



Master thesis in applied finance

## **Valuation of Inditex S.A.**



# **INDITEX**

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## 1. Executive summary

The purpose of this master thesis is to determine the fair value of a share in the Spanish multinational apparel retailer Inditex, compared to the closing market price 15<sup>th</sup> of March 2017. The equity value will be calculated using a discounted cash flow model (DCF), and complemented by a Monte Carlo simulation and a relative valuation.

Financial figures for the DCF model are forecasted based on strategic and financial analyses. The strategic analysis uncovers Inditex's unique position in the apparel industry, being the first apparel company to successfully compete on time-to-market. By owning the whole value chain and using a large distribution center in Spain, they can produce new design in rapid speeds and have new apparel delivered to stores in as little as two weeks. Although this model has resulted in immense growth, the market is catching up and starting to copy their fast fashion model, leading to a fragmented market. In addition, fashion consumers are demanding more personalized apparel and larger focus on sustainability. These facts could negatively influence Inditex's growth and margins.

The financial analysis uncovered a solid company, that has been able to leverage its growth by leasing stores, giving the illusion that it's an asset light company. This has resulted in a 10-year average ROIC of 28%. In addition, all cost margins have been impressively stable in the analyzed period, where sales have grown from €9bn in 2007 to €23bn in 2016. These facts complement why we expect Inditex to keep on growing. However, margins have been slightly decreasing the latest two years, an effect also seen in peer companies which is in line with the fragmentation of the market witnessed in the strategic analysis.

Based on these two analyses, the free cash flows for the next 10 years were forecasted. WACC was estimated to 8,39%. The DCF model uncovered a fair share value of €28,69. On 15<sup>th</sup> of March 2017, the last Inditex shares changed hands on Bolsa de Madrid at €31,41, implying that the market is overestimating its equity value by 8,7% compared to the DCF model. The same effect was found from the Monte Carlo simulation and multiple analysis, supporting the DCF model. We conclude that the market has not taken the increased competition and margin pressure into effect.

## 2. Preface

This master thesis marks the completion of the economics and administration study at the University of Stavanger. We have both chosen Applied Finance as our specialization in our Master of Science. As two students who are especially interested in the financial markets, writing an equity valuation was a natural choice. An equity valuation covers a wide area of academic disciplines and requires both analytical and strategic skills. We are both graduate students whom are starting our careers as analyst and auditor respectively. Based on these facts, we believed such a task would best be able to prepare us for the professional life awaiting after the thesis.

Picking a company was a long process with numerous discussions. We wanted to differ from the sea of equity valuations covering companies listed on the Norwegian stock exchange. By expanding our view, we could screen through a lot of interesting companies. To narrow our search, we tried to look away from the most popular companies and find a large company that has an innovative business model. One would think that such a company didn't exist in the apparel retail sector, until we stumbled into Inditex. Inditex had a P/E of around 30, owned the whole value chain (which close-to nobody else does in apparel retail) and an intense revenue growth with stable margins for the last 15 years. We wondered how such a large company could still maintain such a competitive advantage, in a market where consumers have endless choices. Although neither of us are particularly interested in fashion, we were fascinated with how the company had succeeded by abandoning industry standards and innovated the retail market. We saw this as a task to learn more about the industry and the success story of Inditex.

We both agree that writing a master thesis has been challenging, but at the same time a very instructive process, in which we have really seen the benefits of the knowledge we have acquired during our previous studies. We believe the assignment is a worthwhile end to some great and contentious years at the University of Stavanger. Finally, we would like to thank our supervisor, Marius Sikveland, who has met us with open arms when we needed advice. We are both convinced that his guidance and feedback has raised the task considerably.

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## 4. Introduction

The purpose of valuing a company is to give owners, potential buyers and other stakeholders an assessment of what the equity value is worth. In practice, it can serve several purposes, such as acquisitions and mergers, stock market listing, new capital formation, incentive programs, tax purposes, etc. The belief that investors can find undervalued and overvalued shares is contrary to The Efficient Market Hypothesis (EMH); a concept presented by Eugene Fama in 1970. The theory in short, is that market prices in full reflect all information, and investors are sophisticated, rational, well-informed and act only based on available information (Fama, 1970). In practice however, the world is full of inefficiency as all investors are not equally well-informed, share the same risk aversion or have the same tax conditions. Some base their decisions on technical analysis and others on stomach sensation, as well as influencing market prices of rumors, emotions, and supply and demand. In the literature, phenomena like bubbles in the economy have been used as examples of market inefficiencies (Koller, Goedhart, Wessels, & McKinsey, 2015, p. 68). Therefore, there is still a widespread attitude among actors in the financial world that it is possible through analysis to identify overvalued or undervalued shares and, in active management, to create a risk-adjusted return that is better than the market.

### 4.1. Motivation

There is a structural change happening in the retail apparel industry. Inditex has been an industry leader in fast fashion, the ability to quickly capture fashion trends and move the designs rapidly to the stores. Recently, other companies are starting to see the efficiency in this model and wants to join in. In addition, e-commerce is booming and capital light players like Zalando and Asos is making it easier for fashion consumers to shop and pushing the margins of established companies.

It should be interesting to see how this effects Inditex. A Spanish multinational apparel retail company with a market cap at €95bn, trading at 30 times their earnings, 7,5 times their book value and 4 times their sales (as of 31<sup>th</sup> of January 2017). It's worth noting that their closest peer was at the same time trading at 23, 7 and 2,3 respectively. So, is Inditex overvalued or is the flexibility of their business model so valuable that it deserves to trade at a premium in the industry?



## 4.2. Research thesis question

"What is the equity value of Inditex and its associated share price, compared to the market value 15<sup>th</sup> of March 2017?"

## 4.3. Delimitations

Since the dissertation, as mentioned above, primarily addresses current or potential shareholders in Inditex, the analysis will be based on publicly available information. This is in line with the assumption of semi efficient markets, where the stock price reflects publicly available information on the market (Fama, 1970, p. 388). The collection date of information is 15<sup>th</sup> of March 2017, which includes the most recent financial- and strategic statements from the full year 2016. 15<sup>th</sup> of March 2017 is therefore the valuation date for the share.

As with many listed companies, the annual and quarterly reports are relatively diffuse. Inditex doesn't give a full insight in which countries where they plan to expand. This limit how thorough it's possible to analyze the effects from expansion and the different countries effect on the financials. Inditex segments their sales into Americas, Spain, Europe excluding Spain and Asia and rest of the World. These are therefore the markets used in the basis of the analysis.

In addition, Inditex combines their 8 brands into one financial statement. The only element which is divided is the sales revenue. This limits the possibility of looking at the different brands effect on the financials. However, Zara makes up 66% of the sales, where the second largest brand, Pull & Bear, makes up 7%. The effect of the other brands is therefore not seen as too significant, and the thesis will be focused mainly on Zara's operations. However, the other brands do operate similarly with the flexible business model, but not on concept and price points. It therefore shouldn't produce noticeable higher uncertainty in the valuation.

The dissertation assumes that the reader has a prior knowledge of valuation at the level of economics or higher, so basic theories and principles will not be explained in depth.

## 5. Theoretical framework

### 5.1. Strategic analysis

The strategic analysis takes a closer look at non-financial value drivers. The structure of the analysis is based on the different layers that surrounds the company, such as macro and industry factors. It's based on a top-down analysis where the strategic effects are viewed. The chapter will begin with a macroeconomic analysis and end with an industry approach.

#### 5.1.1. Macro environment

The macroeconomic analysis will be based on a PESTEL model (Johnson, Scholes, & Whittington, 2006, p. 34). PESTEL is short for **P**olitical, **E**conomic, **S**ocial, **T**echnological and **L**egal. It's a tool to structure a wide analysis of the external effect that can have an impact on the companies in the industry. The purpose is to identify the business environment and find key drivers that will ensure future growth. PESTEL gives a wide range and therefore many potential inputs. Given the wide range, it's important to define which factors are relevant. PESTEL factors have a degree of internal dependency, which makes it hard to separate. The analysis may therefore appear to be a long and complex list of factors that impact the company's environment (Johnson et al., 2006, p. 56). Despite critiques, the model is commonly used to look at the macro environment, cause it's applicable to different industries and companies. It's vital to focus on the primary drivers that changes the industry to help keep analysis relevant.

#### 5.1.2. Porter's five forces

The industry level analysis takes base in Porter's Five Forces model developed by Michael Porter (Porter, 1998, p. 15). The five forces describe the connection between competitive advantages and how they impact the company. There are some areas in the model which need more attention. First, identify a relevant industry. Most industries can be analyzed from different perspectives. Organizations tend to move across markets, where they have different relations to customers, suppliers and competitors. Problems can appear when separate industries overlap into other industries due to shifts in technology. Coyne and Subramanian criticizes the models three underlying assumptions about: 1) An industry consists of a set of unrelated buyers, sellers, substitutes and competitions. 2) That wealth will accrue to players that are able to erect barriers against competitors and potential entrants; in other words that source of value is structural advantage. 3) The uncertainty in the industry is low enough so that competitor's behaviors are predictable (Coyne & Subramaniam, 2006). Given the models weaknesses,

Porter's Five Forces is still a good tool to perform an analysis of the company's relationship to community, customers, suppliers and competitors.

### 5.1.3. Financial analysis

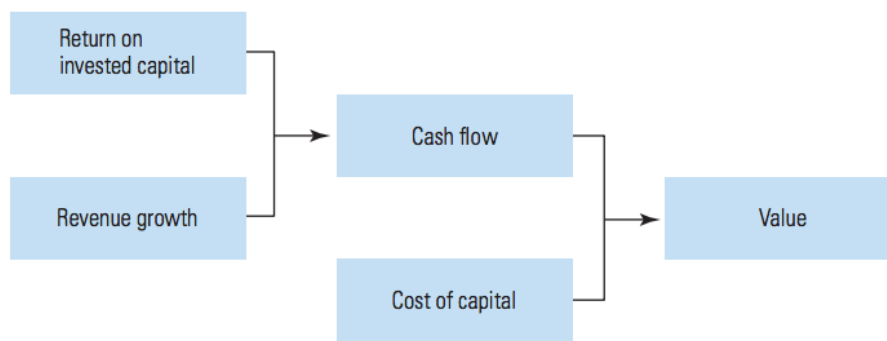
For companies to create value over time they need to invest cash today to generate more cash in the future. The value they create over time is the difference between cash in and the cost of investments. Investing comes with risk and uncertainties, therefore cash generated today is more worth than the cash generated tomorrow. Future cash flows need to be compensated by a discount rate that reflects both uncertainties and future obligations. Companies' revenue growth and return on invested capital (ROIC) determine the future earnings (Damodaran, 2007, p. 7). The amount of value a company is generating to its shareholders are ultimately driven by its ROIC and revenue growth. The only way a company can create value over time is to keep ROIC above its cost of capital (Koller et al., 2015, p. 17).

#### 5.1.3.1. Drivers of value

Companies generate value for their shareholders by investing cash today to generate more cash in the future. The creation of value emerges when the value of future cash flow exceeds the cost of investments. Cash today are more worth than cash tomorrow, due to uncertainties of future cash flows. Over time, cash flows are dependent on ROIC and revenue growth. Growth, ROIC and cash flows are mathematically linked.

Growth is determined by the ROIC and investment rate where  $\text{Growth} = \text{ROIC} * \text{Investment rate}$ . Companies with high returns on investment doesn't need to invest as much to generate growth and therefore can generate higher cash flows. If we take the cash flow approach:  $\text{Cash flow} = \text{Earnings} * (1 - \text{Investment Rate})$  where  $\text{Investment Rate} = \text{Growth} / \text{ROIC}$  so  $\text{Cash flow} = \text{Earnings} * (1 - \frac{\text{Growth}}{\text{ROIC}})$ . As we can see, the three variables are dependent on each other where cash flows are dependent on two variables, ROIC and growth.

**Figure 5-1: Drivers of value**



Source: (Koller et al., 2015, p. 27).

As seen in Figure 5-1, all things equal, a higher ROIC is always seen as positive but the same assumption cannot be made about growth. If ROIC is lower than the cost of capital, growth can be value destroying. The key is to balance ROIC and growth to create value. If ROIC exceeds the cost of capital, growth is good for value creation. Management should focus on how growth and ROIC impacts a company. The general lesson is that companies with high ROIC should focus on growth and companies with lower ROIC should focus on improving their returns before growing (Koller et al., 2015, p. 19). There are several ways a company can grow. McKinsey & Company have analyzed how value can be created from different types of growth for a typical consumer company. Their result is expressed in terms of value created for \$1 of incremental revenue. For example, \$1 of additional revenue from a new product creates \$1,75 to \$2 in value. Their analysis shows that new products generate more value for shareholders than acquisitions of other companies, thus the difference in value creation is the ROIC for the different types of growth. A new product doesn't require as much capital as acquisitions and therefore creates more value. When acquisitions are made, it's often hard to generate ROIC that exceeds the cost of capital and therefore it may create lower values. The analysis shows that light asset investments often create more value than heavy assets.

## 5.2. Valuations techniques

### 5.2.1. Enterprise discounted cash flow valuation

The enterprise discounted cash flow model (DCF) discounts free cash flow, which is the cash flow available to all equity-, debt- and non-equity investors. The free cash flow is discounted with the weighted average cost of capital (WACC). The value of the equity is determined by extracting debt and other non-equity claims from the enterprise value. The DCF model follows a four-step process (Koller et al., 2015, p. 140):

### 1) Value operations

Value the company operations by discounting free cash flow at the weighted average cost of capital.

### 2) Identify assets

Identify and value non-operating assets such as excess cash, marketable securities and other assets not included in the free cash flow. The sum of operating and non-operating assets drives the enterprise value.

### 3) Identify financial claims

Identify debt and other non-equity claims such as fixed-rate and floating debt, debt equivalents like unfunded pension liabilities and restructuring provisions, employee options and preferred stock.

### 4) Subtract financial claims from enterprise value.

Subtract the value of debt and non-equity from enterprise value to determine the value of common equity. To estimate the value per share, divide common equity by the number of shares outstanding.

#### *5.2.1.1. Value operations*

The present value of a DCF valuation is derived from discounting each year free cash flows by the company's WACC. By summarizing the present value of the free cash flow from each year we calculate the present value of a company operations.

#### *5.2.1.2. Reorganizing the financial statements*

Valuation models require a clear account of financial performance. ROIC and free cash flows (FCF) are important in the valuation process as they cannot be computed directly. The financial statements are mixture of operating- and non-operating performances. To calculate ROIC and FCF one must reorganize the financial statements into operating and non-operating items. After reorganizing, we are left with invested capital and **Net Operating Profit Less Adjusted Taxes (NOPLAT)**. Invested capital is the requirements an investor needs to fund operations and NOPLAT represents the total after-tax operating income generated by the company's invested

capital, available to all investors. ROIC is derived by dividing NOPLAT by average invested capital in the company from investors.

#### *5.2.1.3. Analyzing historical performance*

After the company's financial statement is reorganized, it's vital to analyze the historical performance. By doing so, it gives an understanding of how the company creates value, growth and how it compares to its peers. The important factors to analyze is ROIC, revenue growth and free cash flow. Understanding how these behaved historically can help project future cash flows.

#### *5.2.1.4. Projecting revenue growth, ROIC and free cash flow*

After the historical performance analysis, project future revenue growth, return on invested capital and free cash flows. Projections of revenue growth, margins and ROIC lead to the projections of free cash flows. When building the forecast model, use judgment on how much detail is needed to forecast various points. The longer the forecast, the more randomness in market behaviors plays a role, which cannot be foreseen. On a 5 – 10 year basis, it's important to focus on the company's key value drivers, such as operating margins, operating taxes and capital efficiency. “It’s hard to predict, especially about the future” - Yogi Berra.

#### *5.2.1.5. Estimating continuing value*

At some point, predicting the individual key value drivers on a year-by-year basis becomes impractical and of no value. Instead, the perpetuity-based continuing value is applied. The formula is expressed as follows:

$$\text{Continuing value}_t = \frac{\text{NOPLAT}_{t+1}}{\text{WACC} - G}$$

The formula requires forecasting of the net operating profit less adjusted taxes (NOPLAT) in the year following the end of the explicit forecast period, the weighted average cost of capital (WACC) and long-run growth (G) in NOPLAT.

#### *5.2.1.6. Discounting the free cash flow at the weighted average cost of capital*

To find the present value of operations, the free cash flow needs to be discounted for each year for time and risk. The discount factor need to represent the risk faced by all investors. The weighted average cost of capital (WACC) blends the rate of return required by both debt and equity holders. WACC is defined as follows:

$$\text{WACC} = \frac{D}{D + E} K_d(1 - T_m) + \frac{E}{D + E} K_e$$

where (D) is debt and (E) is equity, both measured by market value. ( $T_m$ ) is the marginal tax rate.

#### *5.2.1.7. Identifying and valuating non-operating assets*

Non-operating assets are not included in accounting revenue or operating profit and therefore not part of the free cash flow and must be valued separately. One example is equity investments.

#### *5.2.1.8. Identifying and valuing debt and other non-equity claims*

To find the value of the equity, subtract any non-equity claims such as unfunded retirement liabilities, capitalized operating leases and outstanding employee options.

#### *5.2.1.9. Value per share*

Once the equity value of a company is derived, divide the estimated common stock value by the number of undiluted shares outstanding.

### **5.2.2. Multiple valuation**

Multiples can help to summarize and test the valuation. The basic idea behind using multiples is that companies with similar assets should sell for similar pricing. This idea can be used to value various items such as assets, housing or stocks. The most common used multiple is price-to-earnings (P/E), which is the price of the asset divided by its earnings. Multiples is often used to comparing peer companies.

To use multiples correctly, it's necessary to dig into the companies accounting figures. If there isn't a good understanding of how the company is managed and structured financially, the analysis can produce bad figures. It's therefore important to compare apples-to-apples and not

pears-to-apples. Keep in mind these five principles for correctly using earnings multiples (Koller et al., 2015, p. 351):

- 1) Value large companies as a sum of their parts.
- 2) Use forward estimates of earnings.
- 3) Use the right multiple, usually net enterprise value to EBITDA or net enterprise value to NOPLAT.
- 4) Adjust multiples for non-operating items.
- 5) Use the right peer group, not a broad industry average.

#### *5.2.2.1. Value large companies as a sum of their parts*

Most large companies have different set of products and conduct business in subindustries with different competitive dynamics. These effects lead to large differences in ROIC and growth. Each unit therefore need different valuation multiples. Using different valuations multiples for each business unit makes it more appropriate for comparing to its peers and performance.

#### *5.2.2.2. Use forward earnings estimates*

It's important to use forward estimates or normalized earnings, rather than historical profits. In forward earnings estimates, there are less variation across peers leading to a narrower range of uncertainty in value. They also embed future expectations better than multiples based on historical data.

#### *5.2.2.3. Use net enterprise value divided by adjusted or NOPLAT*

Most financial websites and newspapers use price-to-earnings ratio. P/E doesn't consider that companies have different capital structure, non-operating assets and non-operating income statement items. It's therefore appropriate to use forward looking EBITDA (or NOPLAT). When you use enterprise value to EBITDA (or NOPLAT), these figures eliminate the different problem occurred when using P/E.

#### *5.2.2.4. Use the right peer group*

Selecting the right peer group is important in a multiple analysis. Getting a reasonable valuation requires a good judgment about which companies and multiples are truly relevant. Peer groups



should not only operate in the same industry, but also have the similar prospects for ROIC and growth.

### 5.3. Estimating the cost of capital

The WACC represents the returns all investors in both debt and equity can expect to earn on their investment, often referred to as the opportunity cost. It has three components: cost of equity, the after-tax cost of debt and the company's capital structure. The cost of equity is one of the most important ingredients in a discounted cash flow model. It is hard to estimate since it's an implicit cost so it varies widely across investors in the same company (Koller et al., 2015, p. 283).

#### 5.3.1. Average weighted cost of capital

WACC is calculated using the following formula:

$$WACC = \frac{D}{V} K_d (1 - T_m) + \frac{E}{V} K_e$$

Where;

$\frac{D}{V}$  = Target level of market value of debt to enterprise value

$\frac{E}{V}$  = Target level of market value of equity to enterprise value

$K_d$  = Cost of debt

$K_e$  = Cost of equity

$T_m$  = Company's marginal income tax rate

#### 5.3.2. Estimating the cost of equity

The cost of equity is a difficult component to estimate. A company's risk is measured using the well-known capital asset pricing model (CAPM). This model estimates company risk by measuring the correlation of its stock price to market changes, also known as beta.

##### 5.3.2.1. Estimating market returns

There are two methods of estimating the market returns, one is looking backwards using historical returns. The past market return is influenced by the rate of inflation prevalent at the time, thus a simple average is not helpful. To incorporate today's inflation, it's needed to add a

historical market risk premium to today's interest rate. The second method is calculating the cost of equity implied by the relationship between current market share prices and aggregated fundamental performance. This is done by valuing a large sample of companies like the Standard & Poor's 500 Index (S&P) using discounted dividends, buy back of shares and reverse engineer the embedded cost of equity using Excel (Koller et al., 2015, p. 286).

#### *5.3.2.2. Estimating expected returns*

CAPM defines stock risk as its sensitivity to the market. It postulates that the expected rate of return of any security equals the risk-free rate plus the security beta times the market risk premium (Jensen, Black, & Scholes, 1972, p. 1):

$$E(R_i) = R_f + \beta_i[E(R_m) - R_f]$$

Where:

$E(R_i)$  = Expected return of security

$R_f$  = Risk-free rate

$\beta_i$  = Security sensitivity to the market

$E(R_m)$  = Expected return in the market

To apply the CAPM, each component must be estimated. Since beta cannot be observed directly, its value needs to be estimated. Beta is most commonly derived using the market model by regressing the stock return against the market's return:

$$R_i = \alpha + \beta R_m + \varepsilon$$

Where:

$R_i$  = Security return

$R_m$  = Market return

#### *5.3.2.3. Estimating the after-tax cost of debt*

The weighted average cost of capital blends the cost of equity with the after-tax cost of debt. To estimate the cost of debt for investment-grade companies, use the yield to maturity of the company's long term, option-free bonds. Multiply the cost of debt on an after-tax basis.

### 5.3.3. Using target weights to determine the cost of capital

To estimate WACC, it's vital to blend the cost of equity and after-tax cost of debt (Koller et al., 2015, p. 308). To do it, use the target weights of debt (net of excess cash) and equity to enterprise value (net of excess cash) on a market basis:

$$WACC = \frac{D}{V} K_d (1 - T_m) + \frac{E}{V} K_e$$

## 5.4. Method

The purpose of the method subchapter is to give the reader insight in the choices and considerations applied throughout the thesis. "A method is an approach, a means of solving problems and reappearing knowledge. Any means that serves this purpose belongs to the arsenal of methods." (Dalland, 2000, p. 71). Methods helps us process data and will be a tool to systematically present the collected information. To test validity and reliability we use methods as tools. There will be gathered large quantities of information and data processed to be able to interpret the data. Source criticism is emphasized by relativity and validity measurement.

### 5.4.1. Data collections

There are two types of data, primary and secondary. Primary data is information that is collected for a research project. This type of data originates from the source closely related to the object of the study or issue. Secondary data is information that already exist and which opens for further perspective related to the issue. There are three types of secondary data: Process data, data that occurs in relation to ongoing activity in society such as newspaper articles. Bookkeeping data, which contains economic or administrative value for example accounting figures. Research data, previous collected data from other researchers. Our valuation is primarily based on bookkeeping data such as accounting data or similar and some of the input variables are research data.

### 5.4.2. Survey design

To describe the current analysis process, we've used survey design. Choice of design depends on the current knowledge about the subject and ambitions regarding analyzing and describing the relationship. The method distinguishes between the following three types:

#### *5.4.2.1. Exploratory design*

Exploratory design is used when the candidates initially have little knowledge of the subject. The purpose of the survey will initially be to acquire knowledge to understand and interpret the current phenomenon in the best possible way. It's common to start acquiring knowledge from previous literature (Primary literature) and data collected by others (Secondary data). In some cases it will be favorable to collect your own data (Primary data) (Silkose & Gripsrud, 2010, p. 39).

#### *5.4.2.2. Descriptive design*

Descriptive design is used when there is basic knowledge of the problem, where the purpose with the survey is to describe the situation in a certain way. The process differs from exploratory design by having a more structured and formal appearance. The analysis is based on data collected from questionnaires and observations, for example. The collected data is used to draw conclusions about the relationships between variables.

#### *5.4.2.3. Causal design*

Causal design is experimental investigation of causal explanations. This method is applied when there's a wish to uncover statistical causal links between two variables where the collected data is used to verify basic assumptions. The main point is to isolate the effects to say something on how the cause results in an effect.

In the thesis, we will mainly use descriptive design.

#### *5.4.3. Quantitative and qualitative method*

Quantitative method involves obtaining measurable numbers and data. This method will be heavy weighted in the dissertation and will involve obtaining accounting figures, industry figures, stock prices and forecasts.

Qualitative surveys do not provide measurable numbers, but reflect on attitudes and view opinions. The qualitative part will mainly consist of conversations with people in Inditex (through reports and conference calls) and the industry in general.

#### 5.4.4. Validity and Reliability

To ensure that the information we have is reliable and does not contain as a source of error, it is advisable to assess data material for validity and reliability.

Validity measures the validity of what one intends to measure. The theory distinguishes between internal validity and external validity. Internal validity is a measurement of causality, in other words the occurring effect due to the factors measured. External validity is the extent to which the findings can be generalized and transferred to similar situations.

Reliability relates to how reliable and relevant to the reality a study is (Silkose & Gripsrud, 2010, p. 102). There is a distinction between internal and external reliability. Internal reliability is to what extent other researchers can use data in the same way as the original researcher. External reliability is to what degree external researchers will discover the same result.

## 6. Inditex

### 6.1. The past

In his early teens, Amancio Ortega started working in the local shirt maker in A Coruña, Spain. Using this experience, Ortega started developing his own designs together with his wife, Rosalia Mera. Using saved up money, they opened their first store named Zara in 1975. Their goal was to reproduce popular fashion, using less expensive materials. This way they could produce high fashion clothing, and sell it at a low price. The store was a major success. The following year, Ortega incorporated the business under the name Goasam, and started expanding throughout Spain.

Continuing his success, Ortega had by early 1980's begun formulating a new type of design and distribution model. The apparel retail market generally took up to 6 months to go from finished design to delivery in stores. Ortega wanted to drastically reduce this period, to easier predict consumer trends and cut down the risk of unsold inventory. He therefore met up with computer expert José Maria Castellano. Using a computerized system and a large team of designers, Castellano cut the distribution process to just 15 days and became CEO of the company.

In 1985, Goasam was gathered under a holding company named Industria de Diseño Textil S.A. (Inditex). The lean and responsive business model resulted in large growth for Inditex in Spain, and in 1988 they started expanding internationally by opening their first foreign store in Portugal. In the following years, Inditex would expand further, opening stores in 29 countries on three continents (Europe, America and Asia) during the 1990's.

Inditex would not only expand geographically. In the 1990's, they launched four new brands, Pull & Bear, Massimo Dutti, Bershka and Stradivarius. Later in the 2000's, three additional brands were launched, Oysho, Zara Home and Uterqüe. By introducing these brands, Inditex could target more apparel consumers and continue their global expansion.

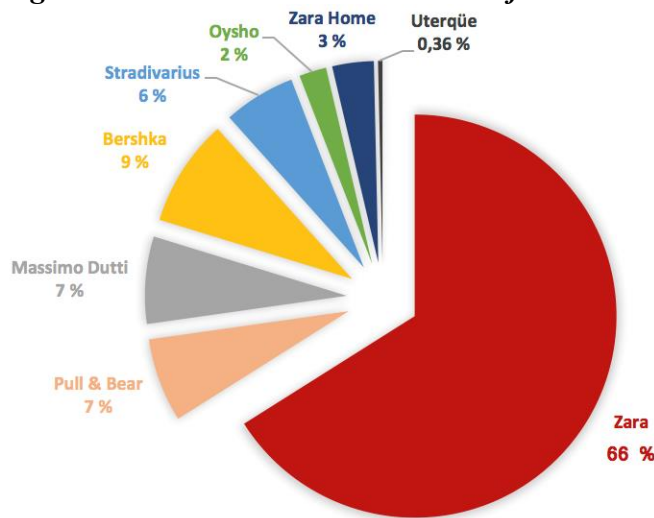
In 2001, Inditex filed for an initial public offering on Bolsa de Madrid. 26% of the company was offered, which valued the company at €9 million. Amancio Ortega retained 70% of the stock, making him the wealthiest man in Spain at the time. As of 2016, he still owns 60% of the company, which has gone from the listing price at €3,61 to around €30 as of today (Not

adjusted for a stock split and dividends). The share has returned about 755% to investors, making Amancio Ortega one of the wealthiest men on earth (Forbes, 2017).

## 6.2. The present

Today, Inditex operate 7.292 stores in 93 markets with over 150.000 employees. The stores are split over eight brands: Zara, Pull & Bear, Bershka, Massimo Dutti, Stradivarius, Uterqüe, Oysho and Zara Home. Of these brands, Zara is the largest contributor to total sales, representing 66% of a €23bn revenue in 2016. The other brands share is listed in Figure 6-1. Naturally, Zara therefore has most of the stores, 31% of the total. 87% the stores are owned by Inditex while the rest are franchised.

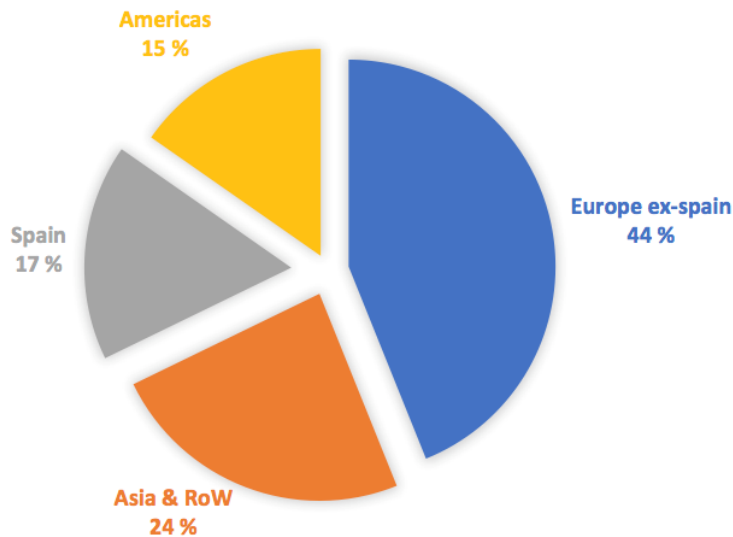
**Figure 6-1: Brand contribution in % of revenue**



Source: Inditex FY 2016 and own creation.

Inditex divides its sales into four geographical areas: America, Europe excluding Spain, Spain and Asia and the rest of the world. Being a Spanish retailer, it has its largest percentage of revenue in Europe at 62% in 2015, see Figure 6-2. Inditex states in their quarterly and annual reports an initiative to up their expansion in Asia and Americas, with a goal to diversify further and benefit from a larger consumer base.

**Figure 6-2: Revenue by geographical area**



Source: Inditex FY 2016 and own creation

Online sales are experiencing large growth globally, and Inditex is building what they coin an integrated store and online sales model. This model enables their consumers to order apparel online and get free shipping to their closest store. Their goal is to use online sales to boost their brick and mortar sales.

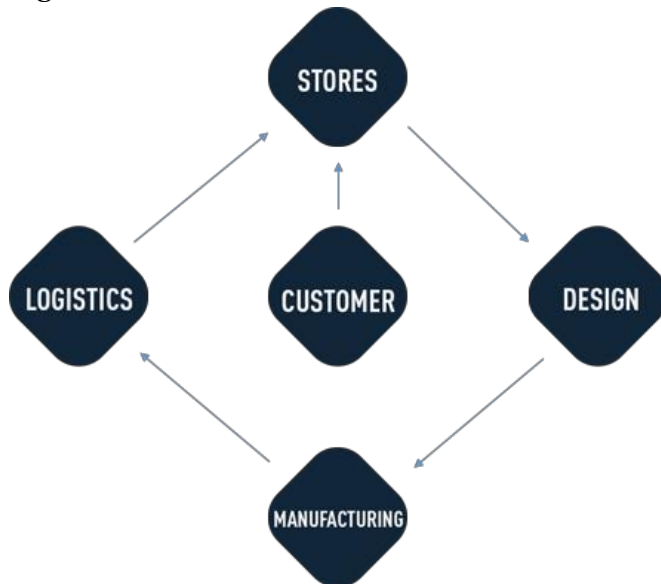
Inditex's outlook is to open 450-500 stores in 2017. They expected the integrated store and online sales model to be opened in all European markets in 2017. In addition, they would like to roll out e-commerce in Thailand, Vietnam and India. To finance this growth, they expect a capital expenditure of €1.5bn (Inditex, 2016).

### 6.3. The business model

As mentioned earlier, Inditex has built a business model they claim to be sustainable and flexible. Inditex controls their entire value chain, unlike most of their competitors who mainly outsource the manufacturing and distribution. They therefore claim to easier predict consumer preferences, by constantly adapting their collections to the demand in the market. The business model which makes this possible, is illustrated in Figure 6-3, consisting of costumer, store, design, manufacturing and logistics.



**Figure 6-3: The business model**



Source: [http://www.inditex.com/our\\_group/business\\_model](http://www.inditex.com/our_group/business_model)

Inditex have a network of over 1700 professionals who work around designs, from product managers to designers. This enables them to drastically cut down the time process from designing clothes to having them in stock at the stores. In addition, they analyze customer data to make it easier to predict the expected demand. Their design-to-retail cycle can therefore be as little as two weeks versus the industry average of 4 – 6 months. Around 61% of their stock is produced in season, by changing existing collections and adding new ones. The remaining 39% is collections offered at the beginning of seasons.

Around 60% of the stock is manufactured in European factories with proximity to the headquarters in Artexio, Spain. The other 40% is produced in America and Asia. Inditex either own or jointly operate these factories, so they can exercise their vertical integration approach. The factories have a code of conduct which applies to manufactures and suppliers, to build close relationships and trust.

By having such a low design-to-retail cycle, Inditex has become an innovator and pioneer in fast fashion, the ability to quickly adopt the latest trends from the catwalk and sell these products at a low price, resulting in a swift inventory turnover. The distribution process ensures that the new apparel can reach European stores within 24 hours, and the rest of the world in up to 48 hours. All inventory pass through one of the enormous distribution centers in Spain, and apparel is shipped out two times a week to all stores around the globe.

The distribution strategy enables Inditex to have a fully integrated store and online platform. This means that they can offer free shipping to a local Zara store, where the customer can go and collect their shipment. The customer can try on their clothing in the store and return it to the cashier if not satisfied. By having this strategy, Inditex can force more people into their physical stores, which in turn can boost sales. They also offer home shipping with flat fees (or free if you order over a certain sum) and free returns.

Unlike its competitors, Inditex spend close to zero money on advertising. Instead, they try to attract customers by opening stores in prime locations in fashionable districts, preferably close to high end retailers and build centrally-designed store displays with large shop windows. By having a high inventory turnover and small production cycles, they force fashion consumers to buy their clothing before it goes out of stock. They also benefit from customers' word of mouth, free coverage in press and low prices (Crofton & Dopico, 2012; Inditex, 2015, 2016).

#### 6.4. The apparel retail market

Today, the clothing and footwear market generate around €1.5bn in revenue. From 2002 – 2015, the annual compounded growth rate has been approx. 5%. Online sales have seen steady growth since 2002, growing more than 3 times the pace of offline sales. Despite this growth, offline sales still contribute to 95% of total revenue. The apparel industry includes some of the fastest growing companies in the world, mainly due to the online revolution. With low entrance cost and the internet as a global banner, companies like Zalando has tripled their revenue the past five years (McKinsey, 2014).

The apparel sector in Asia is expected to grow rapidly over the next year. PwC predicts an annual growth from Asia and Australasia at 9% (PwC, 2014). According to McKinsey's 2016 consumer report, the Chinese are spending more of their income on services and experiences, and trading up from mass product to premium products. Although the sales growth in China has been decreasing over the last years, it remains one the largest and most important markets in the apparel industry, together with USA. McKinsey & Company have looked at seven trends that will disrupt the industry the coming years. Some of the trends are sustainability, digitization, deluge of date and channel convergence, which are highly prioritized by Inditex (Amed, Berg, Brantberg, & Hedrich, 2016).

## 6.5. Competition

The apparel segment can be defined as woman, men's and children all wear. Inditex main competitor is Hennes and Mauritz (H&M). The key difference between these two companies is the manufacturing process. H&M outsource manufacturing to independent suppliers while Inditex produce their stock in-house. Therefore, H&M follow the apparel industry norm to outsource manufacturing to independent suppliers. Most of the manufacturing takes place in Asia, while Inditex produce most of their clothes in Europe (H&M, 2015).

Other companies that's considered Inditex's closest competition:

Gap, previously one of the largest players in apparel retail. The company have its headquarter in California and have most of their sales in the US market. In the recent years, Gap have struggled with their growth and lost market share to their peers and been surpassed by Inditex in total sales (Gap, 2015).

Uniqlo, a Japanese clothing company owned by Fast Retailing Co. Most of their sales occur in Asia, but they have recently started expanding towards America and Europe. Uniqlo consider Zara their main competitor, and have been investing towards a fast fashion model and copying Inditex's distribution system (Uniqlo, 2016).

Next is the largest cloth retailer by sales in the United Kingdom. Although not near the size of Inditex, they are multinational with sales in Europe, Asia and America. They are also moving towards a fast fashion model and is therefore seen as a competitor (Next, 2016).

SuperGroup is the owner of the brand SuperDry. SuperGroup are looking to expand in America and Asia and have built a strong distribution model and focuses on fast fashion (SuperGroup, 2016).

The last competitor is Esprit. They operate more than 900 stores and distribute their apparel to more than 8500. After experiencing stale growth, they hired a new CEO in 2013 which focuses on fast fashion and strong distribution models (Esprit, 2016).

## 7. Strategic analysis

This chapter's purpose is to uncover what drives the financials of Inditex. It consists of a PESTEL- and Porter's Five Forces analysis, which is previously covered in chapter 5.1.1 and chapter 5.1.2.

### 7.1. PESTEL

Using the PESTEL model, the macro environmental effects for Inditex can be derived. The factors are divided into political, economic, socio-demographic technological, environmental and legal factors. This analysis will be focused on political, economic, socio-demographic and technological factors, whereas environmental and legal won't be analyzed. We consider these factors not to be relevant on the macro environment of Inditex.

#### 7.1.1. Political

We are entering an uncertain political environment as the US have elected Donald Trump as their president. He has communicated that he will look at trade agreement such as NAFTA. Trump hasn't commented on specifics, but it is under the mantra "America first" (Goodman, 2017). If he were to introduce taxes on import, it could produce a negative effect on global trade agreements and indirectly impact Inditex's margins. Inditex have communicated that the US market is a priority in their outlooks, and such uncertainty can affect their growth plans (Inditex, 2016).

In Europe, populism, nationalist and euro skeptic parties are prominent (Coman, 2016). They challenge established traditional counterparts with their anti-trade and immigration rhetoric. Brexit was the first step, among the European countries. Both Italy, Germany and France have elections in 2017 that can deepen the populist movement (Brössler, Kirchner, & Oltermann, 2017). Inditex is dependent on the euro as a currency and still preserving trade agreements when expanding their business. If these movement were to continue, it could have a negative impact on the apparel industry.

#### 7.1.2. Economic

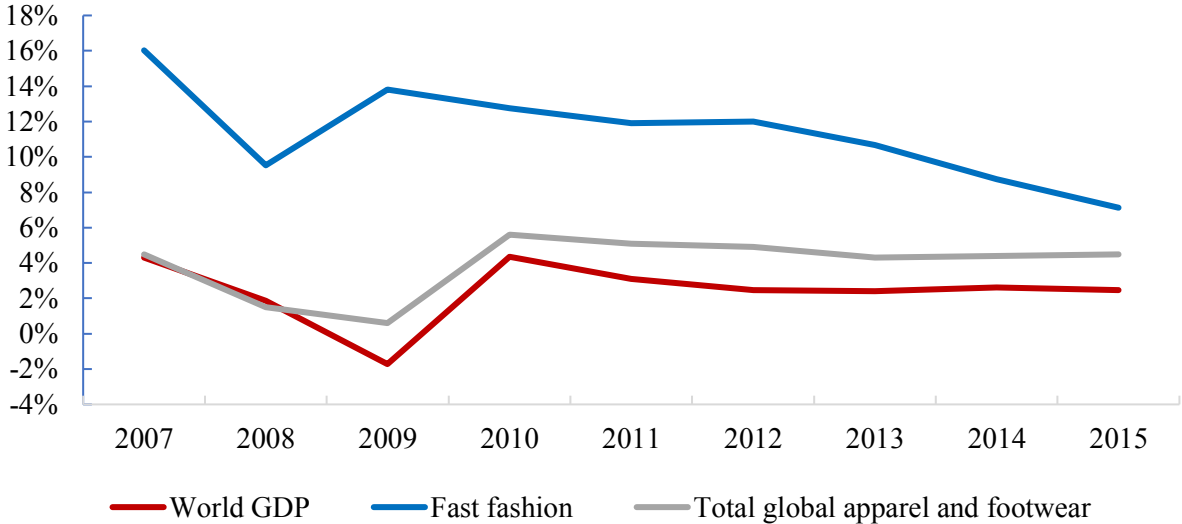
##### 7.1.2.1. *Growth and consumption*

The fashion industry relies on various macroeconomic factors, due to Maslow's hierarchy of needs (Maslow, 1943). The consumer will first use his available income on basic goods such

as food, clothes and housing. When GDP and prosperity increases, people tend to shift their priority from basic goods to luxury goods like vacations, entertainment and fashion. This contributes to the need for fulfilment and recognition. Clothing is both a necessity good and a luxury good. Inditex are constantly pushing out new designs, and forcing fashion consumers to visit their stores more often if they wish to adopt the latest trends. They also produce more basic goods which are in stock all year round. They are therefore exposed to both segments, from basic needs to luxury goods. The luxury and fashion segment is driven by income, making the segment more income elastic and therefore dependent on macroeconomic elements.

Figure 7-1 illustrates the year-over-year growth in global apparel, fast fashion and world GDP. From 2007 – 2015, fast fashion has outgrown the world GDP by 9% on average. Despite the difference, fast fashion is still dependent on macroeconomic developments, as explained in the previous paragraph. The average growth in fast fashion has been 11% since 2008 versus 2,6% in world GDP. The total global apparel and footwear year-over-year growth have on average grown 4% which is approximately the same as world GDP.

**Figure 7-1: YOY growth in fast fashion, global apparel and world GDP**



Source: IMF Data, Atlas Data and own creation.

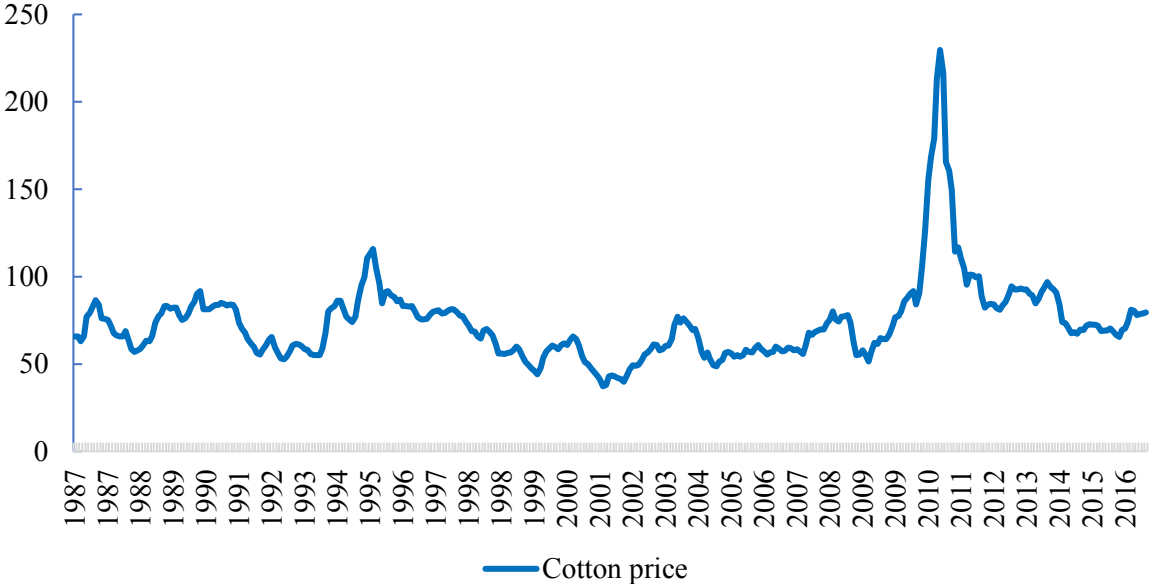
**7.1.2.2. Cotton price**

Cotton is arguably one of the most important input variables for the clothing industry. Cotton stands for almost 42% of Inditex gross margin, making it an important input variable. In recent years, there has been a greater focus on how the cotton is grown. This is a global initiative, where the fashion companies towards more sustainable production (Inditex, 2015). Cotton is expected to be grown organic and garments should be produced by a certified supply chain.

The cotton market has been around since the 18th century. Over the recent 30 years, cotton prices has been relatively stable, except for a panic shortage in 2011 which caused a brief spike, see Figure 7-2 (White, 2011). Cotton trades on several exchanges and is a highly-traded commodity. In this market, in addition to physical delivery of cotton, there is also speculators. Speculators increase trading volume, because they set prices for both producers and consumers (Karpoff, 1986, p. 1084). Speculators play an important role in the cotton market. They set prices for farmers who needs to protect their future income and for price-takers like Inditex who need to control their future costs, making it a very functional market.

The three largest cotton producing countries are China, India and the U.S. These three countries produce 50% of the worlds cotton consumption. The largest exports of cotton are the US and Africa, where a large part goes to China’s manufacturing industry (Drakoln, 2017).

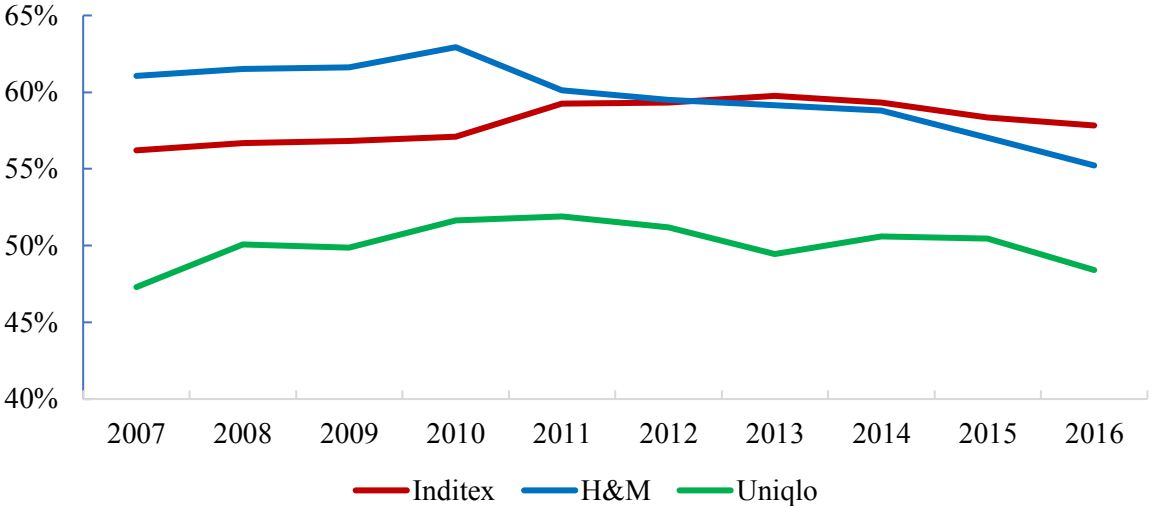
**Figure 7-2: Cotton prices in US cents per pound**



Source: Indexmundi database and own creation.

Figure 7-2 shows the historical fluctuations in the cotton price where the highest price paid was 229 US cents per pound in March 2011. Although the cotton prices have fluctuated, fast fashion companies like H&M, Uniqlo and Inditex haven't experienced any significant changes in their gross margins, see Figure 7-3. These companies are either good at managing cost or moving cost over to the customer.

**Figure 7-3: Inditex, H&M and Uniqlo gross margins**



Source: Bloomberg database and own creation.

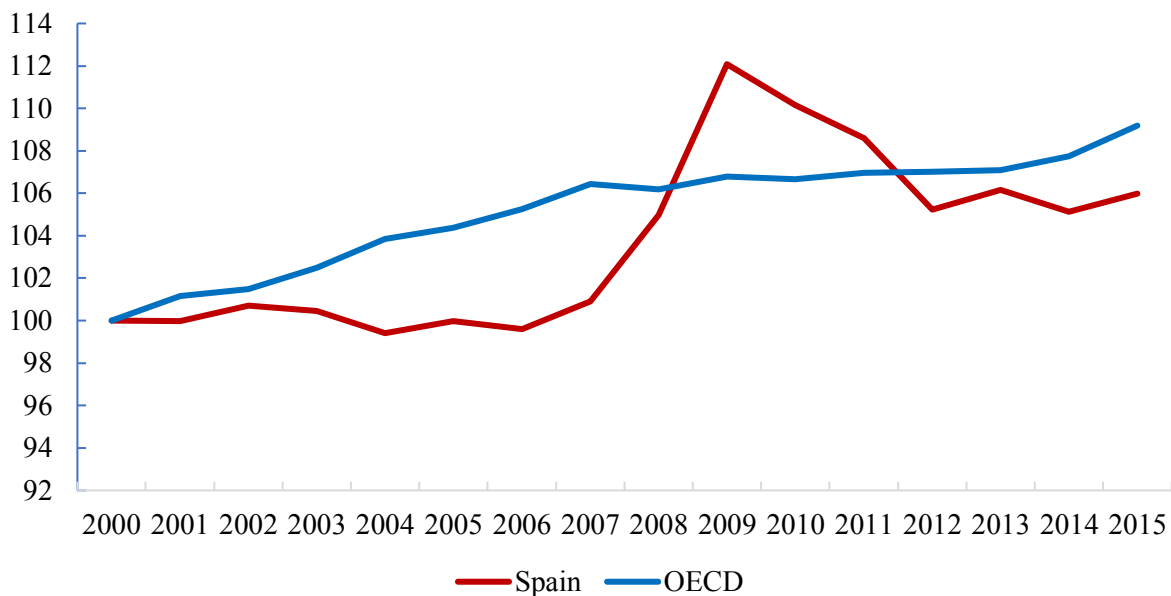
**7.1.2.3. Wages**

In recent years, there has been grown a larger focus on wages in emerging markets where most of the manufacturers and suppliers in the fashion industry exist. The main reason for the focus is the media and activist cover of low factory wages and bad working conditions (Parry, 2016).

The focus has pushed fashion companies to establish codes of conduct and take more responsibility and commitment to pay living wages towards the supply chain. Both Inditex and H&M's state in their annual reports to take actions towards increasing employee wages in developed countries. Increasing wages can affect the cost of goods sold of fashion companies, and therefore reduce the profit margin in the industry.

China has from 2000 – 2015 increased their wages, pressuring margins for the fashion companies (Yangon, 2015). Increased wages are making the fashion industry look to other countries to produce their apparel (Magnier, 2016). Inditex's headquarters, design team and distributions are in Spain. Figure 7-4 below show that wages in Spain measured in US dollars have been volatile over the last 15 years, especially compared to OECD countries. Wages in Spain have not fully recovered after the financial crisis in 2008 which hit Spain hard, whereas OECD wages have shown a steady increase.

**Figure 7-4: Wages in Spain vs OECD countries (in US\$)**



Source: OECD database and own creation.

#### *7.1.2.4. Currency*

Fast fashion companies like Inditex are multinational companies. They are exposed to different currencies and therefore need to consider the risk of fluctuations. Inditex have sales all over the world and therefore occur foreign-exchange risk. Most of their sales are in euros (EUR), with of 61% sales in Europe, 15% in Americas and Asia and rest of the world at 24% (Inditex, 2016).

Inditex revenues are exposed to fluctuations in EUR, but most of their cost is also exposed to EUR. Inditex have their headquarters in Spain and 60% of their factories is based in Europe, Non-EU and Africa (Inditex, 2015). Since most of their production and sales occur in the same currency they have a natural hedge, causing the risk in EUR fluctuations to become less relevant. Inditex also have exposure to fluctuations in US dollars (USD). Since EUR/USD is the most traded currency, there are less risk due to high liquidity and small fluctuations. The fact that Inditex have a natural hedge against EUR and that EUR/USD is a highly-traded currency with small fluctuations, makes Inditex less exposed to currency risk compared to its close competitor H&M, which reports in SEK.

Inditex's currency risk management is mainly purchasing and selling forward contracts. This is to hedge cash flow fluctuations. Most of the currency risk appears when Inditex makes



commercial transactions, recognized assets and liabilities and net investments in foreign operations (Inditex, 2015).

### 7.1.3. Social

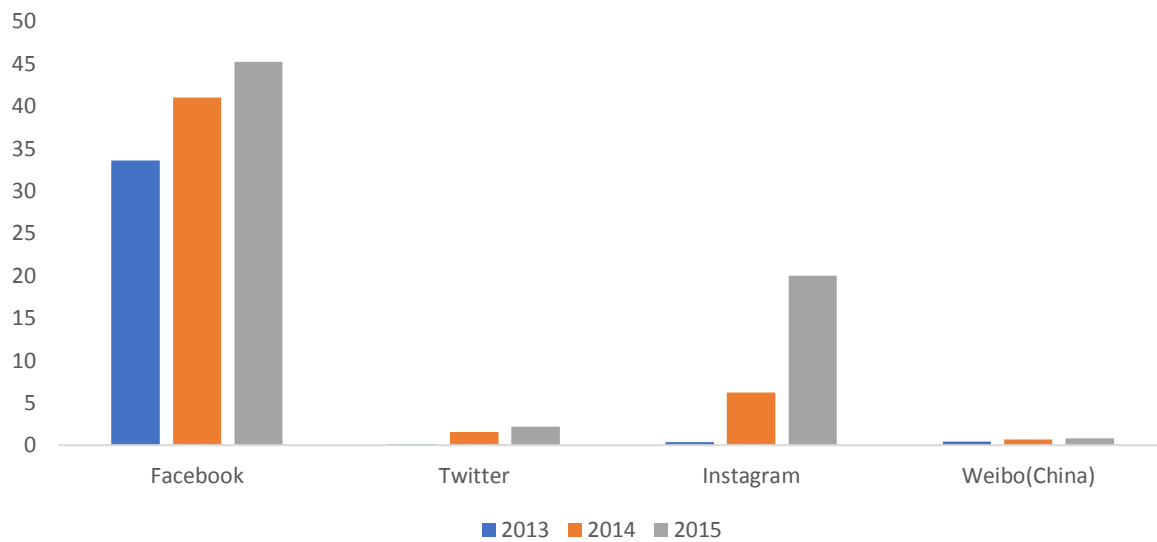
The clothing industry have over the years been challenged by consumer preferences, since apparel have become a way to personalize and express yourself (Vikas, 2012). Although consumers value the latest trends and pricing, sustainability is also becoming important, making apparel consumers more concerned with the industries values and ethical standpoints. Fashion companies are therefore forced to take ethical standpoints in their production- and manufacturing process.

It's important for fashion companies to have presence in social media, since many of its consumers can voice their opinions through these mediums. Although there can be times with negative impacts, social media enables companies to have a far more intimate connection with consumers, building long lasting relationships. Inditex can also update the consumer more easily on the latest trends, pushing the buttons of the fashion consumer who seeks the latest personalized trends to enable more sales.

Fast fashion companies must constantly be alert to changes in trends. The fast-moving nature of fashion requires companies to jump on these trends right away (McKinsey, 2014). One way Inditex handles the moving nature is using feedback from customers in terms of real time sales data (Inditex, 2016). This information helps the design team to determine which trends to act on. In addition, they have a large presence on social media.

Figure 7-5 shows their total “likes” in millions. As of 2015, they have 45 million likes, a growth of 13 million since 2013, which seem significant.

**Figure 7-5: Inditex social media presence (in millions)**



Source: Company annual reports and own creation.

#### 7.1.4. Technology

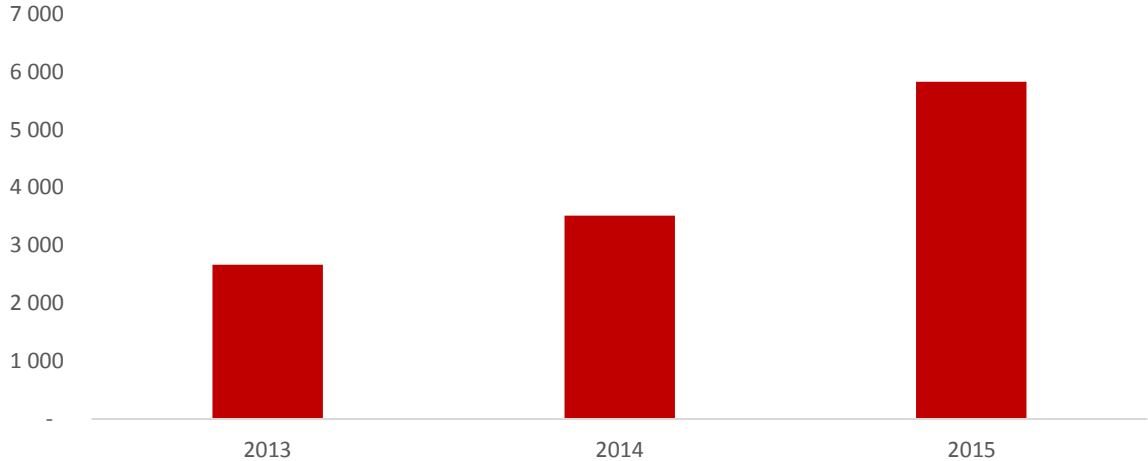
McKinsey & Company have looked at several trends that can disrupt the fast fashion industry in the coming years. Some of these trends are e-commerce, digital channels and more use of big data. Data can be used when interacting with customers both in terms of personalizing advertising and draw attention to new customers and collections (McKinsey, 2014).

Inditex has created a strategy to fully integrate stores and the online sales platform. This gives customer the opportunity to combine online and store shopping. Customers can purchase apparel online and get free deliveries and returns in the stores. This could help Inditex to increase their sales and move more customers inside their brick and mortar stores (Inditex, 2016). Since Inditex built up a vertical integrated business model from the beginning, it has been easy for them to offer their consumers this opportunity. Competitors such as H&M, using a more horizontal focused business model, have yet to offer their consumers the same convenience.

Online sales have created a structural shift in the fashion industry. Given the growth in online sales, the fashion industry need to rethink their strategy to stay relevant in the future. The industry has spent many years focused on what previously drove sales which was retail space. Relying on retail space as the primary source of value creation puts companies at risk going forward (Dutzler, Dr Sova, & Kofle, 2014). Inditex doesn't enclose online sales in their annual reports. However, they do report how many people contact the online store through emails and

calls. Looking back to 2013, there has been a compounded annual growth rate of 30% on these contact points, which could signal a large growth in their e-commerce business.

**Figure 7-6: Inditex total emails and calls (in thousands)**

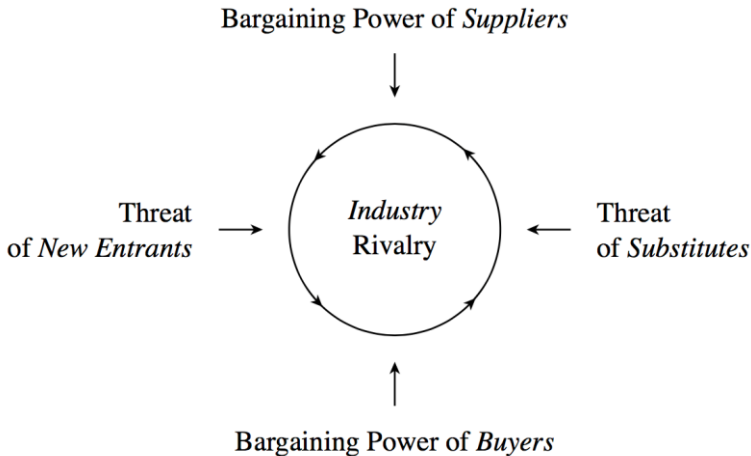


Source: Company annual reports and own creation.

**7.2. Porter’s five forces**

We have chosen to use the Michael E. Porter's five forces framework to perform an industry analysis and business strategy development (Porter, 1998, p. 15). These five forces include three horizontal forces: Threat of new entrants, threat of established rivals and substitutes of products/services. The remaining two looks at vertical forces: The bargaining powers of customers and suppliers. All factors are shown in Figure 7-7. The purpose of the analysis is to see if Inditex is exploiting the possibilities in the industry and protecting itself from competition and other threats.

**Figure 7-7: Porter’s Five Forces model**



Source: [https://en.wikipedia.org/wiki/Porter%27s\\_five\\_forces\\_analysis](https://en.wikipedia.org/wiki/Porter%27s_five_forces_analysis)

### 7.2.1. Threat of new entrants

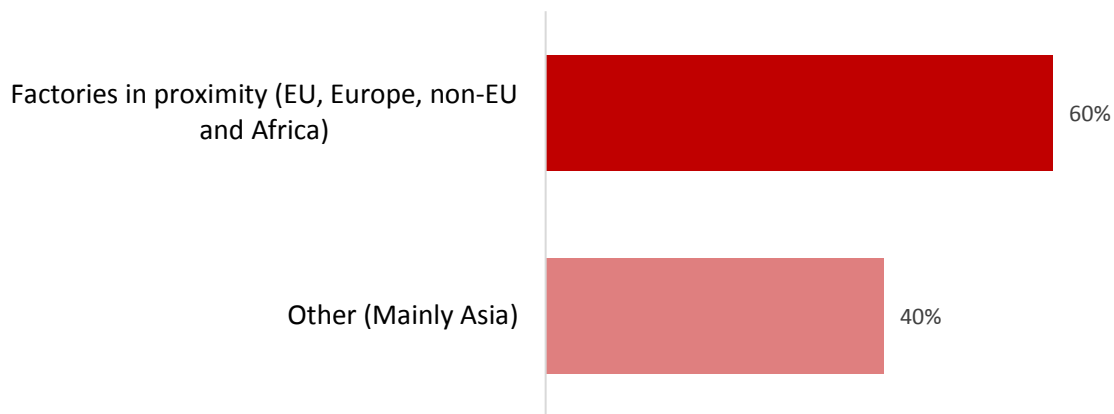
Barriers of entry for new entrants is relatively low in the fashion industry. Looking back at history, one would have to acquire property to open a brick and mortar store plus inventory. These entry cost have been greatly reduced over time, mainly by the large growth in e-commerce which also has increased competition. However, when it comes to global scaling, that's when the greater barriers and cost arises. Large scale apparel companies like H&M and Inditex have over time built up an outsourcing network with a great number of suppliers, giving them resources which shouldn't be easy to copy.

New entrants generally need to choose between selling value apparel at high quantities and low price, or more mid/luxury apparel at lower quantities with a higher price. Inditex has for decades tried to build a vertical integrated network, using IT-services, large distribution hubs and close cooperation with suppliers. They arguably have the most vertical integrated network, which even their closest competitors have trouble copying. In addition, Zara has built a strong brand name using little-to-none advertising, a word-of-mouth reputation which is hard to copy immediately. So even though entry cost can be low, these factors show that these advantages of large global companies are hard to achieve at a low time frame.

### 7.2.2. Bargaining power of suppliers

Michael E. Porter states that both coordination with suppliers and hard bargaining to capture the spoils are important to competitive advantage, one without the other is a missed opportunity (Porter, 1998, p. 51). By having 60% of their factories in proximity to their headquarters in Spain, they can practice fast fashion more conveniently, see Figure 7-8 (Inditex, 2015). The remaining 40% is in Asia and America, with the largest part in Asia. Inditex normally holds a stake in the proximity production firms, giving them considerable bargaining power. The low cost and labor-intensive parts of production, such as sewing, is outsourced to Asia. The simple, large production basic apparel like simple t-shirts and jeans, are also ordered from Asia since these products doesn't necessarily require fast delivery.

**Figure 7-8: Inditex factory location**



Source: Company annual report and own creation

### 7.2.3. Threat of substitutes

Clothing, shoes and accessories are products which are hard to substitute with other products. Every person has a basic need of these items for practical reasons. There are however an almost infinite number of substitutes inside the apparel business. According to the 2016 McKinsey Millennial Survey of 11.000 US consumers, the key drivers for millennials can be divided into three components: value, quality and image. This shows an increasing need of self-expression, and that apparel companies should focus on identifying distinct values that resonate with members of different groups. There can be segments who focus on price (value or luxury), a focus on a thoughtful brand, zero focus on either, etc.

"Slow fashion" is also a growing movement, where consumers want to focus on buying the opposite of "fast fashion", e.g. apparel which has a more sustainable production with more focus on sustainability and environmentally friendly production (Dickson, 2016).

We therefore see there are a lot of substitute inside the apparel business which poses a threat, but low threat of substitutes outside the industry. Inditex has built up a broad range of brands, ranging from value to luxury, and is therefore somewhat protected of this risk.

### 7.2.4. Bargaining power of buyers

In fashion retail, there is zero switching cost for a consumer from going to one brand to another. In addition, it has become easier to compare prices and apparel online. The costumer mass consists of private costumers, which holds the advantage of having many brands to choose from. Apparel consumers are also demanding more innovation with more customized and

personalized fashion, while also expecting it at lower prices (Amed et al., 2016). This means that it is hard to keep costumers loyal. Inditex tries to solve this by offering a large variety of brands and having an efficient e-commerce business. Additionally, they try to constantly adopt the latest fashion trends, and offering them in stores at a quick pace.

These strategies however, are not unique. The fast fashion segments contain a lot of competition, including H&M, which also apply these strategies (H&M, 2015, p. 12). It shows that it's hard to keep costumers loyal to brands, when consumers are demanding more personalized apparel. The costumer group however, is so large that a single costumer's volume is not going to have a noticeable impact on a company's total sales volume.

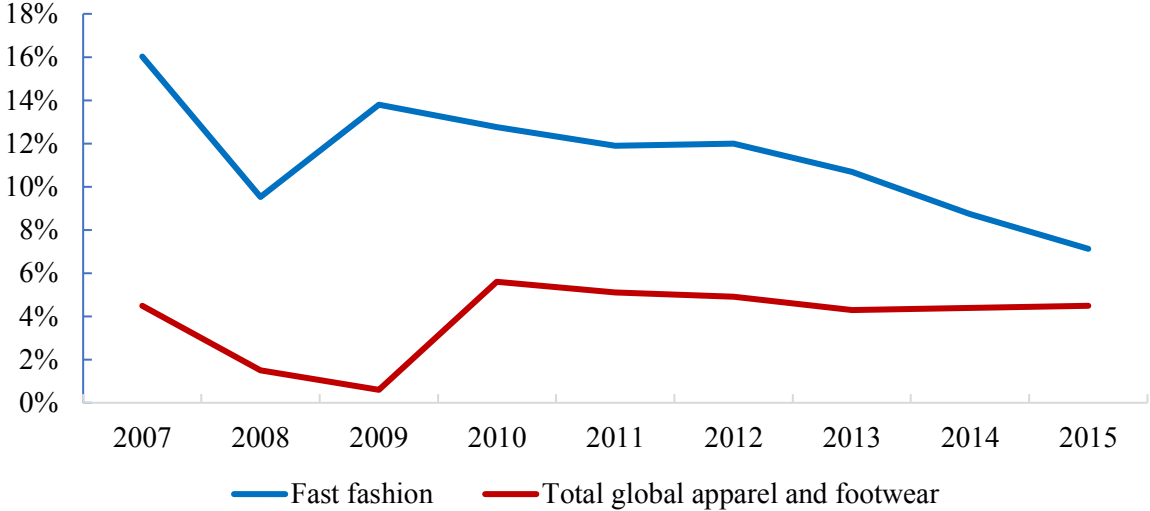
#### 7.2.5. Industry rivalry

To look rivalry in the fashion industry, we are going to take a closer look at Inditex's main brand Zara. Zara represents 65% of Inditex's total sales in 2015 with over 2100 stores around the world. They offer high-fashion apparel at low- to midrange prices, and try to immediately copy the latest trends arriving from the catwalks. While other competitors like H&M offer trendy clothing, Zara deliberately tries to copy styles one might find in the fashion capitals of the world. This has resulted in them being accused of copying designs from other designers (Addady, 2016). Zara does not only compete on design, but also on price. They are known for identifying the price consumers would pay for competitors' products, then target prices 15% below (Crofton & Dopico, 2012).

As written earlier in chapter 6, Inditex were the first company to successfully compete on time to market. Completely abandoning the fashion industry traditional model of predicting seasonal lines of clothing, subcontracting manufacturers with several months delivery time and using expensive marketing, Zara has seen immense growth and become a frontrunner in fast fashion. The fast fashion market has outgrown the fashion apparel market in the last 9 years, see Figure 7-9. The graph consists of some of the fast fashion leaders, including Inditex and H&M compared to its competition. This is expected as consumers become more demanding for personalized and customized apparel. Inditex has been in the fast fashion segment since its inception, and we see more and more existing companies trying to move into this segment as well. Mango is one example, which is abandoning its old business model for a more innovative fast fashion approach with frequent delivery of new lines (Dua, 2015). While Inditex produces 75-80% of its apparel based on market trends, H&M's share is at around 20%. The rest is

manufactured by seasonal cycles, by predicting consumer demands. H&M is trying to increase this share to take a larger part in the growing fast fashion market (Hiiemaa, 2016).

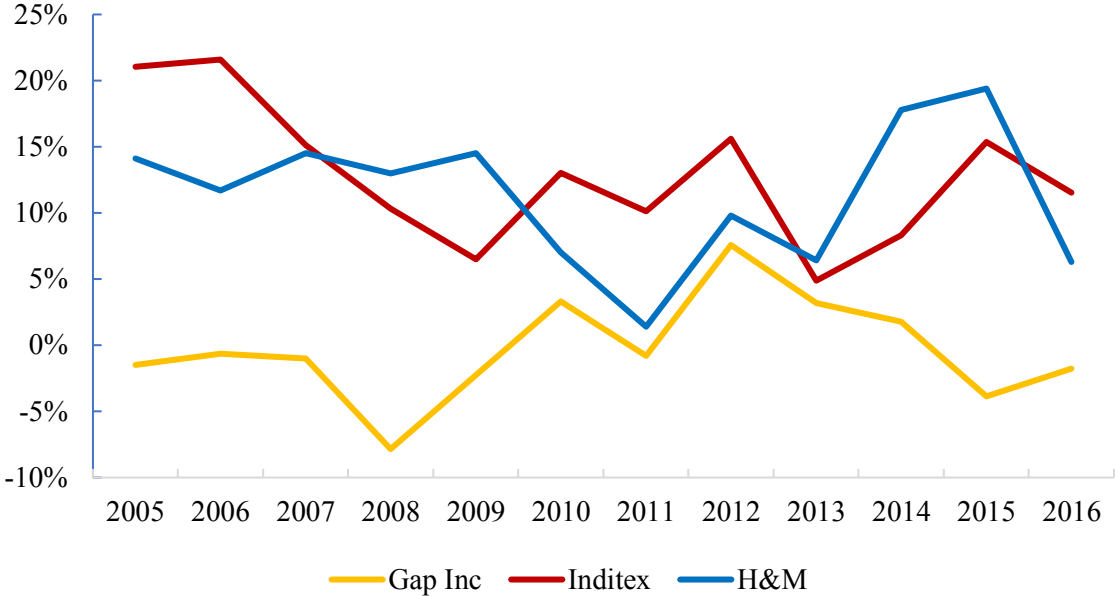
**Figure 7-9: Fast fashion vs apparel retail**



Source: Atlas database and own creation.

Taking a historical look at Gap Inc. can further illustrate this point. Gap is a US based retailer which sells fashion worldwide under several brand names. Using the traditional fashion industry model of trying to predict consumer demands several months in advance, seem to have slowed their business which is now experiencing periods of negative revenue growth. Gap must predict consumer trends months in advance and have failed several times in doing so. They are therefore left with unsold inventory, and consumers turns to other retailers since they need to reorder new stock with several months delivery time (Marriot, 2015). This effect is illustrated over a 12-year period in Figure 7-10, where Inditex and H&M has seen high revenue growth, and Gap has experienced flat growth. Inditex surpassed Gap in total revenue in 2008.

**Figure 7-10: YOY revenue growth Gap, Inditex and H&M**



Source: Company annual reports and own creation.

Inditex is also challenging the luxury high-end fashion as well. “Prada wants to be next to Gucci, Gucci wants to be next to Prada. The retail strategy for luxury brands is to try to keep as far away from the likes of Zara. Zara’s strategy is to get as close to them as possible.” - Masoud Golsorkhi, editor of Tank. Most major cities have luxury streets with high end fashion brands located in historical and architectural buildings, where Inditex try to place themselves as well. One example of this is the \$324 million property investment for a Zara store on Fifth Avenue, New York (News, 2011). By constantly producing new clothing, Inditex has pressured high-end companies to change their cycle of fashion from producing bi-annual cycles of fashion, to make four to six collections every year (Hansen, 2012). Louis Vuitton's previous fashion director called Zara possibly the most innovative and devastating retailer in the world (Armstrong, 2008).

Online sales are a growing part of fashion retail, leading to the emergence of pure-play online fashion retailers such as Zalando and ASOS which has seen intense sales growth (Amed et al., 2016). This has resulted in a more fragmented market, where there’s potential to detriment the established brick-and-mortar players such as Inditex and H&M. Both Inditex and H&M does not enclose their online sales figures, but we expect Inditex to be less affected by this growth in the online channel, mainly due to their integrated store and sales model. Pablo Isla, CEO of Inditex, states that two-thirds of online purchases are returned in stores, which could fuel further



purchasing (Reuters, 2016). H&M does not offer collect or return in store, but states in their conference calls to offer it in the future.

### 7.3. Conclusion on the strategic analyses

The fast fashion market has outgrown the global apparel and footwear market by large margins over the years. Inditex, the first big player in fast fashion, has taken advantage of this situation and experienced large revenue growth. Although input variables like cotton price and wages affect the gross margin, they have been able to keep a stable gross margin even with increasing wages from emerging markets.

Although they have an impressive history, other apparel retailers are now starting to copy Inditex. They are starting to see the value of offering the latest fashion in a rapid pace. Consumers can easily change between different fashion providers, and this could affect the popularity moving forward.

Online sales is, according to several McKinsey reports, growing at a rapid pace (Amed et al., 2016; McKinsey, 2014). It has created a structural shift in the industry and from it, pure e-commerce players like Asos and Zalando has emerged and seen intense growth. Inditex is trying to join in using their integrated store and sales model and offer free shipping if you order to your local Inditex store. This could help their brick and mortar sales as well.

Fashion consumers are getting increasingly demanding for personalized clothing. This trend can grow the total global apparel revenue, but it can be hard for individual companies to get it right. There are many players in fashion leading to a fragmented market.

In summary, Inditex does have a competitive advantage and have had so in a long time, but the competition is increasing and consumers are getting more demanding. We expect this to have financial effects in the long term – but still believe Inditex will continue to be a large player because of their vertical integration.

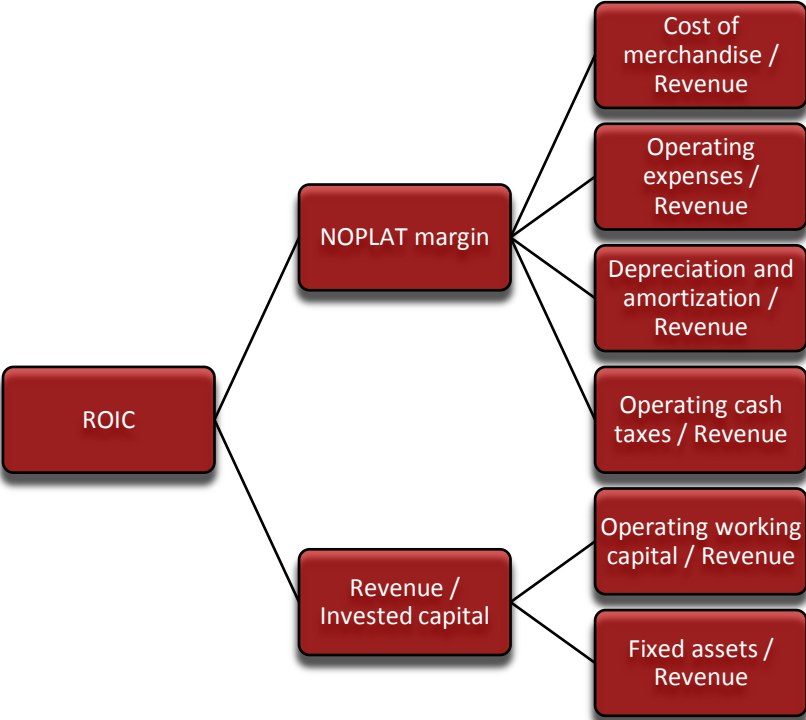
## 8. Financial analysis

The point of the financial analysis is to highlight Inditex's historical economic performance and their current financial situation. To perform the analysis, we have collected the historical financial statements for the last 10 years (2007 - 2016). Inditex has been a relatively stable company with high growth in this period, and so has the apparel industry as well. We therefore expect 10 years to be a large enough selection to both analyze the historical performance and long enough explicit forecast period later in the discounted cash flow model.

To perform the analysis, it is vital to reorganize the financial statements. The income statement and the balance sheet simply doesn't promote an easy insight in the operating performance and value of a company (Koller et al., 2015, p. 169). The reorganized statements are attached in Appendix 2. These operating items will be further analyzed in this chapter and forecasted in chapter 9 to estimate the equity value.

To asses and organize the financials of Inditex, we will follow the steps illustrated in Figure 8-1. These steps are based on Koller's decomposing of ROIC, adjusted for Inditex's operating business.

**Figure 8-1: Decomposing ROIC**

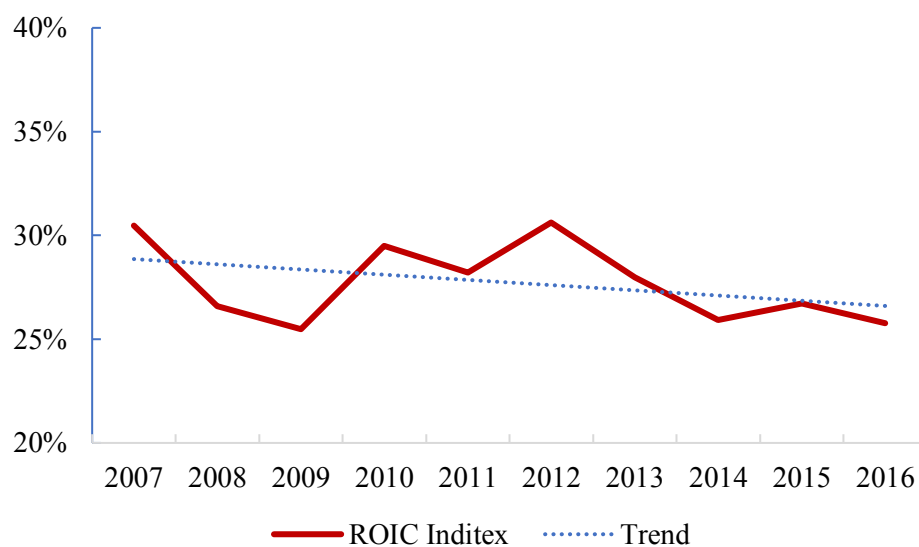


Source: Koller, Goedhardt, Wessles and own creation.

## 8.1. Analyzing return on invested capital

Inditex have in the period 2007 – 2016 delivered a return on invested capital (ROIC) excluded goodwill between 25 - 30%. The performance is illustrated in Figure 8-2 below. There have been some fluctuations, but since 2012 there has been a somewhat negative trend. This is supported by the trendline in the figure. The average ROIC in the period has been approximately 28%. Note that all ROIC estimations are excluded goodwill, to easier analyze and compare the underlying operations without acquisitions.

**Figure 8-2: Inditex ROIC excluded goodwill**



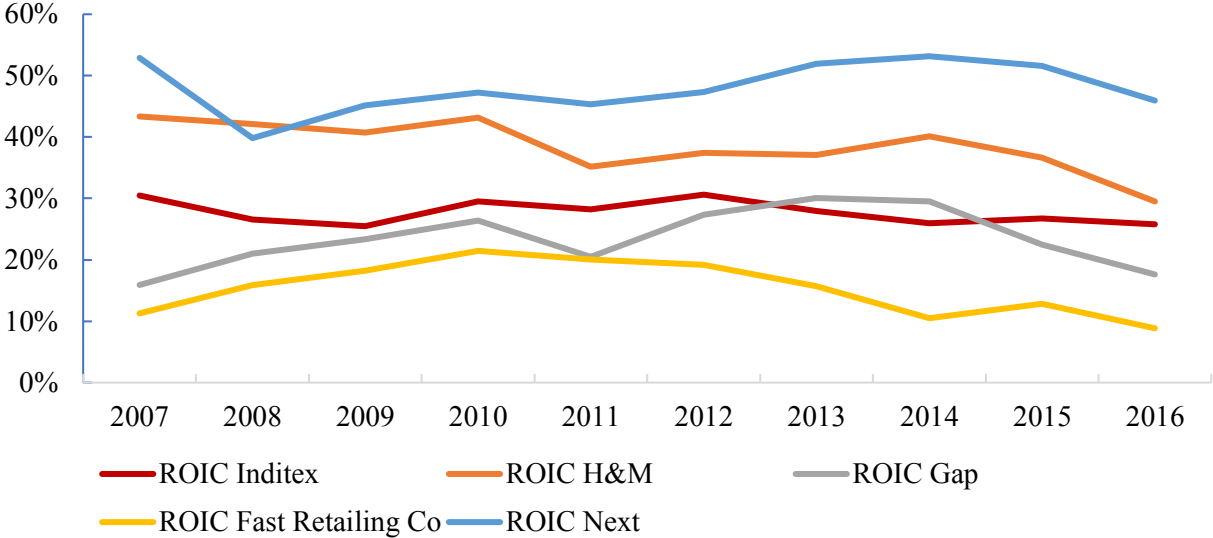
Source: Koller, Goedhardt, Wessles and own creation.

The apparel industry generally produces high ROIC compared to other consumer discretionary companies (Koller et al., 2015, p. 109). There are two key factors which contribute to this. Number one being that most companies outsource the manufacturing and production to companies in Asia. They therefore don't need to invest in a lot of equipment. The other reason is that apparel retail companies generally lease their stores. These costs are therefore in the income statement under operating leases, instead of in the balance sheet on properties. This way of financing is therefore very asset light, and is paid off in high ROIC.

Inditex owns the whole value chain, which gives them higher asset value through properties, plants and equipment, which can affect the ROIC negatively. But their stores however, are mostly leased and therefore treated as a cost. Their closest competitor H&M has all their manufacturing, production and stores treated in the income statement. This results in a high

ROIC, illustrated in Figure 8-2 below. Some other peer companies are included as well, supporting the theory of high ROIC in the industry.

**Figure 8-3: ROIC of peer fashion companies**



Source: Bloomberg database, company annual reports and own creation

This comparison is not necessarily apples and apples, due to the different financial structures of the companies. Looking at ROIC without adjusting for capital leases, doesn't necessarily give the full financial overview of the companies. We will therefore in the next paragraph adjust for operating leases and thereafter compare Inditex's adjusted ROIC versus its closest competitor Hennes & Mauritz.

**8.1.1. Adjusting ROIC for operating leases**

If a company acquires a store property, the asset and debt are recorded on the company's balance sheet. If however, the company leases the store property and the lease meets a certain criteria, the company only records the periodic rental expense associated with the lease (Damodaran, 2009, p. 7). Therefore, a company that choose to lease its assets will have lower operating profits due to higher rental expenses and higher capital productivity. These two effects will boost the ROIC. This is because the reduction in operating profit by rental expense is typically smaller than the reduction in invested capital caused by omitting assets (Koller et al., 2015, p. 431).

Since Inditex uses operating leases as their main financing for stores, the ROIC needs to be adjusted for leases to produce a second view on how the company would look if the operating

leases were put on the balance sheet. We have estimated the rental expenses to be 3,64% by applying a risk-free rate of 2,83% (Calculated later in chapter 10.2.1) and a credit spread of 0,81% (Bloomberg database). Store properties useful life was set at 37,5 years which is the average of Inditex's own stated useful life (Inditex, 2015, p. 208).

The value of leased assets is estimated using the following equation:

$$Rental\ Expense_t = Asset\ Value_{t-1} \left( k_d + \frac{1}{Asset\ life} \right)$$

To estimate the assets value, rearrange equation as follows:

$$Asset\ value_{t-1} = \frac{Rental\ Expense_t}{\left( k_d + \frac{1}{Asset\ Life} \right)}$$

$$NPV(leasing)_{2016} = \frac{2\ 465\ 354}{\left( 3,64\% + \frac{1}{37,5} \right)} = 39\ 091\ 243$$

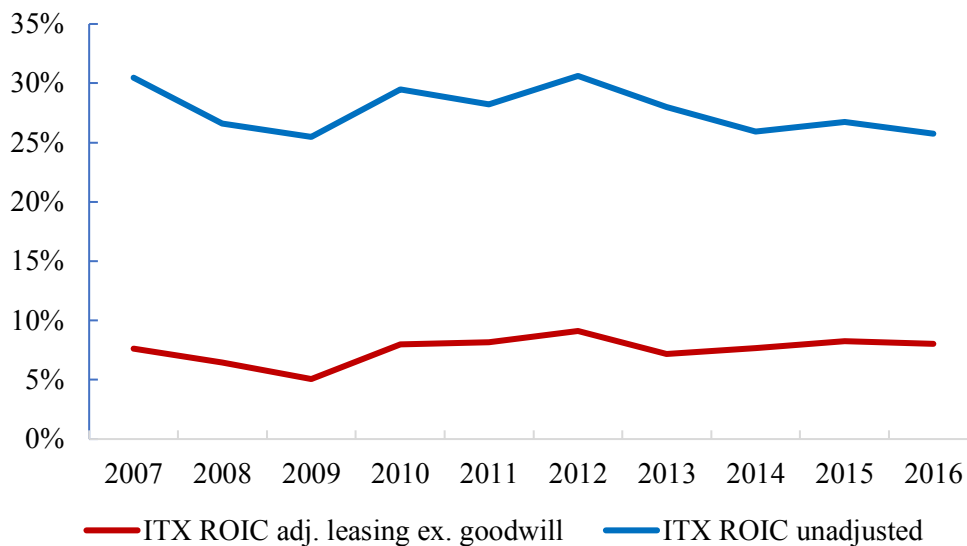
$$Estimated\ depreciation_{2016} = \frac{NPV(leasing)_{2016}}{Estimated\ asset\ life} = \frac{39\ 091\ 243}{37,5} = 1\ 042\ 433$$

$$\begin{aligned} Interest\ cost_{2016} &= Operating\ leases_{2016} - Estimated\ depreciation_{2016} \\ &= 2\ 465\ 354 - 1\ 042\ 433 = 1\ 422\ 921 \end{aligned}$$

The same calculations are made for the remaining years as well, see Appendix 6.

The effect of the lease adjustment is illustrated in Figure 8-4 where the lease adjusted ROIC ex. goodwill is compared to the unadjusted ROIC ex. goodwill. The difference is about 20 percentage points on average over a 10-year period. Although the adjusted ROIC shows a smaller yield on the invested capital, the trend is still the same, which has been relatively flat in the period.

**Figure 8-4: Inditex lease adjusted ROIC vs unadjusted**



Source: Company annual reports and own creation.

WACC will also be affected by lease adjustments since net bearing debt will increase, causing a change in the debt-to equity ratio. The WACC therefore needs to be adjusted for leases to see if Inditex has produced economic value added (EVA) in the period (Young & O'byrne, 2001, p. 3). When comparing pre-leasing WACC to lease adjusted WACC, we will use the raw (levered) beta for Inditex, since we assume Inditex is levered using debt. This WACC will only be used to see if the company has been producing an economic profit (EVA). It will not be used later in DCF valuation, which will be explained in depth in chapter 10.2 and 10.3.

$$\begin{aligned} \text{Debt ratio} &= \frac{\text{Market value net interest bearing debt}}{\text{Market value net interest bearing debt} + \text{Market value of equity}} \\ &= \frac{39\,091\,243}{39\,091\,243 + 101\,602\,855} = 26,44\% \end{aligned}$$

$$\text{Equity ratio} = 1 - \text{debt ratio} = 1 - 26,44\% = 73,56\%$$

To find the Inditex's cost of equity, we apply the CAPM formula from chapter 5.3.2, using the risk-free rate found later in chapter 10.2.1 and Inditex's raw (levered) beta found in Figure 10-3:

$$\text{Cost of equity} = 2,83\% + 0,61 * (6,71\%) = 6,94\%$$

Cost of equity will obviously not change when debt level changes. The change is seen in the WACC. Applying the WACC formula from chapter 5.3:

$$WACC \text{ before lease adjustment} = 6,94\% * 99,51\% + 2,55\% * 0,49\% = 6,92\%$$

$$WACC \text{ after lease adjustment} = 6,94\% * 73,56\% + 2,55\% * 26,44\% = 5,78\%$$

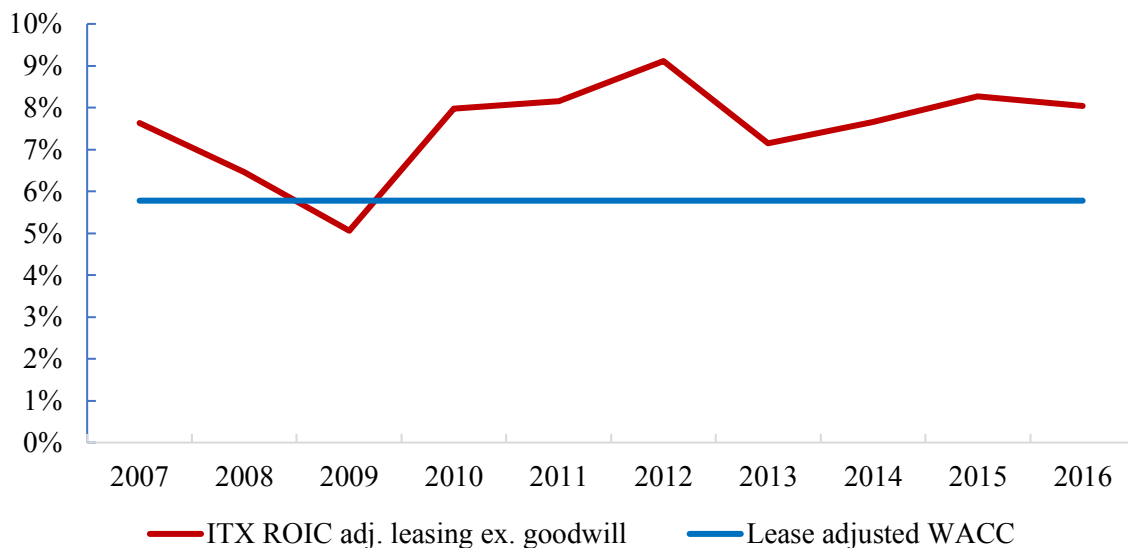
The WACC is reduced from 6,92% (see chapter 10.3) to 5,78%. This is due to a higher market value of net interest bearing debt (Modigliani & Miller, 1958, p. 434).

EVA occurs when a company can create an economic profit which exceeds the required return of company shareholders, or WACC. The calculation for EVA is:

$$EVA = ROIC - WACC$$

In Figure 8-5 below, we see that Inditex have over a 10-year period produced economic profit in 9 out of 10 years. The economic value added has on average been 1,8%.

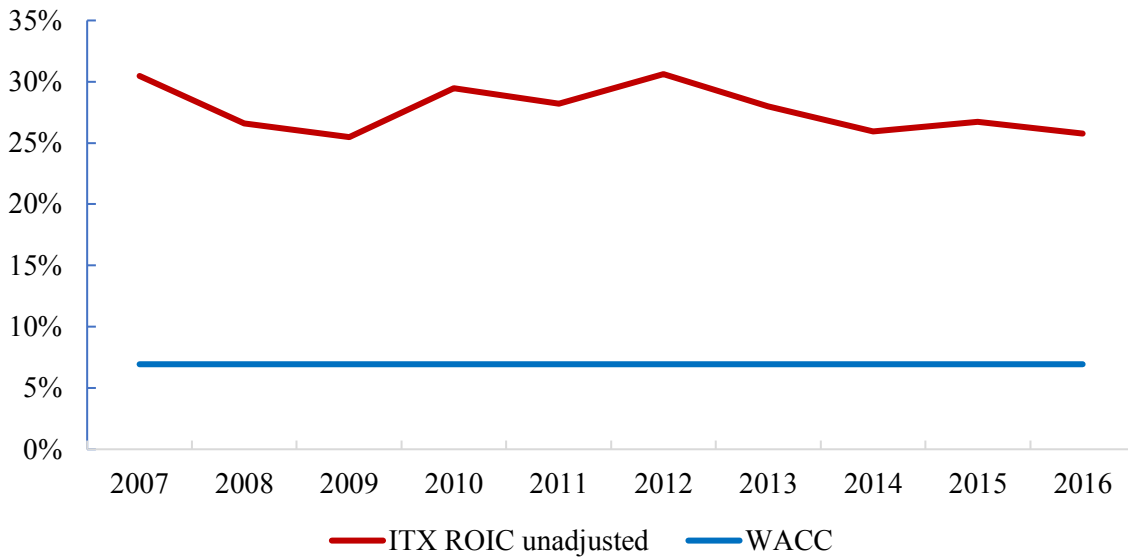
**Figure 8-5: Inditex lease adjusted ROIC and WACC**



Source: Company annual reports and own creation.

If we compare to the EVA without adjusting for operating leases in Figure 8-6, it's clear that their capital structure indirectly produces an astonishing EVA at 13,5% on average, resulting in economic profit every year.

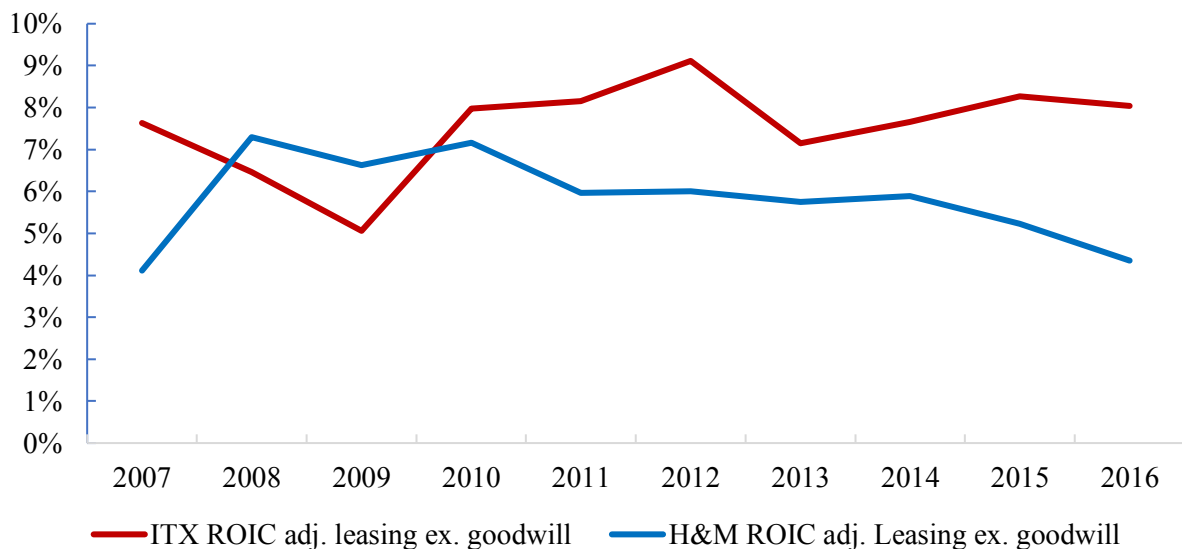
**Figure 8-6: Inditex ROIC and WACC**



Source: Company annual reports and own creation.

Figure 8-7 below shows the leasing adjusted ROIC excluded goodwill for Inditex and H&M. Calculations for H&M’s lease adjusted ROIC is attached in Appendix 6. The same debt yield has been applied for both companies, since the credit spread was approximately the same according to Bloomberg’s database. As the figure demonstrates, Inditex has a slightly more positive trend and is also generating a higher return on invested capital than H&M. This is on the contrary to Figure 8-3, which showed H&M generating a higher ROIC. We therefore see the effect of adjusting leases, which in this case highlights Inditex returning a better yield on their investments. This is due to H&M having a higher ratio of operating leases than Inditex.

**Figure 8-7: Inditex & H&M lease adjusted ROIC**



Source: Company’s annual reports and own creation.

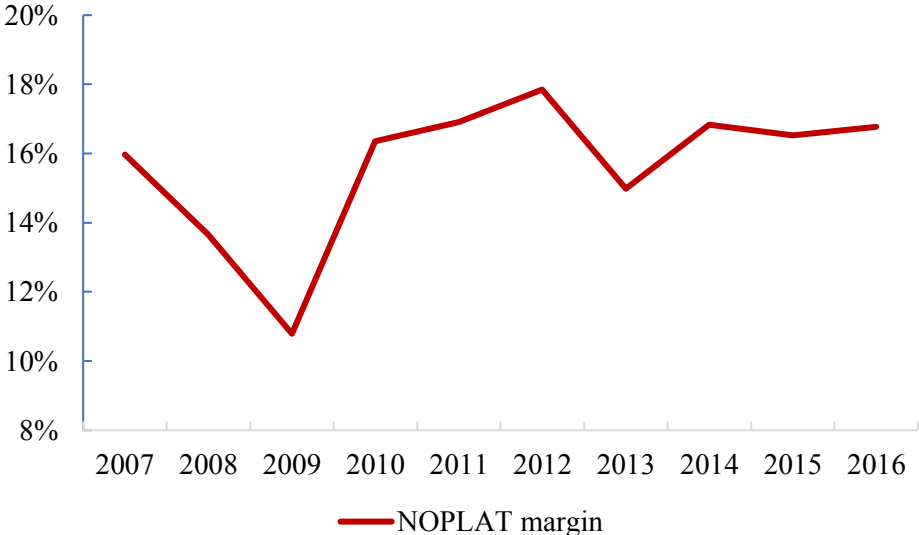


The adjustment for leasing is only accounting maneuvers. The adjustments will not directly influence free cash flow to equity nor the cost of equity and therefore not influence the equity value. The purpose of the adjustment was to highlight Inditex’s ROIC compared to its peer company H&M. The conclusion is that adjusting for leases showed that Inditex is generating a higher ROIC than H&M, which was not clear before the adjustment. These factors will be helpful to forecast future performance.

### 8.2. Analyzing NOPLAT

Net Operating Profit Less Adjusted Taxes (NOPLAT) is a measure of how a company is effectively converting revenue to earnings. The metric represents the total after-tax operating income generated by the company's invested capital. The NOPLAT margin is calculated by dividing NOPLAT on operating revenue. The historical ratio is displayed in Figure 8-8. It displays a falling margin from 2007 – 2009, mostly due to the financial crisis. Since 2010, the ratio has been relatively stable at around 17% with a dip in 2013 due to a store refurbishment (Inditex, 2013). It is however not at its historical highpoint in 2012.

Figure 8-8: Inditex NOPLAT margin

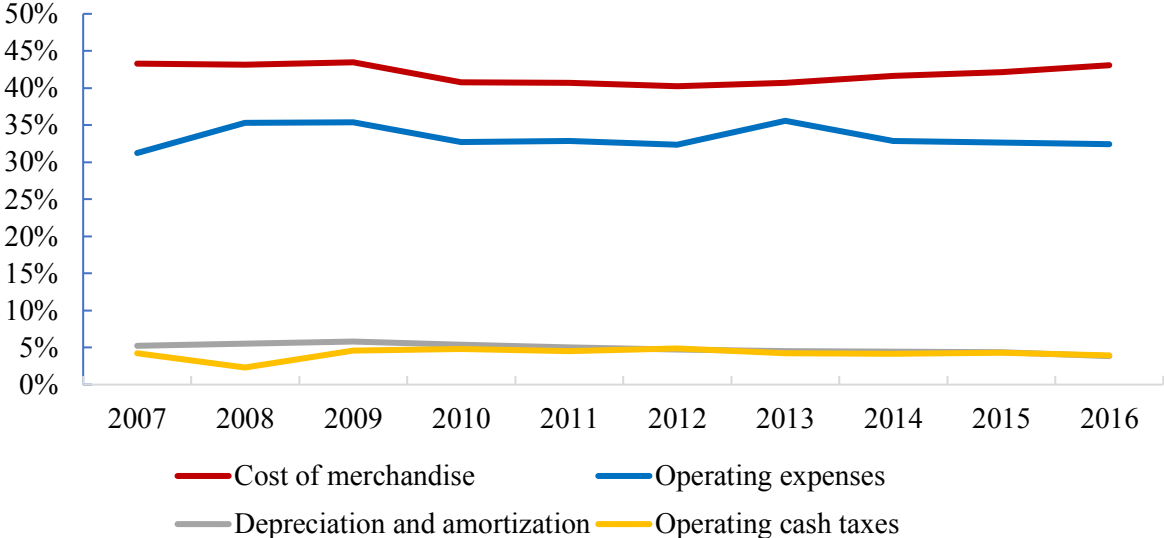


Source: Company’s annual reports and own creation.

To estimate NOPLAT, the operating items must be plucked out and separated from the non-operating in the income statement. NOPLAT calculations can be found in Appendix 2. Inditex’s NOPLAT is decomposed into cost of merchandise, operating expenses, depreciation and amortization and operating cash taxes. These four elements will be divided by revenue to get

cost ratios. All ratios are displayed in Figure 8-9, and will be analyzed in the following paragraphs.

**Figure 8-9: Inditex historical cost ratios**



Source: Company annual reports and own creation

**8.2.1. Cost of merchandise**

Cost of merchandise is the cost related to acquiring raw materials and consumables which are sold in stores. There are several factors which can affect cost of merchandise such as discounts, allowances, freight cost, inflation, commodity prices, etc. From 2007 – 2009, we see a rising cost of merchandise, which is most likely due to the global financial crisis. In 2013 there is a spike, which can be linked to Inditex’s capital expenditures from refurbishing their largest stores in 2013 (Inditex, 2013). This upgrade probably increased the cost of merchandise, due to the revenue not growing in line with the merchandise cost since stores were closed for longer periods, which in turn pushed to hold inventory longer than ordinary.

**8.2.2. Operating expenses**

Operating expenses are defined as operating leases, fixed and variable wages and other operating expenses. Other operating expenses include expenses related to logistics, store operation and general expenses which are related to operating their stores. These costs follow the same pattern as cost of merchandise, and are mostly linked to the same effects from the global financial crisis and store refurbishments.

### 8.2.3. Depreciation and amortization

Depreciation and amortization is the sum of depreciation charge and amortization on rights over leased assets. In percentage of revenue, these costs have been reduced from around 5,5% to 4% in the last 10 years. Software cost (which cause amortization) has been growing in the last years, mainly due to Inditex needing to meet requirements for capitalization under IAS 38, which is an accounting requirement (Inditex, 2015). They have also built their integrated store and sales model in this period, which enables software costs. The depreciation charge is depreciation on their owned buildings. This cost has also been falling in the period in percentage of revenues. This is expected due to Inditex business model which is mainly leasing most their stores.

### 8.2.4. Operating cash taxes

The last cost in the NOPLAT margin is operating cash taxes. They are defined as income taxes, net tax shield on interest and increase in net deferred tax liabilities. These costs have varied between 4 – 5% in percentage of revenue in the last 10 years. It was around 2% in 2008, mainly due to a large difference in net deferred tax liabilities, which was not permanent (Inditex, 2008). Inditex has had a lot of media coverage due to their aggressive tax planning (Valero, 2016) which could explain the stability of these costs.

### 8.2.5. NOPLAT conclusion

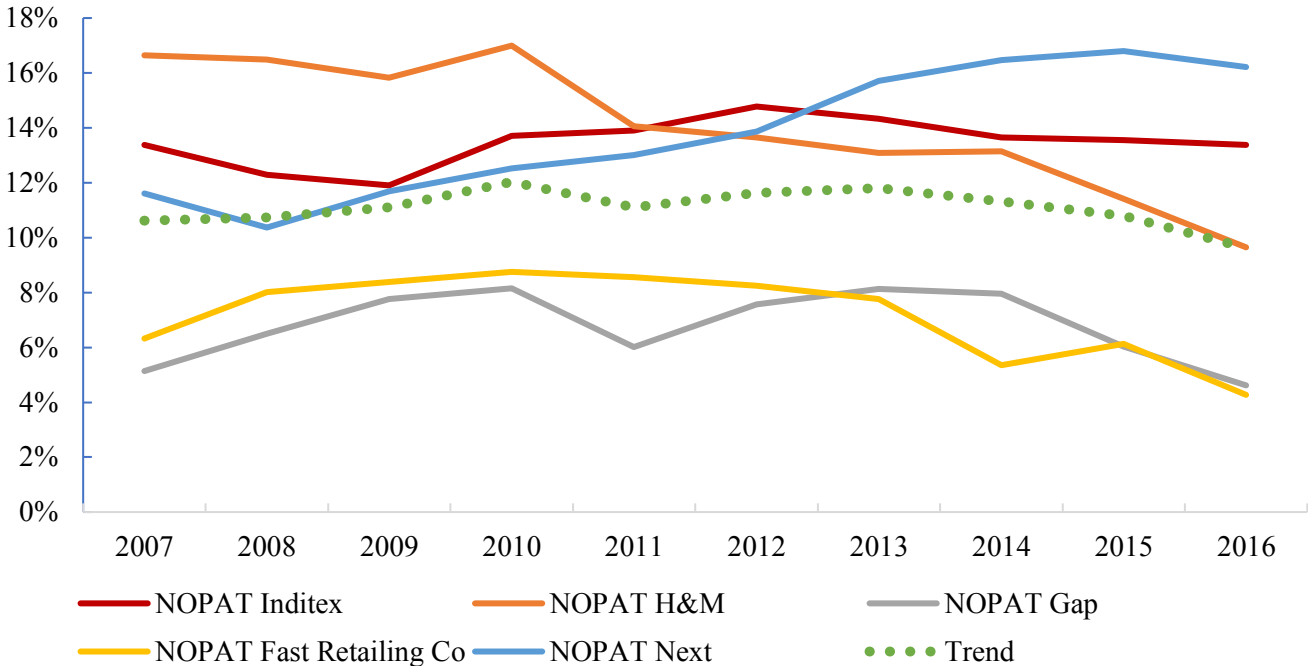
Sum of parts show that Inditex has been relatively good at keeping their operating cost in line with the growth in revenue. They are however experiencing lower margins in the latest two years, compared to their best year in 2012. The apparel retail market is always a pressured market, due to the changing habits of the consumers, ref our strategic analyses in chapter 7.

To further illustrate this point, we have gathered the NOPAT margin in Figure 8-10 for Inditex's peer companies to see the development in the segment. We have used the NOPAT margin for simplicity, since it easily can be calculated for each company. The formula for NOPAT is (Fabozzi & Grant, 2000, p. 148):

$$NOPAT = EBIT * (1 - tax\ rate)$$

The green trend line shows that the margin for all companies have been falling in the latest years. So, even though Inditex is arguably the leading fast fashion company, they are also experiencing the same pressure the general apparel market is facing.

**Figure 8-10: NOPAT for fast fashion companies**



Source: Bloomberg database, company annual reports and own creation.

Note that these companies operate in different markets. Therefore, the margin squeeze appears to be a global phenomenon, not just linked to a specific region or country.

**8.3. Line item analysis**

The line item analysis shows Inditex's ability to convert balance sheet items into revenue measured in days. We used following formula to analyze line items:

$$Days = 365 * \frac{Balance\ sheet\ item}{Revenues}$$

In this chapter invested capital and working capital will be decomposed to get a better understanding of underlying operations.

From 2007 – 2016, net property, plant & equipment (PP&E) and invested capital have experienced a reduction of days it takes Inditex to convert the items into revenue. Net PP&E

from 123 to 114 days and invest capital from 133 to 112 days, see Figure 8-11. The reduction of days is positive for Inditex, which implies that they convert more revenue per unit of PP&E and per unit invested euro. Inditex have over the years focused on organic growth (Like-for-like sales, see chapter 9.2.1) and have in the recent years expanded their e-commerce into several new markets. Like-for-like sales doesn't directly require any new investment (since they don't advertise). An increase in their like-for-like sales should therefore immediately increase their bottom line. E-commerce is asset light, after the initial investments in infrastructure and technology are made, it shouldn't require as much capital spending compared to growing revenue by opening new stores. The marginal cost for like-for-like sales and e-commerce is therefore low compared to opening new stores to maintain revenue growth, which could explain the reduction in the period.

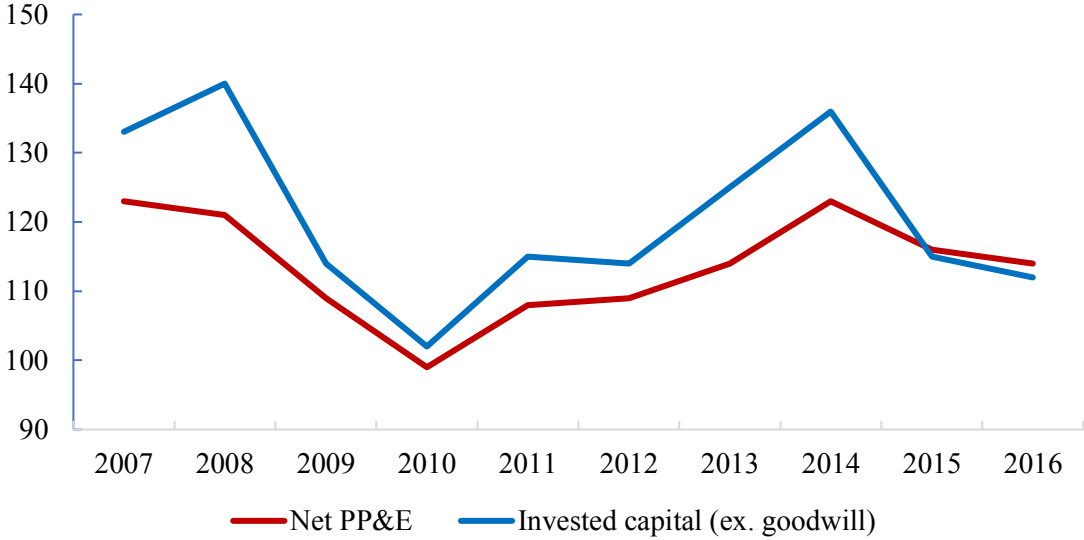
**Figure 8-11: Inditex line item analysis on invested capital**

Invested capital	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Goodwill and intangible assets	5	5	5	5	9	8	7	7	7	6
Net PP&E	123	121	109	99	108	109	114	123	116	114
Current liabilities	14	8	1	0	1	2	1	2	1	2
Invested capital (ex. goodwill)	133	140	114	102	115	114	125	136	115	112

Source: Company annual reports and own creation.

Figure 8-12 on the next page shows net PP&E and invested capital are correlated in this term. PP&E is a large part of the invested capital, averaging 76% in the period. From 2014 – 2016 both invested capital and PP&E have reduced their amount of days. From 2008 – 2010 there was also a reduction in days. In the same period, they reduced their investments year-over-year and increased their cash position.

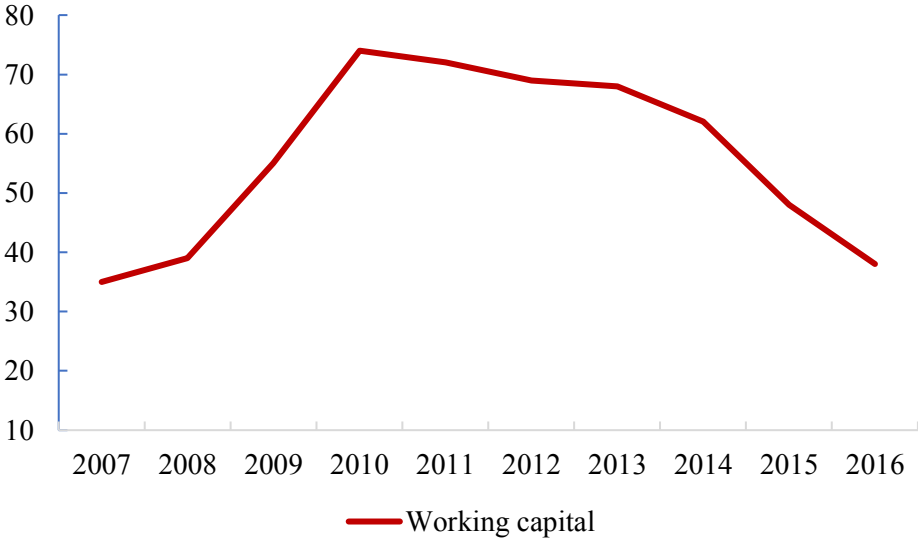
**Figure 8-12: Inditex NET PP&E and invested capital line items**



Source: Company annual reports and own creation.

The working capital have been volatile the last ten years. From 2007 – 2010 the amount of days has increased, before reversing and starting a decreasing trend, see Figure 8-13. Inditex have held a substantial amount of cash through this period and in 2008 and 2009 they increased their cash position by respectively 21 and 32%. The global financial crisis resulted into lower margins for Inditex.

**Figure 8-13: Inditex working capital line item**



Source: Company annual reports and own creation.

In fast fashion, inventories are crucial to margins. Figure 8-14 below shows that inventory days are rising in the period. This implies that it takes Inditex more days to turn inventory into revenue which is negative for their working capital and margins. The lower conversion may be

due to higher competition and lower sales growth in the industry. Inditex have also increased both their trade and payables days and other current payables, which is positive for their cash flow. Higher days in trades and payables shows that Inditex have power over their suppliers.

**Figure 8-14: Inditex line item analysis on working capital**

Working capital	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Inventories	39	37	33	35	34	36	37	37	38	40
Trade receivables	3	4	4	3	3	3	3	4	3	4
Trade and other payables	76	73	69	72	66	74	73	71	79	80
Other current payables	4	4	4	3	3	5	5	6	7	8
Working capital	35	39	55	74	72	69	68	62	48	38

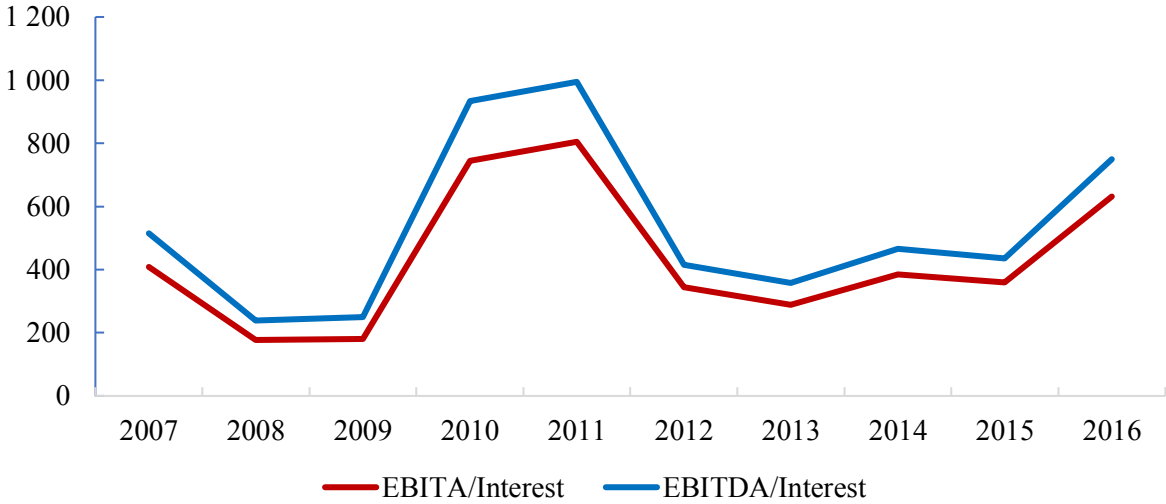
Source: Company annual reports and own creation.

**8.4. Credit health and capital structure**

To determine the health of Inditex’s capital structure we will examine two related concepts, liquidity and leverage. Liquidity measures the company’s ability to meet short-term obligations, such as rental expenses, rental payments and required principal payments. Leverage measures the company’s ability to meet obligations in the long term.

The unadjusted coverage ratios can be seen in Figure 8-15. If we don't consider leases as long-term debt, Inditex have a very robust capital structure. With coverage ratio’s well above normal standards. In 2016, Inditex could cover their interest expenses 1 040 times using their reported EBITDA. Inditex have no debt and both EBITA/Interest and EBITDA/Interest coverage ratios are abnormally high and well above required figures.

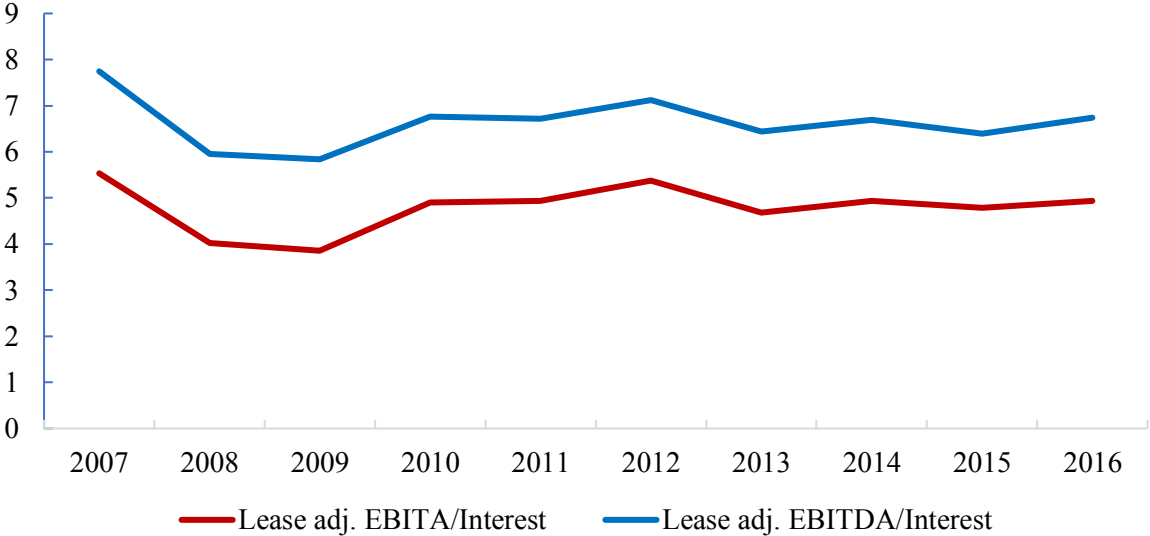
**Figure 8-15: Inditex coverage ratios**



Source: Company annual reports and own creation.

Figure 8-16 shows the leasing adjusted coverage ratios. We consider these ratios more relevant to get a picture of their robustness, as leases are obligations. EBITA/Interest show that Inditex have good ability to pay their interest using profits. In 2016 Inditex could cover their interest expenses 4,93 time EBITA, which is considered a solid coverage. The EBITDA/Interest ratio shows Inditex ability to meet their short-term financial commitments using both current profits and the depreciation euros earmarked for replacement capital. Inditex have in the period generated a strong growth. From 2007 – 2016, Inditex have increased their number of stores by 3.601, from 3.691 to 7.292. In 2016, they could afford their interest expenses 6,7 time their EBITDA, which is lower than 7,7 in 2007.

**Figure 8-16: Inditex lease adjusted coverage ratios**

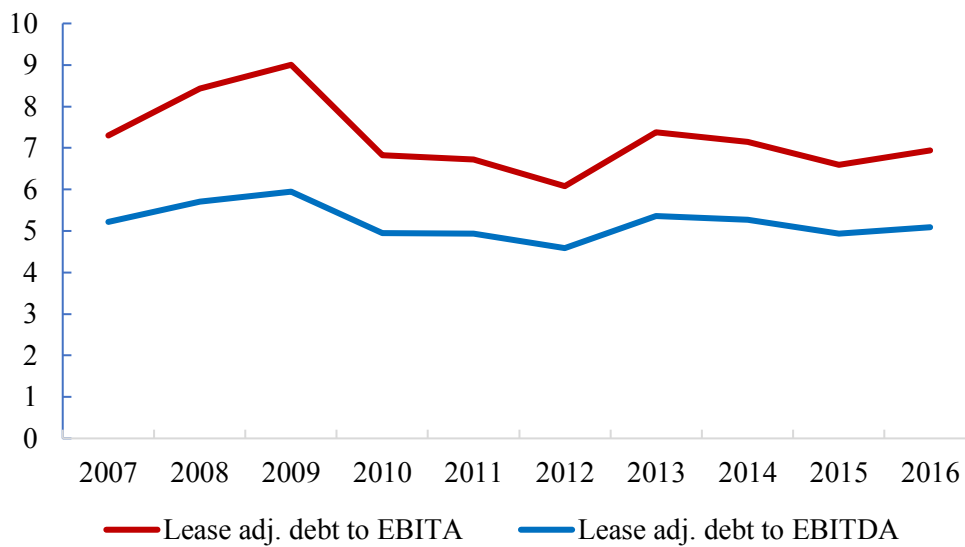


Source: Company annual reports and own creation.

Since Inditex have no debt in the unadjusted figure we will only show and comment on the adjusted figure for Debt/EBITDA and Debt/EBITA. The adjusted graph in Figure 8-17 shows that Inditex have a falling trend in the period. From 2009 to 2010 we see the biggest fall in the ratio, where they experienced decreasing EBITA and EBITDA to the pressure from the global financial crisis.



**Figure 8-17: Inditex lease adjusted leverage ratio**



Source: Company annual reports and own creation.

Despite a falling trend in both coverage ratios and leverage ratios, Inditex is still a robust company. The falling trend might be explained by falling margins and higher competition within the fast fashion industry.

#### 8.4.1. Leverage

To better understand the power and the danger of leverage, consider the relationship between return on equity (ROE) and return on invested capital (ROIC) (Koller et al., 2015, p. 223).

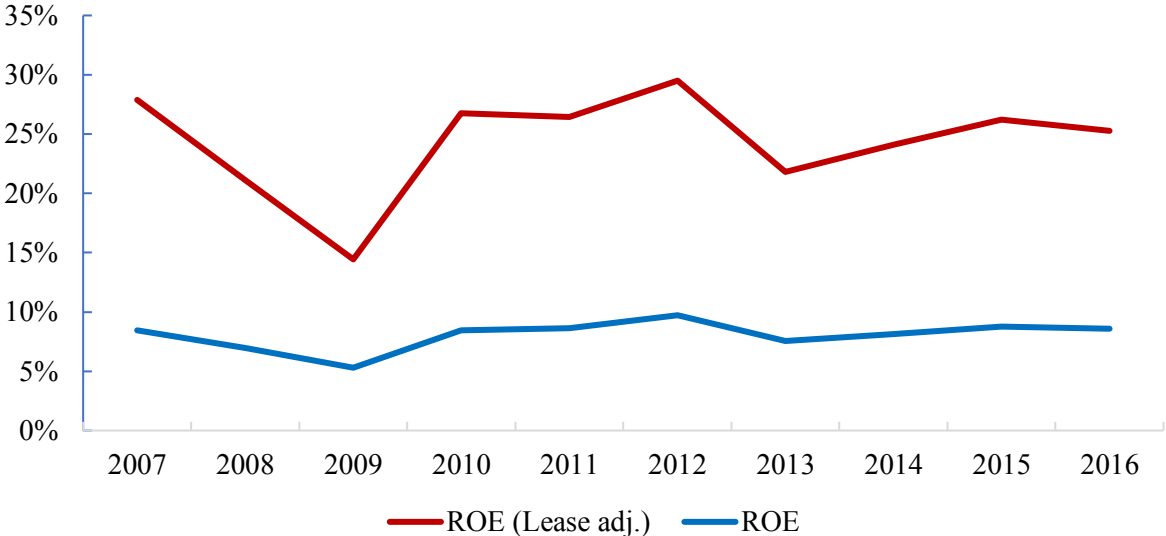
$$ROE = ROIC + [ROIC - (1 - T)K_d] \frac{D}{E}$$

The formula shows that ROE is a direct function of ROIC, its spread of ROIC over its after-tax cost of debt ( $K_d$ ), and its book-based debt-to equity ratio ( $\frac{D}{E}$ ).

When comparing the unadjusted ROE to the adjusted ROE, we'll see the effect that if a company is levered it will achieve a higher ROE. This is due to the power of leveraging and an increasing level of shareholder's risk. Comparing the debt-to equity ratio the last 10 years, the unadjusted is 0,1 on average versus the adjusted at 3,4. An increase in debt-to equity ratio will increase the return on equity.

Figure 8-18 below illustrates the effect gearing have on ROE. The adjusted ROE is considerably higher than the unadjusted. In 2016, the adjusted ROE was 25% while the unadjusted was 8,6%. Both have a decreasing trend in the period.

**Figure 8-18: Inditex ROE and lease adj. ROE**



Source: Company annual reports and own creation.

The figure explains the power of leverage. If you compound 25% over a long period compared to 8,6%, the differences will be enormous. We believe that the leasing strategy Inditex have implemented, have played a major role in the historical growth.

**8.5. Conclusion and summery of the financial analysis**

The financial analysis highlights different aspects of Inditex historical performance. Even though the company owns the value chain, they lease most of their stores which results in an asset light business. This structure has led to high ROIC, which is common in the apparel retail industry. To further analyze the operations, we restructured the company's financials to make it look like they own all its assets.

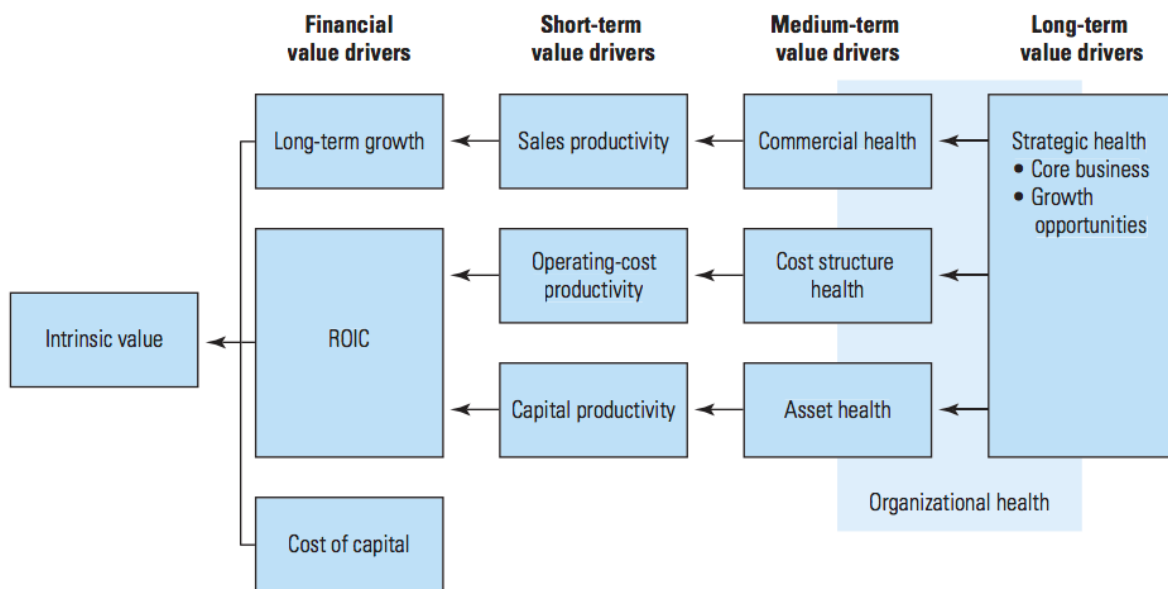
The result showed that Inditex are more leveraged then it appears, but can meet all their obligations without hesitation. They are also a robust company that has experienced impressive growth by using leverage to their advantage.

Their capital structure has played a major role in this growth and they appear to produce a better return on their invested capital than their closest competitor H&M. Their margins have been stable in the period, but has been affected by the global financial crisis and a store refurbishment in 2013. In the latest years however, margins and line item analysis show a bit of a negative trend, which could be explained by a pressure in the retail apparel market from both competitors and apparel consumers.

## 9. Forecasting

Understanding a company's past, is essential to forecast its future. Figure 9-1 illustrates that the strategic choices affects the long term financial value drivers. Our strategic- and financial analysis in chapter 7 and 8 therefore defines the basis for our assumptions when forecasting key variables development. In this chapter NOPLAT, working capital and capital expenditures will be forecasted. The conclusions will be applied to the free cash flow valuation in chapter 10.

**Figure 9-1: Key value drivers of a company**



Source: Koller, Goedhart and Wessels, 2015, p.582.

### 9.1. Forecasting period

The explicit forecast period needs to be long enough for a company to reach a steady state. A company in a steady state is defined by the following characteristics (Koller et al., 2015, p. 230):

- Growing at a constant rate by reinvesting a constant proportion of its operating profits into the business each year.
- The company is earning a constant rate of return on both existing capital and new capital invested.

There aren't any fixed rules for determining the forecast period. Koller recommends a period of 10 to 15 years. Shorter periods could significantly undervalue a company and longer periods are hard to predict and therefore occur a higher grade of uncertainty. We chose a 10-year period

when analyzing the historical performance, mainly due to Inditex being historically stable. A 10-year period for the forecast should therefore also be optimal, which is justified by apparel retail being a stable industry and should therefore be easier to predict than companies in cyclical markets. After the explicit forecast period comes the terminal period, where the sum of the future cash flows is discounted by an applied growth rate using the continuing-value formula.

**9.2. Revenue**

Inditex's revenue growth is driven by three key factors: Growth in sales from existing stores (like-for-like sales), revenue from new stores and currency effects which occur when converting sales to EUR. The estimates for revenue growth is illustrated in Figure 9-2. It starts at 11,5% in 2017E and gradually falls to 5% in the explicit forecast period. The different factors that makes up the total revenue growth are further discussed in the following paragraphs.

**Figure 9-2: Revenue growth forecast**

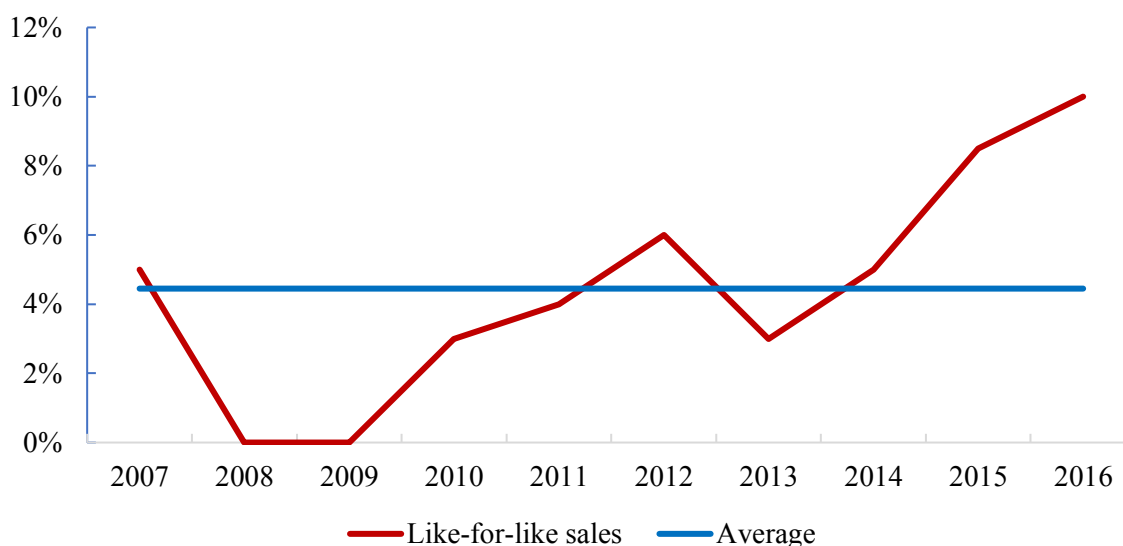
Revenue growth	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Space contribution growth	1,5 %	6,3 %	5,7 %	5,1 %	4,5 %	3,9 %	3,3 %	2,6 %	2,0 %	1,3 %	0,6 %
Like-for-like growth	10,0 %	4,6 %	4,5 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %
Total revenue growth	11,5 %	10,9 %	10,2 %	9,6 %	8,9 %	8,3 %	7,6 %	7,0 %	6,3 %	5,7 %	5,0 %

Source: Company annual reports and own creation

**9.2.1. Like-for-like sales**

Like-for-like (LFL) is the growth in sales from existing stores, also known as same-store sales. Inditex include their online sales in LFL figures, which unfortunately aren't reported exclusively. The key factors which affect LFL sales are the strategic choices, highlighted in chapter 7, and the growth in BNP. How BNP affects revenue growth is illustrated in Figure 9-3. During the global financial crisis in 2008 – 2009, like-for-like sales figures is seen dropping down, but picked up again in the following years when the economy started growing. The 2013 slowdown is due to the store refurbishments mentioned earlier. On average the growth in like-for-like sales has been 4,5% year-over-year.

**Figure 9-3: Inditex historical like-for-like sales**



Source: Company annual reports and own creation

The estimates for LFL sales in the explicit period is illustrated in Figure 9-4. The different factors which makes up the LFL sales are analyzed further in the paragraphs below.

**Figure 9-4: Inditex like-for-like forecast calculations**

Inditex Geographical Sales	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Europe	60,8 %	60,3 %	59,8 %	59,3 %	58,8 %	58,3 %	57,8 %	57,3 %	56,8 %	56,3 %	55,8 %
America	15,3 %	15,6 %	15,8 %	16,1 %	16,3 %	16,6 %	16,8 %	17,1 %	17,3 %	17,6 %	17,8 %
Asia and rest of world	23,9 %	24,2 %	24,4 %	24,7 %	24,9 %	25,2 %	25,4 %	25,7 %	25,9 %	26,2 %	26,4 %

GDP forecast (IMF)	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Europe	2,0 %	2,0 %	1,8 %	1,8 %	1,8 %	1,7 %	1,7 %	1,7 %	1,7 %	1,7 %	1,7 %
America	1,6 %	2,3 %	2,5 %	2,1 %	1,8 %	1,7 %	1,7 %	1,7 %	1,7 %	1,7 %	1,7 %
Asia and rest of world	6,4 %	6,4 %	6,4 %	6,3 %	6,3 %	6,3 %	6,3 %	6,3 %	6,3 %	6,3 %	6,3 %

LFL forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Weighted GDP growth	3,0 %	3,1 %	3,0 %	2,9 %	2,9 %	2,9 %	2,9 %	2,9 %	2,9 %	2,9 %	2,9 %
Combined premium	7,0 %	1,5 %	1,5 %	1,5 %	1,5 %	1,5 %	1,5 %	1,5 %	1,5 %	1,5 %	1,5 %
Like-for-like growth	10,0 %	4,6 %	4,5 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %

Source: IMF database, company annual reports and own creation

### 9.2.1.1. Gross Domestic Product forecast

Inditex operates in 93 different markets all over the world. The PESTEL analysis in chapter 7.1 looked at how the GDP affected the growth in the retail apparel market. Since these two factors were shown to be closely linked, GDP would be a fitting factor to forecast the growth in the apparel market. We gathered the GDP forecast for the next 6 years from IMF's database, and

set the next 4-year period the same as in 2022E (IMF only forecast 6 years into the future). These are linked up to the geographical areas, discussed in the next paragraph.

#### *9.2.1.2. Geographical sales forecast*

Inditex reports its geographical sales divided into four markets: Europe ex. Spain, Spain, Americas and "Asia and rest of the world". Per 2016, they had 61% of sales in Europe, 24% in Asia and rest of the world, and 15% in America (Inditex, 2016). In every outlook for the past 10 years, they have guided to increase their expansion in America and Asia and rest of the world, to further diversify from the large segment gap in Europe. We therefore expect the geographical sales in Europe to decline segmentally with 50 basis points per year, and contrarily Americas and Asia and rest of the world to increase by 25 basis points per year. Since Inditex doesn't report geographical sales exclusively, we set Asia and the rest of the world to vary with the growth in GDP in Asia and Americas to vary with US GDP growth. Weighted GDP growth is found by multiplying GDP by geographical sales.

#### *9.2.1.3. Online sales, strategic effect and brand value*

The historical like-for-like sales has outgrown the GDP in the last 10 years. To try and explain how Inditex has been able to achieve this, we have coined the difference in return a “combined premium”. The combined premium consists of their strategic effects, brand value and online sales.

The combined premium in the last 10 years has on average been 2%. In the 10-year explicit period, we have set it to be 1,5%. This is explained by the following positive and negative factors:

##### *Positives:*

Inditex doesn't explicitly report its online sales in their reports. We do however know that we expect this market to grow based on our strategic analysis, and we also believe that Inditex are well fit to grow in e-commerce because of their central distribution centers and integrated store and sales model.

Their historical revenue growth has been 11% year-over-year the last 10 years. This shows that their strategic effects discussed in the strategic analysis are working and returning high revenue

growth. We also know that their brands travel easily between markets, given that they operate in 93 different markets and has had a 6,6% space contribution revenue growth on average the last 10 years.

Larger concentration in emerging markets like Asia could have a large positive effect on LFL sales because the GDP growth is expected to be higher in these markets at around 6%, which is significantly higher than the approx. 2% expected in Americas and Europe. As mentioned, Inditex are guiding expansions in these markets.

### *Negatives*

Inditex currently operate 7.292 stores, and in a 10-year period we could see cannibalization if they over-expand. A simple Google Maps search shows that in Barcelona (which was picked at random), there are 29 Inditex stores in a 1km radius in central. Inditex could over time run out of prime locations to open stores, which in return could affect LFL sales negatively.

Decline in the fast fashion markets is another factor. In our strategic analysis, we saw in Figure 7-9 that revenue growth from the largest fast fashion companies are declining, although still outperforming the general apparel industry.

There also seems to be a margin pressure the latest 2-3 years from apparel companies and increasing days in balance items from the financial analysis. Although this doesn't directly affect like-for-like growth, we see a clear pressure between the apparel companies. In addition, online sales are growing and we see players like Zalando and ASOS experiencing high growth, which could steal from the growth in like-for-like.

These factors combined is what results in our decision to set the combined premium at 1,5%. We believe that the fast fashion market will move more towards the general retail apparel markets, as the competitive advantage will slowly fade as more companies adapt these methods.



### 9.2.2. Space contribution growth (including currency)

Inditex have in their previous outlooks guided an estimate of 450 – 500 store openings per year. These numbers don't include the shops they close. Historically, they have opened 415 on average per year the last 10 years. The last 3 years, they have opened about 330 per year. The company is focusing more on large stores in prime locations to drive their space contribution growth moving forward (Inditex, 2016). We believe that they will open around 300 stores moving forward, but declining over the years of the explicit period. This is due to the current size of the company (7,292 stores as of today), which should make it harder to find prime locations.

We will not try to forecast currency effects, due to the 10-year explicit forecast period. It would add unnecessary uncertainty to the model.

To forecast space contribution growth, we considered multiple factors of which methods would return the most logical number to reduce uncertainty in the forecast. Inditex doesn't exclusively report in which countries they will open their new stores. So, to reduce uncertainty we figured that in the explicit period, the revenue growth that comes from space contribution should have a falling share of the total revenue growth compared to like-for-like sales. This comes naturally from easy percentage calculations, as they open more and more stores, the revenue from new stores will count less as it because a marginally smaller part of the total number of stores. So instead of trying to forecast the space contribution revenue growth, we forecast the space contribution share of revenue growth using the forecasted LFL growth to capture this effect.

The effect is illustrated in Figure 9-5. The space contribution share of revenue growth starts at 57% which is about the same as the historical average at 60% and falls to about 12% in the last year of the explicit period. We expect Inditex to operate 10,017 stores in 2026E, which is based on 300 store openings in 2017E which declines by 5 stores per year in the forecast period. This results in a space contribution growth that starts at the historical average at 6%, and falls to about 1% in the end of the forecast period.

**Figure 9-5: Space contribution forecast**

Space contribution forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Space cont. in % revenue	13 %	58 %	56 %	54 %	51 %	47 %	43 %	37 %	31 %	23 %	12 %
Like-for-like in % revenue	87 %	42 %	44 %	46 %	49 %	53 %	57 %	63 %	69 %	77 %	88 %
Space contribution growth	1,5 %	6,3 %	5,7 %	5,1 %	4,5 %	3,9 %	3,3 %	2,6 %	2,0 %	1,3 %	0,6 %
Like-for-like growth	10,0 %	4,6 %	4,5 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %
Number of stores	7 292	7 587	7 877	8 162	8 442	8 717	8 987	9 252	9 512	9 767	10 017
New stores	300	295	290	285	280	275	270	265	260	255	250

Source: IMF database, company annual reports and own creation.

### 9.3. Cost margins

We will forecast all operating cost in percentage of revenue. Because our explicit period includes the financial crisis and a store refurbishment in 2013, it will produce a variation in the margins, and therefore the historical averages can be applied to get the effect that Inditex should expect their margins to be pressured moving forward. These effects are in line with our strategic and financial analyses. Only the cost ratios will be shown in the tables, whereas the actual numbers can be found in Appendix 1.

#### 9.3.1. Cost of merchandise

The cost of merchandise has been 42% of revenue on average the last 10 years, varying between 41 to 43%. As we showed in chapter 7.1.2.2, the cotton price has not made any significant changes on the cost of merchandise. We will therefore not try to forecast how the cotton price could affect the cost of merchandise. The financial analysis showed that there is an increasing pressure in the retail apparel market which can affect this cost ratio negatively. In 2015 and 2016 the ratio was 42% and 43% respectively, growing by 100 basis points in one year which could be explained by this pressure. We do however expect Inditex to handle this squeeze better than their peers since they control their whole value chain. The cost of merchandise its therefore set at 43% in the explicit period.

**Figure 9-6: Cost of merchandise forecast**

Cost of merchandise forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Cost of merchandise/Revenue	43 %	43 %	43 %	43 %	43 %	43 %	43 %	43 %	43 %	43 %	43 %

Source: Company annual reports and own creation.

#### 9.3.2. Operating leases

Operating leases has been 10% on average in last 10 years, only varying small basis points from the mean. Inditex have been historical great at picking out the right locations for their stores,

making the operating leases ratio stable through the period. Since the ratio has been so historically stable and there is no information in the outlooks from the company which seem to change this, we assume it to be stable moving forward as well. It's set to be the historical average at 10% of revenue.

**Figure 9-7: Operating leases forecast**

Operating leases forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Operating leases/Revenue	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %

Source: Company annual reports and own creation.

### 9.3.3. Fixed and variable wages

Fixed and variables wages have been 13,2% in the period, only varying 50 basis points from the mean. The push on rising wages in emerging markets could increase this ratio, but we do however believe the flexibility of their business model from the control over the value chain should help keep this cost stable. We therefore set it at the historical average at 13,2% of revenue.

**Figure 9-8: Fixed and variable wages forecast**

Wages forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Wages/Revenue	13,3 %	13,2 %	13,2 %	13,2 %	13,2 %	13,2 %	13,2 %	13,2 %	13,2 %	13,2 %	13,2 %

Source: Company annual reports and own creation.

### 9.3.4. Other operating expenses

Other operating expenses have on average this period been around 10,3%. These costs are generally cost linked to logistics, store operation and general expenses which are related to operating their stores. As these costs are relatively hard to forecast, we see that Inditex has been able to control them and keeping them stable over the last 10 years. We therefore expect the trend to continue and will therefore apply the historical average at 10,3% of revenue.

**Figure 9-9: Other operating expenses forecast**

Other op. expenses forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Other op./Revenue	9,9 %	10,3 %	10,3 %	10,3 %	10,3 %	10,3 %	10,3 %	10,3 %	10,3 %	10,3 %	10,3 %

Source: Company annual reports and own creation.

### 9.3.5. Depreciation charge

Depreciation charge has historically been approx. 4,6% of revenue historically. From 2007 – 2016, Inditex has witnessed a decreasing trend in depreciation charge against revenue. In this

period, they have increased their like-for-like sales and online sales which are very asset light and therefore doesn't occur large depreciation costs. As Inditex continue their expansion, the depreciation charge in percentage of revenue should decrease as operating leases are not capitalized. The depreciation coming from expanding their value chain should be smaller than the growth in revenue, which is highlighted by a falling ratio the last 6 years, which seems in line with these statements. We therefore expect the depreciation to be a bit lower than the 10-year historical average and set it at 4,4% of revenue, the 6-year historical average.

**Figure 9-10: Depreciation charge forecast**

Depreciation forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Depreciation charge/Revenue	3,6 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %	4,4 %

Source: Company annual reports and own creation.

### 9.3.6. Amortization

Amortization have been 0,38% of revenue historically. There is no information about the outlook for amortization from the company reports or conference calls. We therefore consider the historical average to be a reasonable choice in the forecast period and set it to 0,38% of revenue.

**Figure 9-11: Amortization forecast**

Amortization forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Amortization/Revenue	0,3 %	0,4 %	0,4 %	0,4 %	0,4 %	0,4 %	0,4 %	0,4 %	0,4 %	0,4 %	0,4 %

Source: Company annual reports and own creation.

### 9.3.7. Operating cash taxes

Cash taxes have been 4,2% on average over a 10-year period. Trying to forecast taxes is a hard task with multiple factors. However, Inditex have been able to keep the tax stable in a period where Spain has gone from a 33% tax rate to a 30% tax rate. They also do aggressive tax planning (ref. chapter 8.2.4) and we therefore expect the company to keep taxes stable moving forward. Cash taxes is thus set to 4,2% of revenue moving forward.

**Figure 9-12: Operating cash taxes forecast**

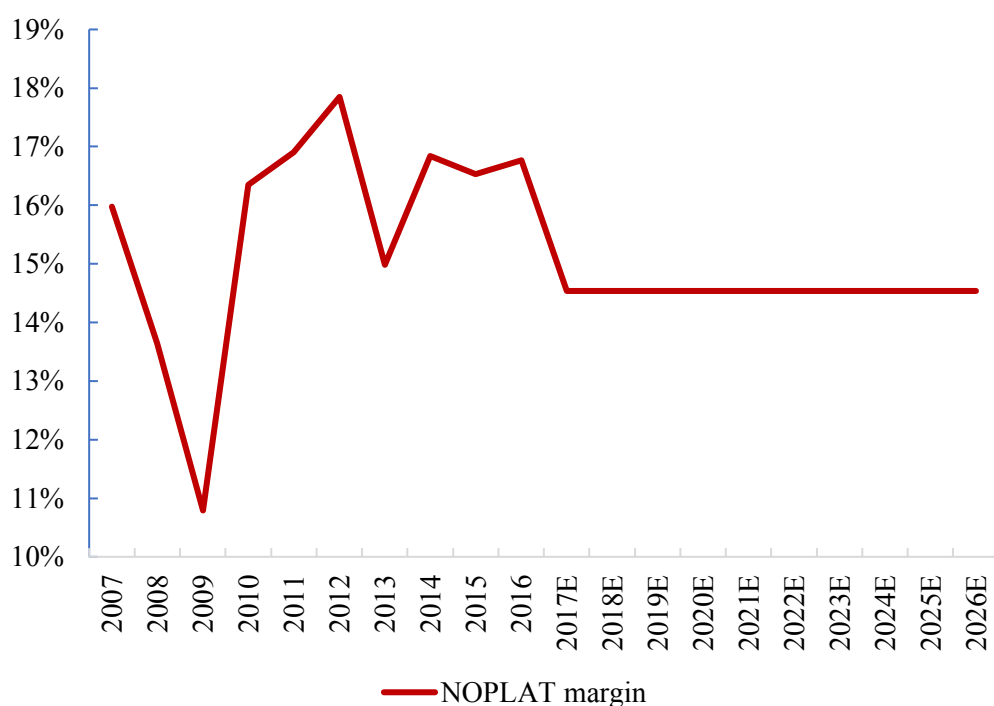
Operating cash taxes forecast	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Op. cash taxes/Revenue	3,9 %	4,2 %	4,2 %	4,2 %	4,2 %	4,2 %	4,2 %	4,2 %	4,2 %	4,2 %	4,2 %

Source: Company annual reports and own creation.

## 9.4. NOPLAT

Since the revenue and cost ratios now are forecasted, we can see the results by comparing the historical NOPLAT margin versus the forecast margin. As Figure 9-13 shows, the historical NOPLAT margin has been affected by the global financial crisis in 2008 and store refurbishments in 2013. Such incidents could happen in the future, but are impossible to forecast (store refurbishments could be forecasted, but there is no information of such matters in the outlooks nor conference calls). But we do expect it to be variations and incidents in the future because the sun isn't always shining bright. Therefore, our NOPLAT margin for the forecast lands at 14,5%. This seems in line with our strategic and financial analyses, since we expect some pressure in the apparel market forward and the revenue growth to slow down.

**Figure 9-13: Inditex NOPLAT forecast**



Source: Company annual reports and own creation.

## 9.5. Capital expenditures

Inditex capital expenditures are linked closely with investment in new stores, expanding and maintaining their value chain, developing the e-commerce business and growing existing brands. Historically, ordinary capital expenditure has mainly been driven by addition of new space, according to their annual reports. This seems logical, since expanding ecommerce and existing brands (given that Inditex doesn't use money on commercials) shouldn't require large

investments. Capital expenditure is found by summing the change in invested capital (excluding goodwill and impairment) and change in adjusted goodwill and tangibles.

Our forecast for capital expenditures is found in Figure 9-14 below. It is expected from Inditex to keep growing their investments to handle the expected growth. The different factors which make up the capital expenditures is further analyzed in the following subchapters. The balance sheet items along with invested capital calculations can be found in Appendix 3 and Appendix 4.

**Figure 9-14: Capital expenditure cash flow forecast (in bn)**

Capital expenditure	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Capital expenditures	-1 642	-1 904	-2 260	-2 423	-2 576	-2 725	-2 861	-2 981	-3 085	-3 175	-3 242

Source: Company annual reports and own creation.

**9.5.1. Invested capital**

Invested capital (excluded goodwill and impairment) consist of property plant and equipment (PP&E), rights over leased assets and other non-current assets. The forecast for these factors are in the paragraphs below. Accounting for these factors and adding back depreciation charges, results in a capital need starting at a 11% increase from the previous year and is gradually reduced to 2% increase at the end of the forecast period. This is in line with our strategic and financial analysis, indicating that Inditex will experience growth but move towards a steady state in the forecast period.

**Figure 9-15: Invested capital cash flow forecast (in bn)**

Invested capital	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Invested capital	-1 328	-1 763	-1 374	-1 549	-1 954	-2 177	-2 331	-2 476	-2 617	-2 744	-2 854

Source: Company annual reports and own creation

**9.5.1.1. Property, plant and equipment**

Although Inditex can be seen as an asset light company due to leasing most of their stores, they do own the whole value chain and buy some store properties in prime locations. From 2007 – 2016, the balance sheet value has grown 129% in total, which implies formidable investments in PP&E. To handle future growth implied in our forecast, we expect Inditex to continue investing in PP&E. To forecast this balance sheet item, we therefore calculated the historical average on property plant and equipment to revenue, and saw a relatively stable margin averaging 31% the last 10 years. It has varied between around 250 basis points from the mean.

We therefore saw the historical ratio as a reasonable choice and set it to be the same for the explicit period. The result is a 94% increase in PP&E for the 10-year forecast period, compared to 129% for the last 10 years. This is in line with our expectations for Inditex to slow down their store expansion in the period.

**Figure 9-16: Property, plant and equipment cash flow forecast (in bn)**

PP&E	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
PP&E CF	-475	-903	-557	-686	-709	-818	-844	-862	-871	-869	-856

Source: Company annual reports and own creation

#### *9.5.1.2. Rights over leased assets*

Rights over leased assets include amounts paid in respect of leasehold assignment, access premiums or tenancy right waivers and indemnities to lease commercial premises. The payments for these rights are attributable to the leased assets and the related cost is allocated to profit or loss in accordance with the terms and conditions of the leases over the lease term (Inditex, 2015). This means that rights over leased assets should grow as Inditex continue to expand their business. Since this should be linked to operating leases, we found a margin by dividing rights over leased assets over operating leases. The 10-year historical average for this ratio has been 37%. We found no information about the cost around acquiring leases and Inditex doesn't enclose this information in their annual reports, outlooks or conference calls. It was therefore set at the historical average moving forward.

**Figure 9-17: Rights over leased asset cash flow forecast (in bn)**

Rights over leases	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Rights over leases CF	-0,6	-7,1	2,2	0,5	1,9	-0,8	-2,3	-0,2	2,2	-0,5	-0,5

Source: Company annual reports and own creation.

#### *9.5.1.3. Other non-current assets*

Other non-current assets include acquisitions, changes in consolidation scope, disposals and transfers for guarantees and deposits mainly related to their lease commercial premises. It's a small balance sheet item, which historically has grown almost linear with revenue. As with rights over leased assets, such a balance sheet item is hard to forecast and we therefore set it to grow at the revenue growth rate in the explicit period.

**Figure 9-18: Non-current assets cash flow forecast (in bn)**

Other non-curr. assets	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Other non-curr. assets CF	-30	-60	-63	-65	-66	-67	-67	-66	-64	-61	-57

Source: Company annual reports and own creation.

### 9.5.2. Adjusted goodwill & intangibles

Adjusted goodwill and intangibles looks at the value of a company's non-physical assets. Goodwill mainly arise when Inditex acquires one of the franchised stores. Intangible assets are the brand value, industrial design of items of the different apparel and the cost of software applications. These are adjusted for net deferred tax liabilities from amortization and net cumulative amortization. Historically, the cash flow from these elements have been negative, which means that Inditex are investing in their brands and value name. This is also expected in the future, so it is treated with a moving historical average. The result is a negative cash flow in the 10-year explicit period, decreasing about 5% each year which is in line with the expectations of a hardened competition in the future, requiring higher investments.

**Figure 9-19: Adjusted goodwill & intangibles cash flow forecast (in bn)**

Adj. goodwill & intangibles	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Adj. goodwill & intang. CF	-93	50	-83	-92	-100	-108	-116	-127	-139	-151	-163

Source: Company annual reports and own creation.

### 9.6. Operating working capital

Working capital was split into operating and non-operating items to find the operating working capital. The asset side of operating working capital consist of operating cash, receivables, inventory, other current assets and income tax receivable. Liabilities are trade and other payables and income tax payable. The formula for operating working capital is:

$$\text{Operating working capital} = \text{Operating assets} - \text{Operating liabilities}$$

Inditex are extraordinary when it comes to operating working capital, because of their business model. The quick response cycle enables them to have a negative operating working capital, by selling their products only a few days or weeks after they are made. This again makes it easier for Inditex to finance their growth. We don't expect Inditex to do any changes to their business model in the explicit period since they are the industry leader (peer companies try gradually to copy it), and we therefore expect this trend to continue.



The forecast for operating working capital is found in Figure 9-20. We still expect Inditex to have a negative operating working capital in the future and will therefore occur a positive cash flow. The components which makes up operating working capital will be further analyzed in the following paragraphs and can also be found in Appendix 4

**Figure 9-20: Operating working capital cash flow forecast (in bn)**

Operating working capital	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Operating working capital CF	119	-505	16	61	51	65	43	72	47	50	48

Source: Company annual reports and own creation.

**9.6.1. Operating cash**

Operating cash is how much liquid cash is required for a company's operation. Inditex is capital light and has a quick inventory turnover and therefore shouldn't require a large sum of operating cash. We therefore set it at 2% of revenue. Operating cash will therefore grow as revenue grows and have a negative cash flow effect in the explicit period.

**Figure 9-21: Operating cash, cash flow forecast (in bn)**

Operating cash	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Operating cash CF	-48	-51	-53	-55	-56	-56	-56	-55	-54	-51	-48

Source: Company annual reports and own creation.

**9.6.2. Receivables**

Receivables are pending debit/credit card payments, sale to franchise stores, rental incentives due to shopping center developers and balance receivables from public entities. Historically in the last 10 years, it has been stable versus revenue at 4,39% on average. We don't expect any changes in receivables in the future, and keeps it constant at 4,39% of revenue.

**Figure 9-22: Receivables cash flow forecast (in bn)**

Receivables	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Receivables CF	-192	-273	-116	-120	-122	-124	-123	-121	-118	-112	-105

Source: Company annual reports and own creation.

**9.6.3. Inventory**

Inditex's business model, as mentioned earlier, gives them negative operating working capital. Historically, the cash flow from inventory has varied from positive to negative. We will be a

bit conservative with the forecast in inventory, due to the pressure in the apparel retail market. We do however still expect Inditex to manage their inventory better than their peers, mainly due to their quick inventory cycle. Inventory divided by cost of merchandise has historically been 24% the last 10 years on average. The forecast will therefore vary at about 25% using a moving average on historical numbers, resulting in a negative cash flow from inventories.

**Figure 9-23: Inventory cash flow forecast (in bn)**

Inventory	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Inventory CF	-354	-176	-315	-295	-302	-307	-300	-280	-296	-275	-257

Source: Company annual reports and own creation.

#### 9.6.4. Other current assets

Other current assets have historically been 0,7% of revenue. Inditex doesn't explicitly state what other current assets consist of, but does mention it as an operating item in their annual report from 2015. We therefore set it as 0,7% of revenue moving forward as well, resulting in a small negative cash flow.

**Figure 9-24: Other current assets cash flow forecast (in bn)**

Other current assets	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Other current assets CF	-2	-39	-18	-19	-19	-20	-20	-19	-19	-18	-17

Source: Company annual reports and own creation.

#### 9.6.5. Income tax receivable

Income tax receivable is the consolidated balance sheet item corresponding to the recoverable taxes from the authorities. This tax should vary with revenue and has averaged 0,3% of revenue in the last 10 years without any large variations. The historical ratio is therefore used in the forecast, giving a small negative cash flow in the explicit period.

**Figure 9-25: Income tax receivable cash flow forecast (in bn)**

Income tax receivable	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Income tax rec. CF	-18	36	-7	-8	-8	-8	-8	-8	-7	-7	-7

Source: Company annual reports and own creation.

#### 9.6.6. Trade and other payables

Trade and other payables is the liability connected to paying their suppliers for goods and operating leases. It can be connected both to revenue and cost of merchandise, and has been stable against both. We therefore used the historical average versus revenue at 20% on average, resulting in positive cash flow moving forward.

**Figure 9-26: Trade and other payables cash flow forecast (in bn)**

Trade & other payables	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Trade & o. payables CF	581	87	530	547	559	565	563	555	538	514	481

Source: Company annual reports and own creation.

### 9.6.7. Income tax payable

Income tax payable is the opposite of income tax receivable, basically withholding of tax provisions and payments on account made during the period. It has varied from positive to negative and haven't been stable versus revenue, making it an uncertain variable. We therefore applied a moving average from the last 6 years to forecast the item, resulting in the cash flow found in Figure 9-27.

**Figure 9-27: Income tax payable cash flow forecast**

Income tax payable	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Income tax payable CF	153	-88	-5	10	-1	14	-14	1	2	1	1

Source: Company annual reports and own creation.

### 9.7. Conclusion on the forecast

The forecast highlights Inditex still producing a strong cash flow moving forward, but are expected to be somewhat affected by the pressure in the retail apparel market, competitors moving towards fast fashion models and Inditex moving towards a steadier state. Most cost ratios and balance sheet items were set up as ratios of revenue, because the company has been so stable historically. By having a 10-year period which includes the global financial crisis and store refurbishments in 2013, a historical average seemed like a logical fit because it doesn't average just over their best times, but includes times of margins squeezes and revenue drops. It therefore fits our argument that Inditex will face pressure moving forward, but still be one of the best players in the business because of their flexible business model.

Note that the income statement, balance sheet and cash flow are found in the appendix in chapter 15.

## 10. Valuation

With basis in all previous chapters and using the forecasted items, the discounted cash flow (DCF) can now be calculated to receive the equity value of Inditex. The forecast is the base for the valuation model and a statistical sensitivity analysis plus relative valuation will supply the valuation case.

### 10.1. Discounted cash flow model

To determine the equity value of Inditex, the value of operations needs to be calculated. The value of operations is based on the free cash flow (FCF) and continuing value (CV) which is discounted by a relevant discounting factor (WACC). Then, non-operating items are added to estimate the enterprise value. Lastly, debt and other liabilities are deducted to receive the equity value.

### 10.2. Determining the weighted average cost of capital

To estimate the weighted average cost of capital (WACC), the cost of equity must be estimated using the CAPM model from chapter 5.3.2. The cost of equity will be equal to WACC as Inditex is an unlevered company.

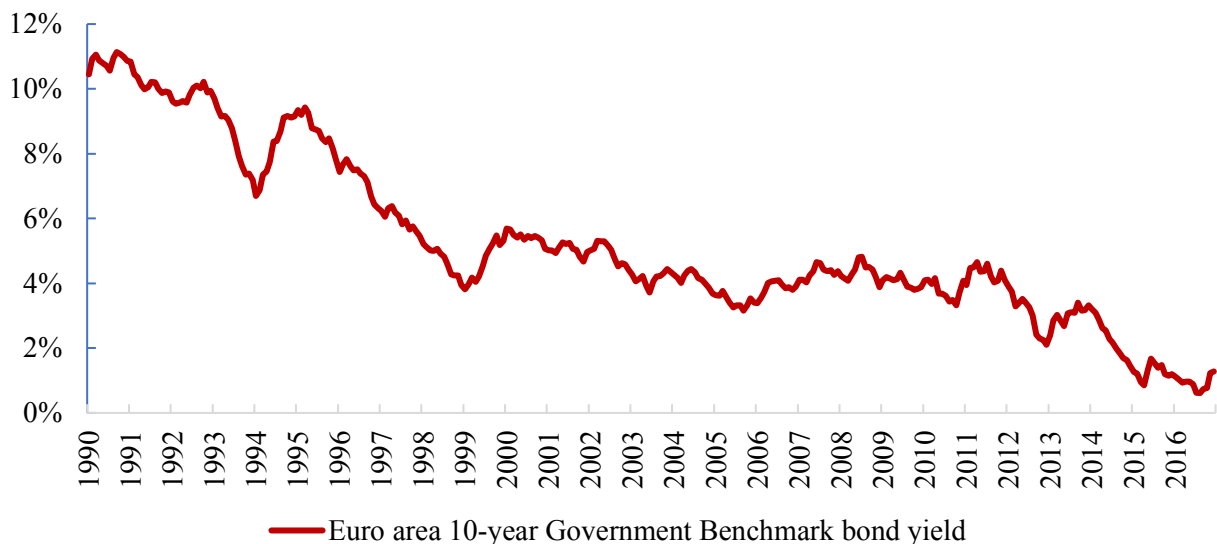
#### 10.2.1. Risk-free rate

The risk-free rate should represent the return investor could gain without taking on any risk. It must meet these two conditions: There can be no default risk which generally implies that security must be issued by a government, and there can be no uncertainty about reinvestment rates which implies there are no intermediate cash flows (Damodaran, 2006, p. 81). Since the forecast is over a 10-year explicit period, the 10-year Euro area government benchmark bond yield seems like the right choice.

The European risk-free rate is used since Europe is Inditex's primary market. Figure 10-1 shows the historical bond yields. There is a decreasing trend since 1990. The average rate through the period have been 5,23%, with the lowest point at 0,61% in 2016. On 1<sup>st</sup> of January 2016, the interest rate was 1,29%. European interest rates are historical low due to the economic difficulties and ECB's quantitative easing (QE) program (Joyce, Miles, Scott, & Vayanos, 2012, p. 1). WACC is constant in the future, and we consider today's interest rate to be too low

to represent the future interest rate. We will therefore use the 7-year average at 2,83% in the CAPM-model.

**Figure 10-1: Euro area 10-year government benchmark bond yield**



Source: Bloomberg database and own creation.

### 10.2.2. Market risk premium

The market risk premium is the difference between the expected return in the market and the risk-free rate. It's the compensation an investor demands for bearing risk that exceeds the risk-free rate. Damodaran assumes that the risk-premium should be a function of two variables: The risk aversion of investor, and the riskiness of the average-risk investment (Damodaran, 2006, p. 85). Since each investor in a market is likely to have a different assessment of an acceptable premium, the premium will be a weighted average of all individual premiums where the weights are based on the wealth the investor brings to the market.

One way to estimate market returns is to calculate the cost of equity implied by the relationship between current market share prices and aggregated fundamental performance. It's estimated by valuing a large sample of companies like the Standard & Poor's 500 Index (S&P 500) using discounted dividends and buy back of shares then reverse engineer the embedded cost of equity using Excel (Koller et al., 2015, p. 283).

Damodaran composes equity risk premium estimation (ERP) for countries into three steps. 1) Estimate an equity risk premium for a mature market. If the preference is for a forward looking updated number, one can estimate an implied equity risk premium for the US (assuming the belief that it's a mature market). 2) Make up a generic and measurable definition of a mature

market. Damodaran regards any AAA rated country is mature. 3) Estimate the additional risk premium that is charged for markets that are not mature. Damodaran points out that there are two options. The default spread for the country estimated based either on sovereign ratings or the CDS market, or a scaled-up default spread where the default spread is adjusted upwards for the additional risk in equity markets (Damodaran, 2016a, p. 3).

Since Inditex is a global company with revenue all over the world, we divided Inditex’s revenue into three geographical groups: Europe, Americas and Asia. For Americas, we applied the equity risk premium for the US at 5,69% to not overestimate the ERP (as Americas should have higher country risk). For Europe, the equity premium for the US was adjusted by adding a country risk premium of 1,12%, whereas Asia’s premium is 1,43%. Figure 10-2 below shows the calculations. The country risk premiums are gathered from (Damodaran, 2017). The weighted ERP which is derived by multiplying the geographical distribution with ERP and equity risk premium is the sum of the weighted ERP.

**Figure 10-2: Inditex weighted equity risk premium**

Region	Geo distribution	ERP	Weighted ERP
Europe	60,80 %	6,81 %	4,14 %
Asia & Row	23,90 %	7,12 %	1,70 %
Americas	15,30 %	5,69 %	0,87 %
Equity risk premium			6,71 %

Source: Damodaran, company annual reports and own creation.

### 10.2.3. Beta

The beta is multiplied by the equity risk premium to derive CAPM. It is found by regressing the stock return versus a fitting index. We have used 10-year monthly observations to reduce problematics caused by bid-ask spreads (Koller et al., 2015, p. 98). The regression analysis is based on Inditex and comparable companies return against the MSCI World Index. MSCI World is a wide composite index consisting of listed companies in 24 industrialized countries.

The choice of index is based on Damodaran assumption about which stock the marginal investor is holding (Damodaran, 2006, p. 104). The marginal investor is the investor that is more likely trading the stock and therefore determines the stock price (Damodaran, 2006, p. 45). Amancio Ortega (founder) and family holds 64% of the company. Ortega and his family are not considered marginal investors. Other large shareholders are Norges Bank, Vanguard Group,

Fidelity, etc. The list consists mostly of large institutional investors, and these are therefore considered the marginal investors of Inditex. The same effects were found in the company peer group. These investors have a global investment universe, and therefore MSCI World should be used as the index to estimate beta.

To further improve our precision of beta estimates we estimated an industry beta. Peer companies in fashion retail face the same operating risk and therefore should have the same operating beta. If estimation errors are uncorrelated they will cancel out and an industry average beta will produce a superior estimate (Koller et al., 2015, p. 300). The list of comparable companies is listed in Figure 10-3. Note that these companies are not necessarily companies that operate in fast fashion, but are large global apparel companies which face similar operating risk.

The last precision step is to find the unlevered beta (Fernandez, 2006, p. 4). If a company is levered, the risk will become higher and therefore have a larger beta. By unlevering, the risk becomes comparable. The unlevered beta is shown in Figure 10-3. To estimate it, the following formula is applied:

$$\text{Unlevered beta} = \frac{\text{Raw beta}}{1 - (1 - \text{Effective tax rate}) * \frac{D}{E}}$$

**Figure 10-3: Beta calculations**

10-year weekly Beta vs MSCI World	Raw beta	Effective tax rate	Total debt to equity	Unlevered beta
Inditex	0,61	22,5 %	0,00	0,61
H&M	0,41	22,5 %	0,04	0,40
GAP	1,00	39,9 %	0,45	0,79
Kappahl	0,98	28,1 %	0,22	0,84
Adidas	0,98	29,4 %	0,25	0,84
Nike	0,70	18,7 %	0,17	0,61
Burberry	1,12	24,3 %	0,03	1,10
Christian Dior	1,13	33,2 %	0,37	0,91
Ralph Lauren	1,16	28,3 %	0,19	1,02
Urban Outfitters	0,83	35,5 %	0,01	0,82
Guess	1,25	52,6 %	0,02	1,24
Next	0,49	19,6 %	1,86	0,20
Fast retailing	0,44	40,1 %	0,47	0,34
Hugo Boss	1,40	24,3 %	0,24	1,19
Median beta				0,83

Source: Bloomberg database and own creation.

To reduce the effect of outliers, we estimate the median unlevered beta which is 0,83.

### 10.3. WACC

As mentioned earlier, Inditex has practically zero debt. We therefore use unlevered WACC, since we don't expect Inditex to take on any debt in the future. This is in line with Modigliani and Miller's arguments on capital structure (Modigliani & Miller, 1958, p. 265). Unlevered WACC is calculated using the following formula:

$$\text{Unlevered WACC} = R_f + \beta_{\text{unlevered}} * (R_m - R_f) = 2,83\% + 0,83 * (6,71) = 8,39\%$$

### 10.4. DCF valuation and conclusion

Based on our forecast assumptions, the free cash flow (FCF) is calculated for the forecast period and  $NOPLAT_{E2027}$  is estimated for the calculations of continuing value (CV). CV is calculated using the following formula:

$$CV = \frac{NOPLAT_{E2027}}{WACC - g}$$



First, value of operations is estimated. Value of operations is the sum of the discounted FCF in the forecast period plus the discounted CV. Present value of operations was calculated to be €85bn. CV is €57bn and value of free cash flow €28bn. CV is 67% of value of operations.

To estimate the enterprise value of the company, CV is adjusted for excess cash of €3,6bn, financial investments €231.423, current financial investments €2bn and other financial assets €87mn. The market value of these items was assumed that book value = market value, giving us an enterprise value of €91bn. All calculations can be found in Appendix 5.

To find the equity value, short-term debt, long-term debt, provision and the non-controlling interest is deducted from enterprise value. To calculate the non-controlling interest, we applied the industry average P/E of 21,9 (Bloomberg database).

$$\text{Non controlling interest}_{2016} * 21,9 = 87\ 600.$$

The book value of debt is assumed to be market value, giving us an equity value of €89bn EUR. Divided by the common shares outstanding gives an equity value per share of €28,69.

On 15<sup>th</sup> of March 2017, the market share price of Inditex was €31,41. This implies that the market is overestimating Inditex's equity value by 8,7%, compared to our DCF estimate. Further discussions on the difference will be commented in chapter 11 and 12.

## 11. Supplemental analyses

The supplemental analysis chapter is intended to discuss the DCF model sensitivity to input by performing a statistical sensitivity analysis. It also includes a multiple valuation which aims to complement the DCF method.

### 11.1. Sensitivity analysis

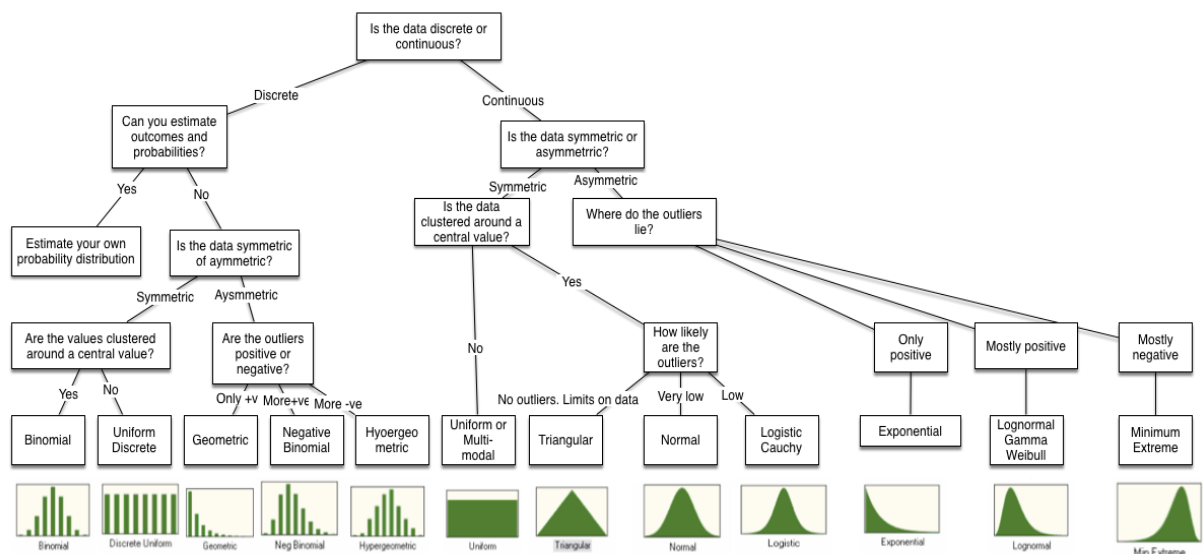
The DCF model depends highly on our understanding of the sensitivity of the input variables and the forecast assumptions. Therefore, we will use a Monte Carlo simulation to capture some of the uncertainties around the DCF-model. In the sensitivity analysis, key value drivers will be applied as inputs in the simulations.

#### 11.1.1. Defining key value drivers

Revenue growth and NOPLAT margins are defined as key value drivers for our valuation case. There will also be a separately simulation that looks at the risk attached to the case by using WACC as an input variable.

To perform a simulation, we need to decide which probability distribution fits our valuation model. Damodaran have summarized the options in Figure 11-1 (Damodaran, 2016b):

**Figure 11-1: Probability distributions**



Source: Damodaran.

In the simulation of revenue growth there is made a distribution for every year we have forecasted revenue. We use normal distribution to capture the effect of a negative year of revenue growth. Our DCF model revenue growth is applied as each year's mean with a standard deviation of 1%.

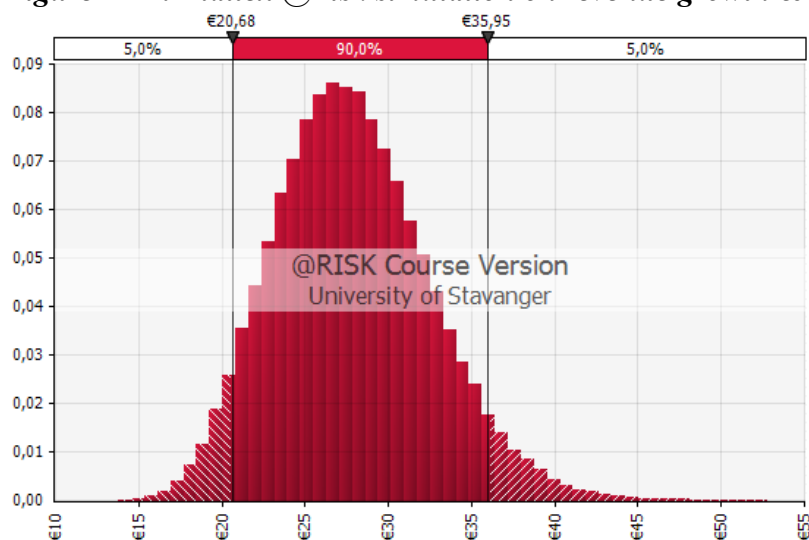
The distribution of NOPLAT margins will be a triangular distribution, because we expect the margin to vary around historically figures. NOPLAT margins will have a triangular distribution with 14,5% as its mean (which is the DCF case) and 10,5% and 18,5% as respectively lower and upper bounds.

In the separate WACC simulation, a triangular distribution will be applied as well. We find it reasonable to have an opinion on upper and lower boundaries, since WACC is not expected to become negative or to be infinitely positive. The simulation of WACC will vary around our calculated WACC of 8,39% with lower and upper bounds at 6 and 10% respectively.

#### 11.1.2. Discussion of simulation outputs

The simulations with revenue growth and NOPLAT margins as input shows that the value of Inditex varies from 20,33€ to 39,60€ per share with a 90% confidence interval. The mean is 28,87€ with a median of 28,51€ per share. The standard deviation is 4,68€. Our DCF case is within a 5% confidence interval. When we compare our sensitivity analysis to today's market price of 31,41€ per share (15.03.2017) it is in the 75 – 80<sup>th</sup> percentile. This implies that the market expects Inditex to continue delivering higher margins and/or larger revenue growth than our DCF case. Figure 11-2 is the @Risk output, which shows how much the stock price changes when NOPLAT and revenue growth change with the probability distributions from the DCF model.

**Figure 11-2: Inditex @Risk simulation on revenue growth & NOPLAT**



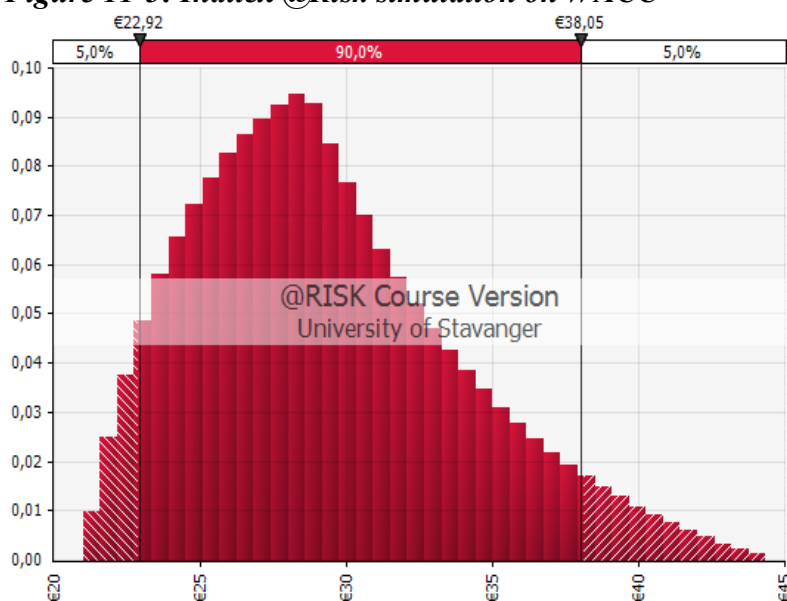
Source: @Risk, company annual reports and own creation.

@Risk	Summary	@Risk	Percentiles
Minimum	€ 13,80	1 %	€ 18,40
Maximum	€ 52,83	5 %	€ 20,68
Mean	€ 27,86	10 %	€ 22,02
Mode	€ 26,24	15 %	€ 23,02
Median	€ 27,59	20 %	€ 23,83
Std Dev	€ 4,67	25 %	€ 24,55
Skewness	0,3704	30 %	€ 25,22
Kurtosis	3,1545	35 %	€ 25,83
Values	100000	40 %	€ 26,42
Left X	€ 20,68	45 %	€ 27,00
Left P	5,00 %	50 %	€ 27,59
Right X	€ 35,95	55 %	€ 28,18
Right P	95,00 %	60 %	€ 28,77
Dif. X	€ 15,27	65 %	€ 29,41
Dif. P	90,00 %	70 %	€ 30,10
		75 %	€ 30,84
		80 %	€ 31,71
		85 %	€ 32,69
		90 %	€ 33,98
		95 %	€ 35,95
		99 %	€ 39,91

In the WACC simulation, the value of Inditex varies between 22,92€ to 38,05€ within a 90% confidence interval. Our base case is within a 5% confidence interval. The market value per share 31,41€ (15.03.2017) is within the 75 – 80<sup>th</sup> percentile. The

result implies that the market price higher risk everything else equal than our DCF case. Figure 11-3 is the WACC @Risk output, which shows how much the stock price changes when WACC varies between 6 and 10% in the DCF model.

**Figure 11-3: Inditex @Risk simulation on WACC**



Source: @Risk, company annual reports and own creation.

@Risk	Summary	@Risk	Percentiles
Minimum	€ 21,00	1 %	€ 21,79
Maximum	€ 44,35	5 %	€ 22,92
Mean	€ 29,33	10 %	€ 23,85
Mode	€ 28,64	15 %	€ 24,61
Median	€ 28,69	20 %	€ 25,29
Std Dev	€ 4,55	25 %	€ 25,91
Skewness	0,6303	30 %	€ 26,51
Kurtosis	2,9542	35 %	€ 27,08
Values	10000	40 %	€ 27,63
Left X	€ 22,92	45 %	€ 28,16
Left P	5,00 %	50 %	€ 28,69
Right X	€ 38,05	55 %	€ 29,24
Right P	95,00 %	60 %	€ 29,84
Dif. X	€ 15,13	65 %	€ 30,50
Dif. P	90,00 %	70 %	€ 31,25
		75 %	€ 32,10
		80 %	€ 33,09
		85 %	€ 34,30
		90 %	€ 35,84
		95 %	€ 38,06
		99 %	€ 41,45

## 11.2. Multiple valuation

A multiple valuation will give a relative equity value based on comparable companies (Liu, Nissim, & Thomas, 2002, p. 135). The relevant peer companies are the same commented in chapter 6.5 and consist of companies operating primarily in fast fashion. These are Hennes & Mauritz, Fast Retailing (Uniqlo), The GAP, SuperGroup, Next and Esprit. Picking the right peer group is important so the comparative analysis show the multiples that are truly relevant for the valuation (Koller et al., 2015, p. 365). The peer group is therefore quite small, since there are not a lot of companies that operate in the same way as Inditex - most serious apparel retailers are just now starting to copy their business model. Pure online players have also been excluded, since their growth expectations and maturity of these companies are not comparable.

Note that SuperGroup, Next and Esprit are not comparable in size, which can affect the operational risk. Next and the Gap are the only companies with noticeable recorded debt, which affects the EV, EBIT and P/E and makes it a less comparable source. Hennes & Mauritz and Inditex are the two companies who are the most similar, but even then, there's one key difference with Inditex owning its supply chain. These factors need to be taken into consideration when evaluating the multiples.

The relative valuation is based on the multiples EV/EBITDA, EV/EBIT, EV/Sales and P/E. The multiples for Inditex are based on estimates from the forecast, whilst the peer companies are based on analyst consensus estimates gathered from Bloomberg Terminal. It is therefore consistency in the calculations. Future multiples are used and is therefore in accordance with the valuation principle that the value depends on future cash flows. (Koller et al, 2015, p.351). In addition, the estimated multiples are based on normalized earnings and thus without effect from any one-time events. To easier understand how to interpret the multiples, consider the following positives and negatives:

### **EV/EBITDA**

- + EBITDA is a common proxy for cash flow
- + Focuses on the core operations
- + - Not affected by depreciation
- + - Capital structure neutral
- + - Not affected by different countries tax rates

- Doesn't look at growth expectations

Since EV/EBITDA looks at the core operations and therefore includes operating leases, it should be a good multiple to compare apparel retail companies. However, Inditex owns the value chain and therefore occurs more cost of goods sold plus depreciation and GAP/Next has debt in their balance sheet which affect EV. These factors pull down the efficiency of the comparable.

### **EV/EBIT**

- + Takes capital structure somewhat into consideration
- + - Affected by depreciation
- + - Not affected by different countries tax rates
- Doesn't look at growth expectations

If Inditex didn't own the whole value chain, and GAP/Next didn't have debt, it would be a good metric to compare. However, these factors again affect the comparable.

### **EV/Sales**

- + Shouldn't be tricked by accounting differences.
- + Can be used with negative earnings
- Sales are not equivalent to value creation
- Not affected by cash flow metrics
- Doesn't look at growth expectations

A good comparable between apparel retail companies generating positive cash flows (which is the case in the peer group). Although it doesn't take value or cash flow into consideration, it can be a good ratio in this case.

### **P/E**

- + Takes tax rates into consideration
- + - Affected by capital structure
- Can't be applied with negative earnings
- Doesn't look at growth expectations

If GAP/Next didn't have debt and Inditex didn't own their value chain, P/E would be a good metric. P/E is best used between companies with similar capital structure and zero debt.

The forward multiples are presented in Figure 11-4. The median is used instead of an average to have a more reliable comparison point, as it's not affected by outliers. It shows that Inditex trades at 50 – 88% higher multiples than the median in the industry.

**Figure 11-4: Inditex peer companies forward multiples**

Name	P/E	P/E	EV/EBITDA	EV/EBITDA	EV/EBIT	EV/EBIT	EV/SALES	EV/SALES
	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E
Inditex	29,69	26,93	16,00	14,51	20,97	19,02	3,45	3,13
Hennes & Mauritz	18,85	17,03	10,74	9,65	13,92	12,57	1,75	1,60
Fast Retailing	34,10	31,56	17,08	15,58	20,60	18,61	1,99	1,82
The GAP	11,15	10,89	4,54	4,50	6,21	6,43	0,56	0,55
SuperGroup	18,83	16,57	10,21	8,99	14,29	12,58	1,72	1,51
Next	11,21	11,37	8,57	8,70	8,93	9,73	1,83	1,82
Esprit	197,24	35,53	12,91	7,70	0,40	0,40	12,43	2,24
Median	18,85	17,03	10,74	8,99	13,92	12,57	1,83	1,82

Source: Bloomberg database, company annual reports and own creation.

In our DCF valuation, we calculated a stock price at €28,69. The implicit stock price based on the industry median is presented in Figure 11-5. It shows that Inditex is overvalued by 33 – 47% compared to its peer companies. Note that Hennes & Mauritz is trading close to the median, and Inditex is therefore valued significantly higher than its closest peer.

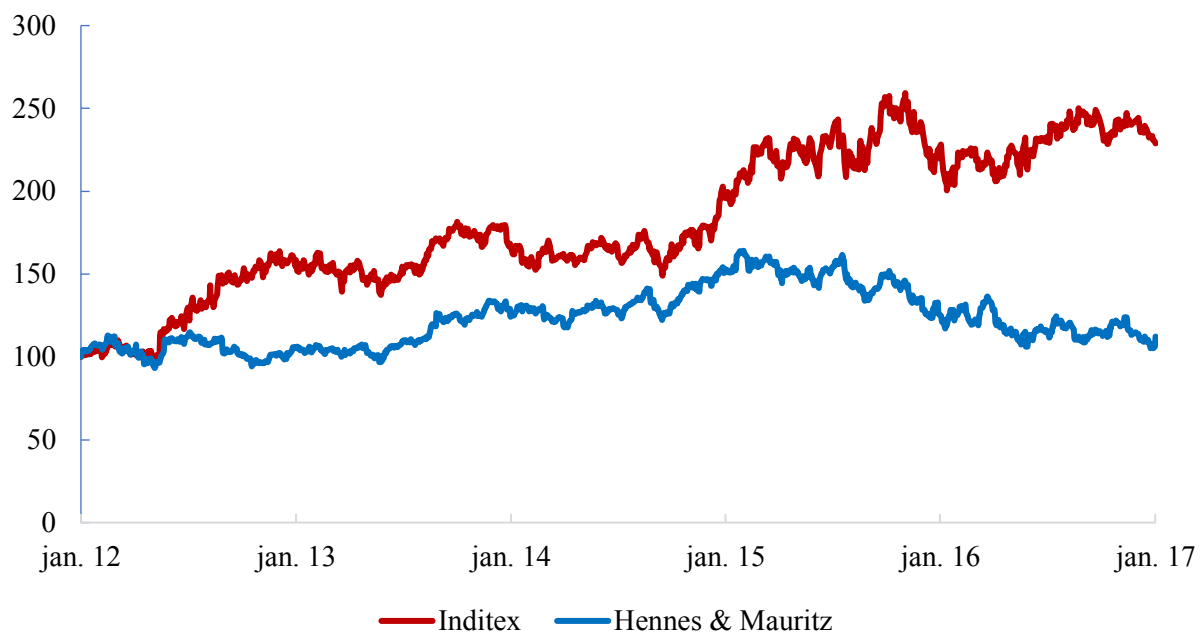
**Figure 11-5: Inditex implicit stock price**

Name	P/E	P/E	EV/EBITDA	EV/EBITDA	EV/EBIT	EV/EBIT	EV/SALES	EV/SALES
	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E
Inditex implicit value	€ 19,39	€ 19,31	€ 19,19	€ 17,71	€ 18,98	€ 18,90	€ 15,18	€ 16,64
% change from DCF	-32 %	-33 %	-33 %	-38 %	-34 %	-34 %	-47 %	-42 %

Source: Bloomberg database, company annual reports and own creation.

How should one interpret these numbers? In the strategic analysis, Figure 7-10 showed that Inditex has experienced similar revenue growth to H&M. The NOPAT was also similar, see Figure 8-10. However, in the last 5 years (from 31.01.2017), Inditex stock has outperformed H&M significantly. Figure 11-6 shows that Inditex's stock price has grown 128% with H&M at a mere 12%.

**Figure 11-6: Inditex and H&M normalized historical stock price**



Source: Bloomberg database and own creation

It therefore seems that the market expects a far worse performance in the future from H&M than Inditex. Based on the multiple analysis alone (which is very uncertain), it seems that H&M may be underpriced and Inditex overpriced. We do believe Inditex deserves to trade at a premium, purely because of their global presence, flexible business model and approach to fast fashion. However, H&M revenue is also growing faster than the market with a stable NOPAT margin, which also should be rewarded with higher-than-market multiples.

To relate it to our DCF equity value of €28,69, does this mean that our free cash flow valuation is incorrect by 33 – 47%? Presumably, no. These factors, as mentioned earlier, doesn't take growth into consideration. Inditex has outgrown both the fast fashion, global retail market and H&M the last 10 years. We therefore believe it should trade at higher multiples, which is in line with our strategic and financial analyses. However, it seems like it is marginally overestimated in the market, which supports the DCF valuation.



## 12. Conclusion on the thesis

The purpose of this thesis has been to estimate the fair market value of a share in Inditex, compared to the current market pricing 15<sup>th</sup> of March 2017. The valuation is focused on a DCF model, supplemented by a statistical sensitivity analysis and a relative valuation.

Inditex fair market value per share was estimated to €28,69 in the DCF model. On 15<sup>th</sup> of March 2017, the last Inditex shares changed hands on Bolsa de Madrid at €31,41. Our valuation therefore implies that the market is overvaluing the equity value of Inditex by 8,7%.

The strategic analysis highlighted uncovered Inditex's strong position in the fashion retail market, made possible by owning the whole value chain, enabling them to push out new fashion in as little as two weeks. This model is now being copied by peers, and the fashion market is expected to be pressured moving forward.

The financial analysis showed that Inditex is a solid company, generating high ROIC with stable margins the last 10 years. By leasing stores, they have been able to leverage the operations, resulting in high growth. There is however an apparent margin squeeze in the market, and fast fashion companies' revenue growth is declining the latest years. This confirmed the observations found in the strategic analysis.

Forecasted figures implied that Inditex will continue to produce strong and positive revenue growth in the explicit period. The margins were estimated more conservatively, using a historical average which includes both good times and bad times. This was based on the future assumption of a fragmented market because of increasing pressure in the fast fashion industry. Based on the DCF estimate, the market is therefore expecting higher growth or better margins.

The statistical sensitivity analysis showed that the market was pricing Inditex in the high 70<sup>th</sup> percentile, compared to the DCF model. The relative valuation uncovered that Inditex are trading higher than its closest peers. This means that the market is overestimating the equity value of Inditex, which is in line with the DCF estimate.

## 13. Bibliography

### Books

- Dalland, O. (2000). *Metode og oppgaveskriving for studenter*. (3rd ed.): Gyldendal akademisk.
- Damodaran, A. (2006). *Damodaran on valuation : security analysis for investment and corporate finance* (2nd ed.). Hoboken, N.J.: John Wiley & Sons.
- Fabozzi, F. J., & Grant, J. L. (2000). *Value-based metrics: Foundations and practice* (Vol. 67): John Wiley & Sons.
- Johnson, G., Scholes, K., & Whittington, R. (2006). *Exploring corporate strategy* (7th enhanced media edition. ed.). Harlow, England New York: FT/Prentice Hall.
- Koller, T., Goedhart, M. H., Wessels, D., & McKinsey. (2015). *Valuation : measuring and managing the value of companies* (6th ed.): John Wiley & Sons, Inc.
- Porter, M. E. (1998). *Competitive advantage : creating and sustaining superior performance : with a new introduction* (1st Free Press ed.). New York: Free Press.
- Silkoset, R., & Gripsrud, G. (2010). *Metode og dataanalyse: beslutningsstøtte for bedrifter ved bruk av JMP*. (2nd ed.): Høyskoleforlaget.

### Journal articles

- Crofton, O. S., & Dopico, L. G. (2012). Zara-Inditex and the growth of fast fashion. *Essays in Economic & Business History*, 25.
- Damodaran, A. (2007). Return on Capital (ROC), Return on Invested Capital (ROIC) and Return on Equity (ROE): Measurement and Implications. *New York University - Stern School of Business*.
- Damodaran, A. (2009). Leases, debt and value.

Damodaran, A. (2016a). Equity Risk Premiums (ERP): Determinants, Estimation and Implications—The 2016 Edition.

Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *Blackwell Publishing for the American Finance Association*, 25.

Fernandez, P. (2006). Levered and unlevered beta. *University of Navarra - IESE Business School*.

Jensen, M. C., Black, F., & Scholes, M. S. (1972). The capital asset pricing model: Some empirical tests.

Joyce, M., Miles, D., Scott, A., & Vayanos, D. (2012). Quantitative easing and unconventional monetary policy—an introduction. *The Economic Journal*, 122(564).

Karpoff, J. M. (1986). A theory of trading volume. *The Journal of Finance*, 41(5), 1069-1087.

Liu, J., Nissim, D., & Thomas, J. (2002). Equity valuation using multiples. *Journal of Accounting Research*, 40(1), 135-172.

Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, 261-297.

Young, S. D., & O'byrne, S. F. (2001). EVA and value-based management. *New York*.

## **Newspaper and web articles**

Addady, M. (2016, 20.07). 12 Artists Are Accusing Zara of Stealing Their Designs. *Fortune*. Retrieved from <http://fortune.com/2016/07/20/zara-stealing-designs/>

Armstrong, S. (2008, 13.08). The son of a railwayman who launched a runaway chain. *Telegraph*. Retrieved from <http://fashion.telegraph.co.uk/news-features/TMG3365113/The-son-of-a-railwayman-who-launched-a-runaway-chain.html>

Brössler, D., Kirchner, T., & Oltermann, P. (2017, 05.01). Martin Schulz: EU hamstrung by Brexit and rise of populist right. *The Guardian*. Retrieved from <https://www.theguardian.com/world/2017/jan/05/martin-schulz-eu-hamstrung-brexit-rise-populist-right>

Coman, J. (2016, 27.11). First Brexit then Trump. Is Italy next for the west's populist wave? *The Guardian*. Retrieved from <https://www.theguardian.com/world/2016/nov/27/matteo-renzi-politics-italy-european-union-brexit-trump>

Dickson, M. (2016, 24.10). The Slow Fashion movement. *Not just a label*. Retrieved from <https://www.notjustalabel.com/editorial/slow-fashion-movement>

Drakoln, N. (2017). Commodities: Cotton. Retrieved from <http://www.investopedia.com/university/commodities/commodities5.asp>

Dua, T. (2015, 08.12). Inside Mango's bid to make fast fashion even faster. *Digiday UK*. Retrieved from <https://digiday.com/marketing/inside-mangos-bid-make-fast-fashion-even-faster/>

Forbes. (2017). Profile on Amancio Ortega. Retrieved from <https://www.forbes.com/profile/amancio-ortega/>

Goodman, P. S. (2017, 30.01). Trump's Trade War May Have Already Begun. *The New York Times*. Retrieved from [https://www.nytimes.com/2017/01/30/business/economy/trumps-mexico-china-tariff-trade.html?\\_r=1](https://www.nytimes.com/2017/01/30/business/economy/trumps-mexico-china-tariff-trade.html?_r=1)

Hansen, S. (2012, 09.11). How Zara grew into the world's largest fashion retailer. *The New York Times Magazine*. Retrieved from <http://www.nytimes.com/2012/11/11/magazine/how-zara-grew-into-the-worlds-largest-fashion-retailer.html>

Hiiemaa, K. (2016, 18.03). In the success stories of H&M, Zara, Ikea and Walmart, luck is not a key factor. *Erply New York*. Retrieved from <https://erply.com/in-the-success-stories-of-hm-zara-ikea-and-walmart-luck-is-not-a-key-factor/>

Magnier, M. (2016, 07.06). How China is changing its manufacturing strategy. *The Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/how-china-is-changing-its-manufacturing-strategy-1465351382>

Marriot, H. (2015, 19.06). Muddying the Gap: how the US clothing chain has failed to uphold its identity. *The Guardian*. Retrieved from <https://www.theguardian.com/business/2015/jun/19/muddying-the-gap-us-clothing-chain-failed-uphold-identity-normcore>

News, N. Y. R. E. (2011, 10.04). Zara to pay \$324M for 666 Fifth retail condo. Retrieved from <https://therealdeal.com/2011/03/04/zara-parent-company-inditex-group-to-pay-324m-for-666-fifth-retail-condo-in-one-of-the-most-expensive-new-york-city-retail-deals-ever/>

Parry, S. (2016, 11.06). The true cost of your cheap clothes: slave wages for Bangladesh workers. *Post Magazine*. Retrieved from <http://www.scmp.com/magazines/post-magazine/article/1970431/true-cost-your-cheap-clothes-slave-wages-bangladesh-factory>

Reuters. (2016, 09.03). Zara Looks to Online Growth as It Cuts Store Sales Forecast. Retrieved from <http://fortune.com/2016/03/09/zara-stores-online-sales-forecast/>

Valero, J. (2016, 09.12). Zara under EU scrutiny following reports of aggressive tax planning. *Euractiv*. Retrieved from <http://www.euractiv.com/section/euro-finance/news/commission-eyes-zara-after-reports-of-aggressive-tax-planning/>

Vikas, S. (2012). The Role of Fashion in Human Culture. Retrieved from <https://thoughtconomics.com/the-role-of-fashion-in-human-culture/>

White, G. (2011, 04.02). Cotton price causes 'panic buying' as nears 150-year high. *The Telegraph*. Retrieved from <http://www.telegraph.co.uk/finance/markets/8301886/Cotton-price-causes-panic-buying-as-nears-150-year-high.html>

Yangon, J. A. (2015, 12.03). A tightening grip. *The Economist*. Retrieved from <http://www.economist.com/news/briefing/21646180-rising-chinese-wages-will-only-strengthen-asias-hold-manufacturing-tightening-grip>

## Reports

Amed, I., Berg, A., Brantberg, L., & Hedrich, S. (2016). *The state of fashion*. Retrieved from <http://www.mckinsey.com/industries/retail/our-insights/the-state-of-fashion>

Coyne, P., & Subramaniam, S. (2006). *Bringing discipline to strategy*. Retrieved from [http://pinpointmarketing.net/site/files/37-discipline to strategy.pdf](http://pinpointmarketing.net/site/files/37-discipline%20to%20strategy.pdf)

Damodaran, A. (2016b). *DCF myth 3.2: If you don't look, it's not there!* Retrieved from <http://aswathdamodaran.blogspot.no/2016/05/dcf-myth-32-if-you-don-look-its-not.html>

Damodaran, A. (2017). *Measurement of risk premium*. Retrieved from <http://people.stern.nyu.edu/adamodar/podcasts/cfspr17/session6.pdf>

Dutzler, H., Dr Sova, A., & Kofle, W. (2014). *Disruption in the fashion industry: Levers to create value in the future*. Retrieved from <https://www.strategyand.pwc.com/reports/disruption-fashion-industry>

Esprit. (2016). *Annual report 2016*. Retrieved from [http://www.esprit.com/investor\\_relations/financial\\_information/annual\\_interim\\_reports/](http://www.esprit.com/investor_relations/financial_information/annual_interim_reports/)

Gap. (2015). *Annual report 2015*. Retrieved from [http://www.gapinc.com/content/dam/gapincsite/documents/GPS 2015 Annual Report.pdf](http://www.gapinc.com/content/dam/gapincsite/documents/GPS%202015%20Annual%20Report.pdf)

H&M. (2015). *Annual report 2015*. Retrieved from <https://about.hm.com/en/investors/reports.html>

Inditex. (2008). *Annual report 2008*. Retrieved from [https://www.inditex.com/investors/investors\\_relations/annual\\_report](https://www.inditex.com/investors/investors_relations/annual_report)

Inditex. (2013). *Annual report 2013*. Retrieved from [https://www.inditex.com/investors/investors\\_relations/annual\\_report](https://www.inditex.com/investors/investors_relations/annual_report)

Inditex. (2015). *Annual report 2015*. Retrieved from [https://www.inditex.com/investors/investors\\_relations/annual\\_report](https://www.inditex.com/investors/investors_relations/annual_report)

Inditex. (2016). *Full year 2016 results*. Retrieved from [https://www.inditex.com/media/financial\\_results](https://www.inditex.com/media/financial_results)

McKinsey. (2014). *Succeeding in tomorrow's global fashion market*. Retrieved from <http://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/succeeding-in-tomorrows-global-fashion-market>

Next. (2016). *Annual report 2016*. Retrieved from <http://www.nextplc.co.uk/investors/reports-and-presentations/2016-17>

PwC. (2014). *Fashion and apparel*. Retrieved from <https://www.pwchk.com/en/retail-and-consumer/rc-outlook-201516-re-fashion.pdf>

SuperGroup. (2016). *Annual report 2016*. Retrieved from <https://www.supergroup.co.uk/investors/annual-reports/>

Uniqlo. (2016). *Annual report 2016*. Retrieved from <http://www.fastretailing.com/eng/ir/library/annual.html>

## **Databases**

The Atlas (powered by Quartz)

Bloomberg

IMF

Indexmundi

OECD

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## 15. Appendix

### Appendix 1: Inditex historical income statement and balance sheet

<b>Income statement</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Operating revenue	9 434 670	10 406 960	11 083 514	12 526 595	13 792 612	15 946 143	16 724 439	18 116 534	20 900 439	23 310 532
Cost of merchandise	-4 085 959	-4 492 720	-4 817 775	-5 104 573	-5 612 216	-6 416 825	-6 801 506	-7 547 637	-8 811 139	-10 031 982
Gross profit	5 348 711	5 914 240	6 265 739	7 422 022	8 180 396	9 529 318	9 922 933	10 568 897	12 089 300	13 278 550
Operating expenses	-3 226 369	-3 707 887	-3 952 702	-4 452 211	-4 919 328	-5 604 783	-5 998 264	-6 457 569	-7 391 832	-8 175 581
Other losses and income net	26 501	-19 497	-1 118	-3 604	-3 396	-11 578	1 302	-8 256	1 691	-19 548
EBITDA	2 148 843	2 186 856	2 311 919	2 966 207	3 257 672	3 912 957	3 925 971	4 103 072	4 699 159	5 083 420
Depreciation amortization and impairment	-496 663	-578 320	-645 801	-675 738	-735 666	-796 117	-855 090	-904 887	-1 021 716	-1 062 686
Depreciation charge	-458 952	-532 278	-596 784	-624 042	-640 289	-695 543	-702 843	-741 723	-852 268	-832 084
Amortization	-37 711	-46 042	-49 017	-51 696	-95 377	-100 574	-108 120	-120 232	-124 228	-135 901
Net operating profits (EBIT)	1 652 180	1 608 536	1 666 118	2 290 469	2 522 006	3 116 840	3 070 881	3 198 185	3 677 443	4 020 734
Financial income	36 027	46 319	45 851	43 166	54 699	41 537	30 617	80 290	44 786	38 276
Financial losses	-35 063	-67 918	-42 069	-12 051	-17 693	-27 408	-48 800	-65 807	-34 717	-28 279
Net financial items	964	-21 599	3 782	31 115	37 006	14 129	-18 183	14 483	10 069	9 997
Results from companies consolidated by equity method	-7 508	-	-	-	-	-	-	32 125	55 607	47 588
Profits before taxes	1 645 636	1 586 937	1 669 900	2 321 584	2 559 012	3 130 969	3 052 698	3 244 793	3 743 119	4 078 319
Income taxes	-387 872	-325 322	-410 033	-580 305	-613 480	-763 956	-671 134	-734 643	-860 917	-917 214
Net profit	1 257 764	1 261 615	1 259 867	1 741 279	1 945 532	2 367 013	2 381 564	2 510 150	2 882 202	3 161 105

<b>Balance sheet</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>Assets</b>										
Current assets	2 981 595	3 264 041	3 943 795	5 202 512	5 437 289	6 692 150	6 764 961	7 105 953	8 449 235	9 898 347
Cash and Equivalents	1 465 835	1 466 291	2 420 110	3 433 452	3 466 752	3 842 918	3 846 726	3 797 930	4 225 527	4 115 912
Receivables	463 716	585 311	421 781	481 844	531 048	847 608	815 227	861 811	668 807	861 026
Inventories	1 007 213	1 054 840	992 570	1 214 623	1 277 010	1 581 297	1 676 879	1 859 516	2 195 015	2 549 195
Current financial investments						260 632	212 890	222 259	1 085 648	2 036 627
Other financial assets				81	50 684	7 831	13 022	168 947	45 751	86 923
Income tax receivable	1 719	15 342	15 663	16 958	17 235	58 936	95 637	68 284	89 086	107 473
Other current assets	43 112	142 257	93 671	55 554	94 561	92 928	104 580	127 207	139 401	141 190
Non-current assets	4 124 007	4 512 605	4 391 642	4 623 568	5 521 889	6 198 166	6 991 299	8 271 047	8 907 913	9 723 088
Property plant and equipment	3 182 112	3 442 321	3 293 535	3 397 083	4 063 066	4 662 407	5 137 581	6 040 573	6 597 467	7 283 428
Investment property	9 475	8 455	13 273	17 354	19 807	82 567	82 809	81 490	21 152	21 221
Rights over leased assets	504 604	531 468	514 159	526 306	499 960	487 474	508 919	531 115	504 447	505 046
Other intangible assets	13 344	16 476	19 118	29 444	114 148	125 326	133 363	152 995	190 324	210 502
Goodwill	125 583	131 685	131 685	131 685	218 094	207 089	203 458	197 901	193 488	195 704
Financial investments	36 174	14 416	15 392	8 921	9 501	3 992	20 634	151 253	183 804	231 423
Investments in associates	-									
Deferred tax assets	133 020	203 100	234 203	299 350	356 372	382 554	529 664	643 574	693 429	722 029
Other	119 695	164 684	170 277	213 425	240 941	246 757	374 871	472 146	523 802	553 734
<b>Total assets</b>	<b>7 105 602</b>	<b>7 776 646</b>	<b>8 335 437</b>	<b>9 826 080</b>	<b>10 959 178</b>	<b>12 890 316</b>	<b>13 756 260</b>	<b>15 377 000</b>	<b>17 357 148</b>	<b>19 621 435</b>
<b>Liabilities</b>										
Current liabilities	2 458 067	2 390 848	2 304 960	2 674 907	2 702 774	3 485 064	3 462 293	3 748 828	4 670 151	5 450 574
Trade and other payables	1 975 251	2 073 141	2 103 029	2 458 857	2 475 140	3 243 281	3 332 452	3 507 878	4 514 266	5 095 132
Financial debt	371 276	234 037	35 058	2 682	686	2 437	2 521	7 823	10 254	61 696
Other financial liabilities					22 880	73 918	38 339	83 222	68 536	63 685
Income tax payable	111 540	83 670	166 873	213 368	204 068	165 428	88 981	149 905	77 095	230 061
Non-current liabilities	430 484	637 198	659 931	728 006	800 828	923 391	1 015 604	1 159 471	1 236 204	1 419 307
Financial debt	42 358	13 241	4 996	4 172	1 544	4 306	2 133	2 265	749	498
Deferred tax liabilities	110 957	213 847	172 892	172 649	182 532	191 654	217 289	240 825	285 195	257 143
Provisions	47 681	101 820	127 054	156 610	147 318	144 331	147 768	200 611	145 294	241 613
Other non-current liabilities	229 488	308 290	354 989	394 575	469 434	583 100	648 414	715 771	804 966	920 053
Equity	4 217 051	4 748 600	5 370 546	6 423 167	7 455 577	8 481 861	9 278 363	10 468 701	11 450 793	12 751 554
Net equity attributable to the parent	4 193 129	4 721 714	5 329 166	6 386 183	7 414 806	8 445 936	9 246 244	10 430 655	11 410 197	12 713 380
Net equity attributable to minority interest	23 922	26 886	41 380	36 984	40 771	35 925	32 119	38 046	40 596	38 174
<b>Total equity and liabilities</b>	<b>7 105 602</b>	<b>7 776 646</b>	<b>8 335 437</b>	<b>9 826 080</b>	<b>10 959 179</b>	<b>12 890 316</b>	<b>13 756 260</b>	<b>15 377 000</b>	<b>17 357 148</b>	<b>19 621 435</b>

## Appendix 2: Inditex reorganized historical statements

<b>NOPLAT calculation</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Operating revenue	9 434 670	10 406 960	11 083 514	12 526 595	13 792 612	15 946 143	16 724 439	18 116 534	20 900 439	23 310 532
Cost of merchandise	-4 085 959	-4 492 720	-4 817 775	-5 104 573	-5 612 216	-6 416 825	-6 801 506	-7 547 637	-8 811 139	-10 031 982
Operating expenses	-2 947 146	-3 676 486	-3 919 734	-4 094 244	-4 528 170	-5 155 563	-5 950 199	-5 951 030	-6 829 360	-7 556 317
<b>EBITDA</b>	<b>2 401 565</b>	<b>2 237 754</b>	<b>2 346 005</b>	<b>3 327 778</b>	<b>3 652 226</b>	<b>4 373 755</b>	<b>3 972 734</b>	<b>4 617 867</b>	<b>5 259 940</b>	<b>5 722 233</b>
Depreciation charge	-458 952	-532 278	-596 784	-624 042	-640 289	-695 543	-702 843	-741 723	-852 268	-832 084
Amortization	-36 246	-44 430	-47 199	-50 049	-56 653	-54 029	-56 332	-68 103	-60 027	-64 881
<b>Operating EBITA</b>	<b>1 906 367</b>	<b>1 661 046</b>	<b>1 702 022</b>	<b>2 653 687</b>	<b>2 955 284</b>	<b>3 624 183</b>	<b>3 213 559</b>	<b>3 808 041</b>	<b>4 347 645</b>	<b>4 825 268</b>
Operating cash taxes	-399 376	-240 528	-505 970	-605 531	-623 590	-778 029	-707 770	-757 410	-892 975	-916 528
<b>NOPLAT</b>	<b>1 506 991</b>	<b>1 420 518</b>	<b>1 196 052</b>	<b>2 048 157</b>	<b>2 331 694</b>	<b>2 846 154</b>	<b>2 505 789</b>	<b>3 050 631</b>	<b>3 454 670</b>	<b>3 908 740</b>

<b>Invested capital calculation</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Operating cash	188 693	208 139	221 670	250 532	275 852	318 923	334 489	362 331	418 009	466 211
Receivables	463 716	585 311	421 781	481 844	531 048	847 608	815 227	861 811	668 807	861 026
Inventories	1 007 213	1 054 840	992 570	1 214 623	1 277 010	1 581 297	1 676 879	1 859 516	2 195 015	2 549 195
Other current assets	43 112	142 257	93 671	55 554	94 561	92 928	104 580	127 207	139 401	141 190
Income tax receivable	1 719	15 342	15 663	16 958	17 235	58 936	95 637	68 284	89 086	107 473
<b>Operating current assets</b>	<b>1 704 453</b>	<b>2 005 889</b>	<b>1 745 355</b>	<b>2 019 511</b>	<b>2 195 706</b>	<b>2 899 692</b>	<b>3 026 812</b>	<b>3 279 149</b>	<b>3 510 318</b>	<b>4 125 095</b>
Trade and other payables	1 975 251	2 073 141	2 103 029	2 458 857	2 475 140	3 243 281	3 332 452	3 507 878	4 514 266	5 095 132
Income tax payable	111 540	83 670	166 873	213 368	204 068	165 428	88 981	149 905	77 095	230 061
<b>Operating current liabilities</b>	<b>2 086 791</b>	<b>2 156 811</b>	<b>2 269 902</b>	<b>2 672 225</b>	<b>2 679 208</b>	<b>3 408 709</b>	<b>3 421 433</b>	<b>3 657 783</b>	<b>4 591 361</b>	<b>5 325 193</b>
<b>Operating working capital</b>	<b>-382 338</b>	<b>-150 922</b>	<b>-524 547</b>	<b>-652 714</b>	<b>-483 502</b>	<b>-509 017</b>	<b>-394 621</b>	<b>-378 634</b>	<b>-1 081 043</b>	<b>-1 200 098</b>
Capitalized operating leases	16 306 189	17 981 480	20 170 338	22 178 626	24 255 365	26 262 859	29 327 125	33 098 848	35 217 336	39 091 243
Net PP&E	3 191 587	3 450 776	3 306 808	3 414 437	4 082 873	4 744 974	5 220 390	6 122 063	6 618 619	7 304 649
Rights over leased assets	504 604	531 468	514 159	526 306	499 960	487 474	508 919	531 115	504 447	505 046
Other	119 695	164 684	170 277	213 425	240 941	246 757	374 871	472 146	523 802	553 734
<b>Invested capital (excluding goodwill and impairment)</b>	<b>3 433 548</b>	<b>3 996 006</b>	<b>3 466 697</b>	<b>3 501 454</b>	<b>4 340 272</b>	<b>4 970 188</b>	<b>5 709 559</b>	<b>6 746 690</b>	<b>6 565 825</b>	<b>7 163 331</b>
Goodwill and intangible assets	138 927	148 161	150 803	161 129	332 242	332 415	336 821	350 896	383 812	406 206
Net deferred tax liabilities (amortization)	12 405	4 317	13 881	6 553	-21 490	-22 413	-86 581	-117 249	-54 295	-91 546
Goodwill and acquired intangibles less tax gross up	126 522	143 844	136 922	154 576	353 732	354 828	423 402	468 145	438 107	497 752
Net cumulative amortization	274 152	312 921	356 300	403 183	472 461	549 444	568 943	592 350	644 273	688 873
Cumulative impairment losses (inc P&L Charges)	427	434	675	4 319	6 411	17 472	11 974	6 861	9 238	11 774
Cumulative deferred tax shield	-90 470	-93 876	-106 890	-120 955	-141 738	-164 833	-170 683	-177 705	-193 282	-206 662
Cumulative amort. and imp. of intangibles less def.tax shield	184 109	219 479	250 085	286 547	337 134	402 083	410 234	421 506	460 229	493 985
Adjusted goodwill and intangibles	310 631	363 323	387 007	441 123	690 866	756 911	833 636	889 651	898 336	991 737

<b>Invested capital (including goodwill and impairment)</b>	3 744 179	4 359 329	3 853 704	3 942 577	5 031 138	5 727 099	6 543 195	7 636 341	7 464 161	8 155 068
Excess cash	1 277 142	1 258 152	2 198 440	3 182 920	3 190 900	3 523 995	3 512 237	3 435 599	3 807 518	3 649 701
Financial investments	36 174	14 416	15 392	8 921	9 501	3 992	20 634	151 253	183 804	231 423
Current financial investments	-	-	-	-	-	260 632	212 890	222 259	1 085 648	2 036 627
Other financial assets	-	-	-	81	50 684	7 831	13 022	168 947	45 751	86 923
<b>Total funds invested</b>	5 057 495	5 631 897	6 067 536	7 134 499	8 282 223	9 523 549	10 301 978	11 614 399	12 586 882	14 159 742
<b>Total funds invested - sources:</b>										
Capitalized operating leases	16 306 189	17 981 480	20 170 338	22 178 626	24 255 365	26 262 859	29 327 125	33 098 848	35 217 336	39 091 243
Current liabilities	371 276	234 037	35 058	2 682	23 566	76 355	40 860	91 045	78 790	125 381
Non-current liabilities	271 846	321 531	359 985	398 747	470 978	587 406	650 547	718 036	805 715	920 551
Provisions	47 681	101 820	127 054	156 610	147 318	144 331	147 768	200 611	145 294	241 613
<b>Debt and debt equivalents</b>	690 803	657 388	522 097	558 039	641 862	808 092	839 175	1 009 692	1 029 799	1 287 545
Operating deferred tax liabilities	97 047	190 613	139 116	129 654	138 908	133 855	137 262	178 145	185 994	205 210
Operating deferred tax assets	88 739	91 031	136 606	161 704	192 170	205 429	240 017	308 012	350 940	372 469
Net operating deferred liabilities	8 308	99 582	2 510	-32 050	-53 262	-71 574	-102 755	-129 867	-164 946	-167 259
Non-operating deferred tax liabilities	-	-	-	-	-	-	-	-	-	-
Non-operating deferred tax assets	42 776	93 152	77 702	101 204	99 088	96 913	123 039	155 633	188 993	206 081
Net non-operating deferred tax liabilities	-42 776	-93 152	-77 702	-101 204	-99 088	-96 913	-123 039	-155 633	-188 993	-206 081
Net deferred taxes	-34 468	6 430	-75 192	-133 254	-152 350	-168 487	-225 794	-285 500	-353 939	-373 340
Cumulative amortization and impairment	184 109	219 479	250 085	286 547	337 134	402 083	410 234	421 506	460 229	493 985
Shareholders' equity	4 217 051	4 748 600	5 370 546	6 423 167	7 455 577	8 481 861	9 278 363	10 468 701	11 450 793	12 751 554
<b>Equity and equity equivalents</b>	4 366 692	4 974 509	5 545 439	6 576 460	7 640 361	8 715 457	9 462 803	10 604 707	11 557 083	12 872 199
<b>Total funds invested</b>	5 057 495	5 631 897	6 067 536	7 134 499	8 282 223	9 523 549	10 301 978	11 614 399	12 586 882	14 159 744

**Appendix 3: Inditex forecasted income statement and balance sheet**

<b>Income statement</b>	<b>2017E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>
Operating revenue	25 847 022	28 491 509	31 221 367	34 009 842	36 826 300	39 636 626	42 403 779	45 088 491	47 650 105	50 047 527
Cost of merchandise	-11 123 592	-12 261 681	-13 436 510	-14 636 565	-15 848 663	-17 058 123	-18 249 002	-19 404 402	-20 506 825	-21 538 585
Gross profit	14 723 429	16 229 828	17 784 857	19 373 277	20 977 636	22 578 503	24 154 777	25 684 089	27 143 280	28 508 941
Operating expenses	-9 144 538	-10 080 144	-11 045 953	-12 032 500	-13 028 948	-14 023 227	-15 002 231	-15 952 067	-16 858 353	-17 706 548
Operating leases	-2 551 027	-2 812 030	-3 081 459	-3 356 674	-3 634 650	-3 912 021	-4 185 132	-4 450 105	-4 702 929	-4 939 547
Employee benefit expense	-3 412 069	-3 761 168	-4 121 537	-4 489 644	-4 861 446	-5 232 437	-5 597 729	-5 952 139	-6 290 298	-6 606 782
Other operating expense										
Other losses and income net	-8 704	-8 854	-12 369	-9 976	-10 399	-10 915	-10 430	-10 581	-10 642	-10 551
EBITDA	5 570 187	6 140 831	6 726 536	7 330 801	7 938 289	8 544 362	9 142 117	9 721 441	10 274 286	10 791 842
Depreciation amortization and impairment	-1 320 011	-1 455 065	-1 594 479	-1 736 887	-1 880 724	-2 024 248	-2 165 567	-2 302 675	-2 433 497	-2 555 934
Amortization	-142 334	-156 897	-171 930	-187 285	-202 795	-218 271	-233 509	-248 293	-262 400	-275 602
Net operating profits (EBIT)	4 250 176	4 685 765	5 132 056	5 593 913	6 057 565	6 520 114	6 976 550	7 418 765	7 840 789	8 235 909
Financial income										
Financial losses										
Net financial items	13 037	14 371	15 747	17 154	18 574	19 992	21 388	22 742	24 034	25 243
Results from companies consolidated by equity method										
Profits before taxes	4 263 213	4 700 136	5 147 804	5 611 067	6 076 139	6 540 106	6 997 938	7 441 507	7 864 822	8 261 152
Income taxes	-1 057 914	-1 166 153	-1 277 885	-1 392 017	-1 507 294	-1 622 321	-1 735 580	-1 845 464	-1 950 311	-2 048 437
Net profit	3 205 298	3 533 983	3 869 918	4 219 050	4 568 845	4 917 786	5 262 358	5 596 043	5 914 511	6 212 715

<b>Balance sheet</b>	<b>2017E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>
<b>Assets</b>										
Current assets	10 491 211	11 498 592	12 561 570	13 625 694	14 742 767	15 824 851	16 934 951	18 039 704	19 117 370	20 161 858
Cash and Equivalents	4 227 464	4 729 258	5 300 924	5 862 390	6 469 528	7 047 781	7 675 671	8 286 342	8 896 376	9 499 628
Receivables	1 134 223	1 250 269	1 370 061	1 492 426	1 616 018	1 739 341	1 860 770	1 978 581	2 090 990	2 196 194
Inventories	2 725 487	3 040 058	3 334 698	3 636 522	3 943 178	4 243 195	4 523 130	4 818 681	5 093 804	5 350 855
Current financial investments	2 077 360	2 118 907	2 161 285	2 204 511	2 248 601	2 293 573	2 339 444	2 386 233	2 433 958	2 482 637
Other financial assets	74 566	82 195	90 071	98 115	106 241	114 348	122 331	130 076	137 466	144 383
Income tax receivable	71 672	79 005	86 575	94 307	102 117	109 910	117 583	125 027	132 130	138 778
Other current assets	180 438	198 900	217 957	237 423	257 085	276 704	296 021	314 763	332 646	349 382
Non-current assets	10 517 011	11 514 071	12 545 866	13 599 087	14 664 805	15 729 856	16 776 593	17 789 691	18 758 768	19 665 698
Property plant and equipment	7 992 146	8 809 847	9 653 945	10 516 168	11 387 044	12 256 024	13 111 654	13 941 792	14 733 868	15 475 173
Investment property	21 152	21 152	21 152	21 152	21 152	21 152	21 152	21 152	21 152	21 152
Rights over leased assets	512 099	509 947	509 479	507 610	508 460	510 791	510 999	508 764	509 244	509 710
Other intangible assets	233 407	257 288	281 940	307 120	332 554	357 932	382 920	407 164	430 297	451 946
Goodwill	192 979	190 467	188 667	187 491	185 493	183 668	182 006	180 379	178 643	176 971
Financial investments	256 605	282 859	309 960	337 644	365 605	393 506	420 978	447 631	473 062	496 863
Investments in associates										
Deferred tax assets	694 635	765 705	839 070	914 009	989 701	1 065 228	1 139 595	1 211 746	1 280 589	1 345 020
Other	613 987	676 806	741 653	807 893	874 797	941 555	1 007 288	1 071 062	1 131 913	1 188 862
<b>Total assets</b>	<b>21 008 222</b>	<b>23 012 663</b>	<b>25 107 436</b>	<b>27 224 780</b>	<b>29 407 572</b>	<b>31 554 707</b>	<b>33 711 543</b>	<b>35 829 395</b>	<b>37 876 138</b>	<b>39 827 556</b>
<b>Liabilities</b>	<b>94 %</b>									
Current liabilities	5 422 761	5 950 780	6 515 182	7 068 020	7 648 016	8 198 617	8 753 229	9 293 962	9 808 163	10 289 349
Trade and other payables	5 182 062	5 712 254	6 259 563	6 818 623	7 383 294	7 946 735	8 501 521	9 039 778	9 553 355	10 034 014
Financial debt	26 591	32 847	40 378	33 272	35 499	36 383	35 051	35 644	35 693	35 463
Other financial liabilities	71 814	68 012	67 837	69 221	68 357	68 472	68 683	68 504	68 553	68 580
Income tax payable	142 294	137 667	147 404	146 904	160 866	147 027	147 974	150 035	150 561	151 293
Non-current liabilities	1 565 040	1 713 158	1 866 358	2 013 830	2 173 485	2 315 014	2 465 534	2 610 818	2 748 330	2 877 449
Financial debt	1 411	1 231	972	1 028	1 161	1 098	1 065	1 088	1 103	1 088
Newly issued debt	-	-	-	-	-	-	-	-	-	-
Deferred tax liabilities	367 538	405 142	443 960	483 611	523 661	563 623	602 971	641 147	677 572	711 663
Provisions	175 923	182 242	189 137	186 842	195 151	185 859	187 846	188 967	188 933	189 351
Other non-current liabilities	1 020 167	1 124 543	1 232 289	1 342 348	1 453 512	1 564 434	1 673 652	1 779 616	1 880 722	1 975 346
Equity	14 020 422	15 348 725	16 725 896	18 142 930	19 586 072	21 041 076	22 492 780	23 924 615	25 319 646	26 660 758
Forecast of new equity issues less accumulated dividends										
Net equity attributable to the parent										
Net equity attributable to minority interest										
<b>Total equity and liabilities</b>	<b>21 008 222</b>	<b>23 012 663</b>	<b>25 107 436</b>	<b>27 224 780</b>	<b>29 407 572</b>	<b>31 554 707</b>	<b>33 711 543</b>	<b>35 829 395</b>	<b>37 876 138</b>	<b>39 827 556</b>

#### **Appendix 4: Inditex reorganized forecast statements**

<b>NOPLAT calculation</b>	<b>2017E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>
Operating revenue	25 847 022	28 491 509	31 221 367	34 009 842	36 826 300	39 636 626	42 403 779	45 088 491	47 650 105	50 047 527
Cost of merchandise	-11 123 592	-12 261 681	-13 436 510	-14 636 565	-15 848 663	-17 058 123	-18 249 002	-19 404 402	-20 506 825	-21 538 585
Operating expenses	-8 640 892	-9 524 968	-10 437 584	-11 369 796	-12 311 364	-13 250 881	-14 175 965	-15 073 489	-15 929 859	-16 731 339
Operating leases	-2 560 839	-2 822 846	-3 093 312	-3 369 585	-3 648 630	-3 927 068	-4 201 229	-4 467 222	-4 721 018	-4 958 547
Fixed and variables wages	-3 412 069	-3 761 168	-4 121 537	-4 489 644	-4 861 446	-5 232 437	-5 597 729	-5 952 139	-6 290 298	-6 606 782
Other operating expense	-2 667 984	-2 940 953	-3 222 735	-3 510 567	-3 801 288	-4 091 376	-4 377 007	-4 654 128	-4 918 544	-5 166 010
EBITDA	6 082 537	6 704 860	7 347 273	8 003 480	8 666 273	9 327 622	9 978 812	10 610 601	11 213 421	11 777 602
Depreciation charge	-1 135 556	-1 251 738	-1 371 671	-1 494 179	-1 617 917	-1 741 385	-1 862 957	-1 980 906	-2 093 447	-2 198 775
Amortization	-97 243	-107 192	-117 462	-127 953	-138 549	-149 122	-159 533	-169 633	-179 271	-188 291
Operating EBITA	4 849 738	5 345 930	5 858 140	6 381 348	6 909 807	7 437 115	7 956 322	8 460 061	8 940 703	9 390 537
Operating cash taxes	-1 092 147	-1 203 888	-1 319 236	-1 437 061	-1 556 069	-1 674 817	-1 791 741	-1 905 182	-2 013 421	-2 114 722
NOPLAT	3 757 591	4 142 042	4 538 903	4 944 286	5 353 738	5 762 298	6 164 581	6 554 880	6 927 282	7 275 815

<b>Invested capital calculation</b>	<b>2017E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>
Operating cash	516 940	569 830	624 427	680 197	736 526	792 733	848 076	901 770	953 002	1 000 951
Receivables	1 134 223	1 250 269	1 370 061	1 492 426	1 616 018	1 739 341	1 860 770	1 978 581	2 090 990	2 196 194
Inventories	2 725 487	3 040 058	3 334 698	3 636 522	3 943 178	4 243 195	4 523 130	4 818 681	5 093 804	5 350 855
Other current assets	180 438	198 900	217 957	237 423	257 085	276 704	296 021	314 763	332 646	349 382
Income tax receivable	71 672	79 005	86 575	94 307	102 117	109 910	117 583	125 027	132 130	138 778
Operating current assets	4 628 762	5 138 062	5 633 718	6 140 875	6 654 924	7 161 882	7 645 580	8 138 822	8 602 572	9 036 161
Trade and other payables	5 182 062	5 712 254	6 259 563	6 818 623	7 383 294	7 946 735	8 501 521	9 039 778	9 553 355	10 034 014
Income tax payable	142 294	137 667	147 404	146 904	160 866	147 027	147 974	150 035	150 561	151 293
Operating current liabilities	5 324 356	5 849 921	6 406 967	6 965 527	7 544 160	8 093 763	8 649 495	9 189 813	9 703 917	10 185 306
Operating working capital	-695 594	-711 860	-773 249	-824 653	-889 236	-931 881	-1 003 915	-1 050 992	-1 101 345	-1 149 146
Net PP&E	8 013 298	8 830 999	9 675 097	10 537 320	11 408 196	12 277 176	13 132 806	13 962 944	14 755 020	15 496 325
Rights over leased assets	512 099	509 947	509 479	507 610	508 460	510 791	510 999	508 764	509 244	509 710
Other	613 987	676 806	741 653	807 893	874 797	941 555	1 007 288	1 071 062	1 131 913	1 188 862
Invested capital (excluding goodwill and impairment)	8 443 791	9 305 893	10 152 980	11 028 169	11 902 216	12 797 641	13 647 178	14 491 779	15 294 832	16 045 753
Goodwill and intangible assets	426 387	447 754	470 607	494 611	518 047	541 600	564 927	587 543	608 940	628 917
Net deferred tax liabilities (amortization)	-29 430	-29 430	-29 430	-29 430	-29 430	-29 430	-29 430	-29 430	-29 430	-29 430
Goodwill and acquired intangibles less tax gross up	396 956	418 324	441 176	465 181	488 617	512 170	535 497	558 113	579 510	599 487
Net cumulative amortization	763 876	847 045	939 270	1 041 536	1 154 936	1 280 684	1 420 122	1 574 742	1 746 197	1 936 319
Cumulative impairment losses (inc P&L Charges)	7 684	8 490	9 358	9 918	10 308	9 512	9 238	9 502	9 532	9 282
Cumulative deferred tax shield	-226 780	-248 857	-273 083	-299 667	-328 839	-360 851	-395 980	-434 528	-476 828	-523 247



Cumulative amort. and imp. of intangibles less def.tax shield	544 780	606 678	675 546	751 787	836 405	929 344	1 033 381	1 149 717	1 278 900	1 422 355
Adjusted goodwill and intangibles	941 737	1 025 003	1 116 722	1 216 968	1 325 022	1 441 514	1 568 877	1 707 829	1 858 410	2 021 842
Invested capital (including goodwill and impairment)	9 385 527	10 330 895	11 269 702	12 245 138	13 227 237	14 239 155	15 216 055	16 199 609	17 153 242	18 067 594
Excess cash	3 710 524	4 159 428	4 676 496	5 182 193	5 733 002	6 255 048	6 827 596	7 384 573	7 943 374	8 498 678
Financial investments	256 605	282 859	309 960	337 644	365 605	393 506	420 978	447 631	473 062	496 863
Current financial investments	2 077 360	2 118 907	2 161 285	2 204 511	2 248 601	2 293 573	2 339 444	2 386 233	2 433 958	2 482 637
Other financial assets	74 566	82 195	90 071	98 115	106 241	114 348	122 331	130 076	137 466	144 383
Total funds invested	15 504 582	16 974 285	18 507 515	20 067 600	21 680 686	23 295 630	24 926 404	26 548 122	28 141 102	29 690 155

## Appendix 5: Inditex cash flow and DCF summary

### Historical cash flow

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NOPLAT	1 420 518	1 196 052	2 048 157	2 331 694	2 846 154	2 505 789	3 050 631	3 454 670	3 908 740	
Depreciation charge	568 524	641 214	671 241	690 338	752 196	756 872	798 055	920 371	892 111	
Gross cash flow	1 989 042	1 837 266	2 719 398	3 022 032	3 598 350	3 262 661	3 848 686	4 375 041	4 800 851	
Δ Working capital	-231 416	373 625	128 167	-169 212	25 515	-114 396	-15 987	702 409	119 055	
Δ Current assets	-301 436	260 534	-274 156	-176 195	-703 986	-127 120	-252 337	-231 169	-614 777	
Δ Operating cash	-19 446	-13 531	-28 862	-25 320	-43 071	-15 566	-27 842	-55 678	-48 202	
Δ Receivables	-121 595	163 530	-60 063	-49 204	-316 560	32 381	-46 584	193 004	-192 219	
Δ Inventory	-47 627	62 270	-222 053	-62 387	-304 287	-95 582	-182 637	-335 499	-354 180	
Δ Other current assets	-99 145	48 586	38 117	-39 007	1 633	-11 652	-22 627	-12 194	-1 789	
Δ Income tax receivable	-13 623	-321	-1 295	-277	-41 701	-36 701	27 353	-20 802	-18 387	
Δ Current liabilities	70 020	113 091	402 323	6 983	729 501	12 724	236 350	933 578	733 832	
Δ Trade and other payables	97 890	29 888	355 828	16 283	768 141	89 171	175 426	1 006 388	580 866	
Δ Income tax payable	-27 870	83 203	46 495	-9 300	-38 640	-76 447	60 924	-72 810	152 966	
Capital expenditure	-916 012	-464 784	-841 082	-1 559 638	-1 417 019	-1 404 543	-1 818 882	-1 382 497	-1 642 046	
Δ Invested capital (excluding goodwill and impairment)	-863 320	-441 100	-786 966	-1 309 895	-1 350 974	-1 327 818	-1 762 867	-1 373 812	-1 548 645	
Δ PP&E	-791 467	-452 816	-731 671	-1 308 725	-1 357 644	-1 178 259	-1 643 396	-1 348 824	-1 518 114	
Δ Property plant & equipment	-260 209	148 786	-103 548	-665 983	-599 341	-475 174	-902 992	-556 894	-685 961	
Δ Investment property	1 020	-4 818	-4 081	-2 453	-62 760	-242	1 319	60 338	-69	
Δ Right over leased assets	-26 864	17 309	-12 147	26 346	12 486	-21 445	-22 196	26 668	-599	
Δ Other	-44 989	-5 593	-43 148	-27 516	-5 816	-128 114	-97 275	-51 656	-29 932	
Δ Adjusted goodwill and tangibles	-52 692	-23 684	-54 116	-249 743	-66 045	-76 725	-56 015	-8 685	-93 401	
Gross investment	-1 147 428	-91 159	-712 915	-1 728 850	-1 391 504	-1 518 939	-1 834 869	-680 088	-1 522 991	
Free cash flow	841 615	1 746 106	2 006 483	1 293 182	2 206 846	1 743 722	2 013 817	3 694 953	3 277 860	

## Forecasted cash flow

	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
NOPLAT	3 757 591	4 142 042	4 538 903	4 944 286	5 353 738	5 762 298	6 164 581	6 554 880	6 927 282	7 275 815
Depreciation charge	1 177 676	1 298 168	1 422 549	1 549 602	1 677 929	1 805 977	1 932 057	2 054 382	2 171 097	2 280 332
Gross cash flow	4 935 267	5 440 210	5 961 453	6 493 888	7 031 667	7 568 274	8 096 639	8 609 261	9 098 380	9 556 147
Δ Working capital	-504 504	16 266	61 389	51 404	64 584	42 644	72 035	47 076	50 353	47 801
Δ Current assets	-503 667	-509 300	-495 656	-507 157	-514 049	-506 958	-483 698	-493 242	-463 750	-433 589
Δ Operating cash	-50 730	-52 890	-54 597	-55 769	-56 329	-56 207	-55 343	-53 694	-51 232	-47 948
Δ Receivables	-273 197	-116 046	-119 792	-122 364	-123 592	-123 323	-121 429	-117 811	-112 409	-105 204
Δ Inventory	-176 292	-314 570	-294 640	-301 824	-306 656	-300 017	-279 935	-295 550	-275 123	-257 052
Δ Other current assets	-39 248	-18 461	-19 057	-19 466	-19 662	-19 619	-19 318	-18 742	-17 883	-16 736
Δ Income tax receivable	35 801	-7 333	-7 570	-7 732	-7 810	-7 793	-7 673	-7 445	-7 103	-6 648
Δ Current liabilities	-837	525 566	557 046	558 560	578 633	549 603	555 732	540 318	514 103	481 390
Δ Trade and other payables	86 930	530 192	547 308	559 061	564 671	563 442	554 786	538 257	513 577	480 658
Δ Income tax payable	-87 767	-4 627	9 737	-500	13 962	-13 839	947	2 061	526	731
Capital expenditure	-	-	-	-	-	-	-	-	-	-
Δ Invested capital (excluding goodwill and impairment)	1 903 632	2 259 802	2 422 746	2 576 441	2 724 612	2 860 539	2 980 992	3 085 012	3 175 083	3 242 486
Δ PP&E	1 953 632	2 176 536	2 331 026	2 476 194	2 616 559	2 744 047	2 853 628	2 946 060	3 024 503	3 079 054
Δ Property plant & equipment	1 886 325	2 115 869	2 266 648	2 411 825	2 548 805	2 674 957	2 787 688	2 884 520	2 963 173	3 021 638
Δ Investment property	-708 718	-817 701	-844 098	-862 223	-870 876	-868 980	-855 630	-830 139	-792 075	-741 306
Δ Right over leased assets	69	-	-	-	-	-	-	-	-	-
Δ Other	-7 053	2 152	468	1 870	-850	-2 332	-208	2 235	-480	-466
Δ Adjusted goodwill and tangibles	-60 253	-62 819	-64 847	-66 239	-66 904	-66 758	-65 733	-63 774	-60 850	-56 950
Δ Adjusted goodwill and tangibles	50 001	-83 266	-91 719	-100 246	-108 054	-116 492	-127 364	-138 952	-150 580	-163 432
Gross investment	-	-	-	-	-	-	-	-	-	-
Free cash flow	2 408 136	2 243 536	2 361 356	2 525 037	2 660 029	2 817 895	2 908 957	3 037 936	3 124 730	3 194 685
	2 527 131	3 196 674	3 600 096	3 968 851	4 371 638	4 750 380	5 187 681	5 571 326	5 973 649	6 361 462

## DCF Summary

Industry unlevered Beta		0,83		
Risk-free rate		2,83 %		
Risk premium		6,71 %		
WACC		8,39 %		
Year	Free cash flow	Discount factor	Present value of free cash flow	
		8,39 %		
	2017	2 527 131	0,92	2 331 498
	2018	3 196 674	0,85	2 720 901
	2019	3 600 096	0,79	2 827 065
	2020	3 968 851	0,72	2 875 370
	2021	4 371 638	0,67	2 922 001
	2022	4 750 380	0,62	2 929 353
	2023	5 187 681	0,57	2 951 371
	2024	5 571 326	0,52	2 924 263
	2025	5 973 649	0,48	2 892 709
	2026	6 361 462	0,45	2 842 034
Continuing value	126 597 385	0,45	56 558 384	
Perpetuity growth rate			2,50 %	
NOPLAT			7 457 710	
Continuous value			126 597 385	
Value of free cash flow			28 216 564	
Continuous value			56 558 384	
Value of operations			84 774 949	
Value of excess cash			3 649 701	
Financial investments			231 423	
Current financial investments			2 036 627	
Other financial assets			86 923	
Enterprise value			90 779 623	
Short-term debt			125 381	
Long-term debt			920 551	
Provisions			241 613	
Non-controlling interest			87 600	
Equity value			89 404 478	
Number of shares			3 116 652	
Equity value per share			€28,69	

## **Appendix 6: Inditex and H&M capitalized operating lease calculations**

### **Inditex:**

Asset life	37,5
Credit spread	0,81 %
Risk-free rate	2,83 %
Cost of debt	3,64 %

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017E
Operating leases	-855 378	-1 028 377	-1 134 032	-1 272 076	-1 398 732	-1 529 705	-1 656 311	-1 849 564	-2 087 434	-2 221 040	-2 465 354
Capitalized operating leases	16 306 189	17 981 480	20 170 338	22 178 626	24 255 365	26 262 859	29 327 125	33 098 848	35 217 336	39 091 243	
Estimated depreciation	-434 832	-479 506	-537 876	-591 430	-646 810	-700 343	-782 057	-882 636	-939 129	-1 042 433	
Interest cost	-420 546	-548 871	-596 156	-680 646	-751 922	-829 362	-874 254	-966 928	-1 148 305	-1 178 607	

### **Hennes & Mauritz**

Asset life	37,5
Credit spread	0,81 %
Risk-free rate	2,83 %
Cost of debt	3,64 %

H&M	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EBITA	18 432	20 247	21 826	24 849	20 562	21 939	22 377	25 817	27 251	24 438
EBITA leasing adj.	9 965	10 471	9 577	11 958	7 569	7 883	7 333	8 641	6 697	2 106
Effective Tax rate	29 %	28 %	26 %	25 %	24 %	24 %	24 %	23 %	23 %	22 %
NOPLAT	7 063	14 614	16 180	18 562	15 535	16 606	17 038	19 915	20 904	18 944
Rental expense	8 467	9 776	12 249	12 891	12 993	14 056	15 044	17 176	20 554	22 332
Invested Capital (Bloomberg database)	32 173	39 204	42 352	46 831	46 425	44 916	48 018	54 662	60 987	67 100
NPV leasing	139 566	161 143	201 907	212 489	214 170	231 692	247 978	283 121	338 802	368 110
Invested capital adj. Leasing	171 739	200 347	244 259	259 320	260 595	276 608	295 996	337 783	399 789	435 210
Estimated depc.	3 722	4 297	5 384	5 666	5 711	6 178	6 613	7 550	9 035	9 816
Rental expense leasing	4 745	5 479	6 865	7 225	7 282	7 878	8 431	9 626	11 519	12 516
ROIC adj. Leasing	4,11 %	7,29 %	6,62 %	7,16 %	5,96 %	6,00 %	5,76 %	5,90 %	5,23 %	4,35 %