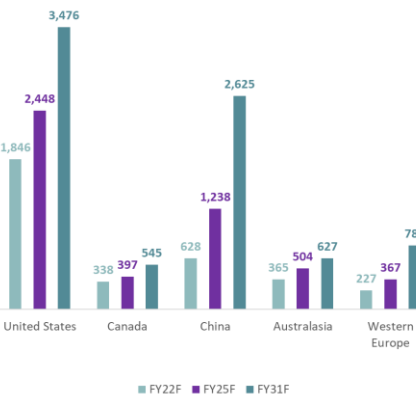
Sources: Lululemon's annual report FY21 and Own Estimation

Exhibit 41: Breakdown of stores by geography from FY22F to FY31F



Source: Own Estimation

Exhibit 42: Company Operated Stores sales by geography in FY22F, FY25F and FY31F (data in \$m)



Source: Own Estimation

As the stores' opening is unpredictable and there is no seasonality, we have chosen to forecast every region separately, keeping in mind that the most important factors are the **company strategy** but also the **penetration rate** and the **market maturity**. All of these led to a forecasted number of 55 new stores in FY22. FY23 should remain the same before a slower expansion rate in FY24 (47 new stores) followed by 34 in the new two years and 18 in the longer run.

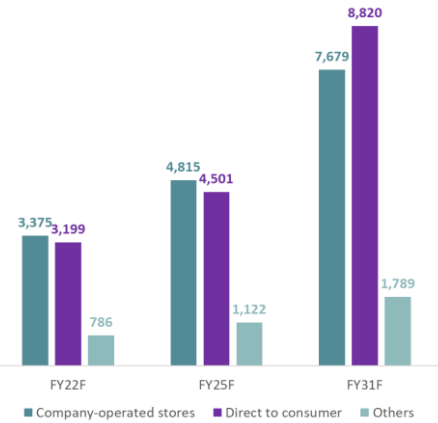
The US economy is beating economists' expectations, and due to the high penetration rate of Lululemon in the country and the high purchasing power of the inhabitants, we believe that the country will continue to have a strong expansion until 2026 before slowing down due to its maturity. Previous information and past historic led our projections to 20 new stores in FY22 & 23, 13 in FY24, 25 & 26 and then 0 (the growth will be related to the stores' SQF expansion and productivity). From 64 stores in FY16 to 63 in FY21, the **Canada** is homeland for Lululemon and already extremely mature. We are then projecting no new opening stores in the country. However, with similar expected GDP growth rates than **US**, similar shopping behaviors and a fast-growing purchasing power, this country will be able to reach a 5.5% growth on this segment.

This metric is just above the expected 5.3% growth for sportswear during 2021-2026 due to a **better pricing strategy**. As the population will have more money for non-primary expenses, they will be able to buy more expensive sportswear products and Lululemon will start to be chosen more often against brands such as Nike or Adidas.

China will be the most growing market. Last year, The CEO Calvin McDonald said that China would reach 220 stores in 2026. During the last years, the number of opening stores has not stopped growing from 6 in FY16 to 31 in FY21.

This country is already very important for producing and supplying the company's products leading to possible economies of scales. It is also the most growing middle-class market in the world. Moreover, the company is already focusing its strategy on the country while speaking about the market expansion pillar. More than that, the firm already opened 14 stores in the **Asia Pacific** region during H1, 2022. However, we reviewed our expectations for FY22 and FY23 and lowered them due to the various lockdowns in China affecting the riskiness of opening new stores with the **zero covid strategy**. For instance, Shanghai is often subject to such events with at last the Disney land park lockdown during October 2022. The Shanghai agglomeration is the most populated zone of the country with a similar number of inhabitants to Germany but is also known as the economic capital of China, closing such cities already have strong effect on the

Exhibit 43: Total Sales by segment in FY22F, FY25F and FY31F (data in \$m)



Source: Own Estimation

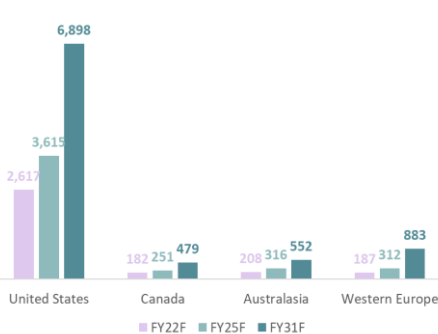
country dynamism and growth. As a matter of facts, China is expected to open 31 stores each year until FY24 and then 18 stores per year.

Lululemon is already a well-known brand in **Australasia** perfectly reaching the way Australian live. However, this zone will know a **very low population growth**. From 16.6 million people aged 15-64 in 2021, Australia is expected to reach 18 million in 2031. This region is then forecasted to quickly reach its maturity point for the COS segment. This area is forecasted to continue to open an Av. of 4 stores per year until FY26 before stopping. With a population of just over 5m, New Zealand won't pull the sales.

Lululemon footprint in **Europe** is very different from countries to other countries. With an 18% penetration rate in the UK and 17 stores is strongly expanding since the last 5 years. On the other hand, the company just has a 3% penetration rate in both Germany and France. The company just opened its first stores in Spain and Italy. The German market is expanding with more and more opening stores (around 2 per year and a few 9 in total for FY21) reaching a market where Yoga and Sportswear are well implanted allowing Lululemon to be part of a dynamic yoga ecosystem. Furthermore, with a market of more than half a billion people, we believe that the company will continue to expand at a **double-digit rate** and won't stop until FY31. With a forecasted \$782m of sales in FY31, the market will remain the third most important one, far from the USA and China.

10.1.2. Direct-to-customer

Exhibit 44: DTC Sales by geography in FY22F, FY25F and FY31F (data in \$m)



Source: Own Estimation

The **E-Com segment** will play a more and more important role in the sales breakdown. This segment has been forecasted using the data of E-Com split by country. As the data for Canada, rest of Europe and rest of Asia are not disclosed, they have been forecasted using a proxy of their weight based on the number of stores for each area multiplied by the rest of the sales not attributed to other regions. While it just accounted for 19.3% of the split in FY16, it reached 44.4% in FY21, showing the importance for Lululemon to develop this segment. We believe that the company won't be able to continue to grow at the same path, strongly pushed by the covid-19 crisis (100.7% growth in FY20). However, it should reach 48.4% in FY31. The decline in the sales breakdown during the next 3 years is highly correlated to the stores' expansion recovery and the fact that some customers will want an in-store shopping experience after long lockdowns. While accounting for \$2,778m in FY21, this number will more than triple to reach \$8,888m in FY31 and then be the first contributor to the company expansion and outpaces the COS segment in FY28.

By further looking at it but also E-Com forecasts for the Sportswear sector and the company strategy, we have then forecast that the **NAM market** will grow at 15% this year before stabilizing at a 11% CAGR as the E-Com market in this zone is expanding strongly. The USA will represent 94% of it, but Canada growing at a similar rate due to the strong similarities between the two markets and similar E-Com perspectives for the Sportswear market. Social media is helping to develop this channel with around 2.75m followers on Facebook, 3.35m followers on Instagram and around 1m on Twitter. More than that, the company already has efficiency on this channel with an **online conversion rate** of 2.3% (2.4% for USA) and an **average order value** of \$119 (\$111.7 for the USA).

Once again, **Western Countries** are forecast to growth at a 19% CAGR and this grow is not anticipated to decline over the forecasted period as this market has a great potential for the company. While France will know a lower path, this grow will be due to the UK and Germany with respectively 19% and 22% growths. For UK, France and Germany, the **digital conversion rates** are respectively: 2.6%, 1.4% and 2.2%. When speaking about the **average order value**, the numbers are respectively: \$73, \$91, and \$107. Nevertheless, the sales breakdown will continue to place Europe in the third rank for the company.

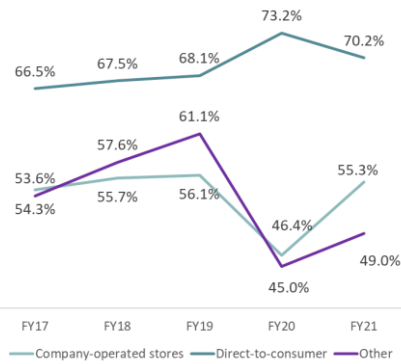
The E-Com segment will continue to grow in **China** but will remain a slight part as the company is still not known very well but also facing a very strong competition on the market against internationals but also homemade companies. Moreover, Lululemon will take time to adopt to the very **different E-Com market** in China using other apps such as WeChat and **different expectations** from the potential clients. The next years will be important for Lululemon to see if they are able to further grow in such a different market.

For the **Australasia** market excluding China, the sales will pass from \$207.6m in FY22 to \$522.2m in FY31. While Australia will remain the biggest contributor with 39%, the growth will be more linked to the Asia area and especially South Korea with around 20% growth during the whole period. As mature on this country, lululemon **digital conversion rate** is 2.2% against 1.9% for the market and its **average order value** \$98 versus \$88.1 for the market.

10.1.3. Others

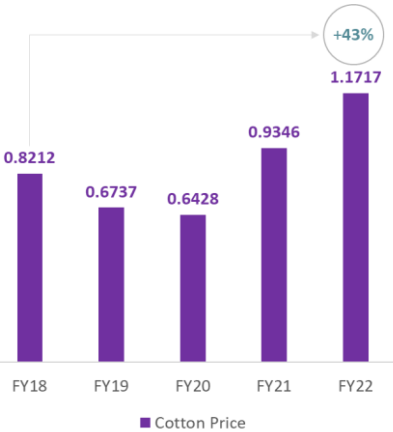
The "Others" segment has been forecasted having the same growth rate as the COS segment as it is strongly related to it, representing a % of the clothes which were not sold or outlets and short-lived stores, forecasted to grow as a proportion of overall stores.

Exhibit 45: Lululemon's Gross Margin by segment between FY17 and FY21 (data in %)



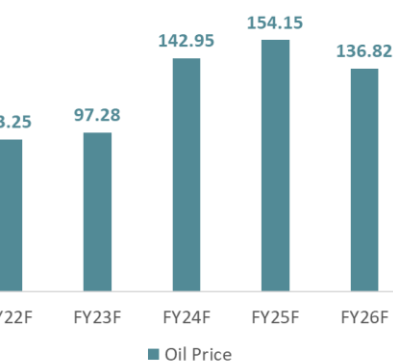
Sources: Lululemon's annual reports FY17, FY18, FY19, FY20 and FY21

Exhibit 46: Cotton Price between FY18 and FY22 (data in \$)



Source: Macrotrends

Exhibit 47: Oil Price forecasts between FY22F and FY26F (data in \$)



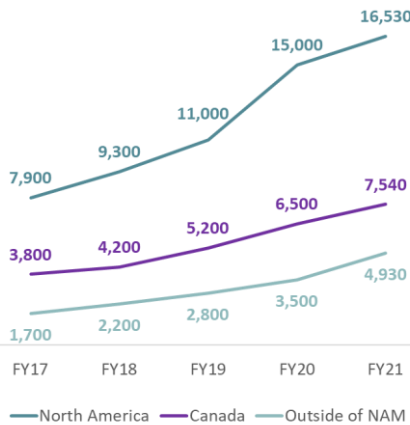
Source: Long Forecast.com

10.2 Gross Margin

What differentiates Lululemon from its peers is its sky-high gross margin. Over the past five years, Lululemon's average gross margin has been around 59.5% which exceeds the gross margin of peers which is 44.5% for Nike, 51.0% for Adidas, 54.2% for V.F Corporation, 47.9% for Puma and 47.1% for Under Armour. Lululemon has achieved very high levels of profitability due to its **premium positioning** and **strong brand loyalty**. The company's strategy is to target higher-end consumers by offering quality products at prices that are higher than those offered by peers. To put things into perspective, the men's jogger sold by Lululemon is priced at a minimum of \$138 compared to \$50 for Nike's jogger. On the past five fiscal years, Lululemon has progressively decreased the weight of COGS from 43.1% in FY17 to 38.7% in FY21. With the development of the DTC segment, Lululemon can better manage their inventory and thus reduce the weight of COGS on their sales. Even though the DTC segment will develop faster and faster in the coming years, we must take into consideration two parameters: the fact that the **price of energy** is currently under pressure and that Lululemon has reached a relatively high margin level which for us represents its "**Ceiling Margin**", Lululemon should therefore return to a margin that tends to **normalize** (Exhibit 45).

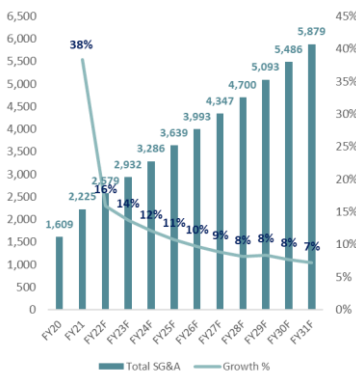
Lululemon most important raw materials are **petrochemicals-based products**, **wool**, and **cotton** (Exhibit 46), while like every company, it is also dependent on **energy prices**. The price of oil products is very volatile, however, by checking the current markets and past growths but also the expected demand, we believe to have reached a high level and then the prices should not increase strongly in the future (Exhibit 47). The price of cotton has been relatively stable over the last 45 years and since Uzbekistan is close by China, there will not have any supply chain delay or related increased costs. We can therefore predict that the price will remain stable. The same is anticipated for **wool**, China being the first world wool producer with 333,624 tons in 2020, the company won't suffer of delay in provisions. Wool is used less than cotton, however, its price also affects the total COGS. By checking its price over the last 5 years, we can see that it remains relatively stable around \$70, and there is no sign that the market will experience a degradation. The last important data for the COGS drivers is the **energy price**. Even if the war in Ukraine could continue to affect prices, we believe that it will be just a short momentum and it is very difficult to forecast such event.

Exhibit 48: Number of employees by geography between FY17 and FY21



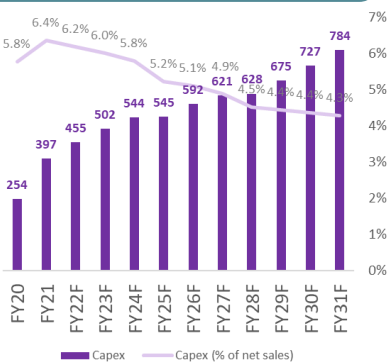
Source: Company Data

Exhibit 49: SG&A forecasts between FY20 and FY31F (data in \$m)



Sources: Lululemon's annual reports FY20 and FY21 and own estimations

Exhibit 50: Capex forecasts between FY20 and FY31F (data in \$m)



Source: Own Estimation

However, we can see from governments' predictions that the gas stocks are full, and that any problem should not appear before winter 2024. We believe that solutions will be found, and prices will return to normal.

Lululemon's gross margin reached a record high in FY20, 61.3%, and we expect that for the next 10 years the **gross margin** will decrease to **60.1%** pulled by the sales and overestimated future costs increases, approximately the same level as in FY20, 60.2%.

10.3 SG&A

SG&A grew by 38% during FY20 due to increases in **salaries and wages**, **distribution costs** and **digital marketing expenses** but also **employees** (Exhibit 48) and **head offices costs**. In average, the number of employees increased by a CAGR of 21% from 2017 to 2021. Outside of NAM, grew by 31% but its portion remains low at 17% against 13%, in 2017.

Depending on how the company will be able to open new stores in other regions will be the key factor for it to continue or not to enroll new employees outside of NAM.

However, we believe that the weight of SG&A over sales will regain a pre-pandemic level from this year (16%) and even decline over the time to reach 7% in the long run (Exhibit 49). This is due to the **fixed costs** of the company and **economies of scale** such as head office or other costs which are not predicted to be redundant. A growing important part of SG&A will be the **brand and community expenses** related to the new digital strategy. As it was 0 until FY19, this expense will be \$38m until FY28 and then \$77m from this point to FY31. This cost will be very important if the company wants to continue increasing its DTC channel and not lose market share against the competition. More than that, we expect the company to continue receiving **government grants** because of continuing to employ more and more employees abroad.

10.4 Capital Expenditures

Lululemon Athletica is currently engaged in a worldwide expansion strategy that generates a high Capex level. In FY21, the company generated \$397m of net capex corresponding to 6.35% of sales. We assume that this high Capex level will be maintained by the company, representing an average of 5.80% of the sales over the FY22-FY25 period and reaching 4.29% of the sales at maturity (FY31) (Exhibit 50).

Exhibit 51: Lulu's CCC (in number of days)

Lululemon Athletica

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	330	405	519	647	966
Trade receivables	19	36	40	62	77
Trade payables	(25)	(96)	(80)	(172)	(290)
Operating cash	732	246	279	296	903
Sales	2,649	3,288	3,979	4,402	6,257
COGS	(1,142)	(1,350)	(1,594)	(1,752)	(2,424)
Avg Holding Period (days)	105.32	109.49	118.73	134.81	145.54
Avg Collection Period (days)	2.64	3.97	3.69	5.17	4.49
Avg Payable Period (days)	(7.88)	(25.84)	(18.32)	(35.88)	(43.63)
Cash Conversion Cycle (days)	100.08	87.63	104.10	104.11	106.40

Sources: Lululemon's annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Exhibit 52: Nike's CCC (in number of days)

Nike

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	5,261	5,622	7,367	6,854	8,420
Trade receivables	3,498	4,272	2,749	4,463	4,667
Trade payables	(2,279)	(2,612)	(2,248)	(2,836)	(3,358)
Operating cash	415	853	596	840	839
Sales	36,397	39,117	37,403	44,538	46,710
COGS	(20,441)	(21,643)	(21,162)	(24,576)	(25,231)
Avg Holding Period (days)	93.94	94.81	127.07	101.79	121.81
Avg Collection Period (days)	35.08	39.86	26.83	36.58	36.47
Avg Payable Period (days)	(40.69)	(44.05)	(38.77)	(42.12)	(48.58)
Cash Conversion Cycle (days)	88.33	90.62	115.12	96.25	109.70

Sources: Nike's annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Exhibit 53: Adidas's CCC (in number of days)

Adidas

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	4,170	4,070	4,575	5,020	4,744
Trade receivables	2,615	2,857	2,940	2,229	2,574
Trade payables	(2,231)	(2,717)	(3,027)	(2,729)	(2,715)
Operating cash	547	1,133	978	943	1,579
Sales	23,967	25,893	26,473	21,047	25,128
COGS	(11,876)	(12,467)	(12,707)	(10,518)	(12,389)
Avg Holding Period (days)	128.17	119.16	131.40	174.20	139.77
Avg Collection Period (days)	39.82	40.27	40.53	38.65	37.39
Avg Payable Period (days)	(68.56)	(79.56)	(86.95)	(94.69)	(79.98)
Cash Conversion Cycle (days)	99.43	79.88	84.98	118.16	97.18

Sources: Adidas' annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Exhibit 54: VF Corporation's CCC (in number of days)

V.F. Corporation

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	1,705	1,173	1,294	1,062	1,419
Trade receivables	1,422	1,373	1,308	1,298	1,468
Trade payables	(756)	(490)	(407)	(463)	(563)
Operating cash	373	145	1,113	1,095	950
Sales	8,395	10,267	10,489	9,239	11,842
COGS	(3,849)	(4,656)	(4,691)	(4,371)	(5,386)
Avg Holding Period (days)	161.69	91.96	100.69	88.67	96.13
Avg Collection Period (days)	61.83	48.80	45.52	51.28	45.24
Avg Payable Period (days)	(71.65)	(38.38)	(31.67)	(38.68)	(38.15)
Cash Conversion Cycle (days)	151.88	102.38	114.53	101.27	103.23

Sources: V.F. Corporation's annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Lululemon Athletica is expected to open new stores, especially in China, expand or relocate some of its existing stores by increasing its SQF requiring refurbishment cost, and invest in digital technologies.

We have forecasted the CapEx by segmenting it: Company Operated Stores, Direct-to-Consumer and Corporate Activities. For the COS segment we have taken into consideration the investments related to the opening of new stores and the investments related to the relocation and refurbishment of existing stores. Regarding DTC, we consider the fact that investments related to digital technologies are expected to increase more significantly in the coming years in view of the company's strategy. For the last segment of corporate activities, we don't have detailed figures on the breakdown, we have forecasted it as a percentage of sales based on the previous year.

10.5 Net Working Capital

The capacity to manage its NWC is another determinant of the value creation for Lululemon. Lululemon Athletica's net working capital in FY21 was \$1.04bn compared to \$552mn in FY20 due to a substantial increase in operating cash. This increase is explained by the fact that the company's sales increased by 42% between these two years, generating more operating cash.

We estimate that the NWC should continue to increase in the future because the company's inventories should increase steadily and is correlated with the increase in Lululemon's sales. Furthermore, we forecast that the change in NWC will be negative for the company each year because Lululemon will invest more in its assets than in its liabilities, particularly in operating cash and inventories.

Regarding the cash conversion cycle estimates, we forecast that in the future Lululemon should keep a CCC like FY21 i.e., 106.40 since the CCC of the company is relatively high compared to peers and we consider that should not increase any further. We therefore forecasted that the **average holding period** would be 145.54, the **average collecting period** 4.49 and the **average payable period** 43.63. The other items of the NWC are forecasted in percentage of sales, and they are related to the past performances of Lululemon.

While checking the CCC of the peers we can see that Lululemon (106.4 days) is having similar performances to Nike (109.7 days), Adidas (97.18 days) and V.F. Corporation (103.23 days). However, Puma (77.97 days) has been able to better manage its cash over the last 5 years and Under Armour (62.17 days) is the company that is improving the most (Exhibit 51 until 54).

11. Valuation

11.1 Multiples

The Av. valuation of the market based on multiples: P/E ratio, EV/EBITDA and EV/EBIT would like to a \$172.4bn valuation. LULU is strongly overperforming its peers due to the potential the company has in new market while other peers did not manage to well adapt to China market. But also, the fact that LULU's sales are skyrocketing.

Market Multiples Analysis						
Company name	Mkt Cap (in Billion)	Current Enterprise Value (12/09/22)	P/E ratio (TTM)	EV/EBITDA (TTM)	EV/SALES (TTM)	EV/EBIT adj
LULULEMON	45.850	46.300	41.5x	26.0x	6.56x	26.3x
PUMA	8.290	8.870	22.0x	10.4x	1.10x	11.8x
ADIDAS	26.040	29.720	29.6x	10.6x	1.32x	17.7x
UNDER ARMOUR	4.030	4.690	n.a.	n.a.	n.a.	13.5x
NIKE	166.960	167.670	30.2x	24.1x	3.56x	26.8x
VF CORP	13.000	19.520	12.8x	9.3x	1.66x	12.6x
Sketchers	6.240	7.530	9.0x	13.6x	0.86x	11.2x
Average	38.630	40.614	24.2x	15.7x	2.51x	17.1x
Median	13.000	19.520	25.8x	12.1x	1.49x	13.5x

Source: Bloomberg

Lululemon has better margins than all its peers. The company has an EBITDA margin of 25.2% against 18.2% for its peers, which is due to the high gross profit the company is making due to the high prices of its products. LULU is already very efficient in choosing its manufacturers and suppliers. The COGS still influence the EBIT margin of the company.

The EBIT is probably the most accurate multiple, due to the **strong investments** in the sector which make the EBITDA multiple less accurate. With a 21.6% EBIT margin, it has around **twice more than the Av. of peers** (12.9%). It is even more impressive to see the 15.8% net income margin versus Av. 9.8% for its peers. By looking at the whole sector some tendencies push up margins: being able to **expand the E-Com segment**, which is less costly, like Adidas and NIKE, LULU is greatly managing this segment. Moreover, **China and Asia** push up the margins as it permits to better manage inventories, pay less salaries and have better material prices. LULU is strongly expanding in this region while all other peers are struggling to improve their sales in this market, and NIKE is already well implemented. As mentioned in the strategy, the key strength of LULU is its **price segmentation** which enables to create very high margins as it still uses the same materials but sell at higher price strongly due to the company's brand image. Another important point to understand the dominance of US companies over German ones is the **effective tax rates**. While NIKE had a 9.1% effective tax rate, Adidas had a 19.4% effective tax rate in FY21.

LULU with around 28% is not efficient enough which permits NIKE to strongly reduce the gap for their rentabilities.

These **margins will continue in the future** as the ROI, ROA and ROIC are strongly above its peers, but also because the company has a positive financial debt. Once again, the fact that NIKE and LULU are above their peers comes from their good numbers in Asia and China.

11.2 WACC

Exhibit 55: Lululemon's WACC

Inputs	
Target D/EV	6.43%
Risk-free Rate (Rf)	3.53%
Corporate Tax Rate	21.00%
MRP	5.50%
Relevered Beta	1.128
Cost of Equity (Re)	9.73%
Cost of Debt (Rd)	4.21%
Wacc	9.65%

Sources: Business Insider, Bloomberg and own estimations

Lululemon Athletica's weighted average cost of capital was calculated to measure the average annual rate of return expected by shareholders and debtholders in return for their investment. To assess Lululemon Athletica's WACC, the cost of debt (rd) and the cost of equity (re) needed to be computed (Exhibit 55).

Firstly, regarding the **cost of debt**, Lululemon Athletica has no outstanding bonds, so we analyzed the outstanding bonds of peers in the apparel and sportswear sectors. The peers that were used to calculate the cost of debt are Nike, Adidas, Under Armour and V.F. Corporation. We estimated Lululemon's cost of debt by deriving the debt yield based on the weighted Yield-to-Maturity of each peers' outstanding bonds with a maturity of 10 years for Nike, V.F. Corporation and Under Armour bonds and 15 years for Adidas because there were no bonds with a maturity of 10 years.

Exhibit 56: Unlevered Beta by company

Company	Adj. Beta (5y)
Lululemon Athletica	1.16
Nike	1.11
Adidas	0.88
VF Corporation	1.07
Under Armour	1.36
Average market beta	1.12

Sources: Bloomberg and own estimations

For the rating of the peers' debt, we used data from **the rating agency** Standard & Poor's and then found the default rate for each peer. As result, to compute the rd of Lululemon, we obtained a synthetic credit rating of **BB+** for Lululemon corresponding to the average of the default rate and the YTM of the peers which gave us a default rate of 4.87% and a YTM of 4.35%. This default rate allowed us to calculate the probability of default which is 0.48%. We applied the same methodology to obtain the loss given default which is 29.88%. By applying the formula $YTM - Probability\ of\ default * Loss\ Given\ Default$, we obtained a cost of debt of 4.21%.

In order to compute the beta of debt (bd), we need to find the data on the risk-free rate (rf) and the market risk premium (MRP).

The used RF was the **10 Year U.S. Treasury Bond Yield**, dating from 12/07/2022, i.e., 3.53%. For the MRP, a value of 5.5% was chosen, equal to the average MRP in the United States in 2022. A beta of debt of 0.124 was obtained.

Lululemon's **cost of equity** is calculated by applying the capital asset valuation model (CAPM) plus a Market Risk Premium. To compute Lululemon's beta of equity, we correlated the excess return of Lululemon and the excess return of the Standard & Poor's 500 (S&P 500) of the past five years. We got a raw beta of 1.255. To obtain a cost of equity suitable for our business and considering the systematic risk of the apparel and sportswear industries, we conducted peer-related research to estimate Lululemon's beta of equity. We have opted for the following comparable companies: Nike, Adidas, V.F. Corporation and Under Armour. Before unlevering the betas of all companies, we smooth all the levered betas of each company by applying **the blume adjustment**, the formula of which is $\frac{2}{3} * \text{levered beta} + \frac{1}{3} * \text{market beta}$. After unlevering all company betas based on the peer's individual capital structures (Exhibit 56), we relevered the average market beta with the Lululemon's capital structure, giving a company beta of 1.128. With this beta of equity, we were able to calculate Lululemon's cost of equity, which is 9.73%. Given the Lululemon's E/EV ratio of 98.76% and D/EV ratio of 1.24%, along with previous data and a tax rate of 21%, Lululemon's WACC appears to be 9.65%.

11.3 Terminal Growth Rate

Exhibit 57: Terminal growth rate by country in 2030 (data in %)

Country	Real GDP growth rate	% of the stores
China	4.12%	31.07%
US	1.57%	43.69%
Canada	1.67%	6.86%
Australasia	2.25%	9.14%
Western EU (France, Germany, Spain, Ital)	1.09%	9.25%
Average	2.39%	100.00%
Forecasted US Inflation 2030	2.20%	
Terminal Growth Rate	4.59%	

To determine the growth rate, two methods have been used: one based on the global economic forecasts and another one using the ROIC and Reinvestment rate of the company. At then end, we have preferred to use the second one as based on the company's specifications.

As we believe that the company will mature in 2031, we do not anticipate Lululemon to grow as fast as the next years. To make the firm's valuation fits with a fair growth proxy, we have computed the Terminal Growth Rate based on the real GDP estimates by geography for the longest forecasts (2030). To calculate the weight of each geography, we have based it on the forecasted number of stores that each country would have. Since we have a right estimate of the future growth rate based on a weighted average of the real GDP of each region, we have then added the US forecasted inflation rate for the same year.

The US inflation has been chosen instead of a world proxy due to the dominance of US dollars in Lululemon's cash flows. A Terminal Growth Rate of **4.59%** was obtained.

Source: Passport

In million \$	FY21	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F
NOPLAT	1,008	1,140	1,291	1,461	1,630	1,841	2,039	2,280	2,539	2,849	3,216
Invested Capital	3,264	4,043	4,607	5,195	5,749	6,349	6,931	7,517	8,147	8,826	9,558
RONIC			19.40%	30.06%	28.89%	38.02%	32.97%	41.36%	44.18%	49.31%	54.03%
ROIC	30.87%	28.20%	28.03%	28.12%	28.36%	29.00%	29.42%	30.33%	31.16%	32.28%	33.64%
Investment New Assets	129	318	349	351	375	412	395	422	446	473	
NOPLAT		1,140	1,291	1,461	1,630	1,841	2,039	2,280	2,539	2,849	3,216
RR		11.32%	24.62%	23.91%	21.51%	20.38%	20.19%	17.35%	16.61%	15.66%	14.70%
Growth Rate		3.19%	6.90%	6.72%	6.10%	5.91%	5.94%	5.26%	5.17%	5.05%	4.94%

Source: Own estimations

To compute the terminal growth rate, we preferred to use the ROIC instead of the RONIC. We believe that this “conservative” approach is more relevant as the “g” of RONIC is too high (7.94%) for the company knowing that they are currently knowing a strong momentum due to their increasing penetration rates but also their successful expansion in China. However, when checking its peers, the company could experience some barriers and China does not represent a high growth for perpetuity.

The company’s ROIC was 30.87% in FY21. This high ROIC is explained by the fact that Lululemon has a record growth in terms of sales due to its strong position in women’s yoga in the US and Canada and the fact that the company is growing very fast in the Asia market. Given the company’s rapid development and relatively high growth rates, we believe that Lululemon will maintain a high ROIC for the next decade. However, we expect a slight decline in FY22 with a ROIC of 28% since FY21 was a record year in terms of sales growth +42.1%. For the next few years, we expect the ROIC to increase steadily.

11.4 Discounted Cash Flow

The method we adopted to financially value Lululemon Athletica Inc. as of December 31, 2023, was the discounted cash flow. The DCF is the most adapted method for our type of company, i.e., a company in strong growth. To calculate the share price of the company as of 12/31/2023, we calculated the Unlevered Operating FCF over the period FY23-FY31 which were then discounted at an appropriate weighted average cost of capital (WACC) to find the operating EV. Then we added the Unlevered Non-Operating FCF to calculate the Levered EV and we subtracted the value of financial debt to arrive at the value of equity which we divided by the number of outstanding shares giving us the share price at 12/31/2023.

11.5 Valuation Outcome

As mentioned above in the DCF chapter, we considered a 10-year forecast period, with a WACC of 9.65% and a terminal growth rate of 4.94%.

Exhibit 58: DCF Method (in million \$)

DCF Method (in million \$)	FY23F
Unlevered Operating FCF	719
WACC	9.65%
Operating EV	34,435
Unlevered Non-Operating EV	-16
Levered EV	34,420
Value Financial Debt	-726.4
Value of Equity	33,693
# Shares	122.40
Share Price	\$275.27

Source: Own estimations

With these parameters and a value of equity obtained of \$33.693bn and several outstanding shares of 122.4 million as of 31/01/2022, we obtained a share price of 275.27\$ for the base scenario.

11.6 Scenario Analysis

The **Bull scenario** is based on the fact that Lululemon will be able to reach its expectation over its strategic plan and to open around 220 stores in China for FY26. The winning strategy will be pushed by a receptive E-Com market, and strong development in principals and later second zone cities. This scenario also assumes that as in the UK, others majors EU markets will be keen on Lululemon products and the company will be able to perfectly fit and grow on these markets. In this great environment, they would not be further lockdowns and Lululemon will be able to perfectly adapt to the competition. More than that, the company will not be affected by any exogenous phenomena such as supply chain delays or news damaging its brand image like the case of Adidas with Kanye West. Furthermore, the conflict in Europe would stop and raw material prices would remain the same. Also, the penetration rate in Europe will strongly increase. In addition, the NAM market will continue to expand and then the consumer purchasing power will not be hurt. In this optimistic scenario, we assume that Lululemon Athletica continues to increase its revenues in all countries where the company operates until 2031. These forecasts would lead to a stock price of **\$368.05** (Exhibit 58).

For the **Bad scenario**, we anticipated a lowering in the numbers of store openings (growing 25% less than the base scenario) and a lower penetration rate for the DTC channel. As costs such as SG&A, COGS and Capital Expenditures are very dependent on the number of opening stores and the costs of refurbishing them, these costs are also decreasing in this scenario. In this scenario some markets will reach their maturity before than anticipated in the base scenario, but the NAM market will also experience a lower growth and the company won't be able to make synergies or economies of scales. Nevertheless, the company's valuation would be **\$226.88**.

11.7 Sensitivity Analysis

Like every company, Lululemon could be impacted by both macroeconomic and internal factors such as supply chains delays, switch in clients 'preferences but also unemployment rates or purchasing power. Moreover, as China is very important for the company growth, political tensions and protectionism could also impact its performance.

Exhibit 59: Share price by scenario in FY23 (data in \$)

Share Price by Scenario

Bull Case	\$ 368.05
Base Case	\$ 275.27
Bear Case	\$ 226.88

Source: Own estimations

As in the next part we will perform a scenario about the main value and cost drivers, we believe that the WACC and g remain the most sensitive and impactful drivers to stock valuation.

Lululemon share price varied between \$251.51 over the last year and between \$317.73 to \$330.42 over the last 6 months. The price currently turns around \$320 on average.

With a WACC of 9.65%, we chose to extend the scope from 8.90% to 10.15% which corresponds to the most accurate rate due to changes in the company’s financial structure. The g from the base scenario is 4.945661% and we chose to make it vary from 4.26% (g in the bear scenario) to 5.45% (bull scenario). More than that, it was important that the g of the bear market was around the g we approximated based on the countries economic forecasts and the US inflation rate which is a sort of risk free for the world economic growth. As we believe that the company won’t perform below the economy due to its sector and its past historic and segmentation, this appears to be the worst scenario. Knowing that the real share price is \$275.27, it is not worth it to buy the company’s stock.

The green zone represents a return superior to 10% (BUY), while the yellow point indicates a return comprised between 0 to 10% (HOLD) and then the red one corresponds to a negative return (SELL).

		WACC Sensitivity Analysis											
		275.27	8.90%	9.05%	9.20%	9.35%	9.50%	9.65%	9.75%	9.85%	9.95%	10.05%	10.15%
Growth Rate	4.26%	291.47	281.40	271.96	263.07	254.70	246.80	241.78	236.94	232.27	227.76	223.41	
	4.35%	296.20	285.80	276.05	266.89	258.27	250.14	244.97	240.00	235.20	230.58	226.12	
	4.50%	304.42	293.42	283.13	273.48	264.41	255.88	250.47	245.26	240.24	235.41	230.75	
	4.65%	313.20	301.54	290.66	280.48	270.93	261.96	256.28	250.81	245.56	240.50	235.63	
	4.80%	322.62	310.24	298.70	287.94	277.86	268.41	262.44	256.70	251.18	245.88	240.78	
	4.94%	332.74	319.55	307.30	295.89	285.24	275.27	268.97	262.93	257.14	251.57	246.22	
	5.05%	340.39	326.58	313.78	301.87	290.77	280.40	273.86	267.59	261.58	255.82	250.28	
	5.15%	348.08	333.63	320.25	307.84	296.29	285.51	278.72	272.22	266.00	260.03	254.30	
	5.25%	356.19	341.04	327.06	314.10	302.07	290.86	283.80	277.05	270.60	264.41	258.48	
	5.35%	364.75	348.86	334.22	320.68	308.12	296.45	289.11	282.10	275.40	268.98	262.84	
	5.45%	373.81	357.11	341.76	327.59	314.48	302.30	294.66	287.37	280.41	273.75	267.38	

Source: Own estimations

LULULEMON ATHLETICA INC.

SPORTSWEAR

STUDENTS: TIMOTHÉ DELCENSERIE, GWENDAL PEREIRA

COMPANY REPORT

16 DECEMBER 2022

46162@novasbe.pt, 44835@novasbe.pt

The power of a great strategy

How a company can relate on a single continent growth

- Our investment recommendation for Lululemon is “Sell” with a target price of **USD\$275.27** representing a downside of **18.5%** from the current price of **\$326.27**.
- The company will continue to outperform its peers with a **sales growth rate of 17.6%** in FY22 to **9.6%** in FY31. All of these made possible by a great segmentation in high quality **sportswear** and **yoga** products and the high growth of the **Asian market** and **E-Com segment** which are pillars of the company’s strategy.
- The Covid-19 has been a positive event for the company’s prospects and won’t be just a momentum but will continue to accelerate the company’s expansion.
- Power of Three Strategy:** Lululemon expects to achieve 3 goals: doubling men and digital revenues and quadrupling international sales. To make it possible, the three key points are: **product innovation, omni-guest experience** and **international expansion**.
- We valued the company with the **Discounted Cash Flow Model** using a **cost of capital of 9.65%** and a **perpetual growth rate of 4.94%**. We believe that the company will mature in FY31.

Company description

Found in 1998 in Canada as a yoga wear specialized company, Lululemon made its place inside a highly competitive landscape to become the new shinning company. The company is now selling through company operated stores while its online presence is strongly growing alike its Asian presence.

Recommendation: Sell

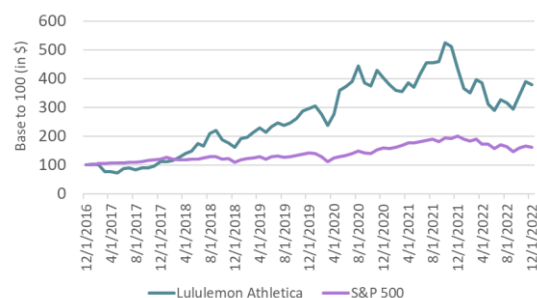
Price Target FY23: \$275.27

Price (as of 14-Dec-22) \$326.27

Source: Bloomberg

52-week range (\$)	251.51-410.70
Market Cap (\$bn)	41.62
Outstanding Shares (m)	122.4
Other (...)	

Source: Yahoo



Source: Yahoo

(Values in \$ millions)	2020	2021E	2022F
Revenues	4,402	6,257	7,360
Gross Profit	2,649	3,833	4,422
EBITDA	1,011	1,566	1,794
EBITDA margin	23.0%	25.0%	24.4%
EBIT	820	1,333	1,530
EBIT margin	18.6%	21.3%	20.8%
Net Income	589	975	1,105
Sales breakdown			
Company operated stores	37.7%	45.1%	45.9%
Direct to Customers	51.9%	44.4%	43.5%
Others	10.4%	10.5%	10.7%

Sources: Lululemon’s annual reports & analysts’ estimates

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY TIMOTHE DELCENSERIE & GWENDAL 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)

Table of Contents

1. COMPANY OVERVIEW.....	3
2. SHAREHOLDERS STRUCTURE	4
3. SHARE PRICE PERFORMANCE.....	5
4. SUPPLY CHAIN.....	6
5. ECONOMIC OVERVIEW	7
5.1 ECONOMIC OUTLOOK.....	7
5.2 DEMOGRAPHIC OUTLOOK.....	9
6.OPPORTUNITIES	9
6.1 STRATEGY.....	9
6.1.1 PRODUCT INNOVATION	9
6.1.2 GUEST EXPERIENCE	10
6.1.3 MARKET EXPANSION	10
6.2 THE POWER OF NEW TRENDS	11
7. INDUSTRY OVERVIEW.....	11
7.1 THE DIFFERENT SECTORS.....	11
7.1.1 APPAREL, SPORTWEAR	11
7.1.2 FOOTWEAR PART	12
7.1.3 YOGA WEAR PART	12
7.2 GEOGRAPHIES.....	13
8. COMPETITORS	14
8.1 NIKE	14
8.2 ADIDAS.....	15
8.3 PUMA.....	16
8.4 V.F. CORPORATION.....	16
8.5 UNDER ARMOUR	17
9. SEGMENTATION ANALYSIS	18
9.1 COMPANY-OPERATED STORES	18
9.2 DIRECT-TO-CONSUMER	18
9.3 OTHERS	19
10. FORECAST	20
10.1 SALES FORECASTS	20
10.1.1 COMPANY-OPERATED STORES	20
10.1.2. DIRECT-TO-CUSTOMER	22
10.1.3. OTHERS	23
10.2 GROSS MARGIN	24
10.3 SG&A.....	25
10.4 CAPITAL EXPENDITURES	25
10.5 NET WORKING CAPITAL	26
11. VALUATION	27
11.1 MULTIPLES	27
11.2 WACC.....	28
11.3 TERMINAL GROWTH RATE.....	29
11.4 DISCOUNTED CASH FLOW.....	30
11.5 VALUATION OUTCOME	30
11.6 SCENARIO ANALYSIS	31
11.7 SENSITIVITY ANALYSIS.....	31
APPENDIX.....	32
FINANCIAL STATEMENTS.....	33
REPORT RECOMMENDATIONS	35

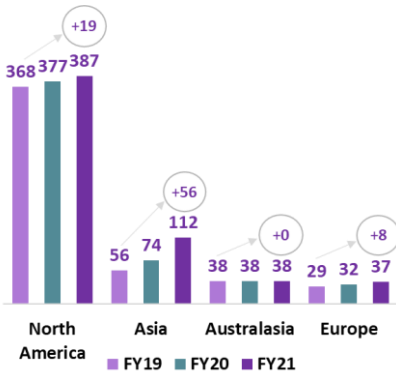
1. Company Overview

Lululemon Athletica was founded in **1998** by **Dennis J. Wilson** as a retailer specialized in the **yoga wear sector**. Nowadays, Lululemon is an international firm located in **Vancouver, Canada** that has expanded its activities by offering new products to its customers: athletic wear, lifestyle apparel, accessories, and personal care products. The company uses **two channels**: the physical stores and the digital channel. The company owned **574 stores** on **4 continents** in FY21 (Exhibit 1): North America (USA and Canada), Asia (PRC, South Korea, Japan, Singapore, Malaysia), Australasia (Australia and New Zealand) and Europe (UK, Germany, France, Ireland, Sweden, Netherlands, Norway, and Sweden).

Even with this geographical diversification, **84.7% of Lululemon sales** come from the North America market (NAM) (Exhibit 2). In the coming years, the company would like to reduce its dependency on the NAM market through a market expansion strategy. This strategy is part of its **company grow plan** “Power of Three x2 growth strategy”, involving the acceleration of its activities in Mainland China, and overall, the entrance in the new countries across APAC and Europe. In September, the company opened its first two stores in Spain, one in Madrid and one in Barcelona. During Q1, Q2 and Q3, the company opened 16 stores in NAM, 26 in APAC and 7 in Europe.

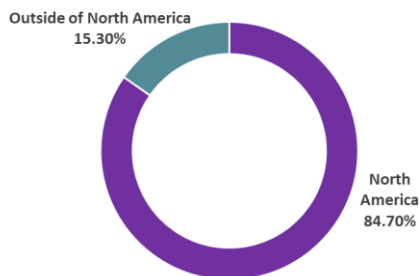
Company-Operated Stores (COS), Direct to Consumer (DTC) and Others represent the segments of the company (Exhibit 3). COS and DTC generate between them **89.5%** of Lululemon sales. The “others” segment represents a slight part of the company sales with **10.5%** in FY21. Regarding the evolution of sales, the company grew 42.1% in 2021, this strong increase is explained by the reopening of physical stores in the world (“**post-crisis**” covid-19). For Q1, Q2 and Q3 2022, the total net sales have increased respectively of +32%, +29% and +28% (+32% in North America (Q1), 28% (Q2) and 26% (Q3); +29% internationally (Q1), +35% (Q2) and +41% (Q3)), primarily due to increased COS net revenue, due to an increased productivity and new stores opening. During Q1 to Q3, FY22, the company has performed well in terms of sales growth (≈+30%). We estimate that the company will reach sales of **\$7.36bn in FY22**, representing a growth of 17.6%. Concerning the segments, in FY21, there was an increase in sales for the COS segment (70.1%), followed by the “others” segment (+43.2%) and the DTC segment (+21.6%).

Exhibit 1: The breakdown of LULU stores by region over the last 3 years (FY19-FY21)



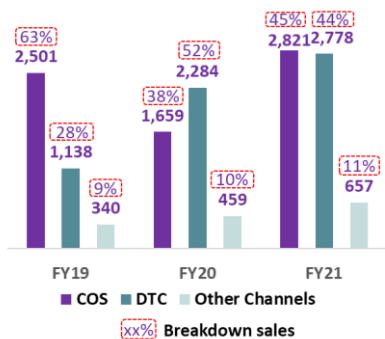
Sources: Lululemon’s annual reports FY19, FY20 and FY21

Exhibit 2: Sales breakdown by geography in FY21 (data in %)



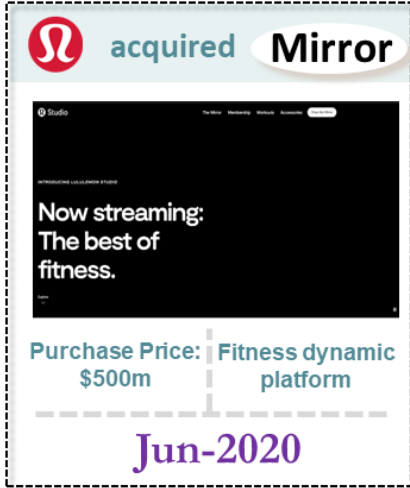
Source: Lululemon’s annual report FY21

Exhibit 3: Lululemon’s sales breakdown by segment over the last 3 years (data in \$m and %)



Sources: Lululemon’s annual reports FY19, FY20 and FY21

Exhibit 4: Summary of Mirror acquisition



In April 2022, Lululemon announced a **five-year growth plan** to double revenue by **2026 to \$12.5bn**. Lululemon’s strategy to reach its growth goals in 2026 is to **double men’s and digital sales**, and **quadruple international sales** as well as to continue to **grow its business core areas**. As a matter of fact, digital sales grew 33% in Q1, FY22 and 32% in Q2, FY22 and 31% in Q3, FY22 while men’s sales grew 37% in Q1, FY22 and 27% in Q2, FY22. Moreover, the company acquired Mirror, a fitness dynamic platform for **\$500m** in 2020 to enhance its brand image (Exhibit 4). Mirror is part of Lululemon digital fitness even if it operates as a standalone company. The 17th of January 2022, Michael Aragon has been elected new Mirror’s and Lululemon digital fitness CEO.

2. Shareholders Structure

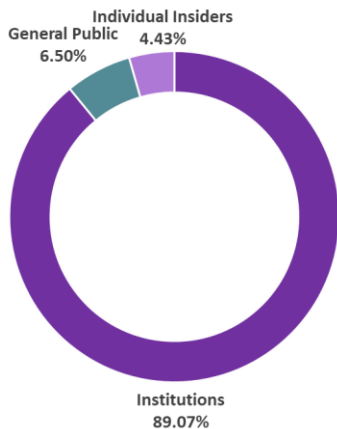
The company’s stock is traded in **NASDAQ Global Select** since July 2007. While entering the secondary market the company had 18.2m shares for a \$18 price per share. The Lululemon’s equity structure is divided into three diverse groups (Exhibit 5): **Institutions** owning the most shares in the company i.e., **89.07%**, representing investment funds like FMR LLC, The Vanguard Group and Blackrock with respectively 15.00%, 5.76% and 5.63% of total shares. Then we have, **General Public** that owns **6.50%**. The last group is **Individual Insiders**, owning **4.43%**. Lululemon has **never paid cash dividends** nor plans it soon.

The company implemented a **stock repurchase program** on the 31st of January 2019. During 2021, 2.2 million shares were repurchased at a cost of **\$812.6m**. This program is funded using cash, issuance of debt or equity securities. During H1, 2022, the company has repurchased 1.1 million shares for a total cost of **\$357.9m**, completing the existing stock repurchase program.

As of 24 of July 2022, there were 5,203,012m of **special voting stocks**. Owners of them can vote at stakeholders’ meetings and each share gives one vote. On the event of liquidation, dissolution or winding-up they do not give right to any dividend.

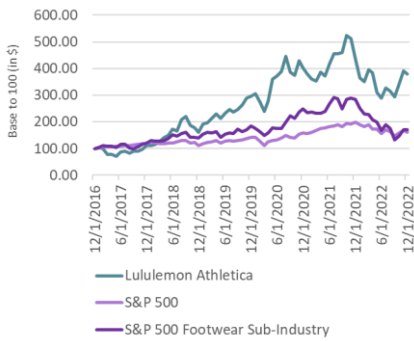
Source: Company Data – Mirror presentation by Lululemon

Exhibit 5: Shareholders breakdown as of the end of September 2022 (data in %)



Source: Yahoo Finance

Exhibit 6: Five-year total return of LULU stock, S&P 500 Index, and S&P 500 Footwear Sub Industry Index



Supplementary notes:

We assume a base of 100 to compute the cumulative total returns

Sources: Yahoo Finance and Market Watch

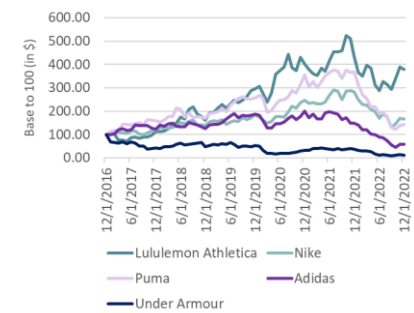
3. Share Price Performance

On 29th of October 2021, Lululemon stock rose 3.8% as JP Morgan said it is valued \$500 due to strong expectation for the yoga wear sector. Overall, the sportswear sector always shows **more resilience** than the whole market, and the yoga sector even more. An important factor is the fact that the sector is **less indebt** than the overall market and is perfectly **adapting to new selling channels** but also continues to attract new customers due to high **product innovation**. Moreover, customers are always more appealing to invest \$100 in new shoes than \$10K in a new car during difficult times.

The stock price passed from Av. \$55.75 in January 2016 to an Av. \$317.04 in August 2022. The stock even reached a \$477.91 value on the 16 of November 2021.

Lululemon has **outperformed** both the **S&P 500** and **S&P 500 Footwear Sub Industry Index** during the last years showing the company strengths (Exhibit 6). Lululemon past 5 years performances have greatly outperformed all its close peers, too (Exhibit 7). While checking the SPP of Lululemon against its peers we can see that the company is more linked to the performances of Nike and Puma while Under Armour is the most struggling one. The company has a new international strategy of quadrupling international sales (achievable knowing NIKE’s +50% of international shares and the fact that that company had \$1bn in cash and no debt)¹. The stock went from \$165,55 in May 2020 to \$377.48 in August 2020, following this news. On the 9th of September 2020 the stock fell by 4.4% following a degradation of EPS prospects following the Mirror Acquisition. On the 6th of May 2022, the stock fell by 8.9% after athletic apparel and shoes issued broadly weaker results than analysts anticipated. Nike slumps by 6.7%, Foot Locker by 4.4% and Under Amour by 26% since January 2017. Overall, Lululemon doesn’t have the credibility of NIKE but in general **overperforms the market** by beating expectations. Lululemon stock increased by 470% from 2016 to 2021 against 113% for the S&P 500 due to quadrupled profits.

Exhibit 7: Five-year total return of LULU, NKE, PUM and ADS common stocks



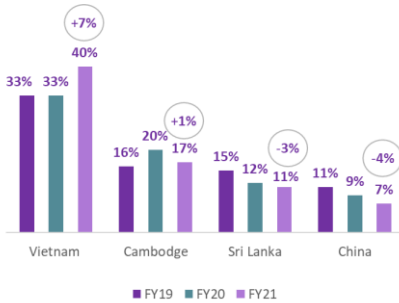
Supplementary notes:

We assume a base of 100 to compute the cumulative total returns

Source: Yahoo Finance

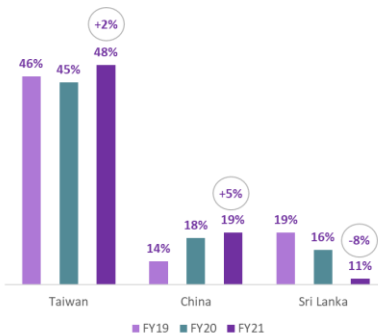
¹ Bloomberg

Exhibit 8: The breakdown of Top Vendors over the last 3 fiscal years (data in %)



Sources: Lululemon's annual reports FY19, FY20 and FY21

Exhibit 9: The breakdown of Top Suppliers over the last 3 fiscal years (data in %)



Sources: Lululemon's annual reports FY19, FY20 and FY21

4. Supply chain

The totality of the products is done by unaffiliated manufacturers. The company works with **41 vendors**, the top 5 producing 57% of the products and the biggest making 15% (Exhibit 8).

The three biggest regions are: Vietnam (40%), Cambodia (17%) and Sri Lanka (11%). Over the last past years, **the share of China declined** in profit to other countries. From 15% in 2016 to 7% in 2021. Lululemon is well positioned in terms of manufacturers as all its peers are also cutting business with China and switching for Cambodia and Vietnam. For instance, Nike went from 16% to 26% of its manufacturers based in Vietnam (26% to 20% with China)².

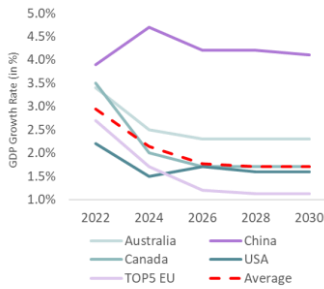
More than that the company works with **65 suppliers** of which the top five produced 56% and the largest manufacturer accounted for 27% (Exhibit 9). The three largest countries were Taiwan (48%), Mainland China (19%) and Sri Lanka (11%). The part of China continuously increased to reach 19% but we believe that due to the new geoeconomic map, its share will **decrease in the future**.

The company uses **petroleum-based products, silver, wool, cotton yarn** and **cotton-based textiles** as raw materials which are subject to price fluctuations, geopolitical tensions, and global climate change. It imports all its cotton from Uzbekistan and wool from South Africa and Australasia, diminishing risks in supply delays. The company has 18 raw material suppliers from which 9 are in Taiwan, 5 in China and 4 in the rest of Asia.

We believe that after the crisis, there will be a return to normal and the company won't be affected by new lockdowns and supply chain frictions. However, some things will change. Asia is an extremely important region for the raw materials and manufacturing of products. To remain with high margins, we believe that the switch from China to other Asian countries will continue due to increasing salaries in China. More than that, alike most of companies this will limit the impact of sanctions during trade conflicts between China and the USA and reduce its exposure to such events and stock price volatility.

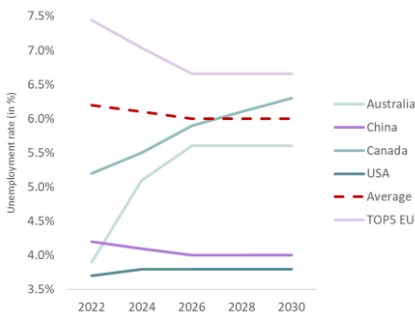
² NIKE annual report FY2022

Exhibit 10: Real GDP growth rate by country (data in %)



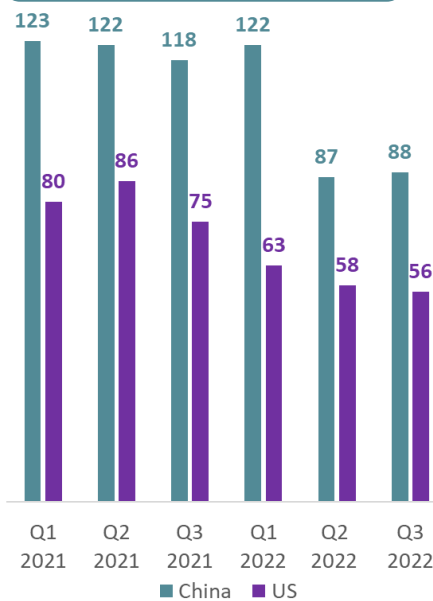
Source: Passport

Exhibit 11: Unemployment rate by country (data in %)



Source: Passport

Exhibit 12: Comparison of Consumer Confidence Index between China and US



Source: University of Michigan and National Bureau of Statistics

³ McKinsey – Retrieved from: Mapping China's middle class | McKinsey

5. Economic overview

5.1 Economic outlook

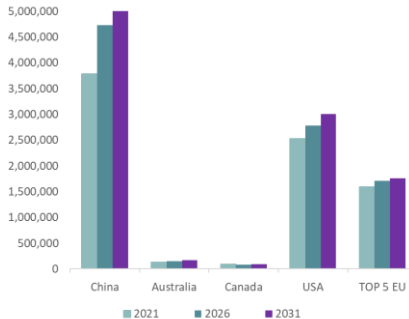
While most economic shocks and fashion trends last for a short time frame, the Covid-19 crisis has been something different which deeply reshaped the sportswear industry’s economic prospects. **Global uncertainty** is not at an end with a new war in Europe after 70 years of peace, for instance. To better forecast the company’s future performance, it is crucial to understand those trends.

The covid had a huge impact on the sector as people stayed home to work and we have known a global change in the way some people want to live and the importance of a decent **work life balance** as well as the need to consume **healthy products**. Another effect is the **supply chain headwinds**. Even if the supply delays have been reduced since the crisis, it still has some frictions. The pandemic led to more **port and railways congestion** and then higher costs and increased stocks and products in-transit.

The population **purchasing power** and the **middle-class income** are primordial to better understanding our company’s prospects.

Lululemon’s products are not luxurious nor for people unwilling to inject money on non-primary necessities. Lululemon as its peers, known strong growth since the last 2009 crisis. This has been due to the strong expansion in Asia and the NAM market, with a **strong correlation to increasing middle class and purchasing power**. For instance, Australia and USA are the most mature markets and are countries with purchasing powers comprised between \$55k and \$70K PPP. On the other hand, China is the most developing market for LULU and 75% of China’s urban consumers will earn between \$9K and \$34K in 2022.³ In the future, company sales are expected to be created by the Asian continent (especially China). The US will remain a very important market. On the other hand, the European continent will remain an important but second zone market due to the stagnation of its economy and the fact that lululemon does not have the same brand recognition as some of its peers.

The **real GDP growth rate** of our main markets (US, Canada, Australia, China, and Big 5 European countries) has grown at 1.8% from 2016 to 2021 (Exhibit 10). The forecasted growth rate for the 2022-2030 period is above 2%.

Exhibit 13: Savings by country from 2018 to 2031 (in \$m)


Source: Passport

Exhibit 14: Consumer Expenditures by country from 2021 to 2031 (in \$m)


Source: Passport

However, the fact that China is becoming a more and more important area alike Asia in general will boost the sales and fasten the switch in the markets' relevance and importance.

The **inflation** and **unemployment rates** can have negative impacts on the purchasing power and the consumers' willingness to buy sportswear products (Exhibit 11). Even if the covid crisis forced companies to re-think the way they deal with the workforce and led to a **higher turnover** (7.7% in 2021 and 6.9% in 2020), this variable is forecasted to remain under control with a 6.1% CAGR for the 2022-2030 period showing a **job market increased confidence**.

The war in Ukraine and Covid-19 crisis have considerably changed the inflation prospects with central banks increasing their **interest rates** to keep it under control but **reducing the household's confidence**, forcing them to **retain savings** rather than **consuming** and **slowing the middle-class creation growth**.

Consumer Confidence Index diminished from 96 to 77.6 points from 2019 to 2021 in the US and expected to be 56.1 points in Q3, 2022 breaking the company's growth (Exhibit 12). In China, the same phenomena led to a decrease on the CCI from 120 points in February 2022 to 87.2 in September 2022. Interest rates are predicted at 2.3% CAGR for 2022-2030 period against 0.8% for the 2016-2021 period (0% for European countries excluding UK).

More than that, **strong frictions** on some **resources** and **raw materials** such as food, oil and gas led to an accentuation of this phenomena. While the inflation should remain at 2,2% in China in 2022⁴, it is predicted to pic at 8% in the US or 8.6% in UK, the Euro Zone knowing similar prospects.

Nonetheless, inflation is forecasted to regain a normal level starting 2023-2024 and is predicted at CAGR 2.9% from 2024 to 2030. Not to improve these prospects, such predictions do not take into consideration a degradation between China and the US over **commercial trades**, **protectionism** but also possible **increased tensions** over Taiwan or a longer war period in Ukraine which could negatively affect these forecasts. This uncertainty leads to **standard commercial trade growth** which should remain over 2021 level at 46.3% of GDP (42.3% in 2016; strong variations over the last two decades in between 40-50%).

Despite 2020 with a 10.4% saving growth, the **household's savings** will grow at ≈2.8% until 2030 (Exhibit 13).

⁴ IMF – retrieved from: <https://www.statista.com/statistics/270338/inflation-rate-in-china>

This trend is slightly above the **consumer expenditure** forecasted at $\approx 2.1\%$ (1.8% for **consumer expenditure on clothing and footwear**) (Exhibit 14). More than that the **disposable income growth** is predicted to grow at 2.3% CAGR for the same period.

5.2 Demographic outlook

The demographic variables are very important as they show strong insights into the company sales. There is a **strong correlation** between the sportswear sales and the **demographics** and **purchasing power variables**. As the company sells sportswear products, we have excluded the population under 15 years old and above 65, which does not represent a strong portion of the consumers and is irrelevant. With a **predicted 0.88% growth** over the 2022-2030 period, this portion of the **population will grow slightly** for the next 5 years. The Oceania area will be more stagnating while Asia will continue to strongly develop itself.

6. Opportunities

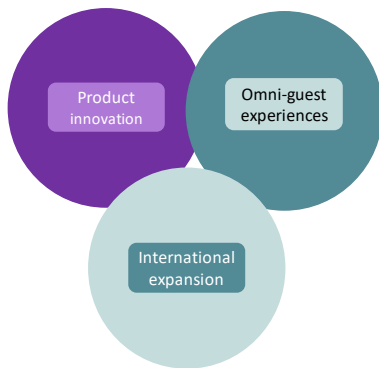
6.1 Strategy

Lululemon’s **5-year plan** is focus on **three pillars**: product innovation, omni-guest experiences, and international expansion (Exhibit 15). This strategy is very important for the growth forecasts and then its valuation. Until now, the **“Power of Three”** strategy has been working perfectly. In the last three years, LULU has **doubled the men’s sales** and the **digital sales** and **quadrupled international sales**. With such amazing performances, it believes to be able to achieve great performances over the next five years. The company is forecasting to **double their business** and reach **\$12.5bn**.

6.1.1 Product innovation

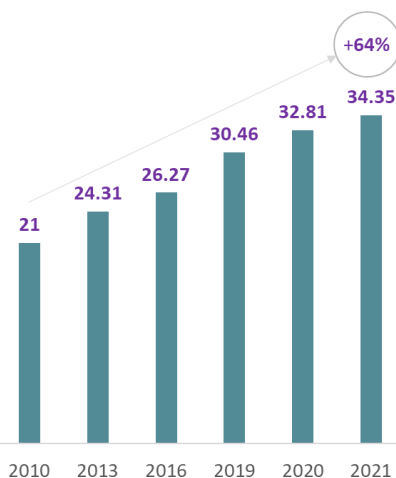
This pillar is based on the fact that LULU believes there is still **room to improve the STW offer** (sportswear). The company wants to extend the products ‘categories, but also to invest in raw material innovation to improve the products quality. The firm sees innovation as a way to meet clients' unmet needs. It also wants to continue extending the **Yoga products** because this permits them to have a **better brand image** than companies associated with Train and Run. Studies show that the number of American doing Yoga has consistently increased to reach 34.35m of adepts in 2021 (Exhibit 16). This number is 300 million people worldwide and makes the global yoga industry worth \$88bn.

Exhibit 15 Lululemon’s strategy



Source: Company Data

Exhibit 16: Number of yoga participants in the USA from 2010 to 2021 (in m)



Source: Statista

This phenomenon is happening for the whole sector injecting more and more in R&D to develop new technologies and to be able to sell products with a higher price.

6.1.2 Guest experience

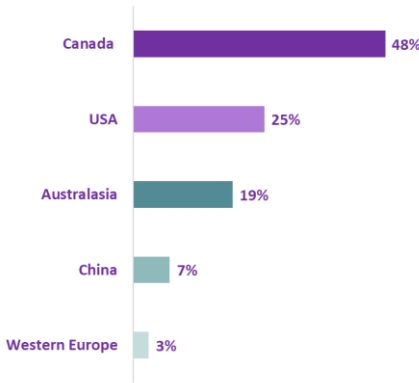
The firm has **acquired Mirror** to improve its brand recognition and to be able to offer high sport quality at home. It wants to continue improving the online experience as already 25% of the clients are shopping through it. The goal is to improve the **experience**, the **customer retention rate** and to **offer new ways to practice sport**. All of these are based on the objective of creating the most **immersive fitness marketplace** in the industry. The future of fitness is hybrid for Lululemon. 40% of US customers have used new technologies since the pandemic, while 60% prefer working out at studio or in hybrid environments and 66% prefer working out at home⁵.

This phenomenon is also happening to the peers, which also want to improve their experience and be part of clients' lives also at home such as Under Armour with its MyFitnessPal which permits to accompany the consumers in their journey.

6.1.3 Market expansion

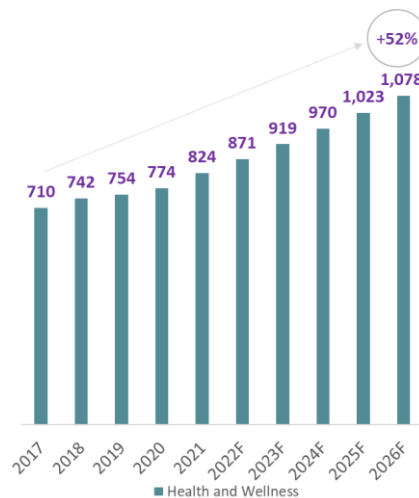
The company believes to be able to deliver double-digit growth in the USA while continuing to expand worldwide. The brand said that their **total addressable market** is **worth \$650bn**. The firm believes to be able to bring community, fitness, and shopping all together in one single place. It also wants 80% of guests to be part of one of its memberships. Its market expansion is very important because there are great opportunities to improve **its brand awareness**⁶. In Canada, 48% of people know the brand with 70% of women and 29% of men. In the USA, it is 25% with 38% for women and 11% for men. In Australasia, 19% with 30% for women and 10% for men (Exhibit 17). On the other hand, just 7% of Chinese declare knowing the brand (11% for women and 4% of men). In Western Europe, the level of brand awareness is even lower with 3% for both Germany and France. Overall, Asia is the new world center as they receive their raw materials and manufacture there but also it is the market which knows the biggest expansion. The CEO of Lululemon said that China will be home of 220 of their stores in 2026 compared to 71, five years before.

Exhibit 17: Lululemon's brand recognition by geography in 2021 (data in %)



Source: Lululemon's annual report FY21

Exhibit 18: Health and Wellness sales worldwide between 2017 and 2026F (data in \$bn)



Source: Passport

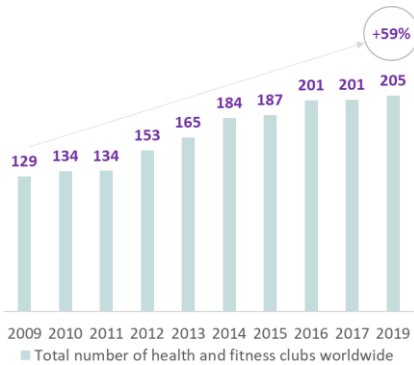
⁵ Pew Research and Fortune

⁶ Company investor presentation

6.2 The power of new trends

The covid-19 had a strong effect on the clothing industry; however, it did not really affect lululemon due to its **diversification** on **e-commerce** as channel but also the fact that it represents a **healthy way of living** which is becoming more and more important for the customer and has been enhanced with the crisis. The STW industry is promised a great future due to some trends. First, STW is becoming **fashionable**, and a lot of brands are focusing on this vibe such as Nike and Adidas. The company is focusing on partnering with classy and attractive brands such as Yeezy, Off-White or Moncler. The second trend is the growing importance of **Wellness and Health**. The Wellness market will growth at a 6.76% CAGR (2021-2025) (Exhibit 18). This phenomenon started a long time ago on some geographical zones such as California or Australia and now is expanding to Western Europe and forecasted to follow the same direction in Asia. The total number of health and fitness clubs worldwide expanded by 5.13% CAGR (2009-13) and ≈2.21% for the 2014-2019 period (Exhibit 19).

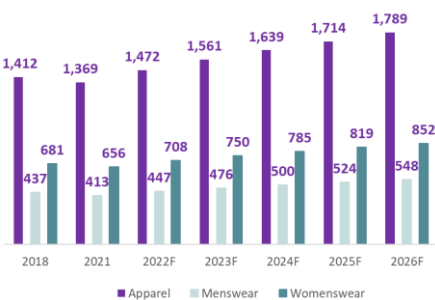
Exhibit 19: Total number of health and fitness clubs worldwide between 2009 and 2019 (in m)



Source: Statista

Furthermore, **e-commerce is making it hugely easier** for customers to buy products and companies with internationalization are focusing on new geographies where LULU believes to have strong growth opportunities. Digital is then becoming essential for companies willing to survive. While it permits to improve the communication and the customer’s experience it is also the best way to manage the supply chain, the stocks, to become more efficient and to increase the customer’s satisfaction. Due to its focus on healthy and Yoga products, Lululemon appears to have a **highly relevant positioning** against its peers, and we believe that will continue to take advantage of it. For instance, the price range for NIKE is \$50-\$250, strongly below LULU. If we take jackets as example, Nike’s price range is \$50-\$350 with a ≈\$120. Adidas’ price range is 55-350, with ≈\$100. Lululemon price range is \$128-\$798 with a ≈\$ 250⁷.

Exhibit 20: Apparel, Menswear and Womenswear sales between 2018 and 2026F (data in \$bn)



Source: Passport

7. Industry overview

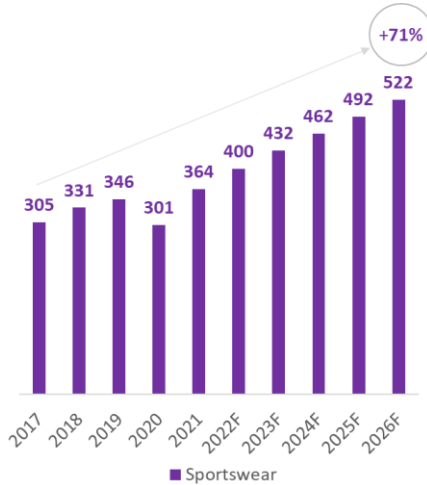
7.1 The different sectors

7.1.1 Apparel, Sportswear

Lululemon is part of the **apparel and the sportswear (A&S)** industry. The **apparel and footwear (A&F)** industry represents the **second largest industry**

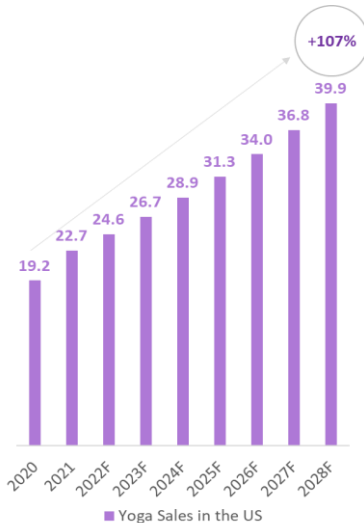
⁷ Nike, Adidas, Lululemon websites

Exhibit 21: Sportswear sales between 2017 and 2026F (in \$bn)



Source: Passport

Exhibit 22: Yoga sales in the US between 2020 and 2028F (data in \$bn)



Source: Statista

in the **consumer goods universe** and its portion is not forecasted to decline (Exhibit 20). This sector represented \$1,689bn in 2012. It declined by -0.68% CAGR for 2012-2016 before growing at CAGR 0.16% until 2021. It is forecasted to reach \$2,251bn in 2026 (4.04% CAGR).

7.1.2 Footwear

The **apparel market is far bigger than the footwear market** (\$1,472bn versus \$348bn in 2021). Even if the first market has known a greater growth rate over the last 5 years (0.23% versus 0.12%) it is forecasted to grow at a lower rate for the next years. The size of apparel market should reach \$1,789bn in 2026 (3.98% CAGR 2022-2026) against \$462bn for the footwear market (4.29% CAGR 2022-2026). Other predictions show an even greater gap between them, expecting a 2.70% growth rate for apparel and 4.35% for footwear⁸. In addition, men’s footwear and women’s footwear will grow at very similar rates (≈4.21%) to reach \$167bn and \$225bn respectively, in 2026.

However, if we want a better understanding of the company’s forecasts it adds in relevance to focus on the **sportswear (STW)** industry (Exhibit 21). While this segment was worth \$304bn in 2017, it reached \$364bn four years later (3.61% CAGR 2017-2021) and it is forecasted to grow at the fastest path over the next 5 years and to reach \$522bn in 2026 (5.45% CAGR). Once again, other predictions are expecting slower growth and it to reach \$439.1bn in 2027⁹. We believe that due to its historic performances, **Lululemon will continue to outperform** these forecasts and won’t be braked by the market.

7.1.3 Yoga wear part

Due to its well-positioned products and its NDA, Lululemon is the biggest yoga wear company worldwide. Having great strengths and opportunities in this segment, Lululemon will be able to continue to dominate the market in the next year. This market is worth around \$22.7bn worldwide and might reach \$40bn in 2028 growing at a CAGR of 8.4% (Exhibit 22). It is then very probable that if the company continues to produce high-quality products and enter new markets with success, they will be able to continue to outperform these market forecasts.

⁸ Statista

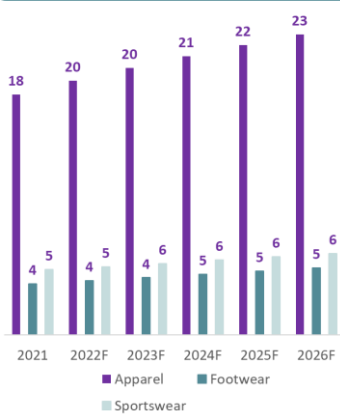
⁹ Statista

Exhibit 23: Apparel, Footwear and Sportswear sales between 2021 and 2026F in Asia Pacific (data in \$bn)



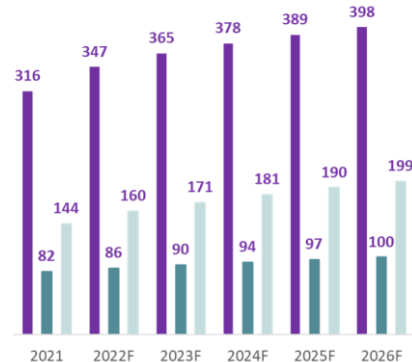
Source: Passport

Exhibit 24: Apparel, Footwear and Sportswear sales between 2021 and 2026F in Australasia (data in \$bn)



Source: Passport

Exhibit 25: Apparel, Footwear and Sportswear sales between 2021 and 2026F in USA (data in \$bn)



Source: Passport

7.2 Geographies

Worldwide, the sum of the apparel, sportswear and footwear industries were worth \$2,080.75bn in 2021 and expected to be \$2,835.54bn in 2026. STW will grow faster than the two others at a 5.62% CAGR to reach a value of \$529.94bn in 2026. While having a look at these industries through a geographical point of view, we better understand the regions' relevance and can draw a better picture of future dynamics.

Asia Pacific will become the most important area. In 2021, the sum of these 3 segments represented \$762bn. The STW channel experienced the biggest growth with a 5.99% CAGR over the last 5 years and forecasted to reach \$1,076bn in 2026 (Exhibit 23). While the apparel will remain the biggest one with a value of \$742.13bn, STW will be quite like the footwear segment with respective values of \$165.43bn and \$169.38bn in 2026 (8.2% CAGR Vs. 5.3% 2022-26).

In **China**, these 3 segments represented \$484.22bn in 2021 and forecasted to be \$638.37bn in 2026. The STW industry should match a value of around \$102bn after a 9.34% CAGR (2022-26).

Australasia remains a second zone market due to its low population. This market has always been important for the brand and will continue to grow. The STW market has known a decline in 2020 offset by 2021 and reached \$5.02bn. It is forecasted to reach \$6.27bn in 2026 after a 3.61% CAGR for the next 5 years (Exhibit 24). In Australia, a different tendency is forecasted to happen mainly due to the STW growing slower than the rest of the sector at 3.74% against 3.58% for apparel and 4.43% for footwear. While its portion of the three segments was 19% in 2021 it is forecasted to be lower at **18.3% in 2026** reaching a value of \$5.36bn. We believe that the market will soon reach its maturity in Australasia.

The **NAM** market is the company footprint. This zone was worth \$540.68bn in 2021 and expected to reach ≈\$700bn in 2026 after a 3.49% Av. Growth (Exhibit 25). STW will also know the biggest growth on this region with ≈4.47% growth to reach \$199.36bn. With a value of \$8.36bn in 2026, the Canada will remain a secondary market for STW in NAM and will experience a 3.55% growth.

In the other hand, the USA will remain the biggest market with a \$190bn value, growing at 4.46% CAGR. We believe that NAM will continue to play a strong role in the company's growth.

Exhibit 26: Peers' sales between
FY17 and FY21 (data in \$m)

Peers' sales	FY17	FY18	FY19	FY20	FY21	CAGR17-21
Nike Inc.	36,397	39,117	37,403	44,538	46,710	5.1%
Growth rate	7.5%	-4.4%	19.1%	4.9%		
Adidas AG	23,967	25,893	26,473	21,047	25,128	1.0%
Growth rate	8.0%	2.2%	-20.5%	19.4%		
V.F. Corporation Inc.	8,395	10,267	10,489	9,239	11,842	7.1%
Growth rate	22.3%	2.2%	-11.9%	28.2%		
Puma SE	4,672	5,492	6,162	5,976	8,053	11.5%
Growth rate	17.6%	12.2%	-3.0%	34.8%		
Lululemon Athletica Inc.	2,649	3,288	3,979	4,402	6,257	18.8%
Growth rate	24.1%	21.0%	10.6%	42.1%		

Sources: Lululemon, Nike, Adidas, V.F. Corporation and Puma AR FY17, FY18, FY19, FY20 and FY21

Exhibit 27: The Market Share of
companies in the sportswear
industry between FY17 and
FY21 (data in %)

Market share	FY17	FY18	FY19	FY20	FY21
Nike Inc.	47.8%	46.5%	44.3%	52.3%	47.7%
Adidas AG	31.5%	30.8%	31.3%	24.7%	25.6%
V.F. Corporation Inc.	11.0%	12.2%	12.4%	10.8%	12.1%
Puma SE	6.1%	6.5%	7.3%	7.0%	8.2%
Lululemon Athletica Inc.	3.5%	3.9%	4.7%	5.2%	6.4%

Sources: Lululemon, Nike, Adidas, V.F. Corporation and Puma annual reports FY17, FY18, FY19, FY20 and FY21

Exhibit 28: Nike's Profitability
Ratios between FY17 and FY21
(data in %)

Nike Profitability Ratios	FY17	FY18	FY19	FY20	FY21
Margin Ratios					
EBITDA Margin	14.2%	14.1%	10.3%	17.2%	15.8%
EBIT Margin	12.2%	12.2%	8.3%	15.6%	14.3%
Net Profit Margin	5.3%	10.3%	6.8%	12.9%	12.9%
Growth Ratios					
Revenue y/y Growth	n.a.	7.5%	-4.4%	19.1%	4.9%
EBITDA y/y Growth	n.a.	7.1%	-30.5%	100.2%	-3.8%
EBIT y/y Growth	n.a.	7.4%	-34.7%	122.7%	-3.8%

Sources: Nike's annual reports FY17, FY18, FY19, FY20 and FY21

Exhibit 29: Nike's logo



Europe won't grow as fast as other main markets. From 2021 to 2026, it will pass from \$409.68bn to \$509.25bn. Once again, the STW segment will experience the fastest growth (2.99%) and reach \$79.61bn. However, the E-Com will play a more and more important role in the region and if Lululemon is able to improve its penetration rate, the sales will continue to be improved and won't slowdown even in the long term.

8. Competitors

The sportswear industry has become a **competitive landscape** over the last decades (Exhibit 26 and 27). Plenty of new companies have been entering the market and offering new products and experiences. This dynamic market is composed of **new competitors** and **established companies** expanding their footprints. Lululemon has been able to grow at a better rate than Nike and Adidas, which lost 5.9% of the total market shares over the last 5 years.

8.1 Nike

In FY22, NIKE achieved **\$46.7bn in sales**, up by 5% on reported terms. The NIKE brand represented 90% of this mix. The **digital segment grew by 18%**. Sales in China have seen a decrease alike most of its peers. The company's sales breakdown is as follow: USA (41%) against 39% in FY20, EMEA (28%), China (17%) and APLA (14%). The company experienced a **stagnation in the EBIT margin** as the revenue growth and gross margin were offset by **upper SG&A**. **ROIC declined** to 46.5% in 2022 from 48.8% a year ago. They have **344 stores in the US** and **702 on international markets**. With \$29.14bn, the footwear segment (66% of sales) remains the biggest one beyond the apparel (30%) with \$13.57bn. However, with a 18% growth, the equipment segment is the one which knew the biggest increase against ≈4-5% for the two first ones. With an EBIT margin of 31,3% for China, Nike creates more value on this region than NAM (27,8%) or Europe (26,3%). One strength of NIKE is the successful implementation of its E-Com channel, already representing 42% of the sales.

Nike strategy is very alike Adidas. However, the brand is still a step towards Adidas as it is already well-implemented worldwide and able to better respond to the Chinese market. They clearly are a step towards in terms of **research, design, and brand association** with great partnerships.

The brand has a full team of specialists in the areas of biomechanics, exercise physiology, engineering, industrial design, and related fields.

NIKE wants to achieve long-term growth revenues thanks to a **leading position in innovation** and continue to **expand** their “**must have**” **products**. One more time, a similar aspect to its nearest peer is the fact that even if its products are designed for athletic use, it is often used for casual or leisure purposes.

8.2 Adidas

Exhibit 30: Adidas' Profitability Ratios between FY17 and FY21 (data in %)

Adidas Profitability Ratios	FY17	FY18	FY19	FY20	FY21
Margin Ratios					
EBITDA Margin	12.0%	12.9%	16.2%	10.8%	14.7%
EBIT Margin	9.8%	10.8%	11.3%	4.0%	9.4%
Net Profit Margin	7.6%	7.8%	8.4%	2.4%	10.2%
Growth Ratios					
Revenue y/y Growth	n.a.	8.0%	2.2%	-20.5%	19.4%
EBITDA y/y Growth	n.a.	16.2%	27.7%	-46.9%	62.9%
EBIT y/y Growth	n.a.	19.6%	6.5%	-71.4%	176.5%

Sources: Adidas' annual reports FY17, FY18, FY19, FY20 and FY21

Adidas has known difficult years and underperformed, but it is performing well for H1, 2022. The brand is back to a **top notch** in Western countries and knowing a **great momentum** leading to strong growth sales: NAM (+21%), EMEA (+7%) and LAM (+37%). The business has been strongly affected in China where it is still 35% below 2021 terms. More than that, it has been deeply infected by the covid pandemic and restrictions on traffic and revenues, but sales growth is back with +3%. Digital represented 34% of sales in 2021 after a 4% increase from 2020. The net sales breakdown is very different from LULU as in FY21, €7,76bn came from EMEA, €5,11bn from NAM and €4,60bn from China. Moreover, the sales growth will continue to come from Latin America and NAM with double digit growth while China should just reach a single digit growth. While the DTC revenues are €3.94bn, Adidas wants to increase to €8-9bn in 2025. DTC channel should be increased to 50% of sales. The CEO said “*Consumers want to see, feel, and try on products live. But trade must wisely connect offline and online*”. The company wants to continue expanding digital sales through partnerships such as Zalando, JD or Foot Locker. In *addition*, Adidas **sold Reebok for €2.1bn** to **Authentic Brands Group** in 2021 and wants to focus on its own primary brand. Such as Nike, the brand recognition of Adidas is well above its peers and then the marketing strategy is alike NIKE: sponsoring famous teams and athletes, use of “**must-have**” products and continue to expand its community.

The brand wants to leverage excitement around **major sports events** such as FIFA World Cup or Tennis Majors. It is **sponsoring football teams** such as Real Madrid. It is also looking to be a **hype brand** and to **partner with fashion, sport** and **movies stars**, such as Lionel Messi or Brad Pitt. Furthermore, it is enhancing its products to luxury objects with partnerships with brands such as Yeezy or Gucci and even Balenciaga, being some of the most fashionable brands worldwide. Adidas is also relaunching old products “**Original products**” such as Stan Smith and enhancing them to “**must-have**” products. It also wants to improve its storytelling with inclusive and emotional content but also by **launching events** such as “Adifest”. All these should lead to an ever-greater community “**Adiclub**” already composed of **270 million members globally**. The company goal is to increase to around 500m members by 2025.

Exhibit 31: Partnership between Gucci and Adidas



Exhibit 32: Puma's Profitability Ratios between FY17 and FY21 (data in %)

Puma Profitability Ratios	FY17	FY18	FY19	FY20	FY21
Margin Ratios					
EBITDA Margin	7.6%	9.0%	12.6%	9.6%	12.7%
EBIT Margin	5.9%	7.3%	8.0%	4.0%	8.2%
Net Profit Margin	4.1%	4.9%	5.6%	2.4%	5.5%
Growth Ratios					
Revenue y/y Growth	n.a.	17.6%	12.2%	-3.0%	34.8%
EBITDA y/y Growth	n.a.	39.3%	56.3%	-25.8%	77.7%
EBIT y/y Growth	n.a.	44.2%	23.7%	-51.6%	175.6%

Sources: Puma's annual reports FY17, FY18, FY19, FY20 and FY21

8.3 Puma

Puma increased its **sales** from €3.4bn to €6.8bn and **EBIT** (€96m to €557m) by CAGR 12.3% and 34.0% for 2015-21, respectively. In 2020, following the covid-19 crisis, all companies in the sector have seen their sales decrease while Puma's sales fell by 4.87%. During H1, FY22, Puma continued to perform well with Q1 (19.7%) and Q2 (18.4%). The channel with the highest sales growth in H1, 2022 is **wholesale** (+22.9%) followed by **Brick & Mortar** (+15.8%). On the other hand, its E-Com sales have decreased by 8.6%. The fastest growing division was accessories (+20.9%), followed by footwear (+18.9%) and apparel (+18.1%). In H1, 2022, Puma had a high growth for the NAM region (+33.6%), followed by EMEA (+23.5%) against APAC (-10.4%) and China (-43%). The company is having difficulties to adapt to the China market which will penalize it in the future. Its sales breakdown shows that it is still very dependent in Europe (22.4%) and NAM (28.9%) against 11.2% for China. As the company is struggling to develop in this market, the prospects are not good as the part of inventories in China continues to strongly increase (+31,4% in FY21) and the fact that Europe EBIT margin remains weak (<9.6%).

Exhibit 33: Partnership between Lewis Hamilton and Puma



Exhibit 34: V.F. Corporation's Profitability Ratios between FY17 and FY21 (data in %)

V.F. Corp Profitability Ratios	FY17	FY18	FY19	FY20	FY21
Margin Ratios					
EBITDA Margin	14.1%	14.1%	15.1%	14.1%	19.5%
EBIT Margin	10.5%	11.6%	8.8%	6.6%	13.8%
Net Profit Margin	7.3%	12.3%	6.5%	4.4%	11.7%
Growth Ratios					
Revenue y/y Growth	n.a.	22.3%	2.2%	-11.9%	28.2%
EBITDA y/y Growth	n.a.	22.1%	9.8%	-17.9%	77.0%
EBIT y/y Growth	n.a.	34.7%	-22.0%	-34.5%	168.6%

Sources: V.F. Corporation's annual reports FY17, FY18, FY19, FY20 and FY21

8.4 V.F. Corporation

During H1, 2022, V.F. Corporation's sales increased by 7%, above the company's expectations led by The North Face (+37%) and Timberland (+14%). The regional breakdown is EMEA (+24%), NAM (+7%), APAC (-15%) and China (-30%). The company remains too dependent on the NAM market with 59% of its sales. Asia-Pacific just represents 15%.

Wholesale sales increased by +18% while DTC decreased by -3% and E-Com by -14% showing that the E-Com segment is not working properly while other companies 'sales are pushed by this segment.

Furthermore, the company's portfolio is very broad, and customers do not assimilate themselves to the brand. It has **many great brands** such as Vans, Supreme, Eastpak, Napapijri, The North Face or Timberland. VFC **evolved and simplified their portfolio** over the past five years. It has from 32 to 12 brands to focus in the outdoor and work sectors. Moreover, the Covid crisis has impacted the brand sales. In APAC, 14% of stores were closed during the pandemic and have reopened since. The **company continues its transition** by moving the regional center of operations from Hong Kong to Shanghai to easily reach the Chinese consumers.

Exhibit 35: V.F. Corporation's logo



Exhibit 36: Under Armour's Profitability Ratios between FY17 and FY21 (data in %)

Under Armour Profitability Ratios	FY17	FY18	FY19	FY20	FY21
Margin Ratios					
EBITDA Margin	4.0%	3.0%	8.0%	-10.0%	11.0%
EBIT Margin	0.6%	-0.5%	4.5%	-13.7%	8.6%
Net Profit Margin	-1.0%	-0.9%	1.7%	-12.3%	6.3%
Growth Ratios					
Revenue y/y Growth	n.a.	4.1%	1.4%	17.0%	27.0%
EBITDA y/y Growth	n.a.	-22.2%	170.0%	-206.0%	239.9%
EBIT y/y Growth	n.a.	-189.9%	846.4%	-359.1%	179.3%

Sources: Under Armour's annual reports FY17, FY18, FY19, FY20 and FY21

Exhibit 37: Under Armour's logo



8.5 Under Armour

The company started its operation in **1996** and focused on **functional apparel** such as US sports. Over the last two decades it has considerably expanded its product portfolio. Even if the company offers high quality/price products, it has known geographical bounds with NAM remaining with 67% of the sales in FY21. During the last years, the sales growth rates of Asia-Pacific were always lower than NAM and Europe markets. Being able to expand and enter new markets will be extremely important for the company. In FY21, sales through its wholesale, DTC and licensing channels represented 57%, 41% and 2% respectively. In May 2022, Under Armour announced a **CEO transition** and Colin Browne has been appointed Interim President and CEO. In FY22 the sales were represented by apparel (68%), footwear (22%) and accessories (8%). While PUMA, NIKE and ADIDAS are more specialized in footwear, Under Armour is alike LULU in terms of segmentation with around 70% of net sales coming from Apparel. The company has the lower net profit margin with PUMA which is not due to one item but the overall companies which are not efficient. We can also see that both companies are struggling to develop in Asia and China.

9. Segmentation Analysis

9.1 Company-Operated Stores

At the end of 2021, Lululemon had **574 stores** in **17 countries** across the globe mainly located in streets, lifestyle centers, and malls. The company opened 53 new COS, including 43 new stores outside of NAM. COS generated 45% of Lululemon's total sales in FY21. With a 70.1% growth rate between FY20 and FY21, sales reached \$2.8bn. COS is expected to continue to grow over the next decade, but with a lower growth rate due to the development of E-Com. This channel remains key in the development of Lululemon due to the customers still willing to buy their items in physical stores (to be able to try new pieces and styles and to get them immediately). For the company to continue increasing its results and reach its goals, it will implement a real estate strategy over the next several years that will consist of opening new COS and increasing its Av. SQM through store expansions and relocations. Lululemon wanted to open new types of stores in the next few years such as pop-up of which 20 more were opened during the pandemic (from 50 to 70 pop-up stores), but also stores with a larger area of about 3K, 5.5K or even 25K SQF (square feet). For now, only one physical store of more than 25K SQF opened in Chicago and includes a restaurant, a gym and a meditation studio. The **Av. SQF per store is 3,406 in FY21** and Lululemon would like to **increase this area to 5.5K SQF** in the coming years.

9.2 Direct-to-Consumer

During the last five years (2017-21), **E-Com** is the distribution channel that knew the quickest increase in the total revenue breakdown. In 2017, for the apparel and footwear segments, E-Com represented 14.8% against 29.9% in 2021 (15.1% CAGR). For STW in 2017, we constate a similar result, E-Com represented 14.5% vs. 28.2% in 2021 (14.23% CAGR). For the apparel and footwear (2017-21), the store retailing CAGR was -3.81% and for the STW it was -3.40%. However, in 2021, store retail sales (30.9%) still have a weight more important than E-Com (30.1%). In the future, E-Com will continue to have more and more importance because of trends such as the wish to buy products directly online. For STW, E-Com is the fastest growing distribution channel with a 12.4% CAGR (2022-26). DTC accounted for 44% of Lululemon's sales in FY21. This segment has generated \$2.8bn, with a 21.6% growth rate (2020-21). This segment combined with COS cover all the company's activities.

DTC allows the company to reach and serve customers globally and where it has no physical retail extending its recognition. Lululemon offers their customers two ways to make their sales online via their E-Com website and mobile apps. E-Com websites and mobile apps are personalized according to the country or region. It is adapting to different cultures and lifestyles to offer a good customer experience. E-Com allows to reach another public (18-25 years old) which likes scrolling on different companies' websites and comparing the diverse products.

9.3 Others

“Others” segment increased its sales to €657m in FY21 (10.5% of total sales), which represents a growth of 48.2% from FY20. “Others” channel allows the company to implement temporary pop-ups in different locations where the company has not or very little presence and to offer fitness classes through the Mirror brand. The company uses the **outlets and warehouses** to sell unsold clothes from previous years at a discounted price. Lululemon has 37 outlets, the majority of which are in NAM. Pop-ups are **temporary locations** open for a short period of time. These locations allow the company to serve customers during busy periods in markets where Lululemon is not present with physical stores. **Mirror** launched in **September 2018** in New York and acquired by Lululemon in 2020 for **\$500m**. Mirror is integrated in the business units “**Lululemon Digital Fitness**” but operates as a standalone company. This M&A transaction allows Lululemon to expand and innovate their omni guest experience, having a dynamic platform to enhance and scale guest offerings. Thanks to it, it is possible to access 10K classes across 50 fitness categories. This content is made available to studio partners and at home. This new segment is important as it is key to enhancing the company brand recognition. To continue expanding this segment they partner with world class studios, trainers, and ambassadors. All these will lead to attracting and retaining more customers. **Wholesale** includes yoga studios, health clubs, and fitness centers. These sites, which are intended for a high-end clientele, offer an alternative distribution channel. This channel is not intended to grow further in the coming years as the company does not make it a priority. Rather, this channel is intended to expand Lululemon’s reputation. The company has entered into **licensing and supply agreements** with partners in the MEA and Mexico which in turn grant Lululemon the right to sell its products through their websites in the UAE, Kuwait, Qatar, Oman, Bahrain, and Mexico.

Exhibit 38: Lululemon Athletica's average shop space in feet from FY21 to FY31F (data in square foot)

10. Forecast

10.1 Sales Forecasts

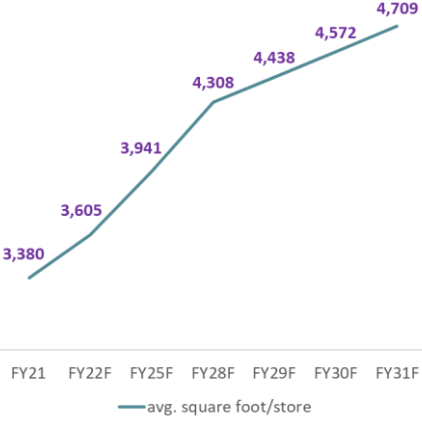
10.1.1 company-operated stores

The company is expecting to reach an **av. SQF per store** of 5,500 which we believe won't be possible soon due to the high store expansion strategy. From 3,380 in FY21, this metric will reach 4,709 by FY31, growing at a CAGR of 3% (Exhibit 38). As not every peer discloses this information and this data varies a lot every year, we have based our estimates on the average of the last four years, which represents a fair growth for a long run due to the continuing same strategy.

The sales per SQF were inconsistent taking into consideration FY20 and FY21 due to the covid-19 crisis with respectively -42% and +52% of variation. As this was due to the closing of various stores in every region, we believe that it is more consistent to use FY17 to FY19 as basis. We have found a 2.4% growth rate which we believe is fair and aligned with future economic growth. From Av. \$1.45m of sales per SQF in FY21, we forecast that the company will reach Av. Sales per SQF of \$1.84m in FY31 (Exhibit 39).

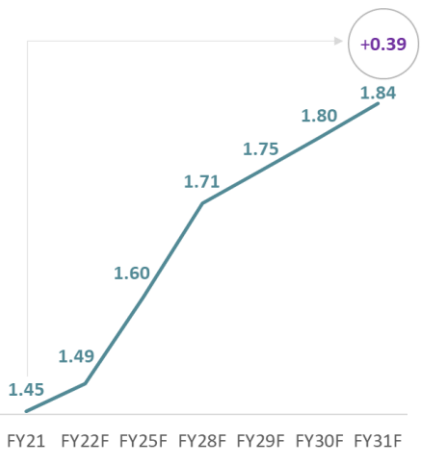
As the importance of this growth will remain low during the expansion time (2.4% out of 19.6% growth for COS segment in FY22), the more mature the company will become, the more this ratio will become important. As this data is highly related to the **productivity** of the stores, and then marketing and employees' experience, the only data leading to a decrease would be the global economic health, or a new trade war or pandemic, which we believe will not happen. In the long run, this metric will play an important role in the company growth forecasts contributing to 2.4% of COS segment growth over a total of 7.6%.

The third important metric to forecast the COS segment is the **opening and closing** of new stores (Exhibit 40). As it is not possible to forecast the closing of stores by geography, and it is only linked to economic health and company performance, this number is the average for the company last years. During the last four years the company has continuously opened new stores every year (between 30 to 53). During Q1, Q2 and Q3 of FY22, the company already opened 49 stores, leading us to believe that they will continue to expand their opening strategy this year but also at least next year before coming back to lower opening levels. More than that, a same move is happening for the company's peers, accentuating the competition and pushing to open new stores as fast as possible to gain market shares.



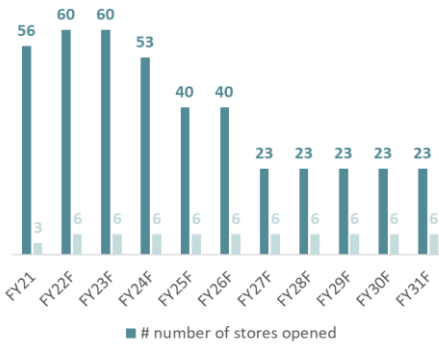
Sources: Lululemon's annual report FY21 and Own Estimation

Exhibit 39: Lululemon's Athletica sales per square foot from FY21 to FY31F (data in \$)



Sources: Lululemon's annual report FY21 and Own Estimation

Exhibit 40: Number of stores opened and closed by Lululemon Athletica from FY21 to FY31F



Sources: Lululemon’s annual report FY21 and Own Estimation

As the stores’ opening is unpredictable and there is no seasonality, we have chosen to forecast every region separately, keeping in mind that the most important factors are the **company strategy** but also the **penetration rate** and the **market maturity**. All of these led to a forecasted number of 55 new stores in FY22. FY23 should remain the same before a slower expansion rate in FY24 (47 new stores) followed by 34 in the new two years and 18 in the longer run.

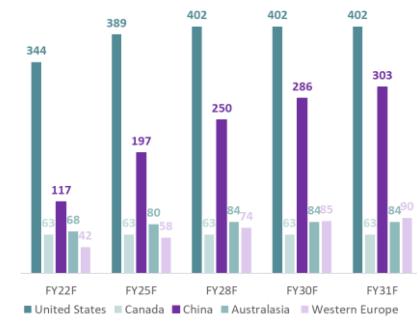
The US economy is beating economists’ expectations, and due to the high penetration rate of Lululemon in the country and the high purchasing power of the inhabitants, we believe that the country will continue to have a strong expansion until 2026 before slowing down due to its maturity. Previous information and past historic led our projections to 20 new stores in FY22 & 23, 13 in FY24, 25 & 26 and then 0 (the growth will be related to the stores’ SQF expansion and productivity). From 64 stores in FY16 to 63 in FY21, the **Canada** is homeland for Lululemon and already extremely mature. We are then projecting no new opening stores in the country. However, with similar expected GDP growth rates than **US**, similar shopping behaviors and a fast-growing purchasing power, this country will be able to reach a 5.5% growth on this segment.

This metric is just above the expected 5.3% growth for sportswear during 2021-2026 due to a **better pricing strategy**. As the population will have more money for non-primary expenses, they will be able to buy more expensive sportswear products and Lululemon will start to be chosen more often against brands such as Nike or Adidas.

China will be the most growing market. Last year, The CEO Calvin McDonald said that China would reach 220 stores in 2026. During the last years, the number of opening stores has not stopped growing from 6 in FY16 to 31 in FY21.

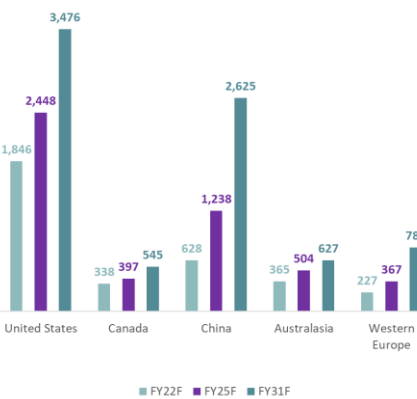
This country is already very important for producing and supplying the company’s products leading to possible economies of scales. It is also the most growing middle-class market in the world. Moreover, the company is already focusing its strategy on the country while speaking about the market expansion pillar. More than that, the firm already opened 14 stores in the **Asia Pacific** region during H1, 2022. However, we reviewed our expectations for FY22 and FY23 and lowered them due to the various lockdowns in China affecting the riskiness of opening new stores with the **zero covid strategy**. For instance, Shanghai is often subject to such events with at last the Disney land park lockdown during October 2022. The Shanghai agglomeration is the most populated zone of the country with a similar number of inhabitants to Germany but is also known as the economic capital of China, closing such cities already have strong effect on the

Exhibit 41: Breakdown of stores by geography from FY22F to FY31F



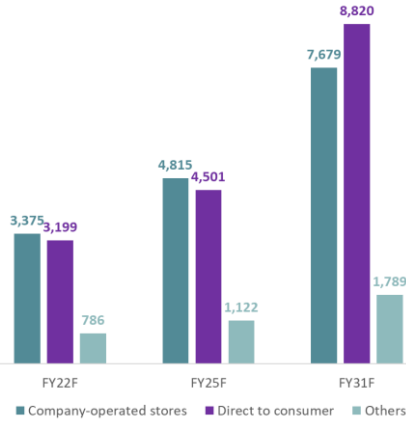
Source: Own Estimation

Exhibit 42: Company Operated Stores sales by geography in FY22F, FY25F and FY31F (data in \$m)



Source: Own Estimation

Exhibit 43: Total Sales by segment in FY22F, FY25F and FY31F (data in \$m)



Source: Own Estimation

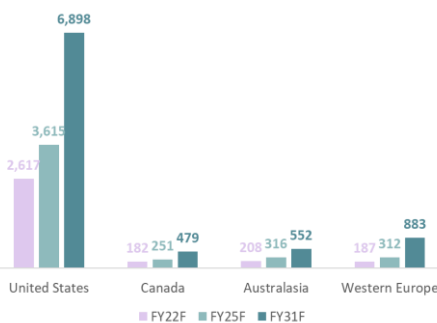
country dynamism and growth. As a matter of facts, China is expected to open 31 stores each year until FY24 and then 18 stores per year.

Lululemon is already a well-known brand in **Australasia** perfectly reaching the way Australian live. However, this zone will know a **very low population growth**. From 16.6 million people aged 15-64 in 2021, Australia is expected to reach 18 million in 2031. This region is then forecasted to quickly reach its maturity point for the COS segment. This area is forecasted to continue to open an Av. of 4 stores per year until FY26 before stopping. With a population of just over 5m, New Zealand won't pull the sales.

Lululemon footprint in **Europe** is very different from countries to other countries. With an 18% penetration rate in the UK and 17 stores is strongly expanding since the last 5 years. On the other hand, the company just has a 3% penetration rate in both Germany and France. The company just opened its first stores in Spain and Italy. The German market is expanding with more and more opening stores (around 2 per year and a few 9 in total for FY21) reaching a market where Yoga and Sportswear are well implanted allowing Lululemon to be part of a dynamic yoga ecosystem. Furthermore, with a market of more than half a billion people, we believe that the company will continue to expand at a **double-digit rate** and won't stop until FY31. With a forecasted \$782m of sales in FY31, the market will remain the third most important one, far from the USA and China.

10.1.2. Direct-to-customer

Exhibit 44: DTC Sales by geography in FY22F, FY25F and FY31F (data in \$m)



Source: Own Estimation

The **E-Com segment** will play a more and more important role in the sales breakdown. This segment has been forecasted using the data of E-Com split by country. As the data for Canada, rest of Europe and rest of Asia are not disclosed, they have been forecasted using a proxy of their weight based on the number of stores for each area multiplied by the rest of the sales not attributed to other regions. While it just accounted for 19.3% of the split in FY16, it reached 44.4% in FY21, showing the importance for Lululemon to develop this segment. We believe that the company won't be able to continue to grow at the same path, strongly pushed by the covid-19 crisis (100.7% growth in FY20). However, it should reach 48.4% in FY31. The decline in the sales breakdown during the next 3 years is highly correlated to the stores' expansion recovery and the fact that some customers will want an in-store shopping experience after long lockdowns. While accounting for \$2,778m in FY21, this number will more than triple to reach \$8,888m in FY31 and then be the first contributor to the company expansion and outpaces the COS segment in FY28.

By further looking at it but also E-Com forecasts for the Sportswear sector and the company strategy, we have then forecast that the **NAM market** will grow at 15% this year before stabilizing at a 11% CAGR as the E-Com market in this zone is expanding strongly. The USA will represent 94% of it, but Canada growing at a similar rate due to the strong similarities between the two markets and similar E-Com perspectives for the Sportswear market. Social media is helping to develop this channel with around 2.75m followers on Facebook, 3.35m followers on Instagram and around 1m on Twitter. More than that, the company already has efficiency on this channel with an **online conversion rate** of 2.3% (2.4% for USA) and an **average order value** of \$119 (\$111.7 for the USA).

Once again, **Western Countries** are forecast to growth at a 19% CAGR and this grow is not anticipated to decline over the forecasted period as this market has a great potential for the company. While France will know a lower path, this grow will be due to the UK and Germany with respectively 19% and 22% growths. For UK, France and Germany, the **digital conversion rates** are respectively: 2.6%, 1.4% and 2.2%. When speaking about the **average order value**, the numbers are respectively: \$73, \$91, and \$107. Nevertheless, the sales breakdown will continue to place Europe in the third rank for the company.

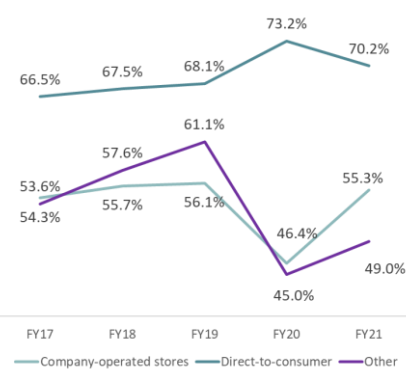
The E-Com segment will continue to grow in **China** but will remain a slight part as the company is still not known very well but also facing a very strong competition on the market against internationals but also homemade companies. Moreover, Lululemon will take time to adopt to the very **different E-Com market** in China using other apps such as WeChat and **different expectations** from the potential clients. The next years will be important for Lululemon to see if they are able to further grow in such a different market.

For the **Australasia** market excluding China, the sales will pass from \$207.6m in FY22 to \$522.2m in FY31. While Australia will remain the biggest contributor with 39%, the growth will be more linked to the Asia area and especially South Korea with around 20% growth during the whole period. As mature on this country, lululemon **digital conversion rate** is 2.2% against 1.9% for the market and its **average order value** \$98 versus \$88.1 for the market.

10.1.3. Others

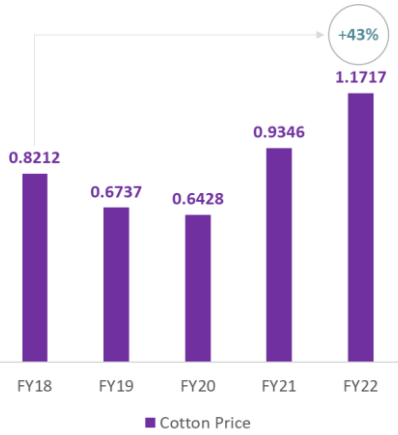
The "Others" segment has been forecasted having the same growth rate as the COS segment as it is strongly related to it, representing a % of the clothes which were not sold or outlets and short-lived stores, forecasted to grow as a proportion of overall stores.

Exhibit 45: Lululemon's Gross Margin by segment between FY17 and FY21 (data in %)



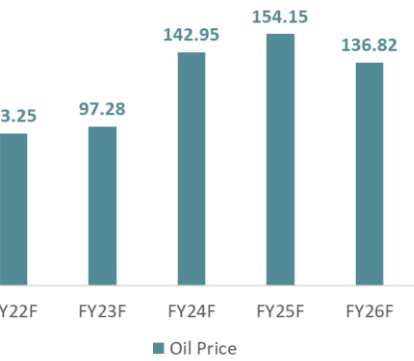
Sources: Lululemon's annual reports FY17, FY18, FY19, FY20 and FY21

Exhibit 46: Cotton Price between FY18 and FY22 (data in \$)



Source: Macrotrends

Exhibit 47: Oil Price forecasts between FY22F and FY26F (data in \$)



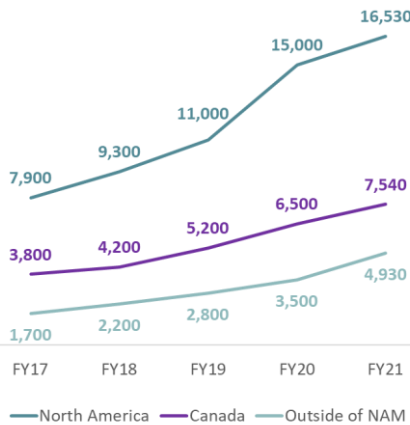
Source: Long Forecast.com

10.2 Gross Margin

What differentiates Lululemon from its peers is its sky-high gross margin. Over the past five years, Lululemon's average gross margin has been around 59.5% which exceeds the gross margin of peers which is 44.5% for Nike, 51.0% for Adidas, 54.2% for V.F Corporation, 47.9% for Puma and 47.1% for Under Armour. Lululemon has achieved very high levels of profitability due to its **premium positioning** and **strong brand loyalty**. The company's strategy is to target higher-end consumers by offering quality products at prices that are higher than those offered by peers. To put things into perspective, the men's jogger sold by Lululemon is priced at a minimum of \$138 compared to \$50 for Nike's jogger. On the past five fiscal years, Lululemon has progressively decreased the weight of COGS from 43.1% in FY17 to 38.7% in FY21. With the development of the DTC segment, Lululemon can better manage their inventory and thus reduce the weight of COGS on their sales. Even though the DTC segment will develop faster and faster in the coming years, we must take into consideration two parameters: the fact that the **price of energy** is currently under pressure and that Lululemon has reached a relatively high margin level which for us represents its "**Ceiling Margin**", Lululemon should therefore return to a margin that tends to **normalize** (Exhibit 45).

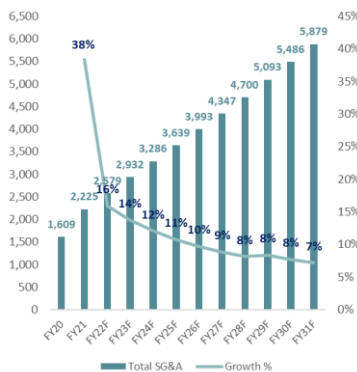
Lululemon most important raw materials are **petrochemicals-based products**, **wool**, and **cotton** (Exhibit 46), while like every company, it is also dependent on **energy prices**. The price of oil products is very volatile, however, by checking the current markets and past growths but also the expected demand, we believe to have reached a high level and then the prices should not increase strongly in the future (Exhibit 47). The price of cotton has been relatively stable over the last 45 years and since Uzbekistan is close by China, there will not have any supply chain delay or related increased costs. We can therefore predict that the price will remain stable. The same is anticipated for **wool**, China being the first world wool producer with 333,624 tons in 2020, the company won't suffer of delay in provisions. Wool is used less than cotton, however, its price also affects the total COGS. By checking its price over the last 5 years, we can see that it remains relatively stable around \$70, and there is no sign that the market will experience a degradation. The last important data for the COGS drivers is the **energy price**. Even if the war in Ukraine could continue to affect prices, we believe that it will be just a short momentum and it is very difficult to forecast such event.

Exhibit 48: Number of employees by geography between FY17 and FY21



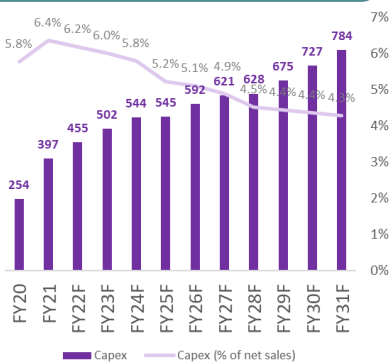
Source: Company Data

Exhibit 49: SG&A forecasts between FY20 and FY31F (data in \$m)



Sources: Lululemon's annual reports FY20 and FY21 and own estimations

Exhibit 50: Capex forecasts between FY20 and FY31F (data in \$m)



Source: Own Estimation

However, we can see from governments' predictions that the gas stocks are full, and that any problem should not appear before winter 2024. We believe that solutions will be found, and prices will return to normal.

Lululemon's gross margin reached a record high in FY20, 61.3%, and we expect that for the next 10 years the **gross margin** will decrease to **60.1%** pulled by the sales and overestimated future costs increases, approximately the same level as in FY20, 60.2%.

10.3 SG&A

SG&A grew by 38% during FY20 due to increases in **salaries and wages**, **distribution costs** and **digital marketing expenses** but also **employees** (Exhibit 48) and **head offices costs**. In average, the number of employees increased by a CAGR of 21% from 2017 to 2021. Outside of NAM, grew by 31% but its portion remains low at 17% against 13%, in 2017.

Depending on how the company will be able to open new stores in other regions will be the key factor for it to continue or not to enroll new employees outside of NAM.

However, we believe that the weight of SG&A over sales will regain a pre-pandemic level from this year (16%) and even decline over the time to reach 7% in the long run (Exhibit 49). This is due to the **fixed costs** of the company and **economies of scale** such as head office or other costs which are not predicted to be redundant. A growing important part of SG&A will be the **brand and community expenses** related to the new digital strategy. As it was 0 until FY19, this expense will be \$38m until FY28 and then \$77m from this point to FY31. This cost will be very important if the company wants to continue increasing its DTC channel and not lose market share against the competition. More than that, we expect the company to continue receiving **government grants** because of continuing to employ more and more employees abroad.

10.4 Capital Expenditures

Lululemon Athletica is currently engaged in a worldwide expansion strategy that generates a high Capex level. In FY21, the company generated \$397m of net capex corresponding to 6.35% of sales. We assume that this high Capex level will be maintained by the company, representing an average of 5.80% of the sales over the FY22-FY25 period and reaching 4.29% of the sales at maturity (FY31) (Exhibit 50).

Exhibit 51: Lulu's CCC (in number of days)

Lululemon Athletica

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	330	405	519	647	966
Trade receivables	19	36	40	62	77
Trade payables	(25)	(96)	(80)	(172)	(290)
Operating cash	732	246	279	296	903
Sales	2,649	3,288	3,979	4,402	6,257
COGS	(1,142)	(1,350)	(1,594)	(1,752)	(2,424)
Avg Holding Period (days)	105.32	109.49	118.73	134.81	145.54
Avg Collection Period (days)	2.64	3.97	3.69	5.17	4.49
Avg Payable Period (days)	(7.88)	(25.84)	(18.32)	(35.88)	(43.63)

Cash Conversion Cycle (days) 100.08 87.63 104.10 104.11 106.40

Sources: Lululemon's annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Exhibit 52: Nike's CCC (in number of days)

Nike

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	5,261	5,622	7,367	6,854	8,420
Trade receivables	3,498	4,272	2,749	4,463	4,667
Trade payables	(2,279)	(2,612)	(2,248)	(2,836)	(3,358)
Operating cash	415	853	596	840	839
Sales	36,397	39,117	37,403	44,538	46,710
COGS	(20,441)	(21,643)	(21,162)	(24,576)	(25,231)
Avg Holding Period (days)	93.94	94.81	127.07	101.79	121.81
Avg Collection Period (days)	35.08	39.86	26.83	36.58	36.47
Avg Payable Period (days)	(40.69)	(44.05)	(38.77)	(42.12)	(48.58)

Cash Conversion Cycle (days) 88.33 90.62 115.12 96.25 109.70

Sources: Nike's annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Exhibit 53: Adidas's CCC (in number of days)

Adidas

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	4,170	4,070	4,575	5,020	4,744
Trade receivables	2,615	2,857	2,940	2,229	2,574
Trade payables	(2,231)	(2,717)	(3,027)	(2,729)	(2,715)
Operating cash	547	1,133	978	943	1,579
Sales	23,967	25,893	26,473	21,047	25,128
COGS	(11,876)	(12,467)	(12,707)	(10,518)	(12,389)
Avg Holding Period (days)	128.17	119.16	131.40	174.20	139.77
Avg Collection Period (days)	39.82	40.27	40.53	38.65	37.39
Avg Payable Period (days)	(68.56)	(79.56)	(86.95)	(94.69)	(79.98)

Cash Conversion Cycle (days) 99.43 79.88 84.98 118.16 97.18

Sources: Adidas' annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Exhibit 54: VF Corporation's CCC (in number of days)

V.F. Corporation

Cash Conversion Cycle	FY17	FY18	FY19	FY20	FY21
Inventories	1,705	1,173	1,294	1,062	1,419
Trade receivables	1,422	1,373	1,308	1,298	1,468
Trade payables	(756)	(490)	(407)	(463)	(563)
Operating cash	373	145	1,113	1,095	950
Sales	8,395	10,267	10,489	9,239	11,842
COGS	(3,849)	(4,656)	(4,691)	(4,371)	(5,386)
Avg Holding Period (days)	161.69	91.96	100.69	88.67	96.13
Avg Collection Period (days)	61.83	48.80	45.52	51.28	45.24
Avg Payable Period (days)	(71.65)	(38.38)	(31.67)	(38.68)	(38.15)

Cash Conversion Cycle (days) 151.88 102.38 114.53 101.27 103.23

Sources: V.F. Corporation's annual reports FY17, FY18, FY19, FY20 and FY21 and own estimations

Lululemon Athletica is expected to open new stores, especially in China, expand or relocate some of its existing stores by increasing its SQF requiring refurbishment cost, and invest in digital technologies.

We have forecasted the CapEx by segmenting it: Company Operated Stores, Direct-to-Consumer and Corporate Activities. For the COS segment we have taken into consideration the investments related to the opening of new stores and the investments related to the relocation and refurbishment of existing stores. Regarding DTC, we consider the fact that investments related to digital technologies are expected to increase more significantly in the coming years in view of the company's strategy. For the last segment of corporate activities, we don't have detailed figures on the breakdown, we have forecasted it as a percentage of sales based on the previous year.

10.5 Net Working Capital

The capacity to manage its NWC is another determinant of the value creation for Lululemon. Lululemon Athletica's net working capital in FY21 was \$1.04bn compared to \$552mn in FY20 due to a substantial increase in operating cash. This increase is explained by the fact that the company's sales increased by 42% between these two years, generating more operating cash.

We estimate that the NWC should continue to increase in the future because the company's inventories should increase steadily and is correlated with the increase in Lululemon's sales. Furthermore, we forecast that the change in NWC will be negative for the company each year because Lululemon will invest more in its assets than in its liabilities, particularly in operating cash and inventories.

Regarding the cash conversion cycle estimates, we forecast that in the future Lululemon should keep a CCC like FY21 i.e., 106.40 since the CCC of the company is relatively high compared to peers and we consider that should not increase any further. We therefore forecasted that the **average holding period** would be 145.54, the **average collecting period** 4.49 and the **average payable period** 43.63. The other items of the NWC are forecasted in percentage of sales, and they are related to the past performances of Lululemon.

While checking the CCC of the peers we can see that Lululemon (106.4 days) is having similar performances to Nike (109.7 days), Adidas (97.18 days) and V.F. Corporation (103.23 days). However, Puma (77.97 days) has been able to better manage its cash over the last 5 years and Under Armour (62.17 days) is the company that is improving the most (Exhibit 51 until 54).

11. Valuation

11.1 Multiples

The Av. valuation of the market based on multiples: P/E ratio, EV/EBITDA and EV/EBIT would like to a \$172.4bn valuation. LULU is strongly overperforming its peers due to the potential the company has in new market while other peers did not manage to well adapt to China market. But also, the fact that LULU's sales are skyrocketing.

Market Multiples Analysis						
Company name	Mkt Cap (in Billion)	Current Enterprise Value (12/09/22)	P/E ratio (TTM)	EV/EBITDA (TTM)	EV/SALES (TTM)	EV/EBIT adj
LULULEMON	45.850	46.300	41.5x	26.0x	6.56x	26.3x
PUMA	8.290	8.870	22.0x	10.4x	1.10x	11.8x
ADIDAS	26.040	29.720	29.6x	10.6x	1.32x	17.7x
UNDER ARMOUR	4.030	4.690	n.a.	n.a.	n.a.	13.5x
NIKE	166.960	167.670	30.2x	24.1x	3.56x	26.8x
VF CORP	13.000	19.520	12.8x	9.3x	1.66x	12.6x
Sketchers	6.240	7.530	9.0x	13.6x	0.86x	11.2x
Average	38.630	40.614	24.2x	15.7x	2.51x	17.1x
Median	13.000	19.520	25.8x	12.1x	1.49x	13.5x

Source: Bloomberg

Lululemon has better margins than all its peers. The company has an EBITDA margin of 25.2% against 18.2% for its peers, which is due to the high gross profit the company is making due to the high prices of its products. LULU is already very efficient in choosing its manufacturers and suppliers. The COGS still influence the EBIT margin of the company.

The EBIT is probably the most accurate multiple, due to the **strong investments** in the sector which make the EBITDA multiple less accurate. With a 21.6% EBIT margin, it has around **twice more than the Av. of peers** (12.9%). It is even more impressive to see the 15.8% net income margin versus Av. 9.8% for its peers. By looking at the whole sector some tendencies push up margins: being able to **expand the E-Com segment**, which is less costly, like Adidas and NIKE, LULU is greatly managing this segment. Moreover, **China and Asia** push up the margins as it permits to better manage inventories, pay less salaries and have better material prices. LULU is strongly expanding in this region while all other peers are struggling to improve their sales in this market, and NIKE is already well implemented. As mentioned in the strategy, the key strength of LULU is its **price segmentation** which enables to create very high margins as it still uses the same materials but sell at higher price strongly due to the company's brand image. Another important point to understand the dominance of US companies over German ones is the **effective tax rates**. While NIKE had a 9.1% effective tax rate, Adidas had a 19.4% effective tax rate in FY21.

LULU with around 28% is not efficient enough which permits NIKE to strongly reduce the gap for their rentabilities.

These **margins will continue in the future** as the ROI, ROA and ROIC are strongly above its peers, but also because the company has a positive financial debt. Once again, the fact that NIKE and LULU are above their peers comes from their good numbers in Asia and China.

11.2 WACC

Exhibit 55: Lululemon's WACC

Inputs	
Target D/EV	1.24%
Risk-free Rate (Rf)	3.53%
Corporate Tax Rate	21.00%
MRP	5.50%
Relevered Beta	1.128
Cost of Equity (Re)	9.73%
Cost of Debt (Rd)	4.21%
Wacc	9.65%

Sources: Business Insider,
Bloomberg and own estimations

Lululemon Athletica's weighted average cost of capital was calculated to measure the average annual rate of return expected by shareholders and debtholders in return for their investment. To assess Lululemon Athletica's WACC, the cost of debt (rd) and the cost of equity (re) needed to be computed (Exhibit 55).

Firstly, regarding the **cost of debt**, Lululemon Athletica has no outstanding bonds, so we analyzed the outstanding bonds of peers in the apparel and sportswear sectors. The peers that were used to calculate the cost of debt are Nike, Adidas, Under Armour and V.F. Corporation. We estimated Lululemon's cost of debt by deriving the debt yield based on the weighted Yield-to-Maturity of each peers' outstanding bonds with a maturity of 10 years for Nike, V.F. Corporation and Under Armour bonds and 15 years for Adidas because there were no bonds with a maturity of 10 years.

Exhibit 56: Unlevered Beta by company

Company	Adj. Beta (5y)
Lululemon Athletica	1.16
Nike	1.11
Adidas	0.88
VF Corporation	1.07
Under Armour	1.36
Average market beta	1.12

Sources: Bloomberg and own
estimations

For the rating of the peers' debt, we used data from **the rating agency** Standard & Poor's and then found the default rate for each peer. As result, to compute the rd of Lululemon, we obtained a synthetic credit rating of **BB+** for Lululemon corresponding to the average of the default rate and the YTM of the peers which gave us a default rate of 4.87% and a YTM of 4.35%. This default rate allowed us to calculate the probability of default which is 0.48%. We applied the same methodology to obtain the loss given default which is 29.88%. By applying the formula $YTM - Probability\ of\ default * Loss\ Given\ Default$, we obtained a cost of debt of 4.21%.

In order to compute the beta of debt (bd), we need to find the data on the risk-free rate (rf) and the market risk premium (MRP).

The used RF was the **10 Year U.S. Treasury Bond Yield**, dating from 12/07/2022, i.e., 3.53%. For the MRP, a value of 5.5% was chosen, equal to the average MRP in the United States in 2022. A beta of debt of 0.124 was obtained.

Lululemon's **cost of equity** is calculated by applying the capital asset valuation model (CAPM) plus a Market Risk Premium. To compute Lululemon's beta of equity, we correlated the excess return of Lululemon and the excess return of the Standard & Poor's 500 (S&P 500) of the past five years. We got a raw beta of 1.255. To obtain a cost of equity suitable for our business and considering the systematic risk of the apparel and sportswear industries, we conducted peer-related research to estimate Lululemon's beta of equity. We have opted for the following comparable companies: Nike, Adidas, V.F. Corporation and Under Armour. Before unlevering the betas of all companies, we smooth all the levered betas of each company by applying **the blume adjustment**, the formula of which is $\frac{2}{3} * \text{levered beta} + \frac{1}{3} * \text{market beta}$. After unlevering all company betas based on the peer's individual capital structures (Exhibit 56), we relevered the average market beta with the Lululemon's capital structure, giving a company beta of 1.128. With this beta of equity, we were able to calculate Lululemon's cost of equity, which is 9.73%. Given the Lululemon's E/EV ratio of 98.76% and D/EV ratio of 1.24%, along with previous data and a tax rate of 21%, Lululemon's WACC appears to be 9.65%.

11.3 Terminal Growth Rate

Exhibit 57: Terminal growth rate by country in 2030 (data in %)

Country	Real GDP growth rate	% of the stores
China	4.12%	31.07%
US	1.57%	43.69%
Canada	1.67%	6.86%
Australasia	2.25%	9.14%
Western EU (France, Germany, Spain, Ital)	1.09%	9.25%
Average	2.39%	100.00%
Forecasted US Inflation 2030	2.20%	
Terminal Growth Rate	4.59%	

To determine the growth rate, two methods have been used: one based on the global economic forecasts and another one using the ROIC and Reinvestment rate of the company. At then end, we have preferred to use the second one as based on the company's specifications.

As we believe that the company will mature in 2031, we do not anticipate Lululemon to grow as fast as the next years. To make the firm's valuation fits with a fair growth proxy, we have computed the Terminal Growth Rate based on the real GDP estimates by geography for the longest forecasts (2030). To calculate the weight of each geography, we have based it on the forecasted number of stores that each country would have. Since we have a right estimate of the future growth rate based on a weighted average of the real GDP of each region, we have then added the US forecasted inflation rate for the same year.

The US inflation has been chosen instead of a world proxy due to the dominance of US dollars in Lululemon's cash flows. A Terminal Growth Rate of **4.59%** was obtained.

Source: Passport

In million \$	FY21	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F
NOPLAT	1,008	1,140	1,291	1,461	1,630	1,841	2,039	2,280	2,539	2,849	3,216
Invested Capital	3,264	4,043	4,607	5,195	5,749	6,349	6,931	7,517	8,147	8,826	9,558
RONIC			19.40%	30.06%	28.89%	38.02%	32.97%	41.36%	44.18%	49.31%	54.03%
ROIC	30.87%	28.20%	28.03%	28.12%	28.36%	29.00%	29.42%	30.33%	31.16%	32.28%	33.64%
Investment New Assets	129	318	349	351	375	412	395	422	446	473	
NOPLAT		1,140	1,291	1,461	1,630	1,841	2,039	2,280	2,539	2,849	3,216
RR		11.32%	24.62%	23.91%	21.51%	20.38%	20.19%	17.35%	16.61%	15.66%	14.70%
Growth Rate		3.19%	6.90%	6.72%	6.10%	5.91%	5.94%	5.26%	5.17%	5.05%	4.94%

Source: Own estimations

To compute the terminal growth rate, we preferred to use the ROIC instead of the RONIC. We believe that this “conservative” approach is more relevant as the “g” of RONIC is too high (7.94%) for the company knowing that they are currently knowing a strong momentum due to their increasing penetration rates but also their successful expansion in China. However, when checking its peers, the company could experience some barriers and China does not represent a high growth for perpetuity.

The company’s ROIC was 30.87% in FY21. This high ROIC is explained by the fact that Lululemon has a record growth in terms of sales due to its strong position in women’s yoga in the US and Canada and the fact that the company is growing very fast in the Asia market. Given the company’s rapid development and relatively high growth rates, we believe that Lululemon will maintain a high ROIC for the next decade. However, we expect a slight decline in FY22 with a ROIC of 28% since FY21 was a record year in terms of sales growth +42.1%. For the next few years, we expect the ROIC to increase steadily.

11.4 Discounted Cash Flow

The method we adopted to financially value Lululemon Athletica Inc. as of December 31, 2023, was the discounted cash flow. The DCF is the most adapted method for our type of company, i.e., a company in strong growth. To calculate the share price of the company as of 12/31/2023, we calculated the Unlevered Operating FCF over the period FY23-FY31 which were then discounted at an appropriate weighted average cost of capital (WACC) to find the operating EV. Then we added the Unlevered Non-Operating FCF to calculate the Levered EV and we subtracted the value of financial debt to arrive at the value of equity which we divided by the number of outstanding shares giving us the share price at 12/31/2023.

11.5 Valuation Outcome

As mentioned above in the DCF chapter, we considered a 10-year forecast period, with a WACC of 9.65% and a terminal growth rate of 4.94%.

Exhibit 58: DCF Method (in million \$)

DCF Method (in million \$)	FY23F
Unlevered Operating FCF	719
WACC	9.65%
Operating EV	34,435
Unlevered Non-Operating EV	-16
Levered EV	34,420
Value Financial Debt	-726.4
Value of Equity	33,693
# Shares	122.40
Share Price	\$275.27

Source: Own estimations

With these parameters and a value of equity obtained of \$33.693bn and several outstanding shares of 122.4 million as of 31/01/2022, we obtained a share price of 275.27\$ for the base scenario.

11.6 Scenario Analysis

The **Bull scenario** is based on the fact that Lululemon will be able to reach its expectation over its strategic plan and to open around 220 stores in China for FY26. The winning strategy will be pushed by a receptive E-Com market, and strong development in principals and later second zone cities. This scenario also assumes that as in the UK, others majors EU markets will be keen on Lululemon products and the company will be able to perfectly fit and grow on these markets. In this great environment, they would not be further lockdowns and Lululemon will be able to perfectly adapt to the competition. More than that, the company will not be affected by any exogenous phenomena such as supply chain delays or news damaging its brand image like the case of Adidas with Kanye West. Furthermore, the conflict in Europe would stop and raw material prices would remain the same. Also, the penetration rate in Europe will strongly increase. In addition, the NAM market will continue to expand and then the consumer purchasing power will not be hurt. In this optimistic scenario, we assume that Lululemon Athletica continues to increase its revenues in all countries where the company operates until 2031. These forecasts would lead to a stock price of **\$368.05** (Exhibit 58).

For the **Bad scenario**, we anticipated a lowering in the numbers of store openings (growing 25% less than the base scenario) and a lower penetration rate for the DTC channel. As costs such as SG&A, COGS and Capital Expenditures are very dependent on the number of opening stores and the costs of refurbishing them, these costs are also decreasing in this scenario. In this scenario some markets will reach their maturity before than anticipated in the base scenario, but the NAM market will also experience a lower growth and the company won't be able to make synergies or economies of scales. Nevertheless, the company's valuation would be **\$226.88**.

Share Price by Scenario

Bull Case \$	368.05
Base Case \$	275.27
Bear Case \$	226.88

Source: Own estimations

11.7 Sensitivity Analysis

Like every company, Lululemon could be impacted by both macroeconomic and internal factors such as supply chains delays, switch in clients 'preferences but also unemployment rates or purchasing power. Moreover, as China is very important for the company growth, political tensions and protectionism could also impact its performance.

As in the next part we will perform a scenario about the main value and cost drivers, we believe that the WACC and g remain the most sensitive and impactful drivers to stock valuation.

Lululemon share price varied between \$251.51 over the last year and between \$317.73 to \$330.42 over the last 6 months. The price currently turns around \$320 on average.

With a WACC of 9.65%, we chose to extend the scope from 8.90% to 10.15% which corresponds to the most accurate rate due to changes in the company’s financial structure. The g from the base scenario is 4.945661% and we chose to make it vary from 4.26% (g in the bear scenario) to 5.45% (bull scenario). More than that, it was important that the g of the bear market was around the g we approximated based on the countries economic forecasts and the US inflation rate which is a sort of risk free for the world economic growth. As we believe that the company won’t perform below the economy due to its sector and its past historic and segmentation, this appears to be the worst scenario. Knowing that the real share price is \$275.27, it is not worth it to buy the company’s stock.

The green zone represents a return superior to 10% (BUY), while the yellow point indicates a return comprised between 0 to 10% (HOLD) and then the red one corresponds to a negative return (SELL).

		WACC Sensitivity Analysis											
		275.27	8.90%	9.05%	9.20%	9.35%	9.50%	9.65%	9.75%	9.85%	9.95%	10.05%	10.15%
Growth Rate	4.26%	291.47	281.40	271.96	263.07	254.70	246.80	241.78	236.94	232.27	227.76	223.41	
	4.35%	296.20	285.80	276.05	266.89	258.27	250.14	244.97	240.00	235.20	230.58	226.12	
	4.50%	304.42	293.42	283.13	273.48	264.41	255.88	250.47	245.26	240.24	235.41	230.75	
	4.65%	313.20	301.54	290.66	280.48	270.93	261.96	256.28	250.81	245.56	240.50	235.63	
	4.80%	322.62	310.24	298.70	287.94	277.86	268.41	262.44	256.70	251.18	245.88	240.78	
	4.94%	332.74	319.55	307.30	295.89	285.24	275.27	268.97	262.93	257.14	251.57	246.22	
	5.05%	340.39	326.58	313.78	301.87	290.77	280.40	273.86	267.59	261.58	255.82	250.28	
	5.15%	348.08	333.63	320.25	307.84	296.29	285.51	278.72	272.22	266.00	260.03	254.30	
	5.25%	356.19	341.04	327.06	314.10	302.07	290.86	283.80	277.05	270.60	264.41	258.48	
	5.35%	364.75	348.86	334.22	320.68	308.12	296.45	289.11	282.10	275.40	268.98	262.84	
	5.45%	373.81	357.11	341.76	327.59	314.48	302.30	294.66	287.37	280.41	273.75	267.38	

Source: Own estimations

Appendix

Financial Statements

P&L

Lululemon Athletica Inc. P&L																
Amounts in \$ million - 31/01	FY16	FY17	FY18	FY19	FY20	FY21	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F
Net revenue	2,344	2,649	3,288	3,979	4,402	6,257	7,360	8,356	9,397	10,438	11,580	12,691	13,906	15,236	16,692	18,287
<i>Growth (%)</i>	n.a.	13.0%	24.1%	21.0%	10.6%	42.1%	17.6%	13.5%	12.5%	11.1%	10.9%	9.6%	9.6%	9.6%	9.6%	9.6%
Cost of goods sold (w/o D&A)	(1,057)	(1,142)	(1,350)	(1,594)	(1,752)	(2,424)	(2,937)	(3,335)	(3,750)	(4,166)	(4,622)	(5,065)	(5,550)	(6,081)	(6,662)	(7,299)
<i>% of sales</i>	45.1%	43.1%	41.0%	40.1%	39.8%	38.7%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%
Gross profit	1,287	1,507	1,939	2,385	2,649	3,833	4,422	5,021	5,646	6,272	6,958	7,625	8,356	9,155	10,030	10,988
<i>Gross Margin</i>	54.9%	56.9%	59.0%	59.9%	60.2%	61.3%	60.1%	60.1%	60.1%	60.1%	60.1%	60.1%	60.1%	60.1%	60.1%	60.1%
SG&A	(778)	(904)	(1,110)	(1,334)	(1,609)	(2,225)	(2,579)	(2,932)	(3,286)	(3,639)	(3,993)	(4,347)	(4,700)	(5,093)	(5,486)	(5,879)
<i>% of sales</i>	33.2%	34.1%	33.8%	33.5%	36.6%	35.6%	35.0%	35.1%	35.0%	34.9%	34.5%	34.3%	33.8%	33.4%	32.9%	32.1%
Acquisition-related expenses	0	0	0	0	(30)	(41)	(49)	(56)	(63)	(70)	(78)	(85)	(93)	(102)	(112)	(122)
<i>% of sales</i>	n.a.	n.a.	n.a.	n.a.	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Asset impairment and restructuring costs	0	(39)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBITDA	509	564	828	1,051	1,011	1,566	1,794	2,033	2,297	2,562	2,888	3,194	3,562	3,960	4,432	4,987
<i>EBITDA Margin</i>	21.7%	21.3%	25.2%	26.4%	23.0%	25.0%	24.4%	24.3%	24.4%	24.6%	24.9%	25.2%	25.6%	26.0%	26.6%	27.3%
D&A	(88)	(108)	(122)	(162)	(185)	(224)	(254)	(288)	(324)	(359)	(398)	(436)	(477)	(523)	(573)	(627)
<i>% of depreciated and amortized assets</i>	n.a.	15.8%	14.9%	9.1%	9.2%	9.7%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%
Amortization of intangible assets	0	0	0	0	(5)	(9)	(10)	(12)	(13)	(14)	(16)	(18)	(19)	(21)	(23)	(25)
<i>% of intangible assets</i>	n.a.	n.a.	n.a.	n.a.	6.4%	12.3%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%
EBIT	421	456	706	889	820	1,333	1,530	1,733	1,961	2,189	2,474	2,740	3,066	3,416	3,836	4,334
Other income (expense), net	2	4	9	8	(1)	1	5	6	6	7	8	9	9	10	11	12
<i>% of sales</i>	0.1%	0.2%	0.3%	0.2%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Income before income tax expense	423	460	715	897	819	1,334	1,535	1,739	1,967	2,196	2,481	2,749	3,075	3,426	3,848	4,347
Income tax expense	(119)	(201)	(231)	(252)	(230)	(359)	(430)	(487)	(551)	(615)	(695)	(770)	(861)	(960)	(1,078)	(1,218)
Statutory Taxes	(148)	(161)	(150)	(188)	(172)	(280)	(322)	(365)	(413)	(461)	(521)	(577)	(646)	(719)	(808)	(913)
<i>Statutory Tax Rate</i>	35.0%	35.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
<i>Effective Tax Rate</i>	28.2%	43.8%	32.4%	28.1%	28.1%	26.9%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
<i>Tax adjustments</i>	(29)	40	81	63	58	78	108	122	138	154	174	193	216	240	270	305
Net income	303	259	484	646	589	975	1,105	1,252	1,416	1,581	1,786	1,979	2,214	2,466	2,770	3,129
Foreign currency translation adjustment	37	59	(74)	(8)	47	(19)	14	16	18	20	22	25	27	30	32	35
<i>% of sales</i>	1.6%	2.2%	-2.2%	-0.2%	1.1%	-0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Comprehensive income	340	317	410	638	636	957	1,119	1,268	1,434	1,601	1,809	2,003	2,241	2,496	2,802	3,164
Diluted weighted-average number of shares	137.30	136.20	133.97	130.96	130.87	130.30	122.40									

Balance Sheet

Lululemon Athletica Inc. REFORMULATED BALANCE SHEETS																
Amounts in \$ million - 31/01	FY16	FY17	FY18	FY19	FY20	FY21	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F
Core Business																
Operating Cash		732	246	279	296	903	1,062	1,206	1,356	1,506	1,671	1,831	2,006	2,198	2,408	2,638
<i>as % of sales</i>		27.6%	7.5%	7.0%	6.7%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%
Accounts Receivable		19	36	40	62	77	91	103	116	128	143	156	171	188	205	225
<i>Average collection period (# of days)</i>		2.64	3.97	3.69	5.17	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49
Inventories		330	405	519	647	966	1,171	1,330	1,495	1,661	1,843	2,020	2,213	2,425	2,657	2,910
<i>Average holding period (# of days)</i>		105.32	109.49	118.73	134.81	145.54	145.54	145.54	145.54	145.54	145.54	145.54	145.54	145.54	145.54	145.54
Prepaid and receivable income taxes		49	49	85	139	119	177	201	226	251	278	305	334	366	401	439
<i>% of sales</i>		1.8%	1.8%	2.1%	3.2%	1.9%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
Other prepaid expenses and other current assets		48	58	71	125	193	227	257	289	321	356	391	428	469	514	563
<i>% of sales</i>		1.8%	1.8%	1.8%	2.8%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
Property and equipment net		474	567	672	746	928	1,139	1,365	1,598	1,799	2,009	2,211	2,381	2,555	2,733	2,915
<i>% of sales</i>		17.9%	17.3%	16.9%	16.9%	14.8%	15.5%	16.3%	17.0%	17.2%	17.3%	17.4%	17.1%	16.8%	16.4%	15.9%
Right-of-use lease assets		0	0	690	735	804	945	1,073	1,207	1,341	1,487	1,630	1,786	1,957	2,144	2,349
<i>% of sales</i>		0.0%	0.0%	17.3%	16.7%	12.8%	12.8%	12.8%	12.8%	12.8%	12.8%	12.8%	12.8%	12.8%	12.8%	12.8%
Goodwill		25	24	24	387	387	387	387	387	387	387	387	387	387	387	387
<i>% of sales</i>		0.9%	0.7%	0.6%	8.8%	6.2%	5.3%	4.6%	4.1%	3.7%	3.3%	3.0%	2.8%	2.5%	2.3%	2.1%
Intangible assets net		0	0	0	80	71	109	124	139	154	171	188	206	225	247	271
<i>% of sales</i>		0.0%	0.0%	0.0%	1.8%	1.1%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Deferred income tax assets		32	27	31	7	6	7	8	9	10	11	12	14	15	16	18
<i>% of sales</i>		1.2%	0.8%	0.8%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Other non-current assets		0	18	45	98	113	184	209	235	261	289	317	348	381	417	457
Cloud computing arrangement implementation costs		n.a.	2	25	75	89	149	170	191	212	235	258	282	309	339	371
<i>% of sales</i>		n.a.	0.1%	0.7%	1.9%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Security deposits		n.a.	16	20	23	24	35	39	44	49	54	60	65	72	79	86
<i>% of sales</i>		n.a.	0.5%	0.5%	0.5%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Core business Assets		1,709	1,430	2,456	3,322	4,567	5,498	6,262	7,057	7,819	8,645	9,448	10,273	11,165	12,129	13,172
Accounts payable		-25	-96	-80	-172	-290	-351	-399	-448	-498	-552	-605	-663	-727	-796	-872
<i>Average Payable Period (# of days)</i>		7.88	25.84	18.32	35.88	43.63	43.63	43.63	43.63	43.63	43.63	43.63	43.63	43.63	43.63	43.63
Accrued inventory liabilities		-13	-16	-6	-15	-4	-15	-18	-20	-22	-24	-27	-29	-32	-35	-38
<i>% of inventories</i>		4.0%	4.0%	1.2%	2.3%	0.4%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Accrued compensation and related expenses		-70	-109	-134	-130	-205	-235	-267	-299	-331	-364	-396	-428	-464	-500	-535
<i>% of SG&A</i>		7.8%	9.8%	10.0%	8.1%	9.2%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%
Current income taxes payable		-16	-67	-26	-8	-134	-73	-83	-94	-104	-116	-127	-139	-152	-167	-182
<i>% of sales</i>		0.6%	2.1%	0.7%	0.2%	2.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Unredeemed gift card liability		-83	-99	-120	-156	-208	-243	-276	-310	-344	-382	-419	-459	-502	-551	-603
<i>% of sales</i>		3.1%	3.0%	3.0%	3.5%	3.3%	3.3%	3.3%								

Non-Core Business																
Other non-current assets	31	19	12	9	19	19	19	19	19	19	19	19	19	19	19	19
Deferred lease assets	n.a.	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	n.a.	10	12	9	19	19	19	19	19	19	19	19	19	19	19	19
Non-core business assets	31	19	12	9	19	19	19	19	19	19	19	19	19	19	19	19
Non-current income taxes payable	-48	-42	-48	-43	-38	-45	-51	-57	-64	-70	-77	-85	-93	-102	-111	-111
% of sales	1.8%	1.3%	1.2%	1.0%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Other non-current liabilities	-59	-82	-6	-9	-14	-14	-16	-18	-20	-22	-24	-26	-29	-31	-34	-34
% of sales	2.2%	2.5%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Non-core business liabilities	-108	-124	-54	-52	-52	-59	-67	-75	-83	-92	-101	-111	-121	-133	-146	-146
Non-core business Invested Capital	-76	-105	-42	-43	-33	-40	-48	-56	-64	-73	-82	-92	-103	-114	-127	-127
Financial																
Short-term debt	0	0	-128	-166	-189	-246	-279	-314	-349	-387	-424	-465	-509	-558	-611	-611
% of sales	0.0%	0.0%	3.2%	3.8%	3.0%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Long-term debt	0	0	-611	-633	-692	-814	-924	-1,039	-1,155	-1,281	-1,404	-1,538	-1,685	-1,846	-2,023	-2,023
% of sales	0.0%	0.0%	15.4%	14.4%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%
Excess of cash	258	635	814	855	357	420	477	536	596	661	724	794	870	953	1,044	1,044
as % of sales	9.7%	19.3%	20.5%	19.4%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%
Net financial assets	258	635	74	56	-524	-640	-726	-817	-907	-1,007	-1,103	-1,209	-1,325	-1,451	-1,590	-1,590
Total Equity	1,597	1,446	1,952	2,559	2,740	3,404	3,881	4,378	4,842	5,343	5,828	6,308	6,822	7,374	7,969	7,969
<i>Check</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>	<i>TRUE</i>
<i>Shareholders' Transactions</i>	<i>n.a.</i>	<i>(561)</i>	<i>(132)</i>	<i>(30)</i>	<i>(775)</i>	<i>(456)</i>	<i>(790)</i>	<i>(938)</i>	<i>(1,137)</i>	<i>(1,308)</i>	<i>(1,518)</i>	<i>(1,760)</i>	<i>(1,982)</i>	<i>(2,250)</i>	<i>(2,570)</i>	<i>(2,570)</i>

CF Map

Lululemon Athletica Inc. Reformulated cash flow															
Amounts in \$ million - 31/01	FY17	FY18	FY19	FY20	FY21	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F
Core Business															
EBIT	706	889	850	1,375	1,579	1,789	2,024	2,259	2,551	2,825	3,159	3,518	3,948	4,457	4,457
Adjusted taxes	(148)	(187)	(178)	(289)	(332)	(376)	(425)	(474)	(536)	(593)	(663)	(739)	(829)	(936)	(936)
Tax adjustments	(81)	(63)	(58)	(78)	(108)	(122)	(138)	(154)	(174)	(193)	(216)	(240)	(270)	(305)	(305)
NOPLAT	476	639	613	1,008	1,140	1,291	1,461	1,630	1,841	2,039	2,280	2,539	2,849	3,216	3,216
D&A	122	162	185	224	254	288	324	359	398	436	477	523	573	627	627
Amortization of Intangible Assets	0	0	5	9	10	12	13	14	16	18	19	21	23	25	25
Gross Cash Flow	599	801	804	1,241	1,404	1,591	1,797	2,004	2,255	2,493	2,777	3,083	3,445	3,868	3,868
Change in NWC	592	(208)	(51)	(489)	(326)	(185)	(194)	(194)	(217)	(210)	(232)	(254)	(281)	(311)	(311)
Change in Capex	(216)	(266)	(259)	(406)	(465)	(514)	(557)	(560)	(608)	(639)	(647)	(697)	(750)	(809)	(809)
Change in Right-of-use lease assets	0	(690)	(45)	(69)	(142)	(128)	(134)	(134)	(147)	(143)	(156)	(171)	(187)	(205)	(205)
Change in Goodwill	0	0	(363)	(0)	0	0	0	0	0	0	0	0	0	0	0
Change in Intangible assets net	0	(0)	(85)	(0)	(48)	(26)	(28)	(30)	(33)	(34)	(37)	(41)	(45)	(49)	(49)
Change in Intangible assets net	0	(0)	(80)	9	(38)	(15)	(15)	(15)	(17)	(16)	(18)	(20)	(22)	(24)	(24)
Amortization of Intangible Assets	(0)	(0)	(5)	(9)	(10)	(12)	(13)	(14)	(16)	(18)	(19)	(21)	(23)	(25)	(25)
Change in Deferred income tax assets	6	(5)	25	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
Change in Cloud computing arrangement implementation costs	(2)	(22)	(50)	(15)	(60)	(20)	(21)	(21)	(23)	(23)	(25)	(27)	(30)	(32)	(32)
Change in Security Deposits	(16)	(4)	(3)	(1)	(11)	(5)	(5)	(5)	(5)	(5)	(6)	(6)	(7)	(8)	(8)
Change in Deferred income tax liabilities	13	29	15	(5)	2	7	8	8	10	10	12	13	15	18	18
Operating FCF	976	(366)	(13)	256	354	719	865	1,067	1,232	1,448	1,684	1,899	2,159	2,470	2,470
Non-Core Business															
EBIT	9	8	(30)	(41)	(44)	(50)	(57)	(63)	(70)	(76)	(84)	(92)	(101)	(110)	(110)
Adjusted taxes	(2)	(2)	6	9	9	11	12	13	15	16	18	19	21	23	23
OCI	(74)	(8)	47	(19)	14	16	18	20	22	25	27	30	32	35	35
Non-Operating Income	(66)	(1)	23	(51)	(21)	(24)	(26)	(29)	(33)	(36)	(39)	(43)	(47)	(52)	(52)
Change in Other non-current assets	12	8	3	(10)	0	0	0	0	0	0	0	0	0	0	0
Change in Non-Core Business assets	12	8	3	(10)	0	0	0	0	0	0	0	0	0	0	0
Change in Non-current income taxes payable	(6)	6	(5)	(5)	7	6	6	6	7	7	7	8	9	10	10
Change in Other non-current liabilities	23	(76)	3	5	0	2	2	2	2	2	2	2	3	3	3
Change in Non-Core Business liabilities	16	(70)	(2)	(0)	7	8	8	8	9	9	10	11	12	13	13
Non-Operating FCF	(38)	(64)	24	(61)	(14)	(16)	(18)	(21)	(24)	(27)	(30)	(32)	(35)	(39)	(39)
Total Unlevered	938	(430)	12	195	340	704	847	1,046	1,209	1,422	1,654	1,867	2,123	2,431	2,431
Financials															
Change in Short-term debt	0	128	38	23	57	33	35	35	38	37	41	44	49	53	53
Change in Long-term debt	0	611	21	59	122	110	115	115	126	123	134	147	161	176	176
Change in Excess of cash	(377)	(179)	(41)	498	(63)	(57)	(59)	(59)	(65)	(63)	(69)	(76)	(83)	(91)	(91)
Change in Transactions	(561)	(132)	(30)	(775)	(456)	(790)	(938)	(1,137)	(1,308)	(1,518)	(1,760)	(1,982)	(2,250)	(2,570)	(2,570)
Change in Shareholders Equity	(151)	506	606	181	664	477	497	464	501	485	481	514	552	594	594
Comprehensive Income	(410)	(638)	(636)	(957)	(1,119)	(1,268)	(1,434)	(1,601)	(1,809)	(2,003)	(2,241)	(2,496)	(2,802)	(3,164)	(3,164)
Total	(938)	430	(12)	(195)	(340)	(704)	(847)	(1,046)	(1,209)	(1,422)	(1,654)	(1,867)	(2,123)	(2,431)	(2,431)
<i>Check</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>

Disclosures and Disclaimers

Report Recommendations

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

This report was prepared by Timothé Delcenserie and Gwendal Pereira, master's in finance students of Nova School of Business and Economics ("Nova SBE"), within the context of the Field Lab – Equity Research.

This report is issued and published exclusively for academic purposes, namely for academic evaluation and master graduation purposes, within the context of said Field Lab – Equity Research. It is not to be construed as an offer or a solicitation of an offer to buy or sell any security or financial instrument.

This report was supervised by a Nova SBE faculty member, acting merely in an academic capacity, who revised the valuation methodology and the financial model.

Given the exclusive academic purpose of the reports produced by Nova SBE students, it is Nova SBE understanding that Nova SBE, the author, the present report and its publishing, are excluded from the persons and activities requiring previous registration from local regulatory authorities. As such, Nova SBE, its faculty and the author of this report have not sought or obtained registration with or certification as financial analyst by any local regulator, in any jurisdiction. In Portugal, neither the author of this report nor his/her academic supervisor is registered with or qualified under COMISSÃO DO MERCADO DE VALORES MOBILIÁRIOS ("CMVM", the Portuguese Securities Market Authority) as a financial analyst. No approval for publication or distribution of this report was required and/or obtained from any local authority, given the exclusive academic nature of the report.

The additional disclaimers also apply:

USA: Pursuant to Section 202 (a) (11) of the Investment Advisers Act of 1940, neither Nova SBE nor the author of this report are to be qualified as an investment adviser and, thus, registration with the Securities and Exchange Commission ("SEC", United States of America's securities market authority) is not necessary. Neither the author nor Nova SBE receive any compensation of any kind for the preparation of the reports.

Germany: Pursuant to §34c of the WpHG (*Wertpapierhandelsgesetz*, i.e., the German Securities Trading Act), this entity is not required to register with or otherwise notify the *Bundesanstalt für Finanzdienstleistungsaufsicht* (“BaFin”, the German Federal Financial Supervisory Authority). It should be noted that Nova SBE is a fully-owned state university and there is no relation between the student’s equity reports and any fund raising programme.

UK: Pursuant to section 22 of the Financial Services and Markets Act 2000 (the “FSMA”), for an activity to be a regulated activity, it must be carried on “by way of business”. All regulated activities are subject to prior authorization by the Financial Conduct Authority (“FCA”). However, this report serves an exclusively academic purpose and, as such, was not prepared by way of business. The author - a Master’s student - is the **sole and exclusive responsible** for the information, estimates and forecasts contained herein, and for the opinions expressed, which exclusively reflect his/her own judgment at the date of the report. Nova SBE and its faculty have no single and formal position in relation to the most appropriate valuation method, estimates or projections used in the report and may not be held liable by the author’s choice of the latter.

The information contained in this report was compiled by students from public sources believed to be reliable, but Nova SBE, its faculty, or the students make no representation that it is accurate or complete, and accept no liability whatsoever for any direct or indirect loss resulting from the use of this report or of its content.

Students are free to choose the target companies of the reports. Therefore, Nova SBE may start covering and/or suspend the coverage of any listed company, at any time, without prior notice. The students or Nova SBE are not responsible for updating this report, and the opinions and recommendations expressed herein may change without further notice.

The target company or security of this report may be simultaneously covered by more than one student. Because each student is free to choose the valuation method, and make his/her own assumptions and estimates, the resulting projections, price target and recommendations may differ widely, even when referring to the same security. Moreover, changing market conditions and/or changing subjective opinions may lead to significantly different valuation results. Other students’ opinions, estimates and recommendations, as well as the advisor and other faculty members’ opinions may be inconsistent with the views expressed in this report. Any recipient of this report should understand that statements regarding future prospects and performance are, by nature, subjective, and may be fallible.

This report does not necessarily mention and/or analyze all possible risks arising from the investment in the target company and/or security, namely the possible exchange rate risk resulting from the security being denominated in a currency either than the investor’s currency, among many other risks.

The purpose of publishing this report is merely academic and it is not intended for distribution among private investors. The information and opinions expressed in this report are not intended to be available to any person other than Portuguese natural or legal persons or persons domiciled in Portugal. While preparing this report, students did not have in consideration the specific investment objectives, financial situation or

particular needs of any specific person. Investors should seek financial advice regarding the appropriateness of investing in any security, namely in the security covered by this report.

The author hereby certifies that the views expressed in this report accurately reflect his/her personal opinion about the target company and its securities. He/ She has not received or been promised any direct or indirect compensation for expressing the opinions or recommendation included in this report.

[If applicable, it shall be added: *“While preparing the report, the author may have performed an internship (remunerated or not) in [insert the Company’s name]. This Company may have or have had an interest in the covered company or security”* and/ or *“A draft of the reports have been shown to the covered company’s officials (Investors Relations Officer or other), mainly for the purpose of correcting inaccuracies, and later modified, prior to its publication.”*]

The content of each report has been shown or made public to restricted parties prior to its publication in Nova SBE’s website or in Bloomberg Professional, for academic purposes such as its distribution among faculty members for students’ academic evaluation.

Nova SBE is a state-owned university, mainly financed by state subsidies, students tuition fees and companies, through donations, or indirectly by hiring educational programs, among other possibilities. Thus, Nova SBE may have received compensation from the target company during the last 12 months, related to its fundraising programs, or indirectly through the sale of educational, consulting or research services. Nevertheless, no compensation eventually received by Nova SBE is in any way related to or dependent on the opinions expressed in this report. The Nova School of Business and Economics does not deal for or otherwise offer any investment or intermediation services to market counterparties, private or intermediate customers.

This report may not be reproduced, distributed or published, in whole or in part, without the explicit previous consent of its author, unless when used by Nova SBE for academic purposes only. At any time, Nova SBE may decide to suspend this report reproduction or distribution without further notice. Neither this document nor any copy of it may be taken, transmitted or distributed, directly or indirectly, in any country either than Portugal or to any resident outside this country. The dissemination of this document other than in Portugal or to Portuguese citizens is therefore prohibited and unlawful.