

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.

INDITEX GROUP EQUITY RESEARCH –  
MULTIPLES AND SENSITIVITY ANALYSIS

ANA MARGARIDA LOPES GOUVEIA & 29043

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

Professor Nuno Quartin Bastos de Vasconcelos e Sá

04/01/2021

## Abstract

The aim of this Master thesis is to present a fair valuation of Inditex, a Global Fashion Retail group, headquartered in Spain, and operating in a completely new era of fast fashion, where technology leads the sector ahead of time. The Group is a recognized giant of the Apparel industry, performing its activity in 92 markets, with more than 7 300 stores, where almost 4900 are located in Europe. Not to mention, the diversified concept inherent to each of the eight brands owned by Inditex, from more accessible to exclusive high-quality products: Zara, Bershka, Pull&Bear, Stradivarius, Zara Home, Oysho, Massimo Dutti and Uterqüe. Highlight, that Zara is responsible for almost 70% of the total revenues generated.

Following the initial purpose, it was performed an extensive investigation on Inditex, analysing the current macroeconomic situation, together with the industry main risks and future perspectives of growth, not disregarding the Group's key competitors and its influence on the market. All of this, in order to be able to ground the two valuation approaches, Discounted Cash Flow and the Multiples valuation, although only the last one is developed in this report. Leading us to choose a TOP 6, of comparable companies grounded on the EBITDA margin, Revenue growth and Debt-to-Equity factors, which highlighted the fact that the market is undervaluing the stock and, that the comparables are providing biased results, influenced by the current Pandemic crisis. As a projected target price varying from 15,33€ to 23,48€, according to the EV/EBIT multiple, much below the perspective price.

In this way, the results were challenged through a sensitivity analysis, where the major risks were considered, culminating into the conclusion that only another wave of the COVID-19 virus, the prolongation of the economic recover until 2023, or an increase in Cost of Goods Sold mainly due to cost inefficiency and sustainability expenses, could lead the recommendation to change, to Sell and Hold, respectively. In addition, we considered a delay in the vaccine efficacy, which led us to conclude the delay cannot be higher than 6 months for the investor to profit in terms of capital and dividend gains. Leading to the affirmation that Inditex will be able to overcome these uncertainties and deliver a 17,40% return to the investors at the end of 2021, through our main valuation approach, analysed in the principal report (annexed). Hence, we reinforce our Buy recommendation.

Keywords (up to four): Apparel Industry, Online Platform; Sensitivity Analysis.

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).

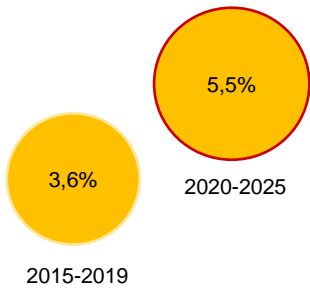
This report is part of the Equity Research report (annexed) and should be read as an integral part of it.

# Table of Contents

<b>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. ....</b>	<b>1</b>
<b>THE SECTOR.....</b>	<b>5</b>
<i>Global economy</i> .....	5
▪ <i>Digitalisation</i> .....	5
▪ <i>Sustainability</i> .....	6
▪ <i>Innovation</i> .....	6
<b>COMPETITION.....</b>	<b>6</b>
<b>VALUE DRIVERS.....</b>	<b>7</b>
<b>VALUATION OUTCOME.....</b>	<b>10</b>
<i>Multiples Valuation</i> .....	10
<b>MAJOR RISKS.....</b>	<b>11</b>
<b>SENSITIVITY ANALYSIS.....</b>	<b>12</b>
<b>FINAL RECOMMENDATION .....</b>	<b>14</b>

# The Sector

**Exhibit 1:** CAGR Apparel Industry for 2015-2019, compared to the forecasted CAGR 2020-2025

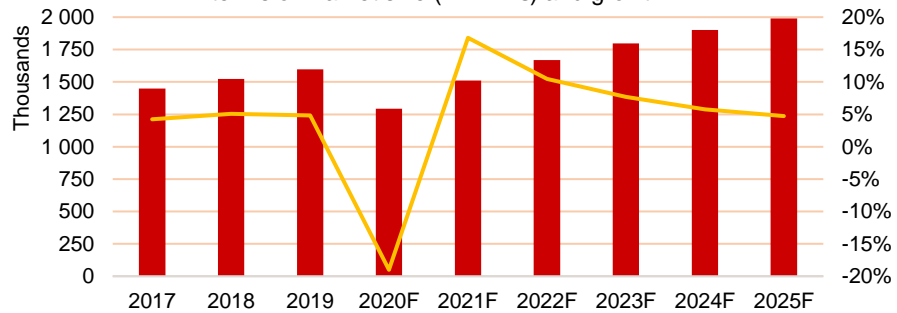


Source: Statista, 2020 & Own calculations

The Apparel Industry is divided into three distinct segments as women, men, and children's apparel. Even though clothing is not a first order necessity good, it is a key product to consumers, especially in the most advanced economies, symbolizing the individual expression and social achievement.

At a worldwide level, the industry has been growing for the past five years, achieving a market size of almost 1.6 trillion € in 2019, with an average CAGR of 3,58% from 2015 to 2019 (Exhibit 1). Regarding the future of the industry, **Apparel is expected to have a revenue decline of 19%** (Exhibit 2). Nevertheless, it is critical to highlight the exponentially higher forecasted CAGR for the period between 2020 and 2025, of 5,50%.

**Exhibit 2:** Expected Global Apparel Industry development, in terms of market size (million €) and growth

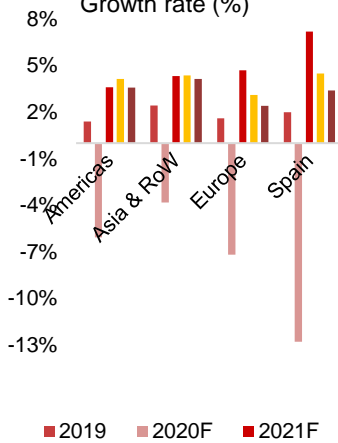


Source: Statista, 2020

Fashion is facing major challenges, which are expected to shape the industry growth for the upcoming years: **Global economy** and **Consumer Shifts**.

## Global economy

**Exhibit 3:** Real GDP Growth rate (%)



Source: IMF 2020, World Economic Outlook

Firstly, the macroeconomic context is challenging. The Covid-19 pandemic is creating significant uncertainty, with a quantifiable impact on growth. Indicators of recession will lead to consumers being increasingly cautious and, as a consequence, a slowdown in the sector. As Exhibit 3 depicts, GDP will decrease in 2020 as a result of the pressure that the global economy is facing, mainly due to the lack of capacity of distinct markets to overcome the pandemic adversities and the increase in public and private debt levels, exposing financial markets to volatility. The impact will be more abrupt in the Group's home market, Spain, where it is predicted to achieve a negative value of 12,8%. Nevertheless, it is verified also an enormous capacity to overcome the situation, in the following year. In addition, it is also relevant to highlight the Asian smooth effect in the curve, leading to assume a faster recovery from the crisis, comparing to the rest of the world, that is expected to restore economically in 2022, with a forecasted real GDP growth of 4,2%.

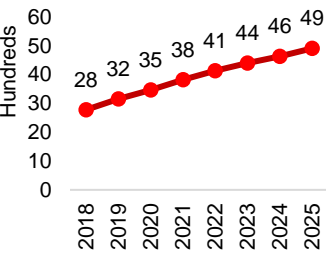
## Consumer Shifts

Secondly, the consumer behaviour has been impacting the way fashion companies operate and their success on the market. The major opportunities for the industry will come from three key pillars: **digitalisation**, **sustainability**, and **innovation**.

- Digitalisation

Over the years, consumers have made more purchases online, valuing the convenience of not having to go to stores. This change in behaviour was largely driven by the pandemic, given the

**Exhibit 4:** Number of users e-commerce worldwide (in millions)



closure of a large number of stores worldwide, which resulted in an exponential increase in online sales. Fashion is the largest e-commerce segment, and it is expected to grow 7,4% worldwide **(CAGR 2020-2025)**<sup>1</sup>. Furthermore, the number of consumers who buys online worldwide is expected continue to increase and reach 4.914 million in 2025, compared to 3.472 million in 2020<sup>2</sup> (Exhibit 4). Still regarding digitalisation, a study developed by McKinsey<sup>3</sup> states that fashion companies need to exploit social media platforms to increase their sales. Social media is seen as a route to reach a large audience, contributing to grab consumers' attention and brand awareness.

- Sustainability

The fashion industry is extremely polluting and wasteful. It is responsible for 20% to 35% of microplastic flows into the ocean and outweighs the carbon footprint of shopping and international flights combined<sup>4</sup>. Consumers have been increasingly aware of the environmental impacts of Apparel industry, putting players under pressure. Thus, fashion companies will need to swap the way they operate to face up the consumer demand for sustainable transformational changes, as well as regulatory requirements.

- Innovation

The third major opportunity for the industry is innovation. Despite the increasing importance of the digital segment, sales made in stores represents the higher stake of total sales of fashion industry (80%<sup>5</sup>, approximately). Therefore, stores continue to play an important role to customers, that are increasingly value the shopping journey. To adapt to shift consumer behaviour, companies need to evolve, rethink their store network, and focus on stores equipped with cutting edge tools. On the other hand, stores will need to complement digital sales, creating an omnichannel model. However, this will require a higher investment, which will keep a significant number of companies away from this path. The ones capable of reduce the friction in the customer experience will be a step ahead of their peers.

## Competition

The Apparel Retail Industry is composed by a large number of small players, from simple niches stores to entrepreneurial boutiques, exploiting opportunities side by side with the world giants, like Inditex and H&M. As consequence, the market assumes an extremely competitive and highly fragmented position, enhanced through available market data, where **the top 10 companies in the sector only represent 10%**<sup>6</sup> of the global market share.

Inditex differentiates itself from its peers due to a business model that is strongly customer oriented. Instead of allocating a high percentage of production to the next season, the company allocates a small fraction and uses consumers' feedback and an efficient network to fill stores with new products. Through a close watch on how the trends are evolving every day around the world, it creates new garments and puts them into the market in a rapid manner. While **most of the fashion companies would take around six months** to fill their stores with new products<sup>7</sup>,

<sup>1</sup> Statista, 2020

<sup>2</sup> Statista, 2020

<sup>3</sup> "The State of Fashion 2020 – Mckinsey & Company"

<sup>4</sup> Chinasamy, Jasmine, "A monstrous disposable industry: Fast facts about fast fashion", Uearthed, 12th September 2019

<sup>5</sup> Statista, 2020

<sup>6</sup> <https://www.themds.com/companies/the-winner-takes-it-all-top-10-fashion-companies-hold-10-of-the-global-market.html>

<sup>7</sup> <https://martinroll.com/resources/articles/strategy/the-secret-of-zaras-success-a-culture-of-customer-co-creation/>

**Exhibit 5:** Inditex centralised distribution model



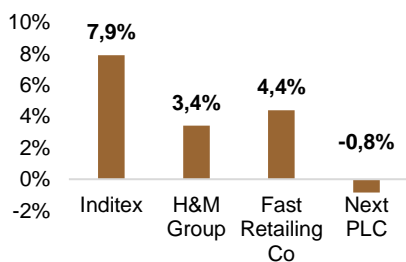
Source: Own analysis

Inditex takes only one or two weeks, what is one of the main competitive advantages of the Group. This flexibility is possible by having 54% of the factories close to the Group’s design facilities and 10 centralised logistic centres that distribute stocks to online and physical warehouses all over the world with a maximum delivery time of 48 hours (Exhibit 5).

In order to understand how the Group is positioned in the market, we analysed Inditex’s competitors and compared to the Group historical performance. From 2015 through 2019, Inditex’s **revenues increased 7,9% on average**. Based on Exhibit 6, the company has been outperforming its main competitors. The difference is quite noticeable comparing Inditex with Next PLC, with a negative average growth (-0,8%) and H&M Group (3,4%). Since these values might not be directly comparable, the **Return on Invested Capital (ROIC)** was analysed to better evaluate the differences in value across these companies. Considering the Exhibit 7, it is possible to see that, despite having the lower revenue growth, Next PLC had the best underlying performance in terms of ROIC over same period (2015-2019). Furthermore, Inditex and H&M Group performed similarly, with an average ROIC close to 24%. For all these companies except H&M, ROIC slightly decreased in the last 3 years.

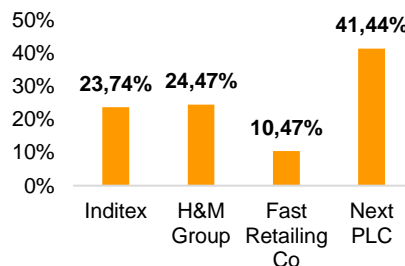
Considering the past analysis, we are able to infer that even if the market has new substantial entrants, which is one of the major factors to consider in this industry<sup>8</sup>, as it is possible to see in Exhibit 8, the possibility of representing a threat to the Group is extremely low (Degree of Rivalry). Therefore, during our valuation period, we considered that the main **competitors are going to remain stable**, and our forecast is overlooking them and the market conditions through the Multiples approach. Although, it is important to keep in mind that the pandemic crisis will affect all the relevant players in a distinct way. The ones with **higher ability to generate return and capacity to adapt will be less sensitivity to the impact** and recover quickly.

**Exhibit 6:** Apparel Industry: Average Revenue Growth (FY2015-FY2019)



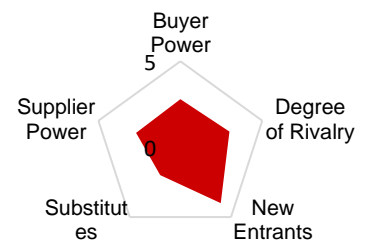
Source: Bloomberg and own analysis

**Exhibit 7:** Apparel Industry: Average ROIC (FY2015-FY2019)



Source: Bloomberg and own analysis

**Exhibit 8:** Forces driving competition in the Global Apparel Industry (2018)



Source: MarketLine, 2020

## Value Drivers

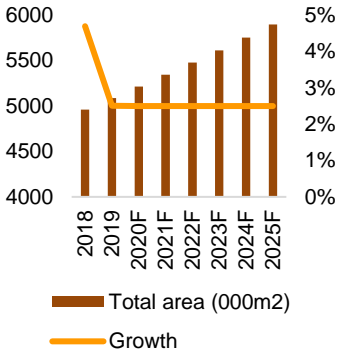
In the future, Inditex’s growth strategy will be based on three key pillars: **store & online integration, digitalisation, and sustainability**. We can verify that these decisive moves are perfectly aligned with industry trends, previously mentioned in the *The Sector* Section.

Firstly, the Group is focused on **integrating its stores and online businesses** to achieve an omnichannel model. The fully integration between physical and online channels will be possible by using the Radio Frequency Identification Technology (RFID), a system that allows to track the location of garments instantly and integrate stores and online stocks. Despite this technology is

<sup>8</sup> MarketLine, 2020

already implemented in some stores, Inditex's goals include the reinforcement of this technology across all eight of its brands over the next two years. By the end of 2022, it is expected to be fully implemented and operational. As it happened in the past, we believe that this technology will contribute to a **lower inventory on sales** in the future, with a consequent decrease in the average holding period (AHP).

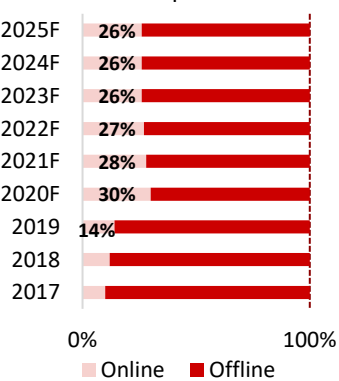
**Exhibit 9:** Stores area growth - Historical and forecast



Source: Company data and own estimations

In addition, the Group differentiates itself from the competition by understanding that customers want to experience shopping, not just buy products. Therefore, to strengthen its position in the market, the company intends to capitalize on the store experience by focusing on high quality stores: all integrated, digital, and eco-efficient. Inditex is committed to **upgrade the integrated store platform** by rolling out new advanced technology solutions. Between 2020 and 2021, its plan also includes the “absorption” of 1.000-1.200 small stores (500-600 annually), especially of brands other than Zara, and the staff to be re-deployed to tasks such as dispatching online purchases. Lastly, the Group has announced the opening of 450 new larger stores, that will be acting as distribution hubs for online sales. In the future, stores area is expected to grow 2.5% per year (Exhibit 9). According to the company, the total investment allocated to the integrated store platform plan will be around **1.7 billion euros** (900 million euros a year). These investments are incorporated in the forecasts in “Property, Plant and Equipment”. Despite the current challenging times, Inditex is highly committed to the store optimisation program, having registered a provision at the end of the first quarter to accomplish this strategic goal. These efforts lead us to believe that, by the end of 2022, all stores will be upgraded and fully integrated, as planned by the Group.

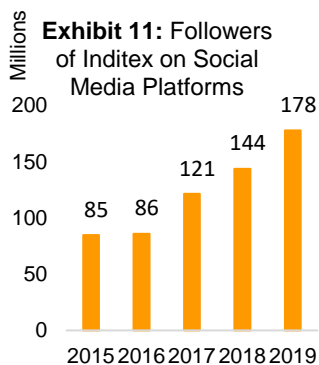
**Exhibit 10:** Expected Online Sales development



Source: Own estimations

The second pillar, digitalisation, relates to Inditex's efforts to scaling up its **online sales** and it is directly connected with the store optimization program, described before. The company expects the online segment to constitute at least 25% of the total sales by 2022 (Exhibit 10), compared to 14% in FY2019. We believe that Inditex will reach this goal, since it is planning to invest a significant amount (**1 billion euros** between 2020 and 2022) to boost its online capabilities and leverage the online network. Digital investments will include the development of “**Inditex Open Platform**”, the Group's proprietary digital operating system, over which all of the integrated digital operations related to the e-commerce will run. This investment was included in “Other intangible assets”. Investments also include new online studios with 64.000 m<sup>2</sup> for Zara in Arteixo, Spain..

On the other hand, our belief that e-commerce will keep on being the fastest growing revenue channel is supported by the ongoing trend worldwide towards online shopping, as described in *The Sector* Section. Moreover, Inditex has a strong presence on social media, in platforms such as Instagram, Facebook, Twitter and Weitao, having reached 178 million followers around the world by 2019 (Exhibit 11). As described before, the social media is playing an increasingly important role in the fashion industry. We believe that the Group's position in these platforms will continue to increase in the coming years, contributing positively to an increase in revenues.

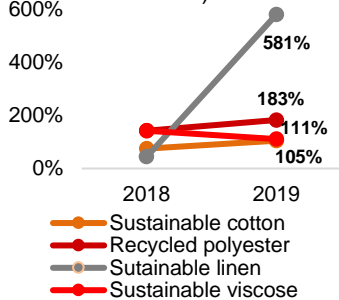


Source: Company data

In what concerns the last pillar, sustainability, it is a key part of the strategy. The Group coordinates its economic growth with environmental goals to move closer to a circular economy. Seeking to reduce its environmental footprint, it is searching for more **sustainable processes and raw materials**. The goal for 2025 is that 100% of cotton, polyester and linen used to produce its products will be recycled or will come from sustainable sources. Taking into account that cotton is the most common raw material used to produce Inditex's products, we expect that a change in its consumption will result in a change in the company's costs, more specifically in the cost of goods sold (COGS).



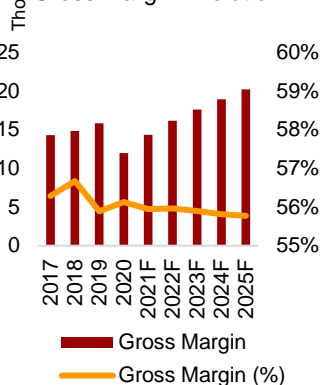
**Exhibit 12:** Use of sustainable & recycled materials growth (2018-2019)



Source: *Company data*

The production of sustainable cotton implies extra costs because the ecological procedures are costly. A common practice consists of avoiding chemical products, namely pesticides. While reducing the dependency of these products, producers have to hire more employees to perform activities such as cleaning and repair of damages caused by plagues, which leads to an increase in production costs and, consequently, to an increase of raw materials' prices. On the other hand, these materials can be hard to find and to produce, increasing even more the final products' prices. As a consequence, we believe that COGS as a percentage of sales will continue to increase until 2025, following the same trend of the past. At this point, we expect that 100% of raw materials will come from organic sources (Exhibit 12), leading the company to achieve a steady-state in what regards to its costs.

**Exhibit 13:** Inditex's Gross Margin Evolution



Source: *Company data and own analysis*

However, in terms of gross margin (Exhibit 13), we believe that this strategic point will not have a huge impact despite the increase of costs because sustainable clothes are sold at higher prices, reflecting their high quality, which will contribute positively to the increase of the value of revenues expected for the coming years. Some people are willing to pay more for products that are produced with less negative impact.

There are other initiatives that reflect some of the efforts intended by the Group to become a more sustainable business in the future and preserve the planet: have used-clothing containers in all stores by the end of 2020; reduce the surplus at the end of the fashion season, mainly due to the implementation of the RFID technology, contributing to **zero waste**; eliminate single-use plastic from customer interfaces and recycle all waste generated in its facilities by 2023.

## Segment Analysis

In connection with the industry and competition analysis, the geographic segmentation unlocks the relevance of each region and the potential growing opportunities the leading Apparel Corporations should pursue, in the short-term. According to Exhibit 14, **the Americas together with Asia and the rest of world account for more than 72% of the industry**. Having into account that Asia & RoW includes Middle East and African markets. Furthermore, the Asia-Pacific region conquers over 38%, representing the area with higher potential for future development, mostly China and India.

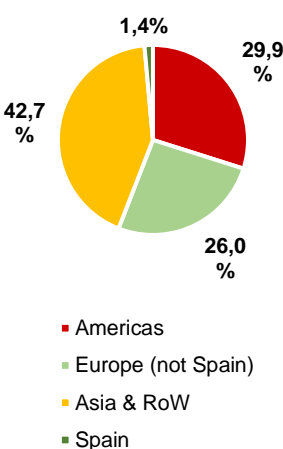
Deeply analysing, the **Asia-Pacific region** shows a remarkable **CAGR of 4,1%**, for the period between 2015 and 2019. In addition, the region has been less affected by the pandemic, and thereby the fastest to recover. As result, it has been a visible growth in the investment, around this area, where most of the international apparel companies, like Inditex, have placed their manufacturing centres, increasing their dependence on foreign developing markets.

America is the most affected area of the Apparel Industry, due to COVID-19 crisis, reaching a decrease in their revenues of almost 22%. Nevertheless, as observable in Exhibit 16, close to 2022 is expected to surpass the crisis and being in an ascending position.

Looking at Europe in 2020, there is **a more concentrated impact in the Apparel value**. The virus caused a 17,1% decrease in revenues, possible to overcome in the beginning of 2022.

Nevertheless, it is possible to verify in Exhibit 15 that Inditex was always above the industry CAGR, in all regions, except in Spain. At a worldwide level, the difference represents almost 1,6%, leading us to conclude that the Group should recover its sales value at a higher pace than the industry, in general.

**Exhibit 14:** Geographic segmentation of the Global Apparel market (2019)



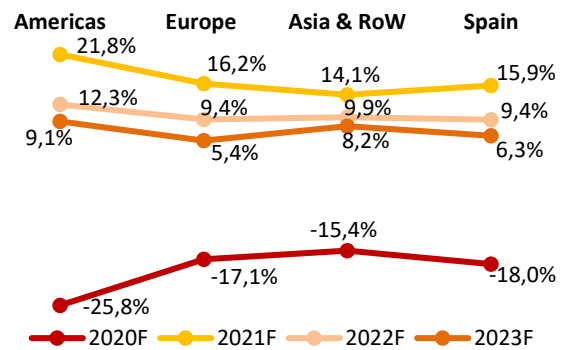
Source: *Statista, 2020*

**Exhibit 15:** Apparel Industry CAGR, for each segmented region (%)

	CAGR Apparel (2015-2019)	CAGR Inditex (2015-2019)
Americas	3,44%	6,72%
Europe (not Spain)	2,93%	5,91%
Asia & RoW	4,11%	4,29%
Spain	3,26%	2,95%
<b>World</b>	<b>3,58%</b>	<b>5,17%</b>

Source: Statista, 2020 and own calculations

**Exhibit 16:** Projected Regional growth, for the Apparel Industry (2020-2023)



Source: Statista, 2020

Besides the region segregation relevance, there is an industry category segmentation impacting Inditex attitude in the market, predominantly the target category **womenswear, conquering 51% share of the Apparel industry value**, while menswear only represents 33%, and childrenswear, 16%.

## Valuation Outcome

### Multiples Valuation

With the intention of better understand the Inditex's fair value when compared to its peers, we applied a Multiples valuation approach. Firstly, it was identified the range of companies, within the industry, facing similar risks associated to economic issues, positioned in identical market segments, and having a structured expansion plan.

When deciding the most appropriate multiples to use, we start by a broader analysis of Price to Earnings ratio (P/E), Price to Sales ratio (P/Sales), Enterprise Value to Sales, EBIT and EBITDA. Considering that sales are a really volatile parameter to ground our analysis on and both **Inditex and its comparables have a high investment level**, EV/EBIT is more appropriate than EV/EBITDA. Since EBITDA does not take into consideration the investments made by the company may possibly lead to an overvalued estimation. EV/EBIT multiple discounts the cash required for investments, turning out to be a better proxy of the cash available to pay financial debt. As a result, we concluded that **P/E** and **EV/EBIT** are the most reasonable multiples to follow our approach, combining the equity level with firm structure, even though earnings value could be affected by one-time events.

Companies' choice was elaborated keeping in mind Inditex's strategic position within the industry, as referred before, and three other criteria as the **EBITDA Margin**, the **Revenue growth**, and the **Debt-to-Equity (D/E)**. We attributed the same weight deviation factor to each criteria (33%). These parameters allow us to consider growth, profitability, and capital structure position of the other firms, when compared to Inditex. The final rank was composed by a group of six firms that presents the lowest deviation from Inditex's situation. Nevertheless, the variation range of both parameters is quite large and higher than the estimated final share price, as visible in Exhibit 17, which is mostly due to the **Inditex completely differentiated business model** and **current situation**.

Deeply looking to the Inditex peers, it is imperative to recognize that **Hennes & Mauritz (H&M) is the most genuinely comparable company** (Exhibit 19), with only 10% EBITDA margin

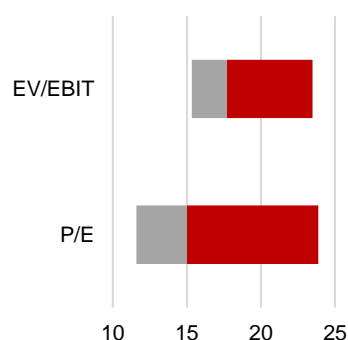
deviation, 2% D/E deviation, and a revenue growth deviation near 0%. With a vast presence around the globe, both H&M and Inditex are European firms, having a similar expansion plan and target audience, behind its strategic operational situation. Followed by a Japanese growing company, Fast Retailing Co, whose main strategy grounds on the intension to expand its already large operational area, supported by continuous investment and the concept of selling worthy products at low cost. After, Next PLC has a similar cultural origin and variety of products, although does not have such a broader international action. Hugo Boss distances itself from Inditex through its less global activity network and the distinct strategic growth drivers, with a higher connection to brand positioning. JD and American Eagle Outfitters have both, a different and more specific target customer when compared to Inditex. These firms are located in a more sportive fashion category, and even considering their widespread stores locations, the brand development is fair behind.

In sum, it is reasonable to affirm that both, P/E and EV EBITDA, have presented a highly diversified range of results. Following the Exhibit 18 and focusing our analysis on the middle quartiles, share price is likely to vary from 11,59€ to 23,88€, according to the P/E multiple, and to reach values between 15,33€ and 23,48€, looking at the EV/EBIT multiple. This led us to conclude that, using the median, as recommended, Inditex would achieve a share price of 15,01€ through the P/E, and of 17,72€ in line with the EV/EBIT, which are **values slightly below the minimum ever reached by the Group**. A fact that takes us to confirm a reality, where there is the need to confirm the quality of the comparables representing the Apparel industry and how properly can the peers estimate the firm's future conditions (Exhibit 19), as well as to analyse the time reference we are grounding our estimations on. As a matter of fact, one period is not completely illustrative of the future lucrativeness of the company and four out of the six comparables present lower EV/EBIT and P/E multiples than the company, which may take us to **undervalue Inditex**. Even more, considering the virus drastic temporarily effect on multiples.

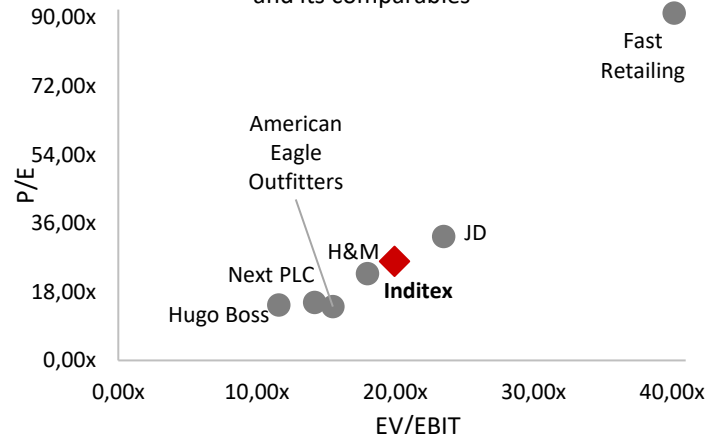
**Exhibit 17: P/E and EV/EBIT multiples of Inditex and its peers**

	P/E	EV/EBIT
Inditex	26,00x	19,96x
H&M	22,76x	17,99x
Fast Retailing	91,07x	40,16x
Next PLC	15,23x	14,19x
Hugo Boss	14,57x	11,59x
JD	32,50x	23,50x
American E. Outfitters	14,11x	15,50x
Average	31,71x	20,49x
<b>Share Price</b>	<b>15,01x</b>	<b>17,72x</b>

**Exhibit 18: Share Price variation for EV/EBITDA and P/E, in €**



**Exhibit 19: P/E and EV/EBIT multiples for Inditex and its comparables**



Source: Bloomberg, Company data, <https://craft.co/inditex/competitors> own calculations

## Major Risks

In this section, we will identify some risks that we consider to be underlying the company's business and that could jeopardize Inditex's future performance.

**Covid-19 pandemic:** The pandemic has had a significant impact on sales, mainly due to the closing of stores and restrictions on the number of customers. Our revenue forecast is based on the assumption that the full recovery of the Covid-19's impact will happen in 2022 and will

increase at a relatively high pace going forward. However, if the **depth and length of the pandemic** were greater than expected, this recovery could be delayed and, as a result, sales would be lower than we anticipated for the coming years. The case where 2019 sales level is only reached in 2023 will be further analysed in the *Sensitivity Analysis* Section.

**Delay of an effective Vaccine:** In line with the last year and observing the pandemic effect in each quarter of the year, it was possible to conclude that the effect was softening along the time, since the companies are more prepared to deal with the situation and the consumer is more opened and adapt to the alternative consumption methods. Although, it is critical **to account for the time it can take for the vaccine to start making the difference and to be achieved the group immunity**, allowing the physical stores restrictions to be erased and the population of each region to gain trust in a real recovery, incentivizing consumption and, if still on time, avoiding an irreversible economic crisis.

**Increased COGS:** Inditex is focused on cost efficiencies, which requires great control in terms of management of different lines of costs. Despite these efforts, the ability to reduce costs not only depends on the company, but also on the market conditions. We are already considering that COGS as a percentage of sales will increase due to the higher prices of organic cotton, mostly related to production costs. However, there are additional risks that can lead costs to increase even more, as **production disruption** of certain raw materials due to extreme events, such as weather events and diseases (e.g., Covid-19). This could lead to significant pressure on Inditex's activity if demand is lower, as well as reputational risks related to brand perception. We will analyse the impact on the share price of an increase in costs in the *Sensitivity Analysis* Section.

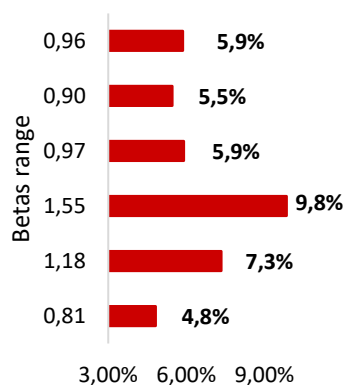
## Sensitivity Analysis

Inditex, like other companies on the market, is facing an **uncertain environment** and small changes in certain inputs can have a significant impact on the estimated value. Given that, this section aims to **test the company's share price**, when faced with changes in some key drivers.

Firstly, we considered a sensitivity analysis of the share price, stressing the **terminal growth rate** and the **WACC**. Concerning the first input, we assumed a terminal growth rate of 1,55%. Since Inditex is a mature company, we do not expect a high level of growth rate in the future. For instance, instead of 1,55%, it seems reasonable to assume it to **grow between 1,12% and 1,79%** (minimum and maximum growth of the last 3 years of the forecast period and the terminal year). In what concerns the **WACC**, one of the most uncertain inputs is the beta, which lead us to perform a more detailed evaluation to this factor (Exhibit 20).

With a more sensitive discussion of beta, through the industry data available, we realized that, by including more comparables, the unlevered beta only decreases by 0,01, and if we only have into account the closest truly comparable of Inditex (H&M) the value drops by 0,05. This allows us to conclude that there is not an impactful difference in using six or ten comparables, when estimating this input value, knowing that the companies added to the projections present a higher deviation to the Inditex Group position, in terms of Revenue, EBITDA margin and capital structure (D/E). Then, due to the high instability and wideness of the **Inditex's raw beta confidence interval [0,81;1,55]**, we decided to select as basis to perform our valuation the **industry beta estimated using 6 more accurate comparables**, since it is the one closest to the average regression beta.

**Exhibit 20:** WACC variation according to betas range analysed



Source: Bloomberg & Own estimates

Afterwards, we performed a sensitivity analysis considering the lower bound and the upper bound as the minimum and maximum betas, respectively, corresponding to a WACC interval between 4,82% and 9,84%, as illustrated in Exhibit 20. As one may see in Exhibit 21, Inditex's share price is highly sensitive to changes in both parameters, varying between **14,77€ per share** and **42,75€ per share**.

**Exhibit 21:** Inditex's share price varying WACC and terminal growth rate

		Terminal growth rate			
		1,12%	1,55%	1,77%	1,79%
WACC	4,82%	35,81€	39,92€	42,55€	42,75€
	5,46%	30,42€	33,29€	35,06€	35,20€
	5,86%	27,80€	30,14€	31,57€	31,68€
	5,90%	27,59€	<b>29,90€</b>	31,30€	31,41€
	7,33%	21,03€	22,29€	23,03€	23,09€
	9,84%	14,77€	15,34€	15,66€	15,69€

Source: Own estimates

As mentioned before, it is fundamental to carry out a risk analysis to understand the impact of the three scenarios described in the previous *Major Risks* Section. Starting by performing a sensitivity analysis to the marginal growth difference between Inditex and the Global Apparel industry, due to relevance of this parameter in driving the revenues values. Then, considering a distinct scenario than what we assumed in our recommendation path, the Group will follow the last two complete years average of the discrepancy in value between its own growth and the industry projections, from 2021 onwards, also not counting with the 2020 abnormal results. This case implies a return of just 6%, with a share price of 26,81€, instead of 29.90€ (Exhibit 22).

Additionally, analyzing the scenario where the **2019 sales level would only be recovered in 2023** (instead of 2022), the share price would be **21,08€**, corresponding to a negative return of 17% compared to the current share price. This analysis implies a relatively stable growth rate (between 6% and 8%) from 2020 onwards. Moreover, by varying the COGS as a percentage of sales by +2% and -2%, it is possible to have a clear view of the impact that this input has on the company's valuation. These two scenarios would result in a share price between 25,17€ and 35,16€, respectively, as illustrated in the Exhibit 22.

Lastly, evaluating the impact of incorporating in our analysis the **delay in seeing results of efficacy in a vaccine for COVID-19**, by studying three dissimilar scenarios, where the vaccine can take six, nine, or twelve months to show efficiency and be able to create Group immunity (Exhibit 23). In each of the scenarios, we believe the impact can be measured quarterly, according to the less affected quarter of 2020 weight on the total loss in value, leading us to a 3% impact, since even accounting with a delay in vaccine efficiency, **the impact in 2021 will never be as high as before**. The first situation led us to a relatively positive outcome, with an **investor return of 6%** and price of **27,17€ per share**. The second one illustrates a more negative scenario, leaving the investor with a **negative return of 5%**. Finally, the most extreme view demonstrates how difficult this situation can get, causing investors to **achieve losses of 4,13€ per share**, already reflecting the expected dividends to be paid. In this way, we concluded that Inditex will be mainly affected by a slower recovery in sales (second scenario), and by a delay in an efficient outcome of the vaccine to stop the pandemic crisis by more than 9 months, inclusive, what would change our recommendation **from buy to sell**. Secondly, an increase of 2% in COGS as a percentage of sales, as well as a change in the marginal growth difference of Inditex relative to the industry, and the six months delay in the vaccine effectiveness would imply a **hold**

**recommendation.** The remaining scenarios would have no impact in our buy recommendation.

**Exhibit 22: Risks: Sensitivity Analysis**

Last complete years average of the marginal growth difference comparative to the industry	
Share price	26,81€/share
Investor Return	6%
Recommendation	Hold
Sales recovery in 2023	
Share price	21,08€/share
Investor Return	-17%
Recommendation	Sell
COGS -2%	
Share price	35,16€/share
Investor Return	38%
Recommendation	Buy
COGS +2%	
Share price	25,17€/share
Investor Return	-1%
Recommendation	Sell

Source: Own calculations

**Exhibit 22: Investor Return and Share Price for 6, 9 and 12 months delay in the vaccine effectiveness**



Source: Own calculations

## Final Recommendation

In sum, we recommend Inditex to **pay attention to the consequences a huge delay in the vaccine effectiveness** can bring to their physical stores sales, not neglecting the continuous investment in the online platform and innovative alternative solutions, in order to smooth the effect of a possible loss of almost 4 billion euros in revenue growth by 2025. Also, to be **prudent with their sustainability investments**, since the costs of these materials could be truly representative for the Group, as previously demonstrated, and with an increase of more than 2% in the cost of raw materials, the company is able to lose almost 1 billion euros. Hence, we advise Inditex to be cautious, and to make **relevant and beneficial partnerships in this area**, not only with recognized brands in this field, but also with credible producers. In a way of being transparent and publicizing the beneficial path for humanity they are following, besides the crucial role in disrupting the consumer tendencies and buying methods.