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Leveraged Buyout Case Study of Abercrombie & Fitch

An evaluation of Abercrombie & Fitch's potential as a LBO target, seen from a Private Equity funds perspective

MASTER'S THESIS

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Executive summary

The low interest rate environment in today's market has fueled the amount of investments related to private equity, as general partners have developed their ability to identify good companies with large opportunities for value creation. In addition, PE funds have after the financial crisis, to a much larger extent, been applying a more strategy driven approach to create such value.

A company representing such opportunity, is the once so popular American teen retailer Abercrombie and Fitch (A&F). The purpose of this thesis has thus been to evaluate A&F as a potential target, by applying the LBO model and determine if such buyout could result in an acceptable return from a PE firm's perspective.

After a thorough analysis of both A&F and its environment and through the implementation of different strategic initiatives, we have concluded that A&F, as a LBO target, would provide a satisfactory return, from a PE funds perspective, if the investment where to be exited within four to eight years.

Key Words

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1. Introduction

Since the introduction of the first Private Equity (PE) fund, the PE industry has grown in importance as their total assets under management has become larger and larger as time progressed. Moreover, PE funds have historically provided a relatively high risk-return ratio and served as a valuable diversification factor for their investors and their portfolios (Artivest, 2016). Furthermore, the low interest rates in today's market has been fueling the amount of investments related to private equity. This, as the General Partners (GPs) of the private equity funds has developed their ability to identify target companies and industries with opportunities for long-term growth and value creation. Thus, PE related investments has been a growing interest for institutional investors in search of yield in a market troubled by low interest rates. As a result, the global buyout-capital raised within the PE industry has almost reached the record high levels set just before the financial crisis, raising more than $200 Billion in 2016 (Bain, 2017).

Additionally, as an asset class, PE funds invest in companies by acquiring ownership and strive to create value through an active ownership profile. It is the fund's goal to create value by optimizing operations, create distinctive strategies and reduce existing agency costs among many other initiatives from their toolbox. To do so, they can make use of the leveraged buyout (LBO) model, which is an acquisition method that a PE fund uses to acquire ownership and control of a company, to generate substantial returns after taking ownership (Kaplan and Stromberg, 2009). The model applies a significant amount of debt in the transaction to minimize the necessary equity contribution, thus leveraging the equity at exit. Furthermore, the debt component acts as an external pressure on management as it enforces a need to free up capital to pay back the derived principal and interests payments.

Moreover, PE firms have historically been known for creating value in their target companies by optimizing their operational setup. However, as growth disappeared in the turbulence of the financial crisis, many companies have increasingly focused on optimizing their operations to remain competitive, which has caused more PE funds to use a strategic growth approach in their buyouts, compared to before the financial crisis in 2008 (Bain, 2017).

A firm that is in desperate need for such a strategic transformation is the American apparel company Abercrombie and Fitch (A&F). After an aggressive expansion strategy during 2010-2012, A&F's business has suffered severe financial consequences as target consumers have drifted away from the once so popular apparel retailer and its offerings (Minato, 2012). Thus, with a share price reaching a 17-year low, constantly declining margins and a like for like sales that has been negative for 15 of the last 16 quarters, it is clear that A&F has become a favorable LBO target.

With the aforementioned in mind, we have therefore found it interesting to evaluate A&F as a potential LBO target, by applying the LBO model, to determine if such buyout could result in an acceptable return from a PE fund's perspective.

1.1 Problem Statement

Our purpose throughout this thesis is to apply the LBO model to A&F, and through a thorough analysis of the strategic and financial environment, establish a distinct strategic direction for the firm, to determine whether the firm, as a LBO target, could generate a sufficient return if acquired by a PE fund. As a result, the following research question has been established.

Is it possible for a private equity fund to obtain an acceptable return through a leveraged buyout of Abercrombie & Fitch, if the prospect is evaluated as of 1st February 2017?

To aid us in answering the above problem statement, we have established the following study questions to support us in our research. The different study questions aim to provide the necessary decomposed knowledge needed to showcase LBO model and answer our problem statement.

- How is A&F positioned in its current strategic environment?
- How is A&F's financial state compared to close peers?
- What strategic implementations could a PE fund apply to a LBO of A&F based on their greatest strengths, weaknesses, opportunities and threats?
- How large of an equity contribution does the PE fund have to provide based on the attainable debt?
- What is the IRR and Cash On Cash multiple obtained by the PE fund and would these be of a satisfactory level?
- What factors pose the biggest influence on our model and what is their relative contribution to our obtained outcome?

1.2 Delimitation

In the process of answering this thesis, we have had to set up various delimitations in our process of analyzing A&F through a LBO model.

The first delimitation set in our research is the geographical scope with which we analyze the strategic environment. As A&F's current markets include the US, Europe and a small share of stores in the Middle East and the Asia Pacific region, these areas will compose and set the boundary with which we analyze the strategic environment. By focusing solely on these geographical areas, potential lucrative growth

opportunities in other parts of the world are potentially out of play. Furthermore, by not focusing on the macro- and micro environmental effects in other regions, hidden threats could potentially have an unknown effect to A&F's business.

In the valuation process of our LBO model on A&F, to acquire a given acquisition price, we have had to assume a cut-off date, to calculate the price we would have to pay. In the same process of analyzing the financials of A&F, we have set the cut-off date to 1st of February, 2017, which is the first day of their 2017 fiscal year. By doing so, we simplify our calculations, as they are all based on full-year results, rather than needing to forecast and estimate on a quarterly level. In the transaction of A&F, we have furthermore assumed a fixed transaction cost equal to 3% of the Enterprise Value, which is assumed to cover any legal, PR or advisory fees and fees in relation to the debt raised in the transaction. Moreover, it is assumed that such fee needs to be paid out of pocket by the PE fund.

In the forecast of our LBO, we have chosen to exclude the estimated Cash Flow Statement, since this can be derived and will be a direct result of the balance sheet and income statement.

Finally, in the evaluation of our LBO of A&F, we make use of a single valuation method. In a valuation scenario, it could provide depth to an evaluation of the derived results when using more than a single valuation method to verify the results. We have in our process chosen to focus on a single valuation method, and discuss its different facets thoroughly rather than to apply others. Our choice of valuation method is however well in line with the industry approach to evaluate firms and transactions through a 'multiples' approach, instead of conducting several valuation methods. Finally, in relation to the valuation, it is important to state that we have assumed that the book value of assets and liabilities provide the best guess for the market value of these. We have in this process chosen not to focus on evaluating the market value of these, other than using a valuation approach to estimate the market value of equity.

2. Methodology

The way you chose to look at the world and gathered information can have big implications on the assumptions made throughout a research process. We have therefore found it to be of relevance to clarify which scientific research paradigm that we have chosen to adapt as a foundation for our analysis of gathered data and assumptions made throughout the process (Silverman, 2011). The research conducted in this thesis is highly dependent on both quantitative and qualitative theory in which an objective approach has been taken, and thus our work in relation to this thesis is assessed to be of positivistic nature. In positivistic studies the researcher is assumed to interpret and collect data in an objective way, we will therefore, to the best of our ability, try to maintain an objective approach throughout the entire thesis (Bryman and Bell, 2007). Although objectivism is applied, subjectivity is to some extent deemed to be necessary in parts such as our forecasting and debt section, since these parts, to some extent, contains subjective estimates made by the authors.

Moreover, the analysis and results in this thesis has been based on both qualitative and quantitative data and the theoretical framework used to support these analysis has been selected based on both our prior knowledge and on what we have learned throughout the process of writing this thesis. As a result, exclusions of some theory has been made, with the use of theory and frameworks reflecting our positions as students. Thus theory and frameworks used by practitioners and researchers, with different backgrounds and prior knowledge, might differ from the once used in this thesis.

Our quantitative and qualitative data used in this thesis can be divided into primary and secondary data (Alvesson and Kärreman, 2007). For our quantitative data we have only been using secondary data, since none of the underlying quantitative data, in this thesis, has been created by the authors. The databases, from which our secondary data originates from includes Bloomberg, Euromonitor and S&P Capital IQ. Our quantitative data also consists of financial statements and other relevant numbers form financial reports as well as analysts' reports and research papers conducted by companies such as Passport, MarketLine, PWC and other credible companies and networks. With regards to the qualitative data used in this thesis, both primary and secondary data has been applied. Our primary data consists of a conducted interview with a Manager from Danske Banks Leveraged Finance department. The interview has been conducted with the purpose of gaining realistic estimates for our chosen debt level but also to compliment, our otherwise theoretical thesis, with a practical perspective of our chosen subject. Our secondary sources of qualitative data consist of annual reports from selected companies, news and articles from databases such as Bloomberg, Reuters and other credible news companies and research material conducted by practitioners as well as professional research companies.

Moreover, our literary review section mainly consists of secondary sources of information in the shape of scientific articles since secondary sources according to Saunders, Lewis and Thornhill (2012) are more appropriate to use when trying to illustrate your research question in the light of previous research within the chosen subject.

Furthermore, we are aware of that our limited access to internal information about A&F in this thesis propose a potential limitation. This due to the fact that our chosen target company is publicly listed and thus we have not been able to gain access to internal information. Thus, to better reflect this lack of internal data, and try to mitigate such limitation, we have chosen to look at this LBO transaction as if it was of a hostile character, in which the PE firm would have limited access to internal data from the company.

Additionally, relevant and commonly used models and frameworks has been applied and carefully chosen, for the vast amount of data gathered, when it has been deemed necessary. This is since different frameworks needs to be applied to different data to make sure that the data is understood and analyzed in a correct way (Bryman and Bell, 2007). Such models have served the purpose of helping create a better understanding of the chosen target company and how it interacts with its environment, and to gain insights that otherwise would have been hard to obtain. The models and frameworks used in the strategic and financial analysis of A&F includes a PESTEL, applied when analyzing the macro economic environment, a Porters Five Forces framework, with the purpose of analyzing the competitive environment and a SWOT and value chain framework, with the purpose of identifying a specific company's current position and future struggles and opportunities, as well as how it, through different activities, creates value (Grant, 2010). For the purpose of valuating A&F at both entry and exit and assessing the PE firm's final return, a LBO model has been applied.

When evaluating a company from a valuation standpoint a variety of different approaches can be undertaken, which is why our choice of valuation method is worth discussing. The LBO model applied, has been used extensively, and is the current go to method for PE funds when evaluating a target (Greisen, 2017). Variations of the model has emerged, as different funds, over time, has taken slightly different approaches on how to determining the EV in relation to a potential exit (Petersen, Plenborg and Schöler, 2006). The approach of determining the EV at exit thought the use of an exit multiple has been chosen as a method for this thesis, which is supported by Tommy Greisen and in accordance with relevant theory (Rosenbaum and Pearl, 2009). As a result, the common alternative of using a DCF approach when valuating a company, by discounting its future cash flows, has not been used in this thesis.

Moreover, the purchase price of A&F will be determined by applying a determined purchase premium, based on historical and current average premiums as well as on A&Fs individual characteristics. Thus our entry multiple will be a result of the aforementioned calculation plus adjustments made for net debt and minimum cash needs. On the contrary, our exit value will be derived by applying the chosen exit multiple to our exit EBITDA level. A conservative standard often applied when analyzing the PE returns is to assume that the exit multiple equals the one used at entry (Greisen, 2017; Rosenbaum and Pearl 2009). This will therefore be our initial assumption going into the valuation of A&F at exit. This assumption will however be critically assessed by, though the use of a regression, trying to asses if a different multiple could be justified at exit, given our forecasted 3-year CAGR at exit.

Moreover, the evaluation of the return at exit will be made by assessing the IRR and COC, which are two commonly used metrics when determining the return at exit (Rosenbaum and Pearl 2009; Greisen, 2017). Additionally, our determined forecast period has been set to ten years, which enables us to evaluate during what year a potential exit would be optimal, given the obtained IRR and COC in each year, and determining if this corresponds to current and historical holding periods.

To make sure that our key sources of information used in this thesis has been evaluated from a critical standpoint we have applied "The Academic Journal Quality Guide, Version 4" to help us evaluate what sources are of credible nature. Furthermore, it has enabled us to locate and choose the most appropriate sources for our chosen subject. Moreover, we could also follow up the references made in these articles to help substantiate our theoretical framework even further, which is a recommended approach by Saunders et. al (2012). Additionally, we have also been applying annual reports made and published by different companies, in which it is in favor of the company to project as good of an image of the company as possible, but since the companies mentioned in this thesis, by law, must project their numbers as they are without manipulating the data, it is assessed that the annual reports used are a credible source of information. Moreover, the different databases, Bloomberg, Euromonitor, Capital IQ and Pitchbook, from which a vast amount of our data have been extracted from, have been assessed as non-biased since their main function is to provide accurate and non-biased quantitative data to the market. The news sources used in this thesis has been assessed with a critical eye, and to ensure reliability we have always tried to crosscheck the information found towards other news agencies to evaluate the validity of the information. In addition to the above, the authors have also, throughout the process of writing this thesis, been aiming at applying a conservative approach when different estimates are calculated and applied.

Finally, when writing this thesis, the authors has assumed that potential readers of this paper have a basic understanding of the financial markets and some amount of prior knowledge within our chosen subject.

3. Presentation of Abercrombie and Fitch

3.1 Intro

Abercrombie and Fitch is a specialty retailer that operates three different brands. These are Abercrombie and Fitch, Hollister and Abercrombie Kids. Each brand tries to embody a certain lifestyle and the brands are all focused on high quality casual wear. Hollister tries to appeal to the west coast surfing style and have a big presence in the state of California, while Abercrombie and Fitch and its kids brand tries to embody the college style with higher quality clothing, just like brands such as Tommy Hilfiger. Abercrombie and Fitch today, has a big presence in the US and according to their annual report around 65% of their revenue is being generated in the US, primarily generated by stores located in shopping malls. The remaining 35% of their revenue is generated internationally in Europe and Asia (Abercrombie & Fitch, 2015).

3.2 History

In 1892, David Abercrombie founded Abercrombie when he opened up the first store in South Street, Manhattan New York. The main idea of the company was to offer and sell high quality hunting, camping and fishing gear to explorers and hunters. In 1904, a lawyer named Ezra Fitch bought the company and in 1906, Ezra was officially named co-founder and the company and its stores was renamed to Abercrombie and Fitch (Schlossberg, 2016).

In 1907, Abercrombie sold his remaining share of the company to Ezra, which enabled Ezra to expand the company in the wanted direction, which was into the general retailing market. In 1910, Ezra decided to move to the more fashionable, but more importantly, more trafficked street 5th Madison Avenue. In doing so, he also started to offer clothing to both male and female customers making Abercrombie and Fitch the first retail store to offer clothing options to both genders. Thereafter Abercrombie and Fitch achieved lots of success and was in 1917, according to itself, the largest and greatest store in the world for sporting goods. A&F was also the official outfitter for Charles Lindbergh on his historical flight over the Atlantic. In 1946, A&F reached a major sales peak and continued to expand its operations in and throughout the 1950s (Schlossberg, 2016).

During the 1960s and 1970s the sales started to decline as the company's high prices were no longer as equally appealing to the new generation of sporting audience, which was more focused on activities such as skiing, biking and backpacking. In 1976, as a result of the inability to transition to the new target audience, A&F filed for chapter 11 bankruptcy and closed its last store in 1977. In 1978, one year after the bankruptcy, the company Osman's Sporting Goods purchased A&Fs brand and its entire mailing list, and turned it into a mail order company for outdoor equipment. In January 1988, The Limited Inc. bought A&F

and one year after the acquisition, they repositioned A&F to more of a fashion-oriented business, focusing on their casual apparel (Schlossberg, 2016).

3.3 Company Performance

A&F has through its former CEO Mike Jeffries, made a lasting impression on their target audience by refocusing the brand to a more "attractive" audience. Mike created an image of only caring about attractive and "sexy" customers, and A&F through its racy and naked ads created many feelings around the brand. Furthermore, A&F has through its strict employment requirements of looking good and dressing nice, been in the crossfire of many lawsuits in recent years. Jeffries has also made many questionable statements about his target audience and employees, which made the headlines in many newspapers. These have accordingly been one of many reasons to their decreasing sales numbers, according to some analysts (BBC, 2013).

Some of these statements include (Cuffin, 2013):

On Employees: "That's why we hire good-looking people in our stores. Because good-looking people attract other good-looking people, and we want to market to cool, good-looking people."

On Inclusion: "A lot of people don't belong [in our clothes], and they can't belong."

On Target Customer: "Candidly, we go after the cool kids. We go after the attractive all-American kid with a great attitude and a lot of friends. A lot of people don't belong [in our clothes], and they can't belong."

"Abercrombie is only interested in people with washboard stomachs who look like they're about to jump on a surfboard."

On Market awareness: "I really don't care what anyone other than our target customer thinks."

On December 9, 2014, Mike Jeffries stepped down as CEO and chairman of A&F, after 11 periods of constant decline in same store sales. The market reacted positively on the news, and A&Fs stock price increased as a result (Rupp, 2014). A&F has since then, after a long period of vacancy, chosen to replace the CEO position with Fran Horowitz, the former Chief Merchandising Officer and Hollister Brand President, on February 1st 2017 (Abercrombie & Fitch, 2016). However, Horowitz appointment as CEO will not be taken into consideration since it happened after our chosen cutoff date.

A&F has since 2013 had negative comparable sales growth and has for fiscal 2016 had a comparable sales growth of -5,00% and an EBITDA margin and sales per square feet, which has reached record low levels,

as can be seen in table 1. This in combination with Abercrombie and Fitch's struggles to attract their target audience to their two brands, specifically to their Abercrombie brand, has led to a more or less constant decline in its share price since May 2013 (Abercrombie & Fitch, 2015).

	2013	2014	2015	2016
Revenue, millions	$ 4.116,90	$3.744,03	$3.518,68	$3.326,74
EBITDA, millions	$316,06	$339,94	$286,52	$210,60
EBITDA Margin	7,68%	9,08%	8,14%	6,33%
Sales per square feet	$524,65	$490,92	$475,21	$465,31
Comparable sales %	-11,0%	-8,0%	-3,0%	-5,0%
Employees	9000	8000	5000	5000
Market Cap, millions	$3.260	$2.670	$1.600	$810

Table 1 – Compiled by the authors with data from Bloomberg.

Furthermore, 2016 has not been a good year for A&Fs stock, which is down with more than 50% (-59,63%) since February 2016 as illustrated in appendix 1. According to analysts, a lot of this is due to Abercrombie's inability to perform in accordance with market expectations, with their latest quarterly comparable sales numbers being way below analysts' estimates (Bloomberg).

One very important factor for A&F's future performance, according to their latest annual report, is the ability to attract the interest of their target customers, by creating a brand image that resonates with the changing preferences of today's youth (Abercrombie & Fitch, 2015). This is something that A&F seems to have failed with since their total company comps have been negative for 14 out of the latest 15 quarters. Further, according to google trend data, both Abercrombie and Hollister has been experiencing a constant decreasing trend in online search volumes both internationally and in the USA, which is their by far biggest market up to date. Furthermore, two of A&F's competitors and peers haven't shown the same decrease in online search volumes. This further underscores the issue that A&F seems to have with adapting to their target audience's changing preferences, as shown by Figure 1 and 2 below. In an attempt to reinvigorate sales, management is now increasing their marketing spending in an attempt to reposition their brands, specifically Abercrombie. Despite this we believe that the trend data seen in figure 1 and 2, illustrates the struggle that A&F seems to have in gaining traction to turn around their sales numbers (Abercrombie & Fitch, 2015).
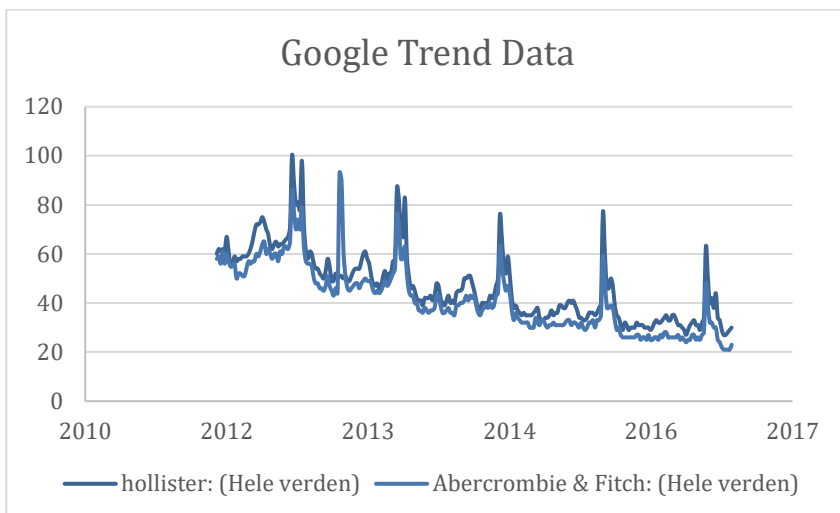
Figure 1 - Compiled by the authors with data from Google Trend
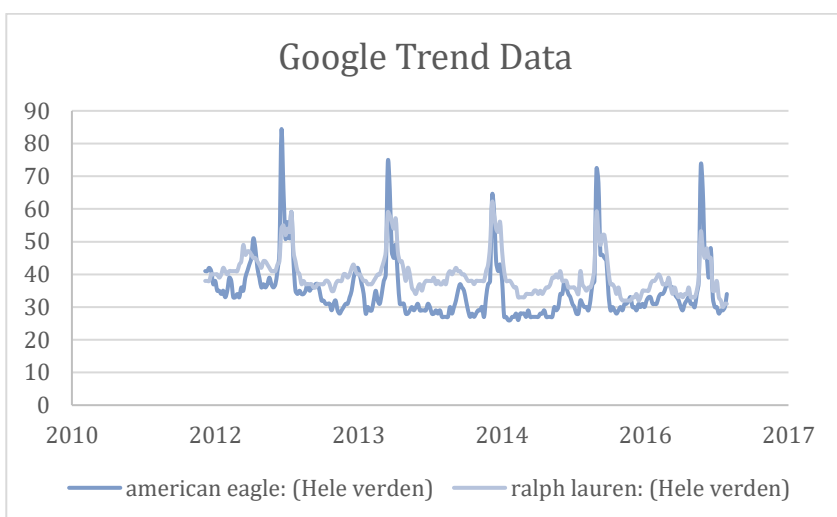
Figure 2 - Compiled by the authors with data from Google Trend

3.4 Current ownership structure

A&F is listed on the New York Stock Exchange, and has, as of February 2017, 67,76 million class A shares outstanding out of the 150 million class A shares authorized. A&F also has 106,4 million class B shares authorized, but none which are presently issued. The class A shares has one vote per share, while the class B shares are entitled to three votes per share. However, since class A shares are the only outstanding shares, it can be assumed that the % of shares owned reflects the voting power one has.

As of March 23 2016, A&F had approximately 3300 shareholders of record of which 276 of those are considered institutional investors (Abercrombie & Fitch, 2015; Nasdaq 2017). Moreover, Abercrombie's six biggest shareholders are all institutional investors, many of which are involved in PE related activities,

although the vast majority is attributable to ETF's or nominee accounts. A&F's biggest owner is Blackrock, followed by FMR LLC, Vanguard Group and Dimensional Fund Advisors. Five out of the six biggest owners 5 are considered block holders with an ownership of more than 5%, as shown in the Figure 3.
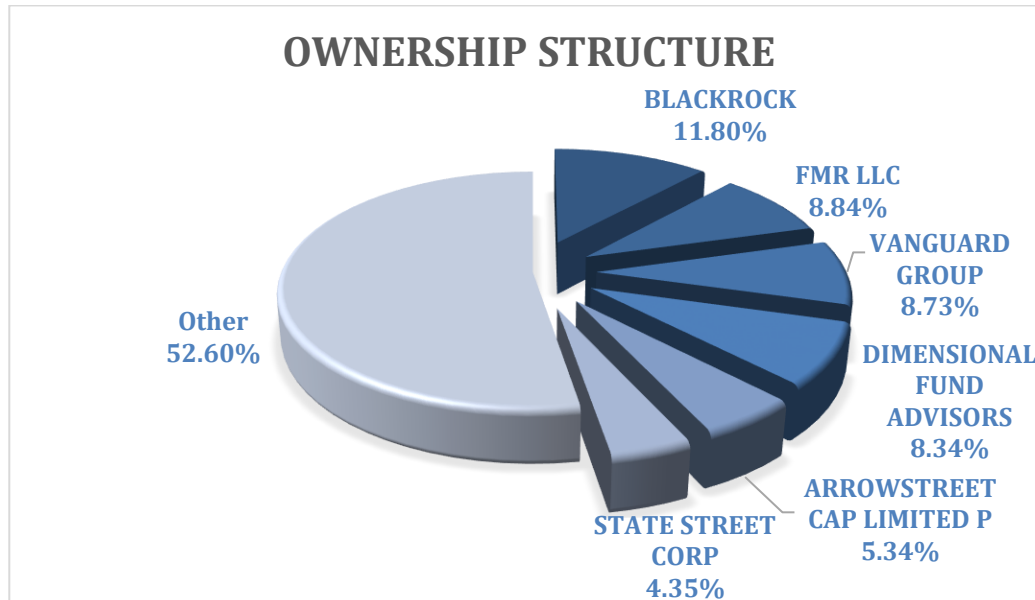
Figure 3 - Compiled by the authors with data from Bloomberg (2017-03-01)

3.5 Choice of A&F as a LBO Target

When looking for a potential LBO target we chose to only look at publicly listed companies to assure that financial data and company reports was easily accessible for analysis. Furthermore, we believed it to be of importance to find a company that had been performing badly during the last years to ensure that there might be good potential for improvement within the target company. Finally finding a company with the capability and potential to generate cash flows has also been of importance for us in the selection of target company.

Despite poor performance during the last years, A&F has been able to maintain a positive FCF although it has been volatile in the period of 2011-2016 it has mostly been due to bad inventory management, which we will discuss further in section 6.1.7 (Abercrombie & Fitch, 2016). We therefore find A&F to possess a good potential for future and stable FCF, which is an important aspect for a LBO target, since it needs to be able to service the debt commitments undertaken by the PE firm.

Another factor has been A&Fs current ownership structure which is very spread out with five institutional investors owning more than 5% and a sixth one just blow that. Moreover, Blackrock is the only block holder out of the five that owns more than 10%. Furthermore, there are no inequalities in voting power between

the different owners since only class A shares are presently issued. Additionally, the ownership structure is considered disperse and favorable, which will be discussed in more detail in section 12 in relation to the discussion about the offer premium.

Another also very interesting factor is A&F's cancelation of their Poison pill in 2014. The shareholder rights plan, they adopted in 1998 and set to expire in 2018, was canceled 4 years in advance, which according to Jefferies analyst, Randal Konik, better position A&F as a potential LBO target (Shrivastava and Kumar, 2014). Because of the cancelation of the Poison Pill, A&F no longer have any major defense mechanisms in place to fend off a potential buyout. Worth mentioning is A&F's high level of treasury stock on their balance sheet and the impact of this will therefore be discussed more in detail in section 6.1.8.

Moreover, A&Fs popularity, based on the amount of google searches made, has been on a steady decline since 2012, as seen from the google trends data in figure 2. The decline in search popularity started after some very clumsy statements from the former CEO, Mike Jeffries, which also showed an unwillingness to adapt to changing market conditions, causing the company to, lose a lot of the millennial customers' loyalty over time (Minato, 2012; Cuffin, 2013). Furthermore, as seen in appendix 1, A&F's share price has dropped more than 50% during the last year due to a lot of disappointing quarterly reports. This in term makes A&F very attractive from our point of view, since it is now possible to buy A&F's shares at a very good price, which is something that A&Fs share repurchases supports, indicating an undervalue stock (Berk and DeMarzo, 2014). Furthermore, the fact that their Price to Book ratio is currently below 1 just further supports this analysis. A&F had been without a CEO since December 2014, until now, which opens up the potential for a PE fund to step in with a clear vision and strong management.

With the aforementioned information in mind, we believe A&F is a good LBO candidate as the data above supports. Furthermore, the information above has served as an initial analysis of A&F, which is why a more detailed analysis will follow, taking more of the factors discussed in section 5 and 6 into consideration.

4. Literary Review

4.1 PE & LBO Characteristics

In this section, we will introduce the academia behind the LBO acquisition model and further shed light on some of the literature and research on several PE and LBO characteristics, to substantiate a meaningful discussion along our hypothetical LBO of A&F.

Not until the 1980s, even though there had been a so-called PE & LBO boom in the years before, did the academic world show much interests in the PE society, until it was covered by the seminal paper, "The eclipse of the public corporation", by Michael C. Jensen (1989). In his paper, he identifies a shift in control from widespread public ownership, to private ownership, and how it helped recreate lost value. Value was mostly lost through a gross corporate waste era from the 1960s to the 1970s (Jensen, 1989). The market for corporate control established the place where capital providers would compete over the rights to govern different corporations. Governing would include rights to establish processes, structures, management compensation, strategic directions and other desirable actions (Jensen, 1989).

Over the course of a few years, the amount and value of LBO transactions increased from 75 deals valuing at $1.3 billion in 1979, to 175 deals at a value of $16.6 billion in 1983. Later, with a regulatory overreaction, the market contracted in the early 1990s, but later recovered from $35 billion in 1996 to a global buyout value of $527 Billion in 2007 (Wruck, 2008). Recent studies conducted by Bain show that LBO transaction came to halt, and buyout deals declined rapidly, to count a buyout value of $70 Billion in 2009. However, over the past few years, the PE markets have increased their deals to a level around $250 Billion in 2016 (Bain, 2017).

As the interests on PE had increased, Jensen's argued in his paper that, *"the absence of effective monitoring led to such large inefficiencies that the new generation of active investors arose to recapture the lost value"* (Jensen, 1989, pp. 8). His main argumentation here is the fact that the public ownership structure failed to provide effective monitoring, and resulted in severe principal agent problems. Corporations where firms do not fit well with the public ownership model are corporations where long-term growth is slow, downsizing is the best strategy to create shareholder value or generated funds outstrip profitable investment opportunities (Jensen, 1989). The identification of these factors fit well with Jensen's free cash flow theorem (Jensen, 1989).

The research is based on the idea of a market for corporate control, introduced by Jensen and Ruback in 1983, as an acknowledgement of the increases in LBO and PE transactions (Wruck, 2008). Other characteristics that fit LBO candidates, which are not necessarily mutually exclusive, are low capital

expenditure requirements, efficiency enhancement opportunities, growth opportunities, a leading or defensible market position, strong asset base and potentially a proven management team (Rosenbaum and Pearl, 2009). A potential target does however not have to consist of all above characteristics, as long as one or a few of them can be leveraged by the PE fund in its track towards value growth.

As mentioned, a LBO is an acquisition of a firm, usually public, by a PE fund. Limited Partners (LP's), such as pension funds and wealthy investors, provide capital to the fund, while General Partners (GP's), whom initiate the acquisitions, run the fund. The prevalence and rationale behind the existence of the LBO model was based on two major components. As the name states, a high amount of debt is used in the acquisition, which results in a high leverage factor. The leverage allows for a substantial tax deductible as the interests related to the acquired debt can be used as a tax shield (Jensen, 1989). However, in respect of the method, *"it is not merely a function of the tax deductible interests"* (Jensen, 1989, pp. 4). The effects and changes to the governance structure that created the before mentioned market for corporate control, established the regime and possibility of turning weak governance into improved firm performance (Wruck, 2008). By taking over a firm and realigning the governance structure, the PE fund can effectively turn around corporate inefficiencies (Wruck, 2008). How the value creation works for firms acquired in a leveraged buyout, as well as how it is governed will be discussed next.

4.2 Corporate Governance & Value Creation

In this theoretical section, we put light to some of the academic work regarding governance in LBOs. Further, we will describe how value is created, and what managerial tools are used in the methodology of leveraged buyouts, and how it is linked together with the inherent structure of the LBO.

As formerly hinted, the market for corporate control and the ability to rule over governance rights is the primary driver behind improvements for any targeted company. Briefly, improvements and value creation can be split into primary value creation levers and secondary levers (Berg and Gottschalg, 2005). Although many of these levers are intertwined and interdependent, we will show and describe the effects isolated, and explain in what context the different value levers are connected.

After control of the assets is gained, the PE fund now potentially has full control over the company and its governance rights. In relation to governance, outside controlling usually starts at the level of the board of directors (BoD). The BoD hence controls and aligns top management in its effort to set the strategy, and are the representatives of the shareholders. In the case of takeover through a LBO,

research shows that board size decreases and the presence of outside directors are drastically increased, based on replacements by PE sponsors. (Guo, Hotchkiss and Song, 2011). This in turn creates a high board-turnover, which has usually been shown to decrease performance, but stability in relation to the takeover is not of major importance (Cornelli and Karakas, 2012). Dependent of the characteristics of the LBO strategy set by the fund, a possibility is to replace the CEO. Generally, research on PE & LBO transactions show that after a leveraged buyout, CEO turnover declines relative to public peer group (Cornelli and Karakas, 2012). However, the research implies that the strategy set by the fund generally seems to be related to financial engineering, and not by setting a very distinctive strategy for the firm, in which it could require a new executive management team to lead the direction, rather than only relying on external overview through the Board of Directors (Cornelli and Karakas, 2012).

The research fits well with the potential characteristics a LBO target could have, if a firm has great existing management, in which there should be no value creation from replacing the well performing team. In cases where a distinct strategy can be seen to be put in place, another action from the PE firm is to assign more specialized sponsors to the board. Generally, the decline in CEO turnover can be said to be a result of the increased activity from the PE sponsors on the board. Further, the horizon needed for a restructure caused by the intended holding period of the fund can explain why CEO turnover decreases, as short term performance isn't of the same major importance (Cornelli and Karakas, 2012). Generally, board size tends to decrease, causing a more dynamic board composition, which can allow for faster and more dynamic decision-making. Further, performance tends to increase with the amount of PE sponsors placed on the board. On another hand, research shows that replacement of the CEO is linked closer to a LBO based on a strategic intention, rather than one of financial engineering (Cornelli and Karakas, 2012).

Through the control of the board, as mentioned in the definition of the market for corporate control, the PE fund can now resolve their intentions, based on their governance rights. The value created from these control rights, can be linked to different primary and secondary value drivers.

4.2.1 Financial Engineering

One of the primary value creating components, and main component of the LBO model, is the financial engineering from the debt used in the takeover. The acquired debt component creates value in many different ways. One way which value is derived, is from the potentially beneficiary position, a PE fund with a great performance record, has with a banking network. By having shown former great performance, the network identifies the risks associated with a LBO to be less than the risks of a PE fund with no record of accomplishment. This enables some funds to negotiate very favorable terms

in place for their financing of the transaction that other funds can't obtain (Loos, 2005). In relation to the debt component, the debt brings forth tax-deductible interest payments that helps create value, since the PE fund and the firm in scope will be considered one entity (Berg and Gottschalg, 2005). The financial engineering has been found to be a primary value creation lever, as it has a direct impact on the company's bottom line and a deep effect on the returns generated through the LBO. To an extent, the effect from the lever is extrinsic to the company, because the financial engineering is very much a function of the expertise and reputation of the fund managers (Berg and Gottschalk, 2005). However, the financial engineering acts as a lever in relation to the return on equity, by minimizing the equity contribution that needs to be supplied by the PE fund. Thus, if funds are able to increase the equity position, the debt component allows them to receive a relatively higher rate of return when they exit from the deal (Berg and Gottschalk, 2005).

4.2.2 Operational Efficiency

Another primary value driver in the LBO model is the effects gained from operational effectiveness. A substantial amount of research on value creation in LBO's show that LBO transactions have a positive effect on the operational performance of the companies compared to their public peers (Berg and Gottschalg, 2005). These operational improvements usually follow three main components. Cost-cutting, reducing capital requirements and the removal of inefficient managers. Research shows that the buyouts change how operations and every day management is done, by making cost-components such as production and other major overhead components more efficient under strict corporate spending regimes. The PE funds enable these programs by developing a less bureaucratic structure which results in decreased overhead costs, and a potentially leaner and simpler approach to suppliers which in turn lowers product costs (Berg and Gottschalg, 2005).

Reductions in working capital is also shown to have been effective in LBOs, as target companies show to have "*significantly smaller amounts of working capital than their industry counterparts*" (Berg and Gottschalg, 2005, pp.21). Furthermore, it seems that through a LBO, PE funds tend to identify bad investments and underutilized assets, and transforms this into value by capitalizing on the assets through sales. These actions could also prove to have a positive influence on the above mentioned operational efficiency schemes (Berg and Gottschalg, 2005).

A factor potentially attributable to poor performance, could potentially be bad management. By acting on its increased mandate and its governance rights, the PE fund could replace inefficient managers and potentially solve the issue linked to the poor performance (Berg and Gottschalg, 2005). Furthermore, by acting on its governance rights, the fund could redesign incentive structures for top

management, and potentially have them carry equity stakes to align shareholder interests (Berg and Gottschalg, 2005).

At the same time, the above and before mentioned components are directly linked to the debt structure used in the acquisition. The debt structure provides efficiency in the form of an external pressure, that potentially helps reduce the agency costs of the free cash flow (Peck, 2004). The debt structure provides an external pressure that pushes management to ensure cash flows are readily available for the debt repayment schedules, instead of keeping it on hand or using it in bad investment projects, as there would otherwise be an inherent risk of bankruptcy. Research on how external and internal incentives affect performance shows internal pressures, such as equity option incentives, rather substitute than compliment the external pressure and threat of bankruptcy from high levels of leverage (Peck, 2004). Generally, internal incentives such as equity options and board sponsoring are preferred over external incentives such as increased leverage (Peck, 2004). The reason so, is probably related to the inherent risk both LP's and GP's want to take, in relation to any transaction. Research then suggest that potential value from governance can be increased by finding the right amount of external and internal pressure, instead of relying heavily on one of the two components in relation to great governance (Peck, 2004). Since the GPs and the LPs are expecting high returns from the LBO, based on the relative increased size of their equity stake at exit, they need to put direct incentives in place to ensure debt is paid, and have a minimum of leeway regarding control of the free cash flow. From a governance perspective, the formerly mentioned actions are ways to release cash by focusing on simpler business and ensuring value is released, rather than on focusing on top-line growth. These effects show that there is a direct link between the proposed changes in operational efficiency and the financial engineering and their value creation from a fund perspective (Berg and Gottschalg, 2005).

The last primary value creation driver is derived by setting a distinctive strategic direction as the overall strategy from the PE fund. The PE fund could have identified a need to reposition the target company or use several market related strategies. The strategy set by the PE fund is also expected to correlate with the capabilities the managers of the PE fund possesses, alongside the potential sponsors they have available in their network. Research shows that a strategically distinctive strategy performs significantly better, if partners or related sponsors possess relevant human capital (Berg and Gottschalg, 2012). However, this research does not show any significant difference between returns, when whether an inorganic, M&A driven, non-strategic direction is chosen compared to a distinct strategic direction for the target firm, from an overall PE perspective. The operational changes in strategic specific takeovers however show that operational performance improvements

can "*explain nearly one-third of the abnormal performance*", compared to peer-group performance (Acharya et. al, 2012, pp. 25).

The secondary value drivers as defined by Berg and Gottschalg (2005), are reductions in agency costs and mentoring. These effects have already been described in relation to the different value driving components, and would cover mechanisms such as reducing the agency costs related to free cash flow, by using the inherent debt component as external pressure on management. Another way of reducing the agency costs would be to align incentives through both internal incentives, like performance related bonuses and equity options. Finally, agency costs can be reduced by improving monitoring and controlling, both by a more active representation on the board, but also through relatively better personnel from the PE fund's network, rather than any average third party equity representatives that sit on the board of directors. Besides controlling and monitoring, with highly relevant PE sponsors' human capital, advising and enabling top management in relation to the potential strategic directions or alternative improvement schemes, would help create value (Berg and Gottschalg, 2005).

4.3 Deal structure

As one of the major components of a LBO is debt, this section highlights the academic research on debt and equity levels in relation to deal structure. Further, we discuss how leverage has developed in transactions during different economic periods.

For a leveraged buyout, the fundraising of a substantial amount of funds is needed to take a company private. The process is split in two parts, namely, equity and debt. Limited Partners (LP's) provide the largest share of equity to a PE funds at its birth. Usually, these LPs consist of wealthy pension funds but could also be wealthy investors or other capital firms (Axelson, Jenkinson, Strömberg and Weisbach, 2009). The General Partners (GPs) that seek initial funding from the LPs are responsible of the everyday management of the fund. They manage the fund with the following cycle – Initial fundraising, fund launching, deal sourcing, deal financing, value creation, exiting, fund liquidation (Loos, 2005). To ensure an alignment of incentives between the GPs and the LPs it is expected that the GPs commit a certain amount of equity into the fund, so that they acquire a certain percentage of ownership. The equity split between these two partners is usually by far with the largest share from the LPs (Loos, 2005). However, the return gained, in percentages, for the GPs is usually larger than that of the LPs. The GPs usually receive a management fee as a percentage of capital employed or capital committed in the range of 1-3%. Further, the GPs of the fund earns a share of the funds profit called "carried interests", which is normally around 20% above a margin return of 8% a year. Finally, GPs can charge deal and monitoring fees to the acquired LPs when deals are either established or closed (Kaplan & Strömberg, 2009).

Reversely, the debt component used in LBOs is usually settled in a deal by deal debt financing structure (Axelson, Strömberg and Weisbach, 2009). Based on the existing capital structure in the prospect company, as well as the relationships and networks GPs has with banks or investment banks, a certain amount of leverage is acquired to finance the deal, while the fund provides the remaining capital from equity contribution. The debt component of a LBO has typically ranged between 60 to 90% debt, although this level varies greatly with the general economic conditions, as well as company specific risks. Averagely, it has been at about 70 % debt (Axelson et. Al, 2009). However, the values found in former research is now in stark contrast to the actual environment after the financial crisis. Private research from Bain (2017) and PitchBook (2017), shows that debt levels are ranging closer towards 50-60% than the former average at 70%.

The acquired debt usually consists of different components based on the willingness of lenders, as well as the inherent risk of the acquired company. Dependent of the geographical location of the acquired firm, the different debt components vary widely. In the US, financing would typically consist of senior secured bonds, junior loans or mezzanine debt to further increase the leverage (Rosenbaum and Pearl, 2009). The seniority of these different loan types follows the order that they were mentioned. Further, the underlying interest rates to these different types of financing usually increases, the lower the seniority of the loan type. Alongside the different types of debt and their different repayment structures, it is possible to use a revolver as a revolving credit facility in periods where cash is tight, if for example sales is cyclical. Furthermore, to protect creditors, different covenants can be put into place that the PE fund would have to adhere to, unless they want to risk their control over the assets (Rosenbaum and Pearl, 2009).

4.4 Returns

In relation to a LBO and its potential return, various characteristics affect the result. As mentioned earlier, both governance, financial engineering, as well as operational efficiency has a direct effect on the returns, based on improvements to the underlying business. Furthermore, both the entry and exit multiple can have a tremendous effect on the end-obtained results (Kaplan and Strömberg, 2009). Another important factor is also the holding period of the prospect company, which affects the year-over-year percentage return.

Besides these economic variations, the exit type and exit strategy is also important. The most used exit options are introduction to public markets through an IPO, a sale to a strategic buyer, a relevered LBO to a new PE fund or a sale to a LBO backed company (Guo et. al, 2011). With regards to return, the highest abnormal returns, adjusted for leverage in relation to the different industries, is found with a re-IPO or with a sale to a strategic buyer (Harris, Jenkinson and Kaplan, 2014; Acharya et. al,

2012). Several research papers show that LBOs generate a substantial and significant abnormal return after having adjusted for the leverage effect. Outperformance is shown to be as much as 3% per year in relation to relative industry index in a research by Harris, Jenkinson and Kaplan. (2014). In relation to the abnormal returns, the interesting part is how they are created. In connection to formerly mentioned value creation drivers, Acharya et. al, show that 34% of the abnormal returns are driven by abnormal increases in operational efficiency, 50% of the value as an increase from the financial engineering component, and finally 16% as a result of sector exposure. Contrary to their results, other research on LBO transaction do however show a smaller value gained from the leverage component, however the value creation from the industry multiples seem stable over time for both studies (Guo et. al, 2011).

Generally, the average holding period is about 6 years, with most deals being exited within 5-7 years after acquisition (Kaplan and Strömberg, 2009), and the financial returns average around 20-30 % for the internal rate of return (Acharya et. al, 2012). However, research also shows that in relation to the abnormal return, deal size is not a particular significant component, but PE fund size and age is. It has been found that mature PE funds receive yearly returns as high as 56%, with the median returns around 43% (Acharya et. al, 2012). The average cash on cash multiple seem to lie around 4 over several researches on LBO deals (Acharya et. al, 2012; Harris et. al, 2014). These results seem to be quite excessive. However, when operating performance goals such as doubling EBITDA over a five-year period is considered standard, they suddenly seem more reasonable (Berg and Gottschalg, 2005).

5. Strategic Analysis

In the following sections, it is our intention to describe the strategic environment as well as A&F's strategic position. By using various analytical tools from the strategic toolbox to describe A&F in both the macroeconomic as well as the microeconomic environment, we are setting the scene to prepare for a discussion of the possibilities a PE fund acquiring A&F would have. The following analysis will be combined with a financial analysis, alongside a brief market analysis to summarize the greatest opportunities and threats A&F faces. Furthermore, the financial analysis is supported by the strategic analysis and will help substantiate what A&F's greatest strengths and weaknesses are. All of these will be summarized in a SWOT analysis, from which the strategic directions of the firm will be set.

5.1 Macroeconomic environment

From an isolated perspective, it is not important how the macroeconomic environment looks. It is important to understand and describe the effects and dynamics in relation to the industry environment, and how these potential restrictions affect the profitability of the industry and its dynamics (Grant, 2010). To describe the macroeconomic environment, the most important thing is to scope the analysis. As the earlier description of A&F said, the current exposure in the US, is a very important market for A&F. Furthermore, as Europe contains three out of the four fashion capitals in the world with London, Milan and Paris, the exposure in this region is of great importance as well. Finally, with the growing markets in China, India and the rest of Asia Pacific, this area will be included along the former two, as the relevant scope for the macroeconomic analysis and description. The macroeconomic environment of importance is such scoped as three major geographic areas. The US, Europe and Asia Pacific.

The tool used to analyze and describe the macroeconomic environment is the strategic model known as the PEST or PESTEL model. The model provides various macro environmental factors that provide an information structure, however the factors in the model are not entirely exhaustive. The prolonged model we use is combined with political, economic, socio-cultural, technological, environmental and legal factors, hence the PESTEL (Grant, 2010). However, it is important to understand the limitations of such an analysis. The tool provides a temporary picture of the macro environment. On the long run, to help maneuver in the strategic landscape, a systematic and continuous scanning of these external influences could result in an overload of information, making it a relatively complex and time consuming tool (Grant, 2010). Further, as the theory only provides a description of the dynamics at the macro level, it is important to support this theory with other strategic analysis.

5.1.1 Political

The apparel and retail industry is subject to several political factors determined both internationally and by local regulations. In relation to the apparel industry, it is regulated less than e.g. the fast moving consumer goods or pharmaceutical industry, as the risks of wearing clothes, typically made of cotton or wool is low, compared to products that have a direct influence to the human body. However, regulatory demands regarding production methods and information labelling do exist. For example, In EU, all member countries are under legislation related to strict labelling of what the composition of the textiles used in production of the clothes (European commission, 2017). Furthermore, in most developed countries, regulation on what processing materials are allowed is very strict, as safety standards have been put in place to protect the blue-collar workers (CBI, 2017).

In the US, in which the largest share of sales for A&F exists, one of the most important political factors is the regulation and the political adjustments to the minimum wage, as the apparel retail industry is employee intensive (Abercrombie & Fitch, 2016). Changes in the minimum wage can potentially have a relatively big impact on the bottom line considering the amount of employees and stores A&F have in the US, directly eroding on their margins.

Other political factors in the macro environment are the different political tensions around the world. With the recent election of Donald Trump in the US, important elections in the Netherlands and France and increased uproar after the Arabic spring, political tensions are running close to all-time highs (Mortimer, 2016). These tensions don't necessarily imply a direct impact on A&F and the apparel retailing industry, however, indirectly they impose an inherent risk which could result in trade embargoes and increased import tariffs. These political tensions potentially pose a big risk against globalized firms with a growing international presence such as A&F, and could have impacts on their distribution centers and the exporting of clothes to existing retail stores. Other non-exhaustive factors include increased consumer protectionism, and increased focus on internet security and internet transaction in relation to the increased tendency of shopping online (Ross, 2015). As the industry is showing to become an even more technology driven industry, strict regulations regarding consumer data and consumer experience could have an effect on business growth or recuperation (Passport, 2017).

The various political tensions, possibly caused by lack of GDP growth, are causing countries to become more protectionistic. Britain's withdrawal from the EU is one great example, whereas Donald Trump and his focus on "making America great again" could have some serious implications and impacts on world trade (Dr. Lu, 2016). One of Trump's focuses would be to change or demolish the NAFTA agreement, which

could seriously decrease both apparel import and export within North America. With the abolishment of such trade agreements and increased protectionism, long run growth targets risks being overly optimistic, as the decreased trade could end up having large final impacts on disposable consumer income (Passport, 2017). Besides risking trade dynamics in North America, Trump has also hinted his intentions of starting a trade war against China, which could end up affecting world trade severely (Børsen, 2017).

5.1.2 Economic

From an economic perspective, the apparel retail industry is mostly fragile to changes in the disposable income and consumer confidence on the short run (Abercrombie & Fitch, 2015). As mentioned, the causal connections between economic crisis' and its effects to consumer confidence and consumer spending is of large importance. Further, economic risks such as exchange rate fluctuations and fluctuations in commodity prices used for production are of direct importance in relation to apparel.

As with most goods, the relation between households' disposable income and sales is of huge importance. The relation between these two and the effects based on changes to the disposable income is related to the income elasticity of demand (Perloff, 2012). To relate to this, shown below in figure 4 is both the historic and forecasted development of disposable income for the three major markets in scope for our analysis.
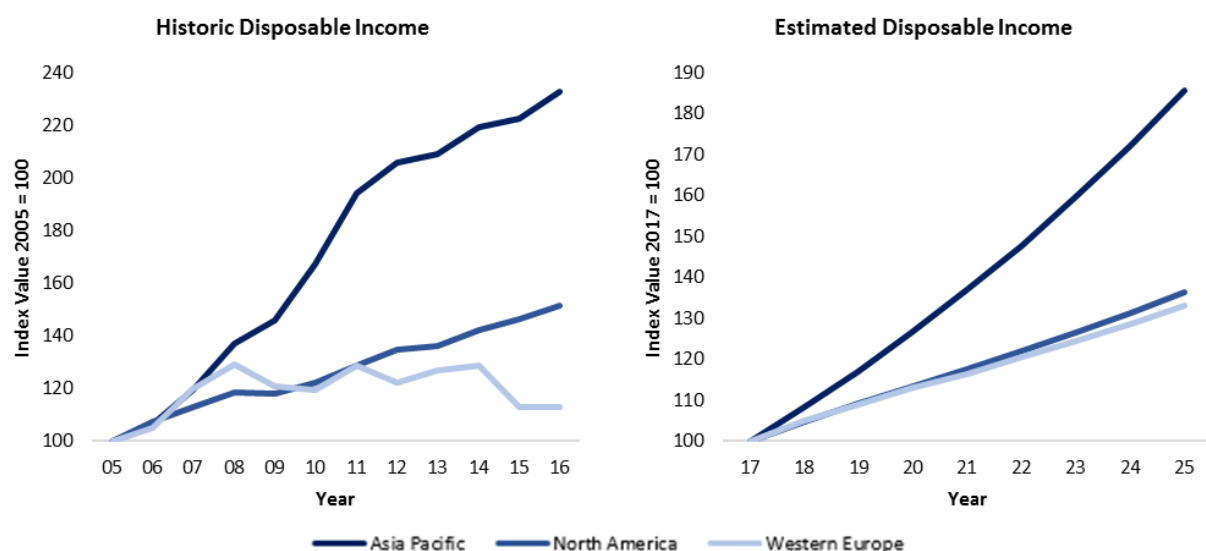
Figure 4 -Compiled by the authors with data from Euromonitor

To evaluate the economic impact of relatively low disposable income, it is imminent to consider what product type clothing is considered, in relation to its elasticity. Impacts on disposable income will for a period affect consumer spending on apparel, unless it's considered an inferior good, which is highly

unlikely from an overall perspective. But, clothes do not last forever. This would imply a certain lag of income spent on apparel after decreases in the disposable income, because the consumers reach a certain point where they cannot possibly postpone their needs to buy new apparel any more. Further notice should be put to the distinction between inferior, normal or luxury goods in relation to the clothes you sell. If sudden changes in the economy affects disposable income, for example an increase in tax-rates, the decreased disposable income would cause consumers to decrease their purchases of luxury goods and head towards normal or inferior goods, which has been a particularly visible trend in recent years after the financial crisis (Perloff, 2012).

As the above graph shows, the largest increases in consumers' disposable income is in Asia Pacific, which corresponds well with the growth outlooks shown in section 5.3.

Other relevant economic impacts are potential fluctuations in cotton price, and its effects on production costs. As can be seen in figure 5, showing the cotton price development since 2012, spikes and huge fluctuations do exist, and could have a huge impact on the bottom line result. Even though A&F uses around 170 several independent producers and have predetermined contracts to fix production prices, fluctuation in cotton prices still pose a risk for them, as huge increases impact their suppliers, which in the end could hurt their ability to live up to their end of the contract (Abercrombie & Fitch, 2016).
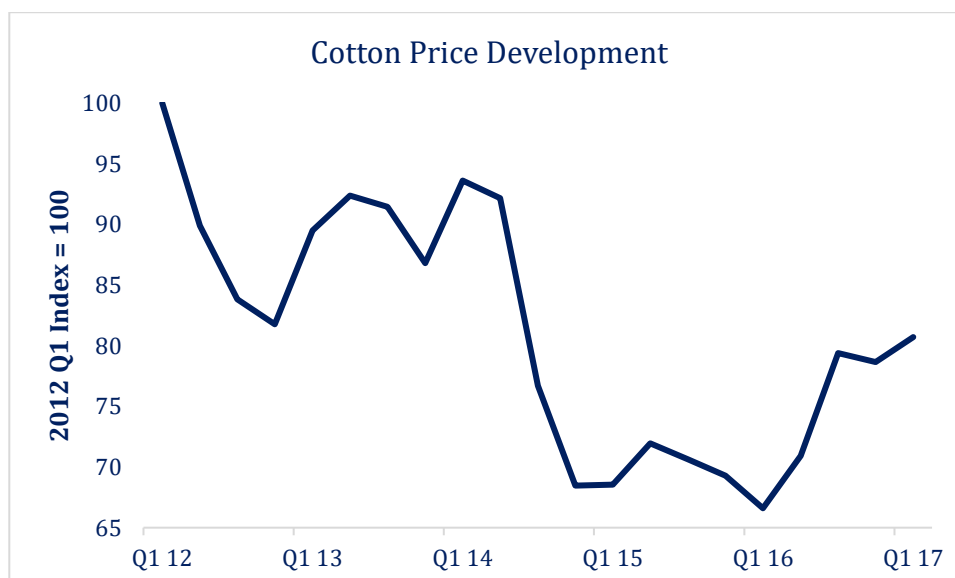
Figure 5 - Compiled by the authors with data from Euromonitor

As seen in the Figure 4, the Asia Pacific region has a big potential for market growth, based on the increased disposable income. However, even though estimates in Asia Pacific are relatively updated, it is important to consider the recent economic slowdown in the Asia Pacific region compared to former levels. If updates

on the economic growth are too optimistic, the increased slowdown could have a profound effect on the world economy, as China and Asia's economic importance, for both the world and apparel industry, is growing and the reliance on the middle class that spends its disposable income on domestic and imported goods, has grown to a significant size (Passport, 2017).

As for the EU, the economy is being held back by the common currency, Euro, as it is becoming more evident that it's harder to set interest rates and monetary policy correctly, as countries like Germany are growing, while countries in southern Europe are contracting. In addition, UKs recent exit from the EU may cause other countries to follow and thus posing a serious threat against the EUs survival (Euromonitor, 2016).

5.1.3 Socio-cultural

As the apparel retail industry is highly competitive and relatively fragmented, keeping a certain position in the competitive environment depends highly on the customers' perception of the individual company's offerings. Within apparel, besides competing on product quality and price, brand perception, or, brand equity, is of utmost importance. Not adapting to changes in socio-cultural factors such as changes in demography, social trends and influences from different media channels, could have extreme adverse effects on a company and their brands. Failure to protect reputation is also a serious concern and has a direct material adverse effect on brand image as well a direct impact to the income statement and future cash flows (Abercrombie & Fitch, 2016).

One of the most popular trends and recent changes, is the growing importance of wellness and health for the consumers. People find it increasingly more important, not only to be healthy, but also to appear healthy (Passport, 2017). This trend has within Europe and the US given birth to the term, athleisure. The athletic and sports inspired clothes and other devices, such as active-watches, helps build a more active lifestyle or helps increasing the perception of an active lifestyle (Passport, 2017). As the growth numbers in section 5.3 show, the trends growth is retracting slightly in the US and Europe, while the Asia Pacific region and especially India are expecting intense growth for sportswear (Passport, 2017). This wave of athleisure or 'fit-living' has been seen increasingly more important among the millennial age group, as social media and social media exposure has driven them towards keeping a set appearance and perception among their social environment.

Alongside the aforementioned trend, consumers are also becoming more and more demanding wanting the latest trends yesterday. This has forced the industry to adapt to the increased demand for trend-specific clothing, and the new "see-now, buy-now" attitude (Passport, 2017). Consumers have been

demanding in-trend clothing with the expectancy of being able to buy them straight away, or at least, soon after the introduction, causing the emergence of fast fashion. This has been in sharp contrast to the old way of doing fashion, consisting of the four seasons and the affiliated fashion collections (MarketLine, 2016).

Geographically, it can be seen that western-based companies are having great effect meeting Asia-pacific demand, as consumers and the increasingly bigger middle class is striving to live after and mirror western-developed lifestyles. They try to adapt European and American brands into their lifestyle, to help shape how they are perceived by their social networks (MarketLine, 2016).

Alongside the large demands for fast-fashion, other trends within consumer demands and in the socio-cultural dimension, is a paradigmatic change of perception. Consumers are increasingly expecting to have a meaningful experience, rather than just having acquired a new good or item. Any kind of apparel and brand is exceedingly being expected to deliver a certain perception and affiliation. Consumers are demanding and expecting a larger experience and service, rather than only focusing on the goods and the quality of these (MarketLine, 2016). In regards to the expectations of a better experience, consumers are also expecting to have an easier time shopping, which puts a demand on a much more integrated service part of the value chain, as consumers thrive under and expect great omnichannel experiences. Thus, they shift away from inefficiently tech-integrated companies that do not provide a seamless experience (Passport, 2017). At the same time, it is becoming harder for firms to differentiate themselves, as especially US and European consumers are shifting away from big logo labelling (Passport 2, 2017; Passport, 2016).

Other tendencies and trends are showing that consumers are shifting away from high quantity and lower prices towards higher quality and overall value gained, in their attempt to maximize utility (Passport, 2017). These quality and value trends are mostly affecting the US and Europe, whereas it can be expected, Asia Pacific will possibly lag behind. Whether Asia Pacific will expect to adopt this, time will tell, but it is important in the market, as major retail players are increasing their presence in these areas. Furthermore, ethical shopping is increasing its appearance in the marketplace, alongside the increasingly environmental focus that has started to affect consumer behavior.

Along these major factors shaping the environment related to A&F and their competitors, the increased focus on environment and ethical clothing is starting a smaller 'slow fashion' industry, primarily established by young entrepreneurial startups. This bubbling and growing industry is capitalizing on a niche-market where fast fashion and environmental focus is becoming an oxymoron, as it is no way sustainable to shift out your clothes in the manner fast-fashion industries imply, while not affecting the

environment negatively. At the same time, the sharing economy is shifting post-acquisition behavior of customers and have created small market-like-places for selling used clothes, potentially eroding the apparel industry if consumers where to accepting this as the new normal in the future (Passport, 2017).

5.1.4 Technological

The technological development is increasingly showing its effects on the apparel and retailing industry over all parts of the value chain. Within production, the increasing importance of robots and smarter production technology, are allowing smaller and smaller retail production firms to become more and more competitive, relying less on scale than seen formerly, also allowing small niche players a spot in the market, because of low production costs (Passport 3, 2016).

Within the service and sales parts of the value chain, the ability to build a well-integrated sales platform is highly appreciated, as more and more consumers are driving their attention away from home-computers and tablets, towards on-the-go solutions on their mobile phones. The technological development is very much related to the scaling of integrated processor chips that have now reached a certain point where these solutions are available to customers (Passport 3,2016). These opportunities imply the needs to be able to build an omnichannel platform that consumers can act within, as it is imperative that consumers experience a well-thought out and streamlined experience, across all platforms, in relation to the perception and experience that consumers seek.

These developments in the various technological platforms are allowing companies over the next years to leverage the platforms together with artificial intelligence and big data systems to meet consumer demands faster and with higher precision (Passport 3, 2016). Another very trending and potentially very important technological development is the Internet of Things (IoT). Within this section of technology, it is the idea to create a much more frictionless environment for the consumer, potentially creating high convenience for the consumer, while simultaneously saving time (Passport 3,2016). Even though no major integration has happened in the retail industry, the ideas of using IoT in the future is very likely to happen. These tech developments will also help retailers to improve the service that they are able to provide, as shops can adopt the use of near field communication (nfc) chips. These potentially allows the consumer to grab the items they desire, and simply walk out of the store, while the integrated platform takes care of the purchase flow, just as Amazon Go has shown in their pilot stores (Amazon, 2017).

5.1.5 Environmental

One of the most debated macro environmental factor are the adverse and severe changes to weather around the world. From an economic perspective, the costs in relation to major environmental impacts

has increased. Alongside this, the frequency with which environmental tail events, such as hurricanes, is increasing, potentially as result of the increase in the average surface temperature and melting of the arctic poles (NASA, 2017)). Furthermore, as the apparel industry is affected by relatively long lead times and customer trends, directly related to current weather, the impact from drastic weather circumstances compared to the expected weather could prove to be very damaging to quarterly results.

In relation to the increased focus on being green, and trying to contain the severe changes happening to our planet, consumers are becoming more aware of their purchases, and how the companies they purchase from, act and behave in relation to the environment (Passport, 2017). This implies that companies need to maneuver with a tight link to being green and being perceived as someone actively taking part in changing the world and containing these extreme changes throughout all the value chain (MarketLine, 2016). Having an un-aligned value chain in relation to constraining the environment, might in the future constrain firms, not only from customers, but from entire markets as the legal environment might affect the license to operate, based on the positioning of the company. The perspectives and acceptance from consumers in relations to these are effectively requiring firms to implement corporate and production ethics, while at the same time keeping a very high-profiled corporate social responsibility profile (Passport, 2017).

5.1.6 Legal

From a legal perspective, it could be expected that legal constraints will be implemented so that only corporations whom have special certifications will have a license to operate in different marketplaces. As highlighted in the sections detailing the political factors, the industry isn't the most regulated one. However, with the changes to the macro environment it could prove to change this going forward (MarketLine, 2016).

Other legal factors to consider is the potential intellectual property protection setup around the world. In relation to the apparel industry, trademarks and copyrights of brands are enormously important. They are in place to avoid pirating and off-label selling that could potentially destroy brand equity and decrease reputation. In the developed and western world, these mechanisms are governed strictly, whereas the systems are entirely different in Asia-Pacific region (MarketLine, 2016). Without having ensured that any intellectual property rights are acquired and secured, potential scammers and third-party cooperatives can take advantage of a company's position and its assets in the given marketplace.

5.2 Industry Dynamics

Porter (2008), provides a strategic framework with five competitive forces, which he means defines the competitiveness, profitability and the key success factors needed to maneuver inside an industry. On his notion, companies should position themselves strategically according to the competitive conditions that his five competitive force framework provides. The forces provide a non-exhaustive information structure that describes the competitive interactions and nature of an industry, and alongside earlier macroeconomic analysis, provides a more complete picture of the external environment, as these industry dynamics exist in the microeconomic environment (Grant, 2010).

The important forces to ascertain, are however those establishing the industry structure, rather than short-term tendencies in the industry. We will be applying this theoretical view in our effort to estimate and describe the strategic implications and key success factors needed to compete and maneuver in the apparel retailing industry.

The five forces framework provides a static picture, albeit potential trends and developments can be described, these have the potential to change very fast. As it is scoped more narrowly, the information needed to establish and update the model on an on-going basis is smaller than the PESTEL, but still of a certain size.

The forces and their dynamics are however based on microeconomic theory and exists as an extreme theoretical foundation, which is hardly applicable to the real world. However, the thoughts and notions do however describe the dynamics of an industry, and it is with these in mind that Porter established these forces and the relevant dynamics within them (Porter, 2008). Lastly, it is important to note in relation to porter's five forces, that firms should not position themselves, only in accordance with the industry structure, but adapt and position themselves according to how their current capabilities match the industry structure (Grant, 2010).

5.2.1 Threat of entry

The accumulated threat from new entrants is based on various dynamics. As new entrants bring new capacity and a desire to capture market share, it potentially puts focus and pressure on costs, capital expenditure and probably most important, prices (Porter, 2008).

In the apparel and retailing industry, developed technology and access to leasing estate has made capital requirements very low. Essentially, low-scale production can be established cheap, as the industry is rather labor intensive (MarketLine, 2016). Further, there is easy access to production sites around the world,

whereas the needs of establishing this yourself is minimum, and focus can be kept on other value creating activities such as design, marketing and service (Porter, 2008).

As the industry isn't affected by very strict regulation, and the resources needed to establish effective intellectual property rights protection is small, this makes it even easier to move into the business. Furthermore, other complementary assets such as distribution channels have become very well developed, with high competition, enabling easy and cheap access to important complementary assets that helps new entrants capture value (Teece, 1986). One of the final affecting factors is the low switching costs set in relation to buyers, which is discussed more in the corresponding factor.

Overall, the threat from new entrants can be estimated to be moderate to high as fixed costs are low, complementary assets are easily and cheaply available, little regulation and difference between competitors exists and market growth is promising. However, depending on the positioning of new entrants, the fast-fashion and low-cost providers have established a solid market position by building scale and efficient supply chain networks and an integrated and efficient marketing vehicles (MarketLine, 2016).

5.2.2 Bargaining Power of Customers

The power that customers or buyers possess in the apparel industry is dependent and affected by multiple variables. The most dominant one is the consumer's ability to effortlessly switch from one brand to another. The low costs of switching provide the consumer with relatively big bargaining power, as there are many alternatives available (MarketLine, 2016). Furthermore, consumers have high independence, as they are positioned in the final part of the value chain, and thus they do not have to interact with anyone else after purchases. Contrary, the consumer has limited financial muscle and buyer size, which from a firm perspective means that the loss of one customer has little effect on the financial results. Further, as apparel buyers are final consumers, they do not possess the ability to backwards integrate into the retailing and apparel industry, severely weakening their bargaining power (Porter, 2008). As clothes are linked to lifestyle and social status, companies have the opportunity to influence consumers by priming or nudging their demand and behavior, further decreasing buyer power (MarketLine A&F, 2016). However, the high amount of undifferentiated products and available competitors in the market allows the consumer to easily find products with the same perception and usefulness of the required good.

5.2.3 Bargaining Power of Suppliers

The different elements that affect the bargaining power of suppliers mirrors with a relatively high precision those of buyers. The impact of the elements is however entirely different. The factors imposing a high degree of supplier power is the importance of quality, cost and the lack of substitute inputs, with regards

to the expected good apparel retailers are require (MarketLine, 2016). As demand can vary greatly based on trends, it is important that apparel retailers enter great collaborations with their suppliers and find the needed quality of their goods. At the same time, if a product line misses' consumer trends, it is important that the effects on the financial results are limited. Furthermore, substitute inputs to clothing, besides commodities such as wool and cotton are limited, although flexible materials such as polymers and elastics are used, consumers are expecting a 'soft wear' from the common natural materials (MarketLine, 2016).

Contrary, it is important to note that the size of suppliers is generally small. The producers are increasingly dependent on receiving production requests from their existing partners, and carry a sizeable amount of switching costs to changes in their production system, that is not carried over to the apparel retailers (MarketLine, 2016). Furthermore, as a lot of the value generated in the apparel industry is created in the design and service parts of the value chain, and suppliers have limited opportunities to integrate forward into the apparel retailing industry (MarketLine, 2016). As international trade and globalization of value chains has increased over the last decades, the availability and player dispensability is very high, lowering supplier power substantially (MarketLine, 2016).

Overall, the supplier power is considered to be low to moderate. The high availability of different suppliers makes it easy for apparel retailers to change their products origin. However, if producers show that they can match demand and adapt quickly to changes, their bargaining power increases substantially (MarketLine, 2016). This discussion however also puts Porters forces into perspective, as it is only considering competitive dynamics. But it should be very valuable to consider how cooperation and sourcing helps shape the competitive environment, as it could be an important part of the value chain.

Overall the bargaining power of suppliers is assessed to be low to moderate. It is important to find good and low cost suppliers, but at the same their power to bargain is very limited by their size and the easy availability of other producers, as it is an industry very hard to have a (sustainable) competitive advantage in (MarketLine, 2016).

5.2.4 Threat of substitutes
If looking at apparel and clothes as a whole, there are no real substitutes to clothing. However, if splitting it into different segments, substitutes exist in the way luxury wear is substitutable to casualwear, and how you can substitute casual wear with sportswear. Also, considering the split between apparel retailers and retailers, the availability of online shopping and existing omnichannels have allowed consumers to substitute more traditional brick and mortar retailing with online retailing (MarketLine, 2016).

Other substitutes to consider is the availability of second-hand clothes and second-hand market platforms such as eBay. Under these circumstances, it becomes a cheap alternative, and the costs of switching are low. However, it is important to note whether it is truly a beneficial alternative compared to the acquisition of new clothes. Lastly, it is possible to produce clothes yourselves by knitting or weaving, or buying cheap counterfeit products in some countries (MarketLine, 2016).

Overall, the threat from substitutes is considered weak, as there are really no alternatives to apparel, and it is a very tedious and time consuming process to create yourself.

5.2.5 Industry Rivalry

The degree of rivalry in the apparel and apparel retailing industry has a few elements of its own, while it is mostly affected by the former four forces. Affecting the degree of industry rivalry adversely is the numbers of apparel retailers on the market, as well as the similarity of them. Within the different segments of apparel, the amount of available players and products is relatively high, allowing for easy and low cost switching between brands and products, from a customer perspective. However, based on former excessive growth from new entrants, it seems there is still room for new smaller entrants into the market (MarketLine, 2016). Also affecting the rivalry, is the degree to which it is easy to expand without committing too much capital. This makes the industry competition even fiercer, as the need for capital is incredibly low (MarketLine, 2016).

Although capital requirements are relatively low, it implies that at the same time it is relatively easy to exit the industry, which drives down the degree of competition. At the same time, while e-commerce retail is increasing in appearance, having stores available to showcase clothes is decreasing in importance for less premium and expensive brands. However, to compete in the industry and capture additional market share apparel retailers are now, to a larger extent, using their own off-price selling points, such as outlets, and secondary retailers to sell their clothes through (MarketLine, 2016).

Alongside the increased linkages between the technological development and the apparel industry, it could seem that the expectations from consumers will create an even fiercer environment, as the wanted perceptions and quality will be even higher with many available competitors at hand (MarketLine, 2016).

Overall, the degree of rivalry in the industry is deemed to be moderate to high, as consumer trends can erode market shares relatively fast, while the degree of similarity and amount of players, especially in the less premium segments, result in a competition on prices. Especially, since fast-fashion companies are introducing new clothing lines just about every month (MarketLine, 2016). Alongside the earlier discussion of sourcing with suppliers, different design collaborations between apparel designers have created

increased hype and demand on different brands. Using such an approach to mitigate the degree of rivalry with those of your closest competitors could be a strategy Porter's tool would not facilitate, though it could provide great success.

5.3 Market analysis

To describe and help estimate the various threats and opportunities of the industry and its environment, the below market analysis will highlight and display the different growth expectations around the world. In addition, different segments deemed relevant in relation to the apparel environment that A&F competes in or could consider to compete in will be discussed and analyzed.

Since 2011, the global apparel industry has grown averagely 4.5% year by year, largely driven by the fast fashion wave, captured by large competitors such as H&M, Zara and Uniqlo (MarketLine, 2016). To better illustrate a market growth rate, that to a higher degree reflects A&Fs current market exposure and growth opportunities, a customized market growth rate has been developed. This has been done by gathering data from Euromonitor about the current and future expected market sizes of each of A&Fs 10 biggest markets for both apparel and sportswear, to reflect the fact that A&F is focusing on both segments. A CAGR has then been calculated and a weight been given to each market, for each of the two segments, based on the proportion that each market represents of the total market size. These weights have then been multiplied with each markets individual CAGR, giving us an expected future CAGR for both the Apparel and Sportswear markets. An expected total market CARG has then been calculated by giving a weight to each of the two segments based on their size of the total market, including both apparel and sportswear, and then multiplying this with their respective calculated CAGR. Thus we have calculated an expected market growth rate that is more adapted to A&Fs current and expected future structure and focus areas, giving us a better rate to compare our estimated sales growth, in section 10, too.

The future growth rate expectations are shown below in Figure 6, for the normal apparel market, and in Figure 7, for the sportswear market. The bubbles location on the X and Y axis reflects the markets current size and forecasted CAGR, while the size of the bubbles reflects A&F's current exposure in these markets, measured by the number of active stores.

	Total market size, billions	Weight	Growth rate	Total Growth
Apparel	$ 985.476,10	80,46%	4,46%	4,93%
Sport	$ 239.385,40	19,54%	6,86%	

Table 2 - Compiled by the authors with data from Euromonitor

Analysts expect that the global apparel market will increase by 5% annually on a global basis, which is in accordance with our estimated CAGR of 4,93% as seen in table 2 (MarketLine, 2016). Most of this growth will be in the Asia Pacific region, largely by value increases in China and India, with compounded annual growth rates in the high single and low double-digits. The growth in the Asia Pacific region, which currently accounts for 36.8% of total industry value, will support by far the largest amount of value growth, as the Chinese industry in 2025 alone will account for around 25% of total industry value, as Chinese middle class consumers are expected to increase their apparel spending (MarketLine, 2016).
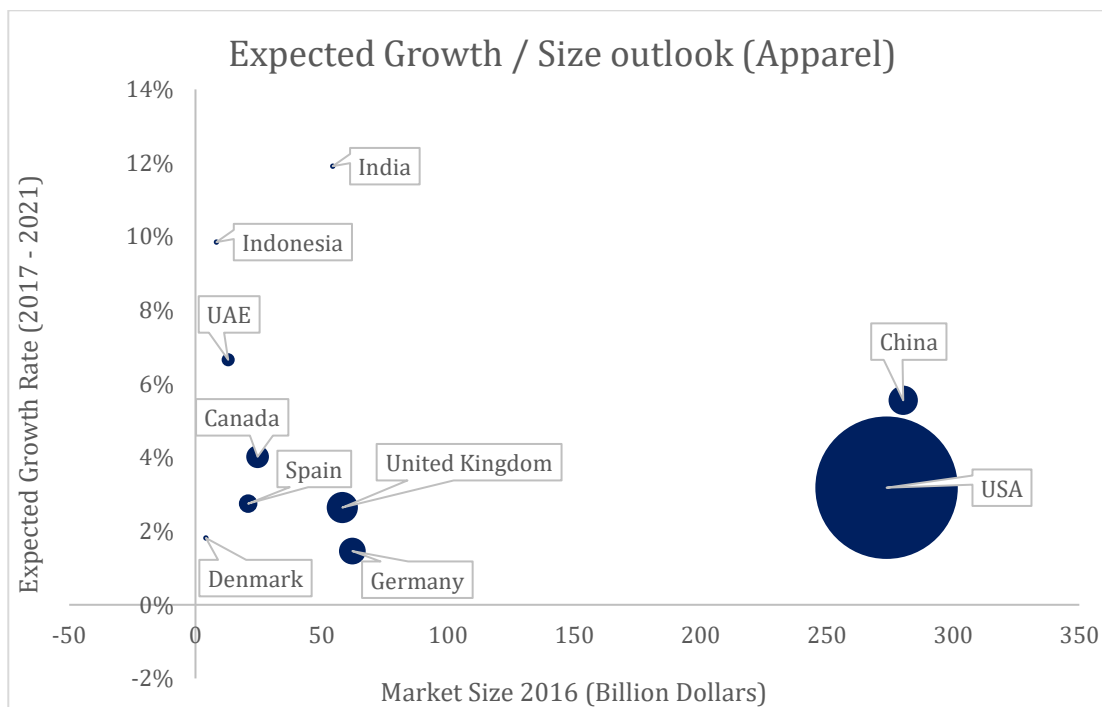
Figure 6 - Bubble size reflect A&F's current relative market exposure. Compiled by the authors with data from Euromonitor

At the same time, developed countries such as US and countries in Europe show modest annual growth rates around 2-3%. However, when looking at segments, such as sportswear, expected growth rates are even higher, as can be seen in figure 7.

As formerly discussed within the socio-cultural factors of these geographical areas, athleisure has driven high growth rates in the developed world, and it is expected to keep up performance in the future. An example of this is the US with an expected CAGR of 5,61% for sportswear compared to 3,18% for apparel, making the US market attractive for most firms in the apparel industry. Especially as the health and wellness wave continues to take a strong foothold in the industry, as athletics ware are replacing casual ware. In addition, Europe, with an expected CAGR of 2,32% for apparel, is also showing potential with an expected CAGR of around 4% for sportswear. Even though expected growth rates are lower in Europe compared to the other countries displayed in figure 6 and 7, the region still represents an important part

of a firm's growth strategy, as it serves as an important fashion hub for the global fashion industry (Passport, 2016).
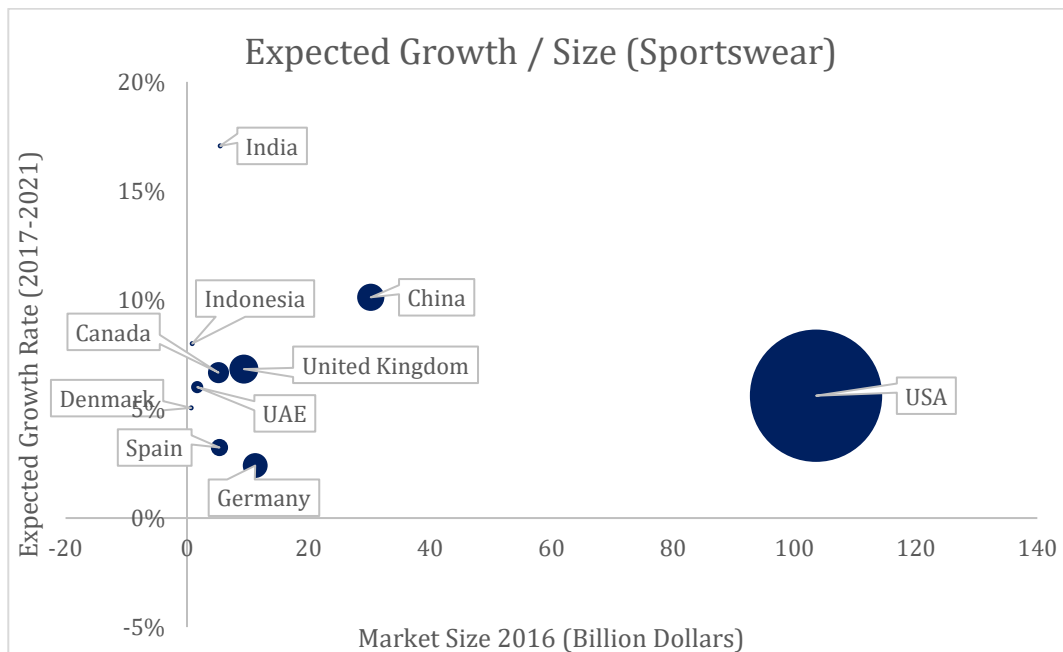
Figure 7 –Bubble size reflect A&F's current relative market exposure. Compiled by the authors with data from Euromonitor

Close to 90% of all clothes are sold either in normal retail stores, department stores or online, with online sales becoming more and more important as consumers, in a much larger scale, prefer to do their shopping though mobile and IT platforms (MarketLine, 2016; Passport, 2017). Over the next five years, the EU, United States and China are expected to double online retail sales, as shown in figure 8, corresponding to an annual growth rate of close to 15%. This highlights the importance of having an integrated omnichannel system that meets costumer preferences, and allows easy online access, to avoid losing sales (Passport 2, 2016). Online retail is thus becoming more and more important as it now accounts for more than 8% of the total retail sales in 2016 compared to only 4% in 2010, as show in appendix 2.

Estimated Online Sales $ Billion

Year	US	EU	China
2016	63.3	86.8	125.8
2017	69.8	96.7	159
2018	76.8	107.7	193.9
2019	83.9	119.2	228
2020	90.3	130.8	260.5
2021	96.4	140.5	285.3
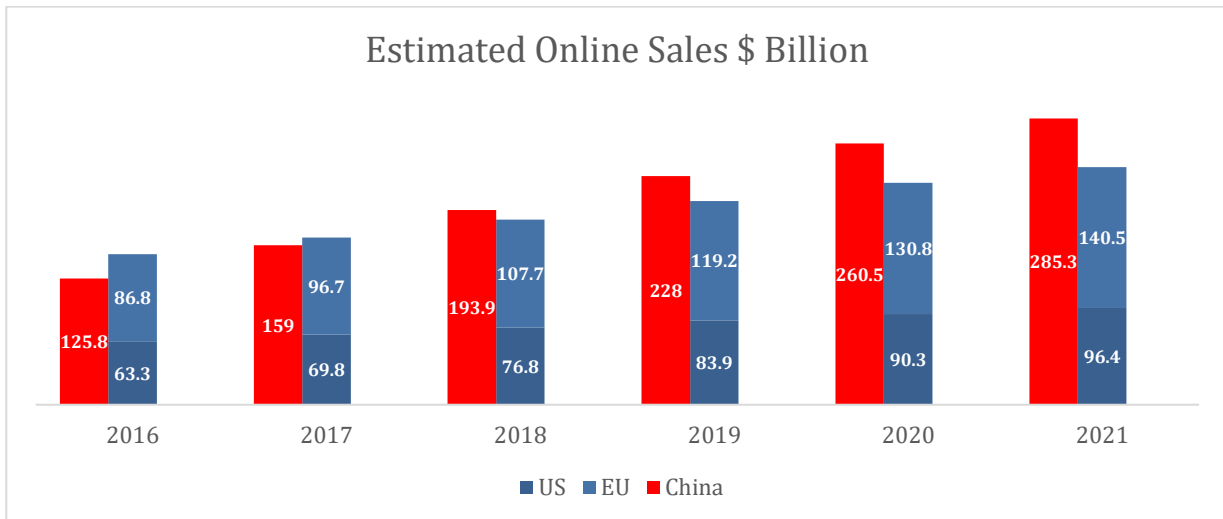
Figure 8 - Compiled by the authors with data from Statista

The retail industry is a highly competitive marketplace across segments as well as goods, with the largest company, Nike, having a market share of "only" 2,8%, followed by Addidas, Inditex (Zara) and H&M, with 1,7%, 1,3% and 1,3% respectively (Passport A&F, 2016). Put in perspective, A&F was placed 36th, and has been on a rapid decline since 2012 as show in table 3.

Company Position & Share of Market	Trend	2011	2012	2013	2014	2015	2015 % of Market
Nike	→	1	1	1	1	1	3%
Adidas	→	2	2	2	2	2	2%
Zara	→	3	3	3	3	3	1%
H&M	→	4	4	4	4	4	1%
GAP	→	5	5	5	5	5	1%
VF Corp	→	6	6	6	6	6	1%
PVH	↑	10	7	7	7	7	1%
Abercrombie & Fitch	↓	25	24	26	32	36	0%

Table 3 - Compiled by the authors with data from Statista

Moreover, companies which has been taking advantage of an early movement into Emerging markets such as China has been able to reap large benefits, as can be seen for brands such as Bestseller (Jack & Jones & Vero Moda), Van Heusen (PVH) and Uniqlo, who has acquired a large brand equity in China as a result. As can be seen in figure 6 and 7, markets such as China and India still represents great growth opportunities, accounting for 33% and 11% respectively of total industry value growth, which is why more aggressive entry and expansion from the current top global competitors is to be expected (Passport A&F, 2016).

6. Financial Analysis

The financial data in this section has been collected from the respective companies' annual reports. When necessary, we have looked into the notes of the reports to derive the origin and to break down certain component. Examples of such components are sales and costs. Furthermore, when it has been possible and when it, in the eyes of the authors, has made sense to do so, a comparison has been made with Ralph Lauren and American Eagle, which are two close competitors and peers. The comparable companies have also been selected to give us an indication of, whether a PE company can implement strategies to either reduce costs or increase revenue, or if Abercrombie already has reached an "optimal" level compared to its peers.

Moreover, we have also been using data from Bloomberg when it has been deemed necessary due to the lack of detail in the different companies' annual reports concerning the breakdown of larger items and the lack of consistency between how the different companies present their numbers. Such data include Inventory turnover, NWC, EBITDA margin, ROIC and FCF. These numbers have then also been confirmed by manual calculations using respective companies 10K.

Most of the historical financial analysis will be based on the time between 2011-2016, but has been conducted between 2012-2015 for sales and treasury stock and has been conducted between 2004-2015 for the development of the ratio between treasury shares and total number of outstanding shares. The historical Income Statement and Balance Sheet for A&F, can be seen in Appendix 3.

6.1 Analysis of financial drivers and other financial posts

To get insight about the current state of A&F we have chosen to look at a couple of, for the retail industry, relevant posts that when analyzed make it possible for us to target, for the PE company, relevant areas for improvements. Moreover, by comparing A&Fs numbers, when possible, to that of its peers we hope to gain further insight into what other competitors might do better or worse than A&F, which is something we hope will lead to a better understanding of the current direction that A&F have to take.

We will start by analyzing A&Fs revenues, followed by its costs, inventory turnover and NWC. We will then look deeper into their EBITDA margin and the ROIC. Finally, we will end the section with an analysis of A&Fs treasury stock and their FCF.

6.1.1 Revenues

The following section intends to analyze A&Fs past sales numbers and compare them to two of its close competitors, American Eagle and Ralph Lauren. This is to gain insight into, not only A&Fs sales

development, but also if comparable peers are showing similar patterns. For good comparability we have chosen competitors that also originates from the US and therefore reports their numbers in the same currency, which is USD.

Between the period of 2012-2015 A&F is the only company of the three that shows a negative CAGR for the period. Both Ralph Lauren and American Eagle has been growing their sales at a CAGR higher than zero, while A&F, as stated above, has had a CAGR of -7,95% for the period. Furthermore, we can, as seen in table 4, conclude that this unhealthy sales decline is attributable to both its two brands Abercrombie and Hollister, which shows negative sales growth during the same period. Interesting though is that Hollister during the last period has been improving their situation, while Abercrombie continues to perform below expectations, being unable to reverse the negative trend.

Growth Rate	2012/2013	2013/2014	2014/2015	CAGR (12-15)
Abercrombie	-9,24%	-6,48%	-7,36%	-7,70%
Hollister	*-8,30%*	*-11,26%*	*-4,82%*	*-8,16%*
A&F	-8,73%	-9,06%	-6,02%	-7,95%
American Eagle	-4,89%	-0,69%	7,28%	0,44%
Ralph Lauren	7,27%	2,28%	-2,82%	2,16%
Apparel Index	6,08%	6,26%	6,39%	6,42%

Table 4 - Compiled by the authors with data from Bloomberg

Abercrombie, who recently released its fourth quarter earnings results yet again performed below analysts' expectations, missing yet another sales estimate. This much due to a miscommunicated and badly executed marketing campaign during Christmas that was supposed to work as an attempt to rebrand the company, and mostly its Abercrombie brand, as a more inclusive brand. According to A&Fs new CEO Fran Horowitz the company had failed to properly communicate and translate the new rebranding initiative out to its stores which had a large diminishing effect on the campaign overall (Yahoo 1, 2017). Interesting though is that, while Abercrombie's comparable sales was down 13% for the period, its Hollister brand reported a 1% increase in comparable sales. This result further reinforces the analysis made above, namely that Hollister is continuing to improve and has been able to reverse its negative sales growth and is now A&Fs only saving grace (Perumal, 2017).

The underlying reason for why the firm is doing badly, is attributed to a lot of different reasons, but according to a recent analyst report from Passport some of the key reasons to A&Fs failure is the failure to expand quickly enough and leverage their international sales. Furthermore, they failed to adapt and be responsive to the changing preferences among its target customers. Finally, their damaged brand image,

given by their former CEO, which still haunts the company and an increased competition from fast fashion brands and e-commerce players has been affecting the company (Passport A&F, 2016).

A&F is not alone in the struggle to adapt to the new trends of the apparel industry. Its peer, Ralph Lauren, has also been struggling the latest years, which can be seen in their sales growth numbers in the table 4. Recent research conducted and released by Bloomberg indicates that Ralph Lauren has been struggling with the changing preferences of their target customers, resulting in lower sales numbers. Furthermore, the inability to sell of their inventory at historical rates has caused a rapid increase in their day's inventory outstanding, something that will be discusses more in detail in section 6.1.3, which has resulted in more reductions, which in turn has decreased their margins and ultimately also their profit (Banjo, 2016).

Analyzing the numbers between the three companies, we can see that American Eagle is the only company that seems to have a positive development in its sales growth during the period, even though both American Eagle and Ralph Lauren shows positive CAGR for the period as a whole. Analysts think that American Eagles' reversed their sales due to improvements in their inventory management, which has resulted in an increasing inventory turnover. Thus enabling the company to better adapt to changing preferences and reducing the need for reductions, resulting in increased sales. They also managed to increase the brand awareness, store traffic and sales by leveraging their diverse retail and marketing channels, thus further reinforcing the importance of good inventory management and Omni channel strategy (MarketLine AEO, 2016).

The fact that American Eagle have been able to reverse negative revenue growth to positive, despite tough competition, can partially be described by better and more efficient inventory management and effective leveraging of Omni channels compared to A&F. Worth mentioning, is the major restructuring and rebranding initiatives that A&F is going through, due to the damage caused by their former CEO, which does not make it easier for A&F to regain traction, even though Hollister is heading in the right direction as implied by the most recent numbers (MarketLine A&F, 2016; MarketLine AEO, 2016).

Thus focus for the PE fund should be to change the brand perception of A&F's brands among its customers and streamline their inventory to reduce price reductions that is eating up their margin.

6.1.2 Costs

Looking at the development of SG&A for A&F we can clearly state, as inferred by figure 9, that it has been more or less constant between 2011-2016. The same seems to be true for its peers with an exception for Ralph Lauren, which had an increasing SG&A between 2012-2015. Looking further into A&Fs 10-Ks for the same period we can see that their sales, number of employees & stores has fluctuated a lot during the

same period. We therefore find ground to support the argument that A&Fs SG&A, at least in the medium term, stays relatively constant even though other variables seams to fluctuate (Abercrombie & Fitch, 2015). Thus, we find it hard to assume that a PE company would be able to reduce this post during their holding period by large amounts.

Furthermore, we can also see that A&Fs average rental expense per store has increased, and show a higher average than both Ralph Lauren and American Eagle. This is something that we did not expect since we expected the relationship to be more like the one in 2011. Since Ralph Lauren is selling more premium clothes, and it can therefore be argued that they have to choose more prime locations, where the rent is higher. It is also interesting that the total amount spent on rental expenses has been increasing for all three companies, but while American Eagle and Ralph Lauren have been increasing the number of stores they operate A&F has constantly been decreasing their number, which might indicate that there might be room for improvement in better cost management when it comes to their rental expenses.
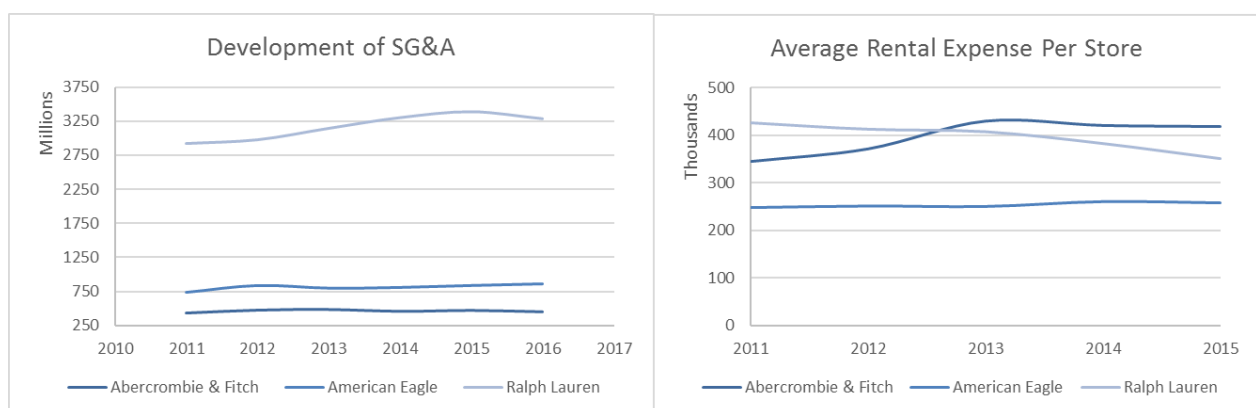
Figure 9 - Compiled by the authors with data from Bloomberg

6.1.3 NWC and Inventory Turnover

NWC is an important element of the forecasting and development of FCF, which is an important aspect of a LBO since it is used to maintain and pay back the increased debt. Moreover, as formerly mentioned, PE companies have historically been good at implementing effective strategies to optimize the cash conversion cycle in their target companies, this since it will provide them with a higher liquidity (PWC, 2017)

It is therefore of high importance to look at and analyze A&Fs CCC and we have therefore converted the NWC numbers, derived from A&Fs 10-K, into the number of days of outstanding of payables, inventory and recievables, thus enabling us to identify improvement possibilities and to calculate the overall CCC and its development, as seen in table 5. (Petersen and Plenborg, 2012). Furthermore, by including two of their peers we can identify how they perform compared to their competitors and where effort to improve

is most likely to be placed. Days sales outstanding has been derived from A&Fs revenue, while days inventory and payables outstanding has been derived from their COGS.

Measured In Days	2011	2012	2013	2014	2015
Days Sales					
A&F	7,18	7,77	7,41	5,88	5,68
American Eagle	4,44	4,62	6,62	7,86	7,69
Ralph Lauren	26,27	26,35	25,56	29,69	29,36
Days Inventory					
A&F	120,64	121,2	113,01	126,08	120,01
American Eagle	60,89	63,23	51,81	48,79	47,91
Ralph Lauren	98,19	113,4	111,06	115,76	124,92
Accounts Payable					
A&F	33,36	45,28	30	36,43	44,36
American Eagle	30,34	32,8	32,22	33,98	30,31
Ralph Lauren	23,97	20,96	19,51	23,03	20,29
Cash Conversion					
A&F	94,46	83,69	90,42	95,53	81,33
American Eagle	34,99	35,05	26,21	22,67	25,29
Ralph Lauren	100,48	118,78	117,11	122,42	133,99

Table 5 - Compiled by the authors with data from Bloomberg

Looking at the development of A&Fs CCC when comparing their 2011 number to their 2015 number, have positively improved their CCC by 13,9%. When analyzing why their CCC has gone down we can see that a small part of the decrease seems to come from A&Fs ability to, compared to 2011, ensure they get paid quicker from customers. Furthermore, their days of inventory outstanding has had a slight decrease of 0,63 days which has had a little to no effect on their CCC. More interesting though is that their Accounts payable turnover days has increased significantly compared to 2011. It has increased by 11 days or 32,97%, which tells us that they are taking longer time to pay their suppliers and thus decreasing their CCC substantially. This development could simply mean that A&F has negotiated better payment terms with their suppliers thus they can wait longer before having to pay their bills. However, it can also mean that they are struggling with their payments and thus taking longer to pay their bills. Out of these two option the first is assumed to be true for Abercrombie, since they seem to have a healthy development of their liquidity ratios, something that will be discussed more in detail in section 6.1.4 (Petersen and Plenborg, 2012).

Comparing A&Fs CCC to that of its peers, they seem to have a substantial lower number than that of Ralph Lauren. Interesting though is that they seem to have more than 3 times as high CCC than American Eagle, even though they are quicker in collecting their sales from customers and lake longer to pay their suppliers. The answer to American Eagles' large advantage over A&F can be found by comparing their number of

days' inventory outstanding. Here A&F takes almost three times as long to turn over their inventory compared to American Eagle. Therefore, we can find a major point of improvement area for A&F that can significantly increase their liquidity and thus also increase their FCF available for debt service.

In figure 10, where we have chosen to isolate the inventory turnover, we can see that while both A&F and Ralph Lauren both have had flat to negative development of their inventory turnover, American Eagle has been showing some major improvements. As a result of better inventory management giving them a better responsiveness to the changing preferences of their customers. As we will see later on this improvement has directly translated into both higher margins and returns. Therefore, we feel confident in saying that it makes sense for a PE company to look further into how to improve A&Fs inventory turnover, to conform towards faster inventory turnover.
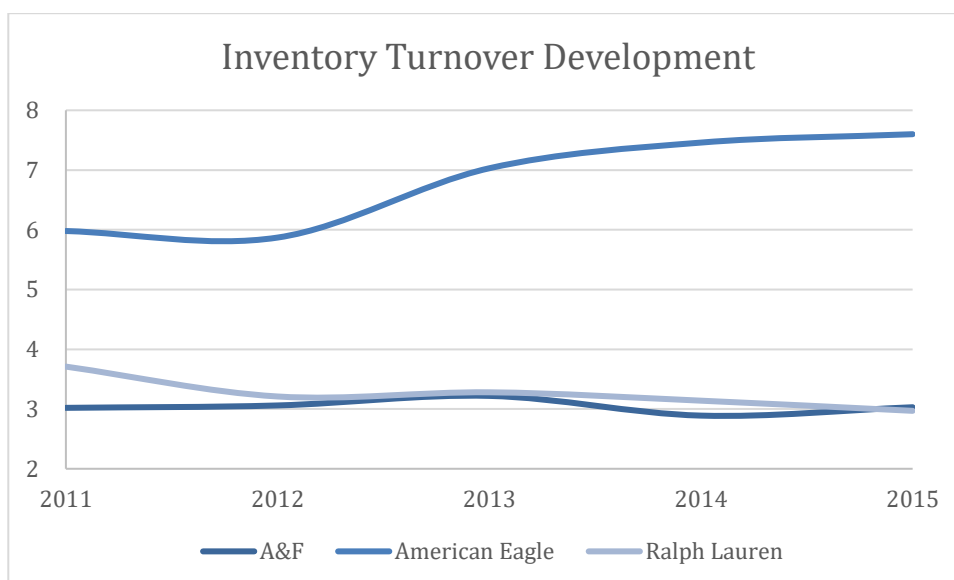
Figure 10 - Compiled by the authors with data from 10K's

6.1.4 Liquidity ratio

For a PE company and potential providers of money it is important to know about A&Fs ability to service both their long and short term debt. We have therefore been calculating three ratios to measure A&Fs current level of liquidity, which can be seen in table 6. Current ratio which measures A&Fs ability to pay their long and short term obligation and Quick and Cash ratio which measures their ability to pay their meet their short term obligation, where the cash ratio is the purest and most liquid measure.

	2011	2012	2013	2014	2015	2016
Current Ratio	2,23	1,89	2,32	2,4	2,2	2,34
Quick Ratio	1,08	1,08	1,18	1,18	1,21	1,32
Cash Ratio	0,96	0,93	1,06	1,07	1,1	1,13

Table 6 - Compiled by the authors with data from Bloomberg

A&Fs current ratio is well above 1, which indicates that they more than enough can pay both their long and short term obligations. Furthermore, we can see that they have had a positive development of their current ratio between 2011-2016, indicating a good financial position. Moreover, a too high current ratio can also be a sign that A&F is not using their current assets as efficient as they could, being inefficient in securing debt financing or might be managing their working capital inefficiently (Petersen and Plenborg, 2012). The numbers from the above section about A&Fs NWC indicates that there might be a combination of these two explanations. This since A&F is currently managing their inventory in an, compared to American Eagle, inefficient way.

Both the quick and cash ratio is above 1 and have both been showing a positive development between 2011-2016. A&F's quick ratio shows us that they have about $1,32 to cover every $1 in short term debt. Moreover, their cash ratio, which only measures the amount of actual cash that the company has available to service their debt, indicates that they have $1.13 per every $1 of short term debt. Even though A&F had a cash ratio below 1 during 2011 and 2012 this is not cause to any concern since they since then have had a positive development.

Finally, we can conclude that A&Fs liquidity seems to be in good shape and that they have good precondition to meet all their short and long term obligations, in the short to medium term. Therefore, it should be possible for a PE company to increase the debt level further without concern for not being able to cover the interest payments.

6.1.5 EBITDA margin

To analyze A&Fs EBITDA and EBIT margin, we first had to adjust their income statement, as reported in their 10-K, for depreciation. This since A&F had chosen to divide the depreciation and amortization post in smaller components, and thus spreading it out on different places in their income statement. For comparison we have chosen to include both the EBITDA and the EBIT margin to enable us to see the difference that D&A does for the number.

Figure 11 shows how A&F consistently has had the lowest margins compared to its peers, and this also holds in 2011 and 2012 when A&F was doing well. A further comparison between the companies also shows that A&F has an EBIT margin which is approximately 6% below that of Ralph Lauren and American Eagle in 2015 and according to numbers from Bloomberg this is a gap that keep on increasing. We can also see how both A&F and Ralph Lauren has been experiencing reduced margins during the period, which according to analysts is a lot due to their inability to respond quick enough to the changing preferences of their customers. Furthermore, this inability comes a lot from their low inventory turnover, indicating that

they are struggling to sell their products, which results in lower margins due to increased need for discounts (Banjo, 2016). On the other hand, American Eagle has been able to turn around their decrease in margin and are now heading back towards their 2012 level. A lot of this turnaround has been due to a more efficient inventory management and successful cost cutting programs (MarketLine AEO, 2016).
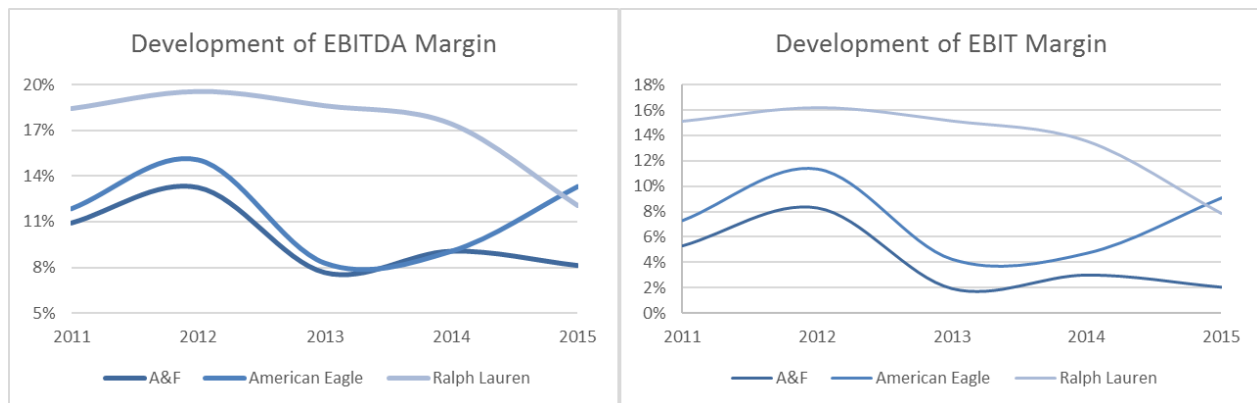
Figure 11 - Compiled by the authors with data from 10K's

In spite of A&Fs many attempts in recent years to turn around their business, none of them seem to have been successful and with the fail of their latest campaign to rebrand themselves as a come as you are brand, their margin is likely to decrease even further, even though the effect is slightly dampened by Hollister's recent sales improvement (Yahoo 1, 2017; Gustafson, 2017). Finally, we can conclude that Abercrombie seem to be struggling to maintain a stable and healthy level on both their EBITDA and EBIT margins and that they are showing no evidence of turning around such negative trend. Analyzing further, this decrease in their margin is most likely due to their rental and SG&A costs, which, even though sales decline, stays more or less constant and thus decreases their margin. This is further reinforcing the importance of an efficient inventory management and the ability to adapt to the changing landscape of the retail industry.

6.1.6 ROIC

The following section intends to look at A&F's Return on Invested Capital and compare it to that of its competitors. The evaluation of a company's ROIC can be conducted either by comparing the obtained number to the companies own WACC or by comparing it to that of its competitors. Due to the fact that the calculation of A&Fs WACC is not part of the objective of this thesis, we will be comparing A&Fs ROIC to that of its closest peers and dig deeper into the decomposition of its ROIC by, looking at their asset turnover and profit margin (Petersen and Plenborg, 2012). By decomposing A&Fs ROIC we will be able to gain insight into the driving factors behind their ROIC for the last years and what they are doing well and not as well. Furthermore, in the calculation of ROIC, we have estimated the derived values by using book values of invested capital.

Moreover, we have also chosen to look at ROIC instead of ROE, since ROIC is not affected by share repurchases made by the company, which is relevant for A&F as will be seen in section 6.1.8. When buybacks are made with debt, NOPAT is not affected since it is financing neutral and invested capital stays constant since the increase in debt is offset by the decrease in equity (Credit Suisse, 2014). This makes ROIC a good ratio for A&F since they have made a lot of share repurchases in recent years and an increase in debt seemed to follow along.

Looking at the development for A&Fs ROIC in figure 12 we can see that it since 2012 has been declining with almost 9% and show no signs of improving. For the entire period A&Fs ROIC has been declining from 7,19% to 3,02% a number which is far lower than that of its competitors. Looking at Ralph Lauren we can see a similar pattern, although not as extreme as A&Fs. According to a recent article from Bloomberg a lot of this decline has been due to failure to adapt to the tough retail climate, which has led to increased price reductions and inventory pileups, which in turn has been eroding their ROIC (Banjo, 2016). American Eagle is the only of the three companies that has shown a positive development in their ROIC during the period, and has gone from 10,8% in 2011 to 20,11% in 2015. Furthermore, American Eagle has also been able to return to their 2012 ROIC level as a result of effective cost control and inventory management, which is something that A&F has been unable to do (Market Line AEO, 2016; American Eagle Outfitters, 2015).
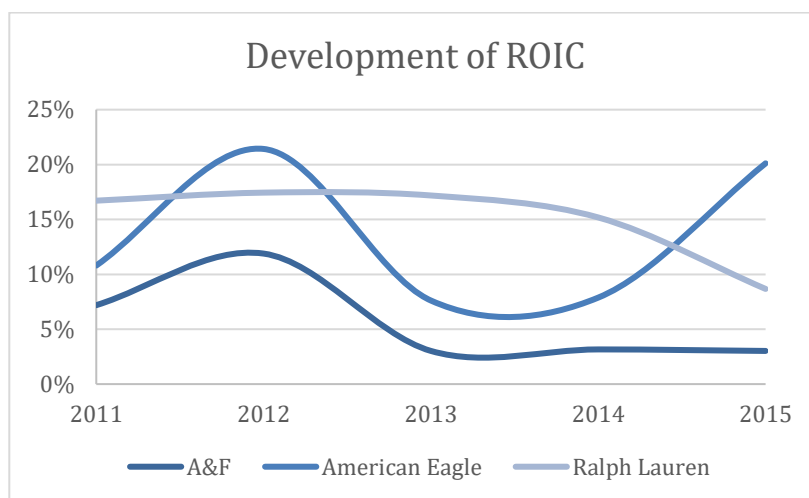
Figure 12 - Compiled by the authors with data from 10K's

Decomposing A&F's ROIC we can see that it is a decrease in their profit margin which has been the driving force behind their reduced ROIC, as can be seen in table 7, indicating a low operating efficiency. A&F's profit margin has since 2011 been decreasing with more than 50% from 3,5% in 2011 to 1,46% in 2015, which indicates they have been unable to effectively manage their costs. Comparing A&F's development to that of its peers, we see that Ralph Lauren is showing a similar pattern with almost five percentage point reduction in their profit margin during the same period. American Eagle, on the other hand, has been able

to increase their profit margin for the period with an increase of 1,34%. A&F therefore has, by far, the lowest profit margin of the three. Looking at American Eagles recent success we can conclude that an effective management of costs seems to be important in today's retail industry, which has been further reinforced since both A&F and Ralph Lauren is going through reorganizations to adjust their operations to the new retail climate (Abercrombie & Fitch, 2015, Ralph Lauren, 2015).

A&F's asset turnover has on the other side stayed relatively constant between 2011-2015 with a turnover at 2,07, which gives us an indication of that A&Fs management has been relatively consistent in turning their invested assets into sales between 2011 and 2015. Compared to American Eagle and Ralph Lauren, A&F is placed in the middle, which makes sense since A&F operates both Abercrombie, a more premium brand, and Hollister, which is seen as their more affordable brand. Therefore, they should lie between American Eagle, which is comparable to Hollister, and Ralph Lauren which is comparable to Abercrombie. While both A&F and Ralph Lauren has had a relatively constant asset turnover, American Eagle has been able to improve their turnover with 44,59% between 2011 and 2015.

ROIC Decomposition	2011	2012	2013	2014	2015
Asset Turnover					
Abercrombie & Fitch	2,05	2,22	2,07	1,99	2,07
American Eagle	2,31	2,87	3,05	2,98	3,34
Ralph Lauren	1,64	1,56	1,60	1,57	1,54
Profit Margin					
Abercrombie & Fitch	3,50%	5,36%	1,46%	1,58%	1,46%
American Eagle	4,68%	7,46%	2,49%	2,64%	6,02%
Ralph Lauren	10,17%	11,17%	10,74%	9,66%	5,64%
ROIC					
Abercrombie & Fitch	7,19%	11,89%	3,03%	3,16%	3,02%
American Eagle	10,80%	21,42%	7,61%	7,88%	20,11%
Ralph Lauren	16,71%	17,44%	17,18%	15,18%	8,67%

Table 7 - Compiled by the authors with data from 10K's

Finally, we can conclude that A&F's ROIC has been declining and that this has been driven by a decreasing profit margin since their turnover has stayed the same. This raises concerns regarding A&F's operational efficiency and it is therefore interesting for a PE company to look into how they could reduce these costs and make them more flexible to variations in sales. Turnover has stayed relatively flat and we therefore think it makes sense to focus most of the efforts in improving the profit margin. Furthermore, we think that A&F should be able to reach similar levels in profit margin as American Eagle and obtain a turnover similar to the one obtained during 2012.

6.1.7 Free Cash Flow

Since the FCF is used to pay back the debt undertaken by the PE fund we have found it important to also look at its development for A&F to make sure that they have had a stable and non-negative FCF to ensure that future debt commitments can potentially be met. Looking at A&F's FCF since 2011, we can see that they, despite some bad years, haven't had any negative FCF between 2011 and 2016, as illustrated in figure 17. Furthermore, we can also see that they between 2013 and 2015 have experienced a positive development in the FCF, indicating that their cash flow generation, although poor performance, appears to be strong. However their FCF have been really volatile between 2011-2016, which raises a concern about how reliable their cash flow generation is and if they would be able to generate sufficient FCF to service the debt structure set by the PE firm. Looking into A&F's 10-K we can see that a lot of this volatility has been due to bad inventory management, with an increase in inventory of $216 million and $103 million during 2011 and 2013 respectively, explaining the sudden drop in FCF these two years.
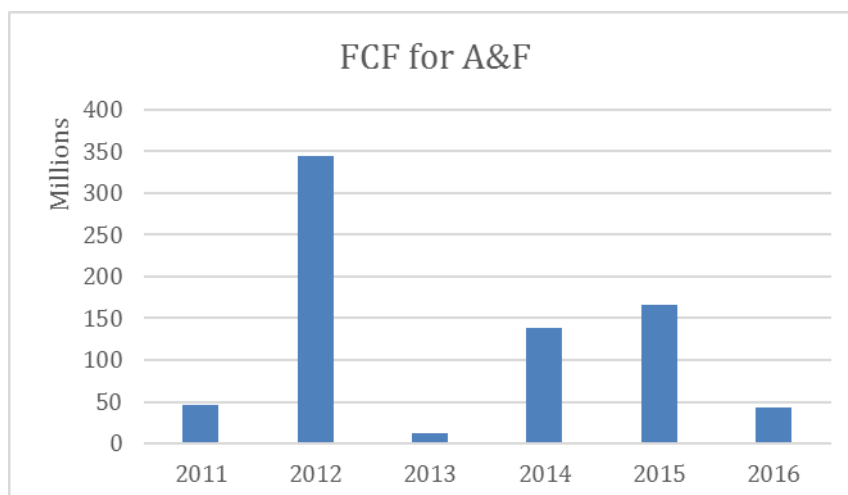
Figure 13 - Compiled by the authors with data from Bloomberg

This discussion will be addressed further in our debt section where we will be evaluating what debt level A&F will be able to service, without breaching covenants.

6.1.8 Treasury Stock

In 2012, in an attempt to please investors, A&F announced the approval of a large share repurchase program, which was a result of their new share repurchase philosophy. The new philosophy meant that A&F would return all excess cash above $350M to their shareholders in form of dividend payments and share repurchases. Furthermore, they also said that they would complement with further repurchases, financed by debt instruments, when they found it appropriate to do so. Finally, they meant that they would execute repurchases when they believed their valuation to be low in an attempt to signal to its shareholders that the share price was low, thus resulting in an upwards pressure to the share price in

accordance with current corporate finance theory (Abercrombie & Fitch IR, 2012; Berk and DeMarzo, 2014; Brown, 2012).

A&F has since then constantly increased their treasury stock with the largest buyback being made between 2013 and 2014, increasing their treasury stock with as much as $272M, which can be seen in figure 14. Furthermore, table 8 illustrates how they, between 2012-2014, also have been taking on new debt to support part of their share repurchases during the period.
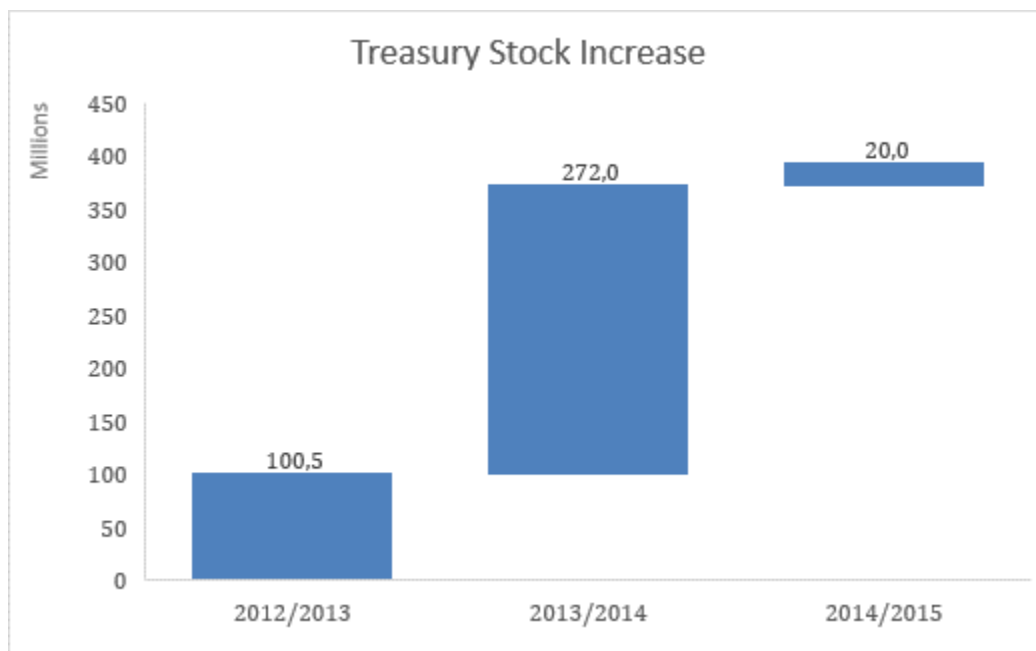
Figure 14 - Compiled by the authors with data from Bloomberg

Measured in millions of dollars		2010		2011		2012		2013		2014		2015
Increase in treasury stock	$	38,00	$	109,50	$	305,20	$	100,50	$	272,10	$	20,00
Dividends Paid	$	61,70	$	61,00	$	57,60	$	61,90	$	57,40	$	55,10
Sum of Buyback and Div.	**$**	**99,70**	**$**	**170,50**	**$**	**362,80**	**$**	**162,40**	**$**	**329,50**	**$**	**75,10**
Net Income (NI) Available To Common	$	150,30	$	143,90	$	237,00	$	54,60	$	51,80	$	35,60
Proceeds from Long Term Debt	$	-	$	-	$	135,00	$	150,00	$	357,00	$	-
Sum of Debt increase and NI	**$**	**150,30**	**$**	**143,90**	**$**	**372,00**	**$**	**204,60**	**$**	**408,80**	**$**	**35,60**
Long Term Debt	$	68,60	$	57,90	$	63,90	$	180,70	$	341,80	$	333,70
Sustainable Growth Rate		4,32%		9,57%		-0,40%		-0,36%		-1,46%		-3,97%

Table 8 - Compiled by the authors with data from Bloomberg

A&F is not the only US apparel company to do these massive share repurchases, with both American Eagle and Ralph Lauren showing similar patterns, which can be seen in figure 15. Interestingly though neither of these three companies have canceled their treasury stock from their balance sheet but has chosen to let them remain. Thus, as can be seen in figure 15, the number of shares being held in treasury for A&F is representing a larger and larger part of the total number of issued shares, a pattern which seems to be the same for American Eagle and Ralph Lauren. Moreover, the fact that the shares have not yet been canceled

for A&F can be somewhat alarming for a potential PE firm since there might be many reasons behind why they chose not to cancel them, with one of them being to be able to use them as a defense towards a potential takeover bid, by for example floating them all into the market again, as part of an active poison pill. Although A&F chose to cancel their active poison pill, set to mature in 2018, in 2014 their large un-canceled treasury holdings still remains a question marks that need an answer.
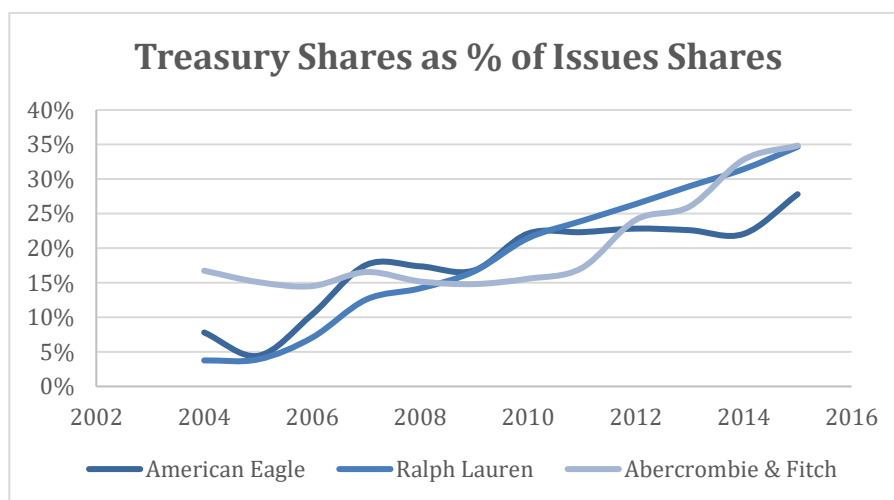
Figure 15 - Compiled by the authors with data from Bloomberg

In an attempt to make sure that the above mentioned pattern does not propose a major obstacle we have tried to contact A&F for a comment about their treasury stock. Unfortunately, we have been unable to get in contact with A&Fs investor relations department, even after multiple attempts to reach them both though email and phone. As a result, we have therefore chosen to contact US peer companies to A&F, with similar patterns and let their answers serve as guidance in the matter. The unanimous answer we got from their Investor relations departments is that they chose not to cancel them out of convenience if they, at a later point, would like to increase the amount of outstanding shares again, thus they would be able to take from the shares they have in treasury without having to go through the process of issuing new shares again. Moreover, we have been told that they only would be able to float larger amount of their treasury share in relations to an M&A transaction. Finally, it is also confirmed that the treasury shares held by the companies carries no voting rights and thus the companies would have no influence in voting related questions.

We have therefore, on basis of the above collected answers, made the assumption that it is very unlikely that A&Fs un-canceled treasury shares would propose a major obstacle for any potential PE firm wishing to take them private.

7. Internal analysis

This section intends to look into and identify the activities that create value within A&Fs value chain. During the last couple of years, A&F has been experiencing a tremendous amount of pressure from competitors, customers, investors etc., which has forced them throughout their value chain to cut costs and try to make their current processes more flexible and efficient.

7.1 Purchasing and Production

As stated in the strategic analysis it has become highly important to deliver high quality apparel as fast as possible, to keep up with the changing fashion trends and to attract the targeted customer segment. One very important component in this is to ensure that you control and look after your production processes. A&F is currently sourcing their clothing's from 150 merchandising vendors across the world, but primarily from Asia and Central America where the production costs is lowest (Abercrombie & Fitch, 2016). Sourcing from vendors that you do not control yourself could propose a big risk both when it comes to quality assurance and timeliness of the deliveries. As A&F does not own their own production processes, it has left them relying on independent third party manufacturers. To mitigate/minimize these risk A&F has made sure that they do not source more than 10% of its merchandise from any single supplier or factory during any given year. Furthermore, A&F has, to maintain a high quality, developed high quality standards that they require any supplier, manufacturer, and fabrics that are subcontractors to such, to achieve and maintain. They have also put product quality standards in place to assure that only the best quality materials are being used for their clothes. Moreover, suppliers are constantly being monitored by A&F employees to ensure that their set standards are maintained (MarketLine A&F 1, 2016; Passport, Passport A&F, 2016).

Furthermore, to effectuate their inventory management and reduce inventory risk, A&F are currently looking into the possibility of using fabric platforming for their production, thus buying larger quantities of fabric and then create a design for the fabric. According to A&F and industry analysts this would make them more adaptable and reactive to the ever chaining fashion trends.

7.2 Distribution and customer service

Distribution to North America is being handled from two fully owned distribution centers in New Albany, which are in-charge of distributing their products to stores and direct-to-consumer customers. In 2015 they turned one of their DCs into a fully dedicated direct-to-consumer facility to enable them to better react to the changing buying patterns of their customers and to better handle their fast growing e-

commerce business (Passport A&F, 2016; Abercrombie & Fitch, 2015). Their distribution outside of the US is handled by third party DCs located in Netherlands, Hong Kong and United Arab Emirates and a new agreement in Shanghai to better cope with the planned expansion into China (Abercrombie & Fitch, 2015). A&F has during the last years been experiencing a declining demand for their products and to cope with the decreased demand they are continuously trying to balance their inventory turnover and in-stock levels and, when necessary, take mark downs to make sure that their inventory stays up to date and that they stay on top of current fashion trends. But with an increased amount of markdowns and decreased inventory turnover it is evident that they are struggling to maintain an optimal level of inventory and that something has to be done (Passport A&F, 2016; Abercrombie & Fitch, 2015).

Transportation from A&Fs DCs to their stores and direct-to-consumer customers in Northern America is primarily handled by one contract carrier, while they for their European and Asian stores and customers are using multiple contract carriers (Abercrombie & Fitch, 2015, Passport A&F, 2016). To cope with the increased competition, A&F is, in addition to free traditional shipping, also trying to offer added value to their customers by leveraging their existing stores and wide geographical presence. This enables them to offer their customers the ability to pick up their ordered products from a store of their choice. Furthermore, A&F is also working on the concept of enabling the customers to reserve a certain item that is available in store for pick up and payment. These changes are all part of A&Fs plan to add value to their customers, and adding that premium service feeling by responding to customers' preferences of flexibility, comfort and accessibility, something they hope will set them apart from their competitors (Abercrombie & Fitch, 2015; Passport A&F, 2016).

7.3 Marketing and Advertising

Since the customers like to identify themselves with the given "life style" that a certain brand signals, an apparel company's ability to communicate such feeling of attribution is of great importance to drive sales (Jung and Merlin, 2002). A&F is therefore trying to reinforce the specific lifestyle that each brand represents through multiple channels and initiatives. Such initiatives are their newly designed store concept, which aims to offer an in-store experience that invites the customer to actively interact with the specific brand through, among other things, social media by offering the customers the possibility to share content from their stores directly on social media (Passport A&F, 2016; Abercrombie & Fitch, 2016; Wilson, 2017). Moreover, A&F is also overhauling their marketing strategy in an attempt to change the perception of the brand, mostly the Abercrombie brand, to a more inclusive, diverse and open brand (Abercrombie & Fitch, 2016). This since the customer's preferences has changed and companies, such as A&F, has therefore been forced to change the way they are advertising.

American Eagle has during the last year been doing a massive push in promoting their brands as inclusive and diverse, something that A&F was unsuccessful in doing due to a failed attempt in communicating and transferring their new message from the marketing billboards to an actual culture change throughout their business. This was something that the customers saw through and the result was lower holiday sales than expected (Gustafson, 2017).

Moreover, to further reinforce each communicated lifestyle towards its target customers, A&F is also leveraging the usage of social media and blogs. They are collaborating with famous bloggers, stylists and celebrities that their target audience connects to the selected lifestyle of each brand. Finally, A&F is also working a lot with the development of their customer relationship programs, as a way to use the data base of 10 million customer contacts that they currently possess (Abercrombie & Fitch, 2015).

7.4 Supporting activities

As mentioned above A&F is currently facing some major challenges and are as a result trying to adapt their value chain accordingly. Nevertheless, when implementing change in a company it is important to have good management that can carry out the necessary changes, which is why the recruitment of good management and replacement of bad is such an important factor in a company's success (Cornelli and Karakas, 2012). In 2014 A&F chose to fire their current CEO and Chairman Michael Jefferies, which had been part of the cause to A&Fs rapid decline in sales and popularity in the years leading up to his retirement. Jefferies has with a number of careless statements about the company's target audience, caused the now more inclusive seeking millennial generation to seek alternative brands. Brands that better reflect and embrace diversity and inclusion (Rupp and Berfield, 2015). After the retirement of Michael Jefferies, A&F had been without an official CEO for more than 2 years until they the 1 of February 2017 named their head of merchandising, Fran Horowitz, CEO (Reuters, 2017). Fran has since then not been able to do a lot, but it will be interesting to see if she can turn around the now crippled teen retailer. However, Horowitz appointment as CEO will not be taken into consideration since she was appointed after our chosen cut of date. Moreover, A&F has since 2015 been realizing their shortfall of skilled management and has as a result been recruiting multiple designers and top executives from many well-known brands such as Karl Lagerfeld, Tommy Hilfiger and Ralph Lauren, in an attempt to gain the skillset necessary to turn around the company, which so far has been without any visible result (Reuters 2, 2017).

8. SWOT Analysis

In the below section, we will describe the different strengths, weaknesses, opportunities and threats that A&F face in their current and expected future environment. To do so, we have compiled the previous sections into a SWOT analysis and matrix, in which we will summarize the aforementioned knowledge to substantiate our proposed strategic changes for the hypothetical LBO of A&F.

Strengths	*Weaknesses*
- Diversified brand portfolio - Strong E-commerce platform - Global brand recognition - Wide geographic presence	- Third party manufacturer dependency - Low inventory turnover - Poor financial performance - Negative brand perception - Brand overlap and cannibalization - Overreliance on US market
Opportunities	*Threats*
- High International growth rates - Increased disposable income - Increased E-commerce growth - Athleisure and wellness segment growth	- Intense competition - Changes in fashion trends - Increased political tension - Increase in labor wages - Further change in consumer spending

8.1 Strengths

One of A&F's primary strengths is their current diversified brand portfolio. With their two main brands, Abercrombie & Fitch and Hollister, they provide products in kids wear, teen size, as well as underwear, accessory and perfumes for men and women, besides the normal apparel and sportswear categories for male and female customers. Both brands have their own inherent profile, which makes specific targeting a possibility. Currently, Hollister has a more casual look, while Abercrombie & Fitch is positioned as a more premium look.

Moreover, A&F has a drastically higher share of their sales from online sales, compared to competitors and market average (Abercrombie & Fitch, 2015). This implicitly means that they operate an easily accessible and successful online retail platform. Considering how online retail sales is growing and

capturing a larger share of total apparel sales, A&Fs direct to consumer platform could prove to be a very valuable asset in the search for growth. Furthermore, as further noted about their marketing strategy, they're engaging their consumers directly and using key influencers to link all their presences together into an Omni-channel system, which they are having great success with to shift to online sales. Finally, they have established partnerships with other online distributors, such as Zalando, which could prove fruitful in expanding their online presence (Passport A&F, 2016).

Furthermore, even though A&F has a high reliance on the US market, they possess a wide geographic presence, in which they ship their apparel to 120 different countries (Canadean, 2016). Although some of these operations are very limited, the presence allows them to gather information on consumer trends, and help leverage their existing presence into a further globalization. Furthermore, the brand has through its international presence and formerly heavy expansion into Europe managed to gain a global brand recognition, which can prove very valuable in further international expansion they have planned.

8.2 Weaknesses

As described in the internal analysis, A&F sources merchandise from some 150 third party manufacturers. With the fast-changing demands and introduction of fast-fashion, it seems imperative that a company needs to be able to quickly adapt and implement changes that would in turn match the changes in consumer preferences. By relying on third party sourcing, they risk being exposed to low quality or have an increased failure of delivering products on time, as implementation of new products are expected to be slower, resulting in customers shifting to readily available alternatives.

As shown and discussed in the financial analysis, A&F has experienced decreasing sales, while at the same time, having lower inventory turnover compared to successful competitors. The lower inventory turnover results in higher carrying costs, and impacts the firm's ability to sell products on-price, instead incurring high inventory write-downs from selling off-price, as they are unable to meet the current consumer trends as they change much faster than earlier. At the same time, the company has proved poor financial performance over the last years, eroding their margins directly as a result of lost sales and lack of cost cuts.

As explained in the company description, the firm has been affected by a negative brand perception after a very short-term success strategy. By relying on sexualized marketing campaigns and in-store sexualizing with semi-nude models, they created a certain perception of who their customers should be. Furthermore, with the public statements from their former CEO, Mike Jeffries, they started the negative, elitist and sexist perception of A&F, while at the same time, consumer preferences shifted away from apparel branded within this brand category.

Currently, their product portfolio, primarily consisting of A&F and Hollister, is cannibalizing on each other, as A&F has failed to keep the two brands and the perception of them apart. They currently target relatively similar demographics, with which there is both little price and product differentiation when it comes down to business and customer sales.

Finally, even though A&F has a largely dispersed geographic presence, they are still overly reliant on the US market and their US target customers. With approximately 65% of sales from the US, they risk being overly exposed to domestic economic events, as well as changes in domestic consumer preferences. Currently, they have limited opportunity to mitigate these.

8.3 Opportunities

As the economy in the eastern parts of the world, primarily the Asia Pacific region, has improved, so has the disposable income of its citizens. As shown formerly, the expected increase in disposable income allows consumers to purchase more goods, which is expected to spillover to the apparel and retail industry. As shown in the market analysis, the high growth rates in these geographic locations provide immense opportunities to capture growth and value for firms within the apparel and retailing industry.

As consumers are relying more on their online platforms, the increase in online sales provide a large opportunity to capture growth, as consumers are looking for well-connected and seamless shopping experience. As an example, online retail sales has in china, during the most recent years, been experiencing a year-by-year growth of up to 40%, which further underlined the importance of a well-functioning online platform (MarketLine A&F 2, 2016). Furthermore, as the US economy is progressing, consumer sales in A&F's domestic country is slightly increasing, while the online retail share is growing even faster, implying a decent growth opportunity in their home country.

Finally, the current athleisure trend is providing high growth opportunities in the apparel and retail industry with very attractive growth rates. As growth rates are attractive both in the US, EU and Asia Pacific, it could prove valuable for any apparel company to introduce clothing within this growing segment, potentially by introducing new clothing lines, or leveraging existing businesses.

8.4 Threats

As highlighted in the industry analysis, the competition within the apparel and retailing industry is quite intense. AS a result, A&F will have to create a positive brand recognition amongst its target audience, while at the same time provide reasonable prices relative to quality, create and support a seamless and effective

service experience and have store locations in the right place to ensure customer exposure (MarketLine A&F 2, 2016).

As part of the reasoning for the decline in sales for A&F, the threat from changes in consumer preferences is immense, and has grown to be even larger since the introduction of 'fast fashion'. If consumer preferences change, as they can do fast, a rigid and inflexible production and design network will not allow you to meet the changes before they potentially shift again. At the same time, with several effective and successful fast fashion brands in the industry, A&F risks losing customers to them, as they are able to adapt more quickly and effectively to trends and consumer changes (Canadean, 2016). Alongside this, even though disposable income is expected to increase, teens and late teens' share of wallet spent on the apparel and retail industry is forecast to decrease. This makes competition even harsher going forward, as the technological development around the world is growing in importance and in appearance, providing interesting and innovative products, causing consumers to shift their spending from apparel to technology (Passport, 2017).

As mentioned in our analysis of the macroeconomic environment, the current exposure to the US economy and the political risks provide an immense threat to A&F's bottom line, if labor costs increase in the US, or trade tariffs or embargoes appear. Furthermore, since A&F's sourcing is entirely linked and managed in US dollars, the threat from fluctuations in foreign currency in relation to the US currency could directly impact their international operations margin.

9. Proposed Strategic Changes

In this section, we propose a few distinctive strategic changes to alleviate the threats and opportunities A&F face, by leveraging their existing strengths or boosting their inherent weaknesses.

Based on the aforementioned analyses made of A&F, we propose four distinctive strategic components part of the PE fund's overall objective of turning around the company to gain a substantial and acceptable return. These four strategic changes are the main components, of our PE fund's turnaround strategy, needed to both stabilize and grow the business, while actively contributing to increase the existing margins. The attention needed for these will vary, dependent on the characteristics of the proposed change, as well as its fit to the current capabilities of A&F, as well as the exposures from the market dynamics. Beneath these four headlines are several sub-initiatives necessary to accomplish the dependent strategy.

Increasing International Presence
Portfolio Optimization
Develop and Leverage E-commerce Platform
Changing Brand Perception

9.1 Increase international presence

Based on the relatively small international exposure A&F currently has, especially in the Asia Pacific region and outside of Europe and the US, an expansion into other regions outside their existing market has the potential to both mitigate economic variation from key markets, as well as generating revenue and growth. As the apparel industry is in general more cyclical and sensitive to changes in the economic environment, both the value gained from growth, but also the value from risk mitigation, could make the company more competitive (Greisen, 2017). With attractive growth rates in the apparel industry outside the US and Europe, especially in the Asia Pacific region, the opportunity to grow through market expansion becomes more captivating as the growth helps mitigate the intense competition the industry faces. Gaining market share should in a growing market becomes easier than if it were through direct competition in a 'bloodied', stagnant marketplace (Kotler et. Al, 2012).

As A&F already plans to open over 100 stores in China over the next 10 years, the plans for an international expansion is already in place (Abercrombie & Fitch, 2015). In our international strategy, we intend to leverage cash flow into store openings and revenue generating activities in selected countries throughout the Asia-Pacific region, such as China and India, and aggressive growth countries in the Middle East, such as United Arab Emirates (Abercrombie & Fitch, 2015).

The exact store changes, between the two brands, and costs related to this can be found in section 10. This distinctive expansion and globalization strategy is expected to be a key component necessary to generate growth and value for the PE fund, why we believe it should be of high priority. Besides the globalization strategy, we further intend to do an internal shift of stores and store ownership, shifting the premium located Hollister stores into Abercrombie & Fitch stores. In this plan, several International and US Hollister stores will be transformed into Abercrombie & Fitch stores. Meanwhile, poor performing stores, both Abercrombie and Hollister, will be shut down in the hunt of optimizing the business and its operations.

9.2 Portfolio optimization

As section 5.3 showed, there is tremendous growth value opportunities in the sportswear and athleisure segment available to be captured in the future. Furthermore, consumers tend to be adapting the athleisure trend, turning sportswear into casual wear (Passport, 2017). As described, Hollister and Abercrombie currently face two different segments, but has had trouble differentiating themselves between these, thus cannibalizing on each other. We recommend that a strategic focus for Hollister will be to adapt to the athleisure trend, even more aggressively than their brand currently does. This action will be part of an overall portfolio optimization strategy, in which we propose that distinct focus is set to deleverage the two brands, Abercrombie and Hollister, apart from each other.

The different necessary steps in the brand portfolio optimization includes a re-targeting and shift of audience apart from their status. To regain sales for both brands, we find that it is imperative for the turnaround, of both the business and its brand perception, that the two distinct brands are targeted even further apart from each other. This will be done by focusing Abercrombie & Fitch, and the Abercrombie brand, as a more premium brand. Moving the brand away from the middle of the apparel and retail positioning and further towards brands such as Ralph Lauren (Passport A&F, 2016). The current brand positioning can be seen in appendix 4. To ensure that both brands and their perception are pulled further apart from each other, Hollister will be focused more on the athleisure feeling, with sportswear and casual sportswear as the focus. The distinction and rebranding initiatives will be discussed further in section 9.4.

Besides the brand repositioning, marketing and advertising should focus on aiming the Hollister brand towards Generation Z and its age group, as the consumers have a relatively lower income. On the contrary, Abercrombie should as the more premium brand, shift their chosen target audience towards the older millennial generation. This demographic group is known for high quality demands, and has in comparison to Generation Z, a larger available disposable income, which, to a larger extent, allows them to purchase Abercrombie clothes, as can be seen in figure 16 (Passport A&F, 2016). By appealing towards the two different demographics, and expanding the reach of A&Fs customer base, we expect to alleviate the current cannibalization of the two brands, thus boosting sales. Furthermore, our brand will thus also cover a larger age span, which should help increase our reach and sales even further.
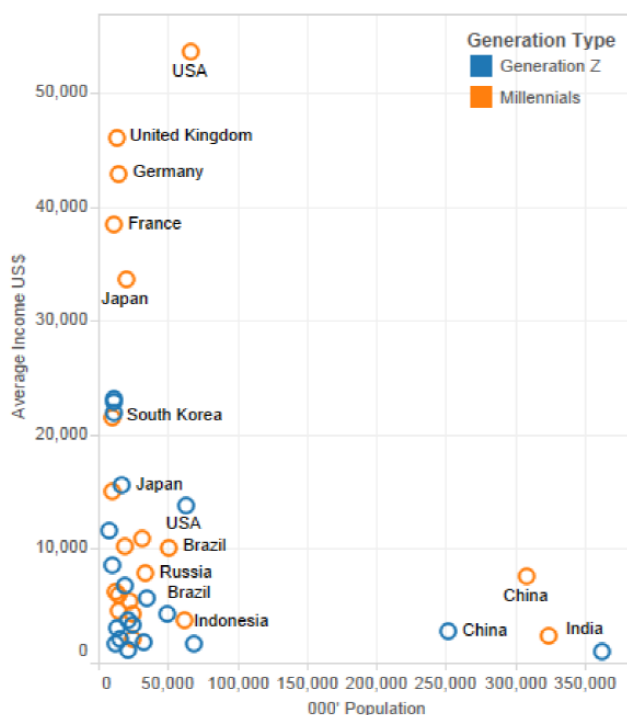
Figure 16 - Compiled by Passport

9.3 Online Retailing and Digital Platform

As the technological development show no signs of slowing down, and as consumers have become much more reliant on the internet, especially through their mobile phones, we believe an increased focus on online retailing and A&F's current digital platform will be a key success factor. This focus will assist in capturing sales, both in existing markets, but even more so in the Asia Pacific region, as online sales increase year by year with incredibly high rates. By increasing focus on the digital platform, the intention is to create an integrated brand perception and seamless shopping experience. A sense of easiness is necessary to gain increased online sales, as consumer reports tell that the inability to conduct online purchases quickly shifts the customer away from the given site (Passport 2, 2016). The set-up should also

allow customers to make use of in-store pickup, thus creating the potential of decreasing delivery related costs. This should increase A&F's margins, by saving distribution costs. However, as internet sales is still only around 25% of total sales, the potential effect from these initiatives would only be marginal to A&F's consolidated margins.

As previously described, the decreased store exposure for Hollister, which come as a result of shifting premium store locations to Abercrombie, is part of the process of exposing Hollister more as an online brand, rather than the run-of-the-mill apparel brand. In addition, the shifting of premium locations internationally, will help Abercrombie gain exposure towards the market much faster.

Furthermore, the developed online channel should be leveraged in the attempt of changing the current brand perception of A&F to be much more inclusive. By aligning the marketing campaigns and store design along with the identity of the digital platform, the leveraging of their omnichannel system should hopefully increase the chances of a successful turnaround of the brand perception. However, these thoughts will be discussed more closely in the next section.

9.4 Brand Perception

Most imperative and interdependent of the four strategic changes we propose for the LBO, is the necessity of changing the existing brand perception. Without changing the current brand perception to something positive that target customers want to be affiliated with, the business case of our LBO is rather bleak. In our focus of changing the current negative brand perception, we propose that the brand should aim to profile itself to be more inclusive, rather than exclusive, as Mr. Jeffries branded it.

Throughout our strategic analysis, we have found that with the increased focus on e-retail, brand experience and affiliation partakes a larger share of the value consumers are focusing on (Passport, 2017). As customers are focusing more on a total experience rather than just regular goods, one of the key necessities we propose to focus on with this strategic change, is to incorporate any marketing and brand identity changes across all of A&F's service platform. This involves aligning the changes and identity along and inside the physical store environment, through the online shopping and digital platform, across social media and especially important, across any mobile related affiliation with A&F. These different platforms constitute the omnichannel environment as seen in figure 17 below. The focus on these different component should assist not only the integration of the strategic changes, but also make the attempt of changing the brand perception more likely to succeed. This is contrary to the last attempt of changing their brand perception, as discussed in the company presentation. Part of this strategic change entails the reconstruction of existing stores, by applying a lighter and more inviting layout of the store, which will be

covered by our increased capital expenditures. The costs associated with the different stores are specified more closely in section 10. Other actions necessary to change A&F's existing brand perception, would also entail radically changing the former culture of sexism and racial profiling, towards being more diverse and inclusive. By adapting this approach internally, any communication outwards would intendedly become that much stronger, as the strategy and culture has been matched (Katzenbach et. al, 2012).

As part of changing the brand perception, and alongside the brand identity changes we propose across the omnichannel platforms, we propose to launch a clothing line and marketing project labeled the 'Heritage Line'. The purpose behind the launch of the 'Heritage Line' is to bring the company closer to its roots, and the affiliation behind this. Furthermore, in most turnaround cases, companies are often seen to turn back towards what made them popular or successful, concentrating their business and capabilities on what they do best. Extreme cases include companies such as Starbucks and LEGO and how they managed to turn around their business. They did so by focusing on what their identity and history contained, alongside building a profitable asset base, by focusing on managing their cost base more effectively (247 Wall Street, 2011).

Figure 17 - Created by the authors

9.5 General Additions

Finally, as part of general LBO management, we intend to decrease the size of the BoD and add in highly qualified personnel to carry out the necessary changes proposed by the PE firm (Cornelli and Karakas, 2012). Indirectly, this entails they apply PE sponsors who are highly qualified within apparel, turnaround and globalization, particularly within China. Furthermore, it will become imperative that the current

managers of the organization adapt to a sense of urgency. Within this culture, we will adapt both the external pressure from tight cash flow management, (the stick), and performance incentive programs that emphasize long-term performance, rather than short term. These incentive programs needs to be adapted towards providing maximum value 5-7 years ahead, which could be the horizon for the PE fund, before they exit the deal. Especially, the ideas and incentive structure from Value Based Management (VBM) theory could prove to be very fruitful in a turnaround of a company such as A&F. In VBM, top management's incentive structure should be aligned with shareholders, through ownership and value creating performance bonuses, measured on metrics such as Economic Value Added or Economic Profit (Rappaport, 2009). In lower parts of the organizational hierarchy, VBM argues that incentive structures should be linked to measure activities that are closely tied to Economic Profit, but aren't necessarily directly derivable. These initiatives seem to be well in line with the different capabilities PE funds usually possess and align along the different value creating components they are able to exert upon the takeovers, as discussed in the literature review. Of other general optimizations, are improvements across the value chain, related to their portfolio of suppliers, stores and other activities. Besides activities related to the digital platform and service functions, we assume the fund, within their strategy, will be able to streamline partnerships with suppliers, and gain a relatively tighter control of their cost base. This will have a positive effect over time to their margins as they are likely to save costs. The rationale behind the different cost savings are explained in greater detail in section 10.

10. Forecast

10.1 Forecasting the Income Statement

In the following sections we will describe the different components of the income statement, and further substantiate the estimates of our forecasts as they are part of our model. We will do so, by comparing the given estimates to our former analysis that helped describe both the internal and external environment, as well as comparing certain margins and estimates to competitors and historical data. In the shown estimated sections below, both the Income Statement as well as the Balance Sheet consist of a consolidated approach of the PE Fund and A&F. The reason behind this setup is to include the effects of the debt and the necessary debt repayments the PE fund needs to do, and show the effects of these on the setup.

In the following section of the income statement, one of the most important parts is the estimation of EBITDA, as the exit valuation will be contingent on an EBITDA multiple. The specifics of the entry and exit multiple will be discussed in sections 12 and 14. Furthermore, as the final valuation metric is further contingent on the cash and net interest bearing debt at exit, section 13 will analyze the cash flow and debt payment.

10.1.1 Holding Period

As for any investment, the average yearly return is contingent of the holding period with which the investment is carried. In relation to the average LBO, as discussed in the literature review, academia has found that the usual holding period has been 5-7 years (Kaplan and Strömberg, 2009). For this purpose, both the income statement and balance sheet as well as the rest of our model have been estimated and forecasted with values until 2026. However, recent private equity data on holding periods show that holding periods were remarkably lower during the years up to the financial crisis, as seen in figure 18 (Bain, 2017). After the financial crisis, it is seen that the holding period once again increases. The reason behind this has been the increased turmoil after the financial crisis, causing the investments to be held longer to ensure they generate substantial returns (Bain, 2015). To allow variability within the holding period, considering the relative uncertainty of the future, we estimate until 2026, to ensure our horizon will be able to cover a potential exit outside the average holding period and to be able to calculate the 3-year forward CAGR used in section 14.2. In figure 18, the average holding periods for buyouts exited from 2006 to 2016 has been compiled. As the holding period in 2015 and 2016 has decreased relative to the holding period in 2014, the decreasing values are well in line with the thought that PE buyouts engaged in 2008 at the financial crisis, has been held until this point (Bain, 2015). If the optimized market conditions are to

continue, it could be expected that the holding period will decrease over the next years to lower levels. Other reasons behind the increase in holding periods have been the shift in LBO strategies, which have increased the focus on strategic turnarounds rather than on operational improvements and financial engineering (Bain, 2016).
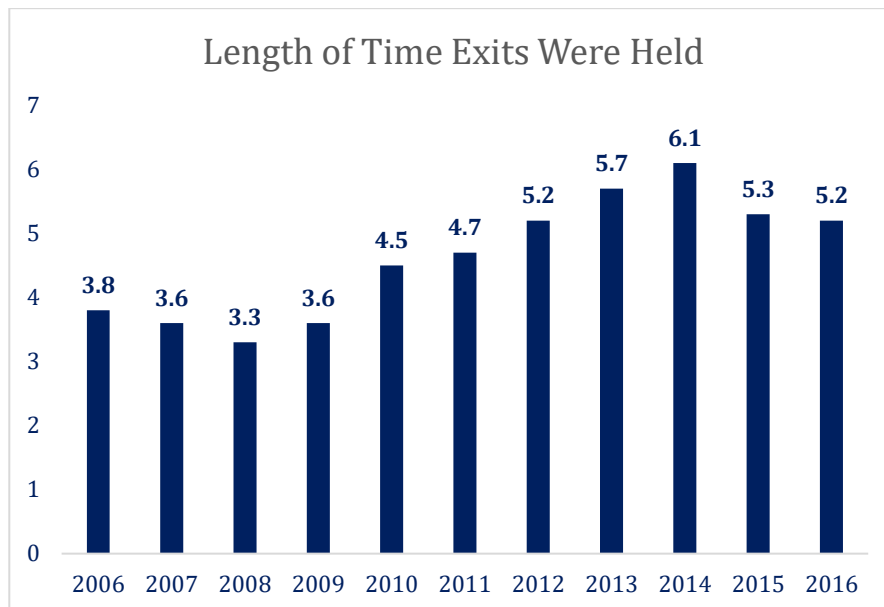
Figure 18 - Compiled by the authors with data from & Bain & co.

10.1.2 Revenue

Since the largest share of sales in the apparel industry is still generated from the in-store environment, and future growth generated by opening up more stores, we argue that the amount of stores and their square feet will provide the best foundation to forecast sales (Greisen, 2017). The revenue component hence becomes a function of the total amount of square feet, which is based on the total number of stores and their average square feet, and a sales efficiency parameter, based on sales per square feet. The revenue is then calculated by the following equation, using a bottom-up estimation approach.

$$Sales = Total\ square\ feet * \frac{Sales}{Square\ Feet}$$

As shown in table 10, which shows the forecasted income statement, we estimate the sales component both on a brand to brand basis, as well as on a geographical basis, including the US and rest of the world as 'International'. This is to help show and substantiate the target growth rates based on the effects from the strategic changes, in relation to expected growth rates in these regions, as well as to former historic values.

As the bottom-up approach entailed, changes in the amount of stores, their brand affiliation as well as their geographical location and size, is of substantial importance in our forecast, which is why we have chosen to illustrate its development in table 9. The overall changes to the store composition is a result from the shift in the strategy and focus between the two brands. As briefly described in our section on strategic changes, we choose to shift Hollister stores and transform them into Abercrombie stores, as Hollister will have an increased focus on online retailing, while we leverage the premium appearance of Abercrombie, which requires a larger store presence. Out of the total number of Hollister stores in 2016, we intend to shift 40% of those to Abercrombie, which amounts to 209 stores. Furthermore, no additional new stores are expected to be opened during 2017-2018. This is since our objective during these years would be to streamline our existing store fleet. As a result of this, we have also chosen to close down 5% and 2,5% of the total US stores with the lowest sales per square feet in 2017 and 2018, which amounts to 35 and 17 stores respectively.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
% growth in stores, US	19,3%	17,9%	4,0%	3,0%	3,0%	3,0%	3,0%	3,0%	3,0%	3,0%
% growth in stores, Int.	65,9%	39,7%	8,0%	5,0%	5,0%	5,0%	5,0%	5,0%	5,0%	5,0%
Abercrombie	**17,2%**	**21,5%**	**4,8%**	**3,4%**	**3,4%**	**3,4%**	**3,4%**	**3,4%**	**3,4%**	**3,4%**
% growth in stores, US	-24,0%	-27,5%	5,0%	4,0%	3,0%	3,0%	3,0%	3,0%	3,0%	3,0%
% growth in stores, Int.	-20,0%	-25,0%	10,0%	8,0%	5,0%	5,0%	5,0%	5,0%	5,0%	5,0%
Hollister	**-24,3%**	**-26,8%**	**6,4%**	**5,2%**	**3,6%**	**3,6%**	**3,6%**	**3,6%**	**3,6%**	**3,6%**
Total % increase	**-7,5%**	**-2,0%**	**5,4%**	**4,0%**	**3,5%**	**3,5%**	**3,5%**	**3,5%**	**3,5%**	**3,5%**
Change in stores Abercrombie	89	95	26	19	20	21	21	22	23	24
Change in stores Hollister	-125	-112	20	17	12	13	13	14	14	15
Total change in #stores	**-35**	**-17**	**45**	**36**	**32**	**33**	**35**	**36**	**37**	**39**
Total stores Abercrombie	444	539	565	584	604	625	646	668	691	714
Total stores Hollister	418	306	326	343	355	368	381	395	410	424
Total Stores	**863**	**846**	**891**	**927**	**959**	**993**	**1027**	**1063**	**1100**	**1139**

Table 9 - Compiled by the authors

Our store shift will take place in two stages with half of the stores, 105 stores, shifted in 2017 and 104 stores shifted in 2018. In 2019 and forward we have assumed that our international store fleet will grow at a faster rate than the US one. This is due to the higher growth potential that the international market represents, as seen in figure 6 and 7. In estimating appropriate net growth estimates for our store fleet during 2019-2026 we have been conducting a peer analysis of AEO and Ralph Lauren and derived an average net growth rate of 3,5%, from the last 4 year period, and used this one as our estimated terminal value in 2026. Furthermore, we have in the case of AEO seen that they during their recent strategic transformation in 2013 opened more stores in the beginning, which is why our model also will reflect this as seen in table 9. Any of the capital expenditure costs related to the shifting, remodeling and opening of stores will be discussed and shown in section 10.2.4.

10.1.2.1 Store size

In table 9, the overview of the changes in stores after we implement the strategy can be seen. To calculate the total amount of square feet attributable to the different store sizes, we have assumed that the average Hollister store size, will keep constant in our estimation period, with the average store value from 2016. Furthermore, to incorporate the changes in the average store size for the Abercrombie stores, we have directly derived a new average store size, because of the shifted Hollister stores. Directly, this entails that the new store composition for Abercrombie and its average size was adjusted under the assumption that it is the average sized Hollister store, which is shifted. This assumption is directly aligned with the fact that the average Hollister store size is expected to stay constant. After the initial store shift, which occurs in 2017 and 2018, we assume that the average store size for the Abercrombie stores is expected to decrease by about 0,5% per year. The reason behind this is the thought that the need for incredibly large stores is dying out, while a more inclusive and open store concept lies well in line with our transformation strategy (Passport, 2017).

Income Statement	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027	'17 - '27
USA	2.123,8	1.945,9	2.013,3	2.151,9	2.275,9	2.399,4	2.527,6	2.660,9	2.731,2	2.803,4	2.877,5	3,1%
INT	1.202,9	1.287,0	1.406,2	1.564,4	1.697,3	1.821,4	1.953,3	2.093,5	2.191,4	2.293,9	2.401,2	7,2%
Net sales	**3.326,7**	**3.232,9**	**3.419,5**	**3.716,3**	**3.973,3**	**4.220,8**	**4.481,0**	**4.754,4**	**4.922,6**	**5.097,3**	**5.278,7**	4,7%
Abercrombie	1.487,0	1.718,8	2.231,6	2.425,8	2.589,7	2.764,4	2.948,0	3.140,9	3.244,6	3.352,0	3.463,4	8,8%
Hollister	1.839,7	1.514,1	1.188,0	1.290,6	1.383,6	1.456,3	1.532,9	1.613,5	1.678,0	1.745,2	1.815,3	(0,1%)
Net sales	**3.326,7**	**3.232,9**	**3.419,5**	**3.716,3**	**3.973,3**	**4.220,8**	**4.481,0**	**4.754,4**	**4.922,6**	**5.097,3**	**5.278,7**	4,7%
COGS	(1.298,2)	(1.260,8)	(1.313,1)	(1.404,8)	(1.478,0)	(1.544,8)	(1.613,1)	(1.711,6)	(1.772,1)	(1.835,0)	(1.900,3)	3,9%
Gross Profit	**2.028,6**	**1.972,1**	**2.106,4**	**2.311,6**	**2.495,2**	**2.676,0**	**2.867,8**	**3.042,8**	**3.150,5**	**3.262,3**	**3.378,4**	5,2%
Store & distribution exp.	(981,6)	(892,6)	(995,6)	(1.116,7)	(1.218,2)	(1.314,1)	(1.413,9)	(1.531,8)	(1.593,0)	(1.656,1)	(1.721,1)	5,8%
Rental Expense	(401,5)	(378,5)	(365,9)	(393,2)	(417,3)	(440,4)	(464,9)	(490,7)	(518,0)	(546,9)	(577,4)	3,7%
MG&A	(453,2)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	0,6%
Operating lease	-	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	--%
Other operating income	18,3	(9,3)	(10,0)	(11,0)	(12,0)	(12,8)	(13,7)	(14,8)	(15,4)	(16,1)	(16,8)	--%
EBITDA	**210,6**	**181,3**	**224,6**	**280,2**	**337,4**	**398,3**	**465,0**	**495,2**	**513,7**	**532,9**	**552,8**	10,1%
D&A	(195,4)	(185,4)	(180,6)	(174,7)	(168,3)	(163,7)	(152,4)	(139,1)	(147,8)	(153,0)	(158,4)	(2,1%)
EBIT	**15,2**	**(4,1)**	**44,0**	**105,5**	**169,1**	**234,6**	**312,5**	**356,1**	**365,9**	**379,9**	**394,3**	38,5%
Interest expense	(18,7)	(17,9)	(17,2)	(16,5)	(15,8)	(15,1)	(14,4)	(13,7)	(13,0)	-	-	--%
EBT	**(3,5)**	**(22,0)**	**26,8**	**89,0**	**153,3**	**219,5**	**298,1**	**342,4**	**352,9**	**379,9**	**394,3**	--%
Taxes	11,2	-	(8,0)	(26,7)	(46,0)	(65,8)	(89,4)	(102,7)	(105,9)	(114,0)	(118,3)	--%
Net Income	**7,7**	**(22,0)**	**18,8**	**62,3**	**107,3**	**153,6**	**208,7**	**239,7**	**247,0**	**265,9**	**276,0**	--%

Table 10 - Income Statement Forecast compiled by the authors

10.1.2.2 Sales Efficiency

Finally, the last component needed to estimate the revenue, is the sales pr. square feet estimate. By opening up new stores in high growth areas, as well as with the closure of inefficient stores, we believe the sales efficiency parameter is affected positively, thus increasing the average sales per square feet. Furthermore, we also believe that the PE fund's ability to improve inventory management will result in lower inventory price reductions, hence increase the sales per square feet, as price reductions become more and more redundant, increasing the average turnover rate. Based on this, and the overall increased international exposure, which on average generate a higher revenue per square feet, we expect the overall

sales measure to increase towards $606 pr. square feet in 2026. In relation to this, we believe the rebranding, retargeting and more positive perception of the Abercrombie Brand will lead to less cannibalization between the two brands, positively affecting sales through the efficiency parameter. The sales efficiency of $601 is a result of weighing the average of the underlying Abercrombie & Hollister Sales Efficiency parameters, and their respective square feet.

The underlying sales efficiency parameter for Abercrombie and Hollister, were in 2016 $487 for Abercrombie, and $465 for Hollister. These values reflect the sales generated both in the US and internationally, for the two brands. In 2012, which was A&F's peak year, the values were $592 and $547 respectively. However, the sales per square feet estimate is entirely different on a geographical basis. In 2012, the sales per square feet estimate was $474 in the US, whereas the international sales per square feet was $985, resulting in an overall weighed sales per square feet estimate of $567. In 2016, these values were $413 and $647 respectively, with a weighted average of $475.

To set a reliable target for our sales efficiency parameters, we have analyzed the sales per square feet of A&F's main competitors. In table 11 below, the sales per square feet represents an average of the last three-year period, to avoid potential fluctuations in sales and square feet. As the Abercrombie brand is more premium, the A&F comparable value is a weighted average of Ralph Lauren and PVH, who represent premium brands. The Hollister comparable is an equally weighted average of American Eagle, Urban Outfitters, H&M and Zara. The 'Total' sales per square feet is the result of an equally weighted average of all the noticeable competitors in table 11. To set the values at a reasonable target, the comparable value for the Abercrombie brand is weighted 70% to PVH and 30% to Ralph Lauren, as PVHs underlying business and brands, better reflects that of Abercrombie's (Passport A&F, 2016).

Peer analysis	A&F	Ralph Lauren	PVH	American Eagle	Urban Outfitters	H&M	Zara	Average
Sales per Sq. Foot	$504.00	$1,149.00	$615.00	$640.00	$886.00	$478.00	$542.00	$718.00
EBITDA margin	9.8%	17.0%	11.8%	11.2%	15.9%	19.7%	22.9%	16%

Based on group average	Abercrombie Comparable	Hollister Comparable
Sales CAGR, %	$776.04	$637.00
EBITDA margin	13%	16%

Table 11 - Compiled by the authors with data from Orbis Financial Database

Our respective target values thus represent values that for Abercrombie are significantly below their comparable peers. The difference between the comparable value and our estimated Abercrombie sales per square feet target is as much as 20% lower, at a value of $620 in 2026. As the value is well within the boundary of the calculated comparable value and A&Fs current numbers, we believe the set target to be reasonable, without being overly optimistic. Furthermore, as Abercrombie's international store fleet is

becoming a larger part of the brand's total store composition, we expect to increase the average sales number for the brand radically, as the sales per square feet is generally higher in the international environment. As for Hollister, the target value of $580 is approximately 10% below the comparable value of $637, as seen in table 11. Furthermore, as the international store exposure will also increase relatively for the Hollister stores, the average sales generated per square feet could be expected to increase, as the environment on average generate higher revenue. However, since Hollister historically has had lower sales per square feet estimate than Abercrombie, we do not expect it to reach the same value as Abercrombie's.

Based on these targets and the increased store growth internationally, the sales per square feet average, Internationally, will increase back towards a value of $869 in 2026. By comparing this target to historical values, it is still below the values from both 2012 and 2013. The sales per square feet in the US is derived to be $483 in 2026. Although this value is above the value from 2012, as the overall store portfolio will count a larger share of Abercrombie stores, we believe the value to be reasonable.

Thus as can be seen in table 10 we will grow with a CAGR for the overall period of 4,7%. The market overall, as derived in section 5.3, is expected to grow at a CAGR of 4,9%, which is in line with our estimate, and thus we believe our sales estimate to be realistic and achievable.

10.1.3 Gross Margin / COGS

To estimate our first cost component of the Income Statement, costs of goods sold, we forecast the metric as a % of sales. Based on the historical development, which values between 37,4% and 38,7% of sales, we believe our long-term target of 36% of sales to be very realistic. This target will be extrapolated towards on a five-year basis from 2017 and onwards. We believe that the strategic changes and the effects from tighter inventory management, resulting in less markdowns, as well as their integrated supply approach with fabric platforming, combined with a tighter partnership with suppliers, will help substantiate the decrease in COGS (Abercrombie & Fitch, 2015). Even though, based on our PESTEL analysis, in the short term events could occur, such as unexpected fluctuations in cotton prices, which might have an impact on A&F's margins, we believe such events will cancel each other out on a longer horizon. We expect that cost saving initiatives that are specifically targeted towards decreasing costs together with the suppliers will help decrease the per unit reduction costs, and at the same time help ensure quality, as it will benefit the suppliers as well as A&F (Cooper and Slagmulder, 2003).

In our estimate, we have not been able to compare A&F to competitors on their Gross Margin, as accounting methods to comparable competitors vary a lot. The difference in accounting standards did not allow us to create any relevant knowledge to help substantiate the costs of goods sold, and their size in

relation to sales. In this sense, the comparison has been impossible to perform as the different companies include different cost components in their COGS, which they do not disclose information to specifically.

As the costs of goods sold are the direct costs applicable to the goods being sold, it makes sense to forecast it as a percentage, which as a result estimates the per unit percentage cost. Furthermore, one of the three well known pricing methods is the direct mark-up % on costs, which results in the inverse relation between these two (Kotler et. al, 2012).

10.1.4 EBITDA / Operating Costs

For our EBITDA-margin and operating costs, we use a reverse engineering method to help estimate the different relevant cost components. Out of the different operating costs, we estimate the rental expenses from a bottom-up approach of the total amount of stores. Our estimate is thus a result of the historical average lease expenses per store from 2015. On top of this, we add a 2% yearly inflationary effect to the future estimates, so the prices reflect potential increases of the lease rental costs. The rental expenses thus follow below function, t being number of years after 2016.

$$Rental\ Expense_t = \frac{Rental\ Expense_{2016}}{Average(No.Stores_{2015} + No.Stores_{2016})} * 1,02^t * No.Stores_t$$

The costs associated to Marketing, General and Administrative costs have historically stayed at a relatively constant level, even though there has been a rather large decrease in sales from 2012. Based on this observation, we believe the best estimate for MG&A going forward is to be close to a constant value. By looking at the historical numbers from 2012-2016, it can be seen that MG&A didn't decrease a lot, but stayed around a constant level. For the future costs, we have therefore been using the highest MG&A, measured during between 2012-2016, and kept that value constant for all of our forecast. This has been done to make sure that the MG&A is not under estimated.

For Store & Distribution Costs & Other Operating Costs, we estimate these costs as the residual of the difference between Gross Margin and the EBITDA margin. As the accounting items in the store & distribution costs are very vaguely described, we believe our reverse engineering method provides us the most suitable way to estimate these cost components (Abercrombie & Fitch, 2015). These two costs are then estimated to be equal to respectively 99% and 1% of the residual operating costs, based on the more precise estimates of the MG&A and rental expenses. Worth mentioning is that the two remaining cost posts relative weight has been based on an average of historical values.

Even more important, is the EBITDA-margin which the above costs are based on. We estimate that the EBITDA-margin will linearly extrapolate towards a target of 11% over a five-year horizon. This estimate is well in line with former historical values (13,3% in 2012), as well as in line with key competitor estimates. As shown in table 11, an equally weighted EBITDA-margin comparable for both Hollister, Abercrombie and in total can be found based on peers. The different competitor EBITDA-margins are based on a three year equally weighted average, to ensure neither over/underperformance years pose a big effect. As the average of these competitors is 16%, it shows that our estimate is to a certain degree, very realistic. It is although important to say that EBITDA-margins from best in class competitors, such as Zara & H&M, weigh up the overall average. We believe that it is more reasonable to obtain an EBITDA-margin of 11%, based on the overall efficiency improvements by the PE fund, as a result from the different strategic initiatives, rather than achieving a high target such as the average. At the same time, the industry is experiencing fierce competition, which erodes the margin for competitors whom do not experience large-scale advantages, thus resulting in a low margin environment (Greisen, 2017).

Besides the above-mentioned costs, an additional cost called 'operating lease' has been added. This cost comes from the fact that we assume we enter into a leaseback agreement for A&F's existing corporate headquarters, as will be described further in section 10.2.5 where we will discuss the disposal effect gained from this agreement. However, by disposing of the headquarters, an operating lease of 1/7th of the price used in the sale is applied as a cost component to the income statement, $28,6 million, as this is a conservative value in the leaseback environment (Fisch and Berg, 2015).

10.1.5 EBIT / Depreciation

To estimate our Earnings Before Interests & Taxes, EBIT, we deduct depreciation from the EBITDA component. To conceptualize the depreciation component, we compose it as a function of the capital expenditure (CapEx). However, since CapEx in 2017 and 2018 is relatively higher than the other years, we have decided to compute these values separately. Since the CapEx in these years is way above A&Fs historical average, we have added an adjustment term on top of the expected value in 2017, which has been derived from their historical values. This adjustment term has been calculated by dividing the total CapEx in 2017 and 2018 by the average life span of each item, which according to A&Fs most recent 10K amounts to around 20 years.

Our depreciation will from 2019 and onwards, follow a scheme that will extrapolate towards the capital expenditure, since we assume that a steady state has been reached at the end of our forecasting period, as can be seen in table 12.

Depreciation → Capital Expenditures

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Depreciation	-185.41	-180.63	-174.74	-168.34	-163.66	-152.43	-139.06	-147.77	-153.00	-158.43
Capex	276.68	186.56	184.50	177.74	168.09	156.44	142.63	147.68	152.92	158.36

Table 12 - Compiled by the authors, Values given in millions of $

10.1.6 Net Income / Interests & Taxes

In our estimation of taxes paid, we have estimated the effective tax rate to be equal to 30%. As the current corporate tax rate A&F uses, is 35%, we believe a measure of 30% would be able to contain any of the increased tax shields and deductibles from the attained leverage (Abercrombie & Fitch, 2016). The reasoning behind this is that A&Fs interest expenses in 2015 and 2016 lies well in line with the interest payments made during our holding period of A&F and we thus believe that A&Fs average effective tax rate of 30%, in recent years, will serve as a good approximation for the forecasted holding period.

The interests being paid reflect the consolidated income statement structure of the PE firm and A&F. The actual interest rate amount and how the value of these are derived, will be explained in detail in section 13. The values of both of these components is in table 10 of the Income Statement.

10.2 Forecasting the Balance Sheet

As the balance sheet is interdependent of the income statement, the trading working capital, as well as the cash flow statement, the different components necessary to estimate the future posts of the balance sheet will be described in the following sections. In the constructed balance sheet, a consolidated overview is used so that the balance sheet reflects the values of both A&F and the PE fund. This consolidated structure allows us to track changes in the underlying debt and equity positions.

This entails that any effects from shifting cash from A&F to pay down either debt or interests are caught, and has direct impact to future interest payments as well as the cash holding of A&F. By doing so, we link every single component to have direct effect to the actual return on investment, as they affect the final net interest bearing debt and cash level. Since this section is focusing on the estimation of the different balance sheet components, it will not cover the components related to the acquisition and initial valuation of the company. These are the different debt components used in the LBO, which will compose the largest part of the liabilities on the balance sheet, as well as goodwill. The idea behind the estimation of the balance sheet is thus to allow us to determine the equity value at exit, by deriving and adding up the NIBD from the enterprise valuation. The balance sheet forecast can be seen in table 13.

Balance Sheet	Pro-forma 02-2017	Forecast 02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Cash	32,9	64,0	72,5	82,0	154,9	280,1	460,4	666,3	573,8	826,8	1.089,3
Receivables	93,4	78,6	76,1	82,8	85,0	87,2	89,4	91,5	95,2	98,6	102,1
Inventories	399,8	437,0	413,5	443,0	447,9	451,5	455,5	470,2	489,2	506,6	524,6
Other current assets	98,9	-	-	-	-	-	-	-	-	-	-
Total Current Assets	**625,0**	**579,6**	**562,1**	**607,8**	**687,9**	**818,8**	**1.005,3**	**1.228,0**	**1.158,3**	**1.432,0**	**1.716,1**
Goodwill	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7
PPE	824,7	716,0	721,9	731,7	741,1	745,5	749,5	753,1	753,0	752,9	752,9
Other Assets	331,7	-	-	-	-	-	-	-	-	-	-
Total non-current assets	**1.166,1**	**725,7**	**731,6**	**741,3**	**750,8**	**755,2**	**759,2**	**762,8**	**762,7**	**762,6**	**762,5**
TOTAL ASSETS	**1.791,1**	**1.305,2**	**1.293,7**	**1.349,1**	**1.438,6**	**1.573,9**	**1.764,5**	**1.990,8**	**1.920,9**	**2.194,6**	**2.478,6**
Payables	187,0	193,9	183,5	196,6	198,8	200,4	202,1	208,6	217,1	224,8	232,8
Accrued expenses	273,0	-	-	-	-	-	-	-	-	-	-
DTL	5,9	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	**465,9**	**193,9**	**183,5**	**196,6**	**198,8**	**200,4**	**202,1**	**208,6**	**217,1**	**224,8**	**232,8**
Term Loan A	139,4	119,5	99,6	79,7	59,7	39,8	19,9	-	-	-	-
Term Loan B	325,3	325,3	325,3	325,3	325,3	325,3	325,3	325,3	-	-	-
Mezzanine	-	-	-	-	-	-	-	-	-	-	-
Revolver	-	-	-	-	-	-	-	-	-	-	-
Other liabilities	172,0	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	**636,7**	**444,8**	**424,9**	**405,0**	**385,1**	**365,1**	**345,2**	**325,3**	**-**	**-**	**-**
Total liabilties	**1.102,6**	**638,7**	**608,4**	**601,6**	**583,8**	**565,5**	**547,3**	**533,9**	**217,1**	**224,8**	**232,8**
Common Stock	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5
Retained Earnings	-	(22,0)	(3,2)	59,1	166,4	320,0	528,7	768,4	1.015,4	1.281,3	1.557,3
Total Equity	**688,5**	**666,5**	**685,3**	**747,5**	**854,8**	**1.008,5**	**1.217,2**	**1.456,8**	**1.703,9**	**1.969,8**	**2.245,8**
TOTAL LIABILITIES AND EQUITY	**1.791,1**	**1.305,2**	**1.293,7**	**1.349,1**	**1.438,6**	**1.573,9**	**1.764,5**	**1.990,8**	**1.920,9**	**2.194,6**	**2.478,6**

Table 13 - Forecasted Balance Sheet Compiled by the authors

10.2.1 Cash

First off the balance sheet is the company's cash holding. As the year end cash holding is dependent on the cash flow from operations, cash flow from investments and cash flow from financing, it is dependent on the estimation of the cash flow statement, which has been created using the forecasted balance sheet and income statement in table 10 and 13. In our estimation of the cash level, we have enabled a revolving

credit facility (RCF), to ensure that a minimum cash level of $32,9 million is withheld, despite how the actual cash flow development has been for the year. The justification behind our chosen minimum cash level and our RCF, will be discussed further in section 13. Finally, to derive the actual cash level, the other components of the balance sheet and their year-to-year changes are needed.

10.2.2 Trade Working Capital

Most of the effects from the cash flow from operations come from Net Income and Depreciation, which have already been described. However, other changes and effects from operations are derived from changes in the trade working capital (TWC) and other working capital.

In the estimation of our TWC, we employ a bottom-up approach by using the cash conversion cycle (CCC) to estimate the average payables, inventories and receivables. We then estimate the actual value in that year, by multiplying the average estimated value by two and deduct the last year's historical value. This method allows us to derive estimated actual values for the accounts payables, inventory and accounts receivables, using 2016 as the base.

$$Actual\ value = Average\ value_t * 2 - Historical\ value_{t-1}$$

The first component we estimate, is thus the CCC. The CCC is the estimate of how many days it takes to convert resource inputs into cash. The CCC is calculated in the following way:

$$CCC = Days\ Inventories\ Outstand + Days\ Sales\ Outstanding$$
$$- Days\ Payables\ Outstanding$$

We base our estimate on former historical years, and consider that our best bet for the first year, is the year before, as it is unreasonable to expect the PE Fund would be able to implement changes swiftly that could affect the CCC. In our forward estimation, we consider the specialized capabilities PE funds possess to positively affect the CCC. More specifically, the improvements would be made based on the different implementations and implications from our strategic changes, and how they affect the CCC. We believe that the optimizing of the supply chain, should have a positive effect and should lower the DIO. In our estimation of the CCC, we extrapolate of a five-year horizon towards a lower level of 17% of a year for the CCC. The overall decrease in days from our efficiencies amounts to 11,6 days, which is the difference between our target CCC of 62,1 days and the 2016 value of 73,7 days, which translates into a 15,76% decrease in our CCC.

This is well in line with the theoretical and academic research, which states that PE Funds are good at optimizing operations and the control and uses of the trade working capital (Berg and Gottschalg, 2005).

Moreover, it has been found that PE funds on average improve their target companies CCC with anywhere between 15-30%, throughout the duration of the holding period, which proved to be well in line with our estimated improvement of 15,76% (PWC, 2017). Furthermore, we believe the improvements from the fabric platforming implementation would help optimizing production, by decreasing the average inventories, as we will be able to meet demand faster, holding the inventory in less days and reducing the lead time for A&F (Credit Suisse, 2014).

The three different components that add up to the CCC, the DIO, DSO and DPO, has been estimated as a fixed %-component of the CCC, as they were in 2016. As academia is thin on this subject, we believe that our best estimate for the future will be the latest historical year's relative percentages. Thus, the three components follow a fixed % of the CCC, and any improvement to these factors are a result of a total optimization of the CCC. The CCC, DIO, DSO, DPO and their development can be seen in table 14 below.

Measured in days	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Days Sales Outstanding	8.74	8.17	7.92	7.68	7.43	7.19	6.94	6.94	6.94	6.94
Days Invetories Outstanding	124.71	116.55	113.05	109.56	106.06	102.56	99.07	99.07	99.07	99.07
Days Payables Outstanding	-55.34	-51.72	-50.17	-48.62	-47.06	-45.51	-43.96	-43.96	-43.96	-43.96
CCC	78.11	73.00	70.81	68.62	66.43	64.24	62.05	62.05	62.05	62.05

Table 14 - Compiled by the authors

The average values, used to calculate the actual value, have then been calculated as such:

$$Average\ payables = \frac{COGS}{365} * DPO$$

$$Average\ inventories = \frac{COGS}{365} * DIO$$

$$Average\ Recieveables = \frac{Sales}{365} * DSO$$

10.2.3 Other Working Capital and Net DTL

In our estimation of the other working capital, for simplicity, we have estimated both the related assets and liabilities to be zero. We did not have any estimates on how to forecast the components, and since the asset side close to equals the liabilities side of the balance sheet each year, we set the equation to 0. Furthermore, we judged and estimated that they posed a minor impact year by year on the cash flow, as they are secondary to the firm's operations. The effect on our final return will be exactly the same as if they were to have been kept constant, instead of set to zero. The different components of the other working capital, which we have set equal to zero is Other Current Assets, Other Assets, Accrued Expenses and Other Liabilities.

Furthermore, we have assumed that the net Deferred Tax Liabilities (DTL), defined as DTL minus Deferred Tax Assets, is going to be zero throughout the holding period. This is based on that the Net DTL during the two previous years has been close to zero.

10.2.4 Fixed Assets

The final two components of the asset side of the balance sheet then consists of goodwill and PPE. The goodwill, as seen in table 13, has been calculated by deducting A&F's book value of equity before the transaction from the equity value calculated in section 13, giving us a positive goodwill post of $9,7 million, which is assumed to remain constant throughout the forecasting period.

Our PPE in each period is forecasted by adding the estimated CapEx and deducting the estimated depreciation from the beginning PPE value in each period. Thus our PPE is a function of the estimated CapEx and depreciation, and since the depreciation is estimated in section 10.1.5, an estimate of the CapEx needed in each year is therefore needed to calculate the PPE.

Our CapEx needed for 2017 and 2018 has been estimated as a function of our strategic initiatives, and by using AEO as a role model company since they in 2013 implemented a similar transformation to the one we propose in section 9 (American Eagle Outfitters, 2013). We have therefore decomposed our CapEx into 6 different parts to better capture the strategical changes.

First we have estimated the costs related to the closure of stores in year 2017 and 2018. These cost estimates have been calculated by using the closure costs of A&F's stores in relation to its restructuring, as a proxy for our store closure costs. Thus the average cost per closed store amounts to $350 000, which, if we multiply it with the number of closed down stores derived in section 10.1.2, gives us a store closure estimate of $12,41 million and $5,89 million in 2017 and 2018 respectively.

Moreover, the usual investments related to remodeling of stores has been estimated by using the remodeling cost from A&F's recent 10K and then deduct the estimated cost related to any new store openings, since we assume that no new stores will be opened during 2017 and 2018 (Abercrombie & Fitch, 2016). Furthermore, we expect that the cost of normal remodeling will be lower in 2018 compared to 2017 due to the decreased need for remodeling in 2018 as a result of the massive remodeling in relation to our store shift initiative. Thus giving us an estimate of $64,47 million and $52,07 in 2017 and 2018 respectively.

Furthermore, we have estimated the extra remodeling cost, in relation to the massive store shift initiative in 2017 and 2018, by using AEO as a proxy since they remodeled 114 stores in 2013, which is close to our estimated 105 stores needed to be remodeled into Abercrombie stores (American Eagle Outfitters, 2013).

Thus, our estimated CapEx for the store shift in 2017 amounts to $98,40 million, which is equal to AEO post in 2013 (American Eagle Outfitters, 2013). Our CapEx in 2018 has been estimated to be two thirds of the ones in 2017, due to economies of scale, since we assume that most of the interior needed for the entire shore shift is bought and included in the 2017 estimate. Thus giving us a CapEx related to the store shift in 2018 of $65,60 million.

Finally, our investments related to our E-commerce and IT platform as well as general investments in our home office and other minor CapEx related investments, has been estimated by using estimates from AEO's 2013 and 2014 10K. This, since we believe that these cost serve as the best estimate for what these costs might be for our strategic changes, since, as stated above, AEO went through a similar transformation in 2013. This gives us a CapEx estimate for E-commerce, IT-investments and Home office and Others in 2017 of $15,70 million, $69,70 million and $16 million, and the same numbers for 2018 would be $15,70 million, $33,80 million and $16 million (American Eagle Outfitters, 2013; American Eagle Outfitters, 2015). An overview of the decomposition of the CapEx in 2017 and 2018 can be seen in figure 19 and 20.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Capex	276.68	186.56	184.50	177.74	168.09	156.44	142.63	147.68	152.92	158.36
Percentage of Revenue	8.56%	5.46%	4.96%	4.47%	3.98%	3.49%	3.00%	3.00%	3.00%	3.00%

Table 15 - Compiled by the authors, Capex is measured in millions of $

For the years 2019-2026 we have estimated the level of CapEx as a percentage of sales. The percentage used has been estimated by analyzing both historical levels of CapEx for A&F and by looking at AEO CapEx level from 2015 and onwards, which is two years after the introduction of their transformation initiative. Furthermore, as table 15 shows, our estimated percentages will also reflect the fact that our need for more investments in CapEx is greater in the beginning, as seen in AEO case (American Eagle Outfitters, 2015).
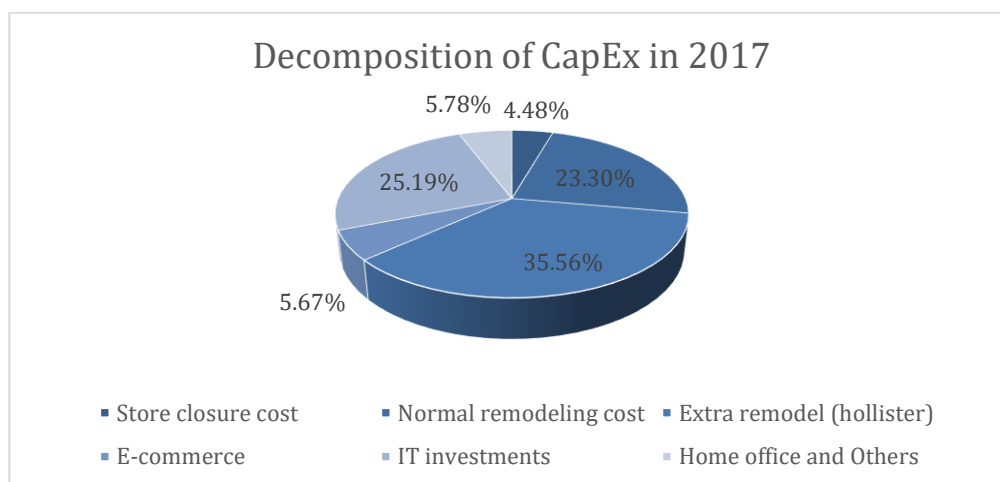
Figure 19 - Compiled by the authors with estimated data
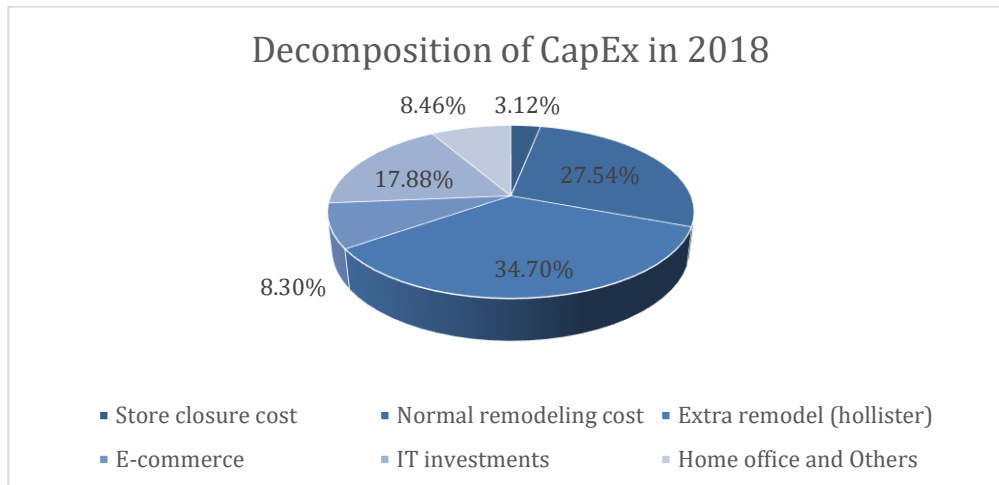
Figure 20 - Compiled by the authors with estimated data

10.2.5 Disposal from leaseback agreement

A&F is currently owning its home office, which can be seen in their 10K under buildings. Since it is common, in relation to LBO transactions, to organize a so called leaseback agreement, where the company sell their property and then enter into a lease agreement with the buyer of the property, such an agreement will be established. Thus the transaction will allow A&F to convert their current equity in property into cash, which in turn can be used to repay debt or use in operations, while at the same time making it possible for A&F to maintain and continue to use the property (Fisch and Berg, 2015). Thus the leaseback agreement will provide the PE-fund with cash to service the debt commitments with or to distribute.

Thus the leaseback agreement will create a positive cash effect of $200 million, which has been named disposal. The value above has been derived from the accounting values of Land and Buildings from A&F's 10K. Furthermore, it is assumed that no taxes will be paid on the amount gained form the leaseback. This since we do not have any information about what A&F bought the building for and thus we have assumed that the value that the property is sold for is identical to the purchase price and thus no capital gain is incurred. Moreover, the operating lease cost, derived in section 10.1, is a direct result of the $200 million gained from the leaseback agreement divided by the duration of the lease (Fisch and Berg, 2015).

11. Scenario analysis

In the two former sections where we described and substantiated our forecast estimations based on the strategic initiatives and different implementations done by the PE fund, we have established a base case scenario. However, as the future is full of both risks and uncertainty, different scenarios, both positive and negative, could result in entirely different returns to the PE fund (Loos, 2005; Andersen and Schrøder, 2011). These base case results are based on our view of the company, the market, the external environment, competitors, expectations of the future, alongside with our thoughts, trends and patterns from historical data discussed in our financial and strategic analysis. In the following two sections, we provide a down-case and up-case scenario, containing our thoughts on the key risks associated with our forecast estimations. These two scenarios are not isolated scenarios, but contains different levels of the formerly mentioned key model parameters, and will result in a scenario analysis, rather than a sensitivity analysis of the different individual components.

11.1 Down Scenario

In the down-side scenario, it is evident that all key model parameters will be affected in a way that would negatively impact returns, cash flow and the state of the business. In relation to sales, and especially our sales efficiency parameter, we believe the down-case entails our inability to efficiently and successfully implement the strategic changes and initiatives. This would result in being unable to differentiate the two brands, receiving a lower penetration rate in the new markets as well as within the opening of stores in high-growth areas, which would translate in less successful international expansion. Furthermore, it could be lowered based on a relative decrease in disposable income as well as a smaller share of wallet spent on apparel. Finally, and maybe the most imminent and realistic factor in the current industry and market space, would be the inability to meet fashion trends which could lead to price reductions and generally lowered sales.

Affecting the cost components and our COGS could be an unsuccessful use of the fabric platforming, which would not drive a decrease in the overall per unit costs. Furthermore, the planned cost integrations and cost saving plans with suppliers might be met with disdain instead of a positive collaboration. Finally, the raw material prices that we expect to increase relative to inflation could prove to be even more expensive.

The EBITDA-margin could decrease based on the potential decrease in sales, since most components in the estimation are fixed or costs unrelated to fluctuations in sales. However, increases in rental expenses as well as less effective marketing and advertising could be events that would directly drive up the costs and decrease the EBITDA-margin in comparison to sales.

The above factors are probably the ones that would impact the PE funds potential return in the most impactful way. However, other key components such as CAPEX's % of sales could also drive up the need for cash related to necessary investments. This could be based on bad estimation of costs needed in store remodeling in unexplored regions, in which A&F might have limited knowledge. This would in turn impact the firm's cash and debt flow significantly, which might lead to a failure to meet established debt covenants, which could result in that the bank takes control. Furthermore, the political environment in several regions could suddenly choose to increase corporate tax rates which would decrease returns to shareholders. Also, and possibly interdependent of other components, would be the inability to decrease the CCC, which in turn is supposed to free up cash. This inability would in relation to our strategy be based on the ineffective fabric platforming, as well as non-effective implementation of shortening the supply lead times. Finally, as covered in the PESTLE analysis, any increases in minimum wage could potentially harm the EBITDA-margin, causing down effects to the scenario in which the PE fund operates.

11.2 Up scenario

Inherently, in our up-case scenario, all key model components are instead expected to be affected in a positive way. This would entail that most of the above mentioned arguments are reversed in their effect. As an example, this would mean that marketing and advertising is having an easier time reaching target, or potentially affecting and reaching a larger target group than expected. Another example could be that the fabric platforming is proving to be more effective than earlier, or that product input costs are considerably lowered, providing a cheaper end result. Furthermore, consumers could start increasing their share-of-wallet spent on apparel, significantly boosting comparable sales estimates.

The key components and difference between such, for the up and down-case scenarios, are shown in appendix 4 and 5, in which our different model component estimates can be seen for the forecasted period.

12. Acquisition Price

The forthcoming section will set the acquisition price of the company. As the acquisition price has a direct impact on the equity contribution needed in the LBO, it has a relatively large impact on final return, which is why we will later conduct a sensitivity analysis on the acquisition premium.

12.1 Market Value

To determine the share price, we consider our takeover date of the company to be 1st of February 2017. At this exact date, the opening share price of the company was $11.69. At this given time, as covered in our financial analysis of the treasury stocks, the amount of outstanding shares, is 67,76 million (Yahoo Finance, 2017). With these two measures, the current market capitalization of the company is, $792,11 million.

12.2 Offer price

Even though A&F's total market capitalization, on the 1st of February 2017, equaled $792 million, it does not necessarily mean that a PE fund will be able to acquire the company at this price. According to financial theory, an asset is valued based on the current value of its future cash flow (Berk and DeMarzo, 2014). If the market is efficient, this would entail that the current value of all future cash flows would equal the market capitalization. However, as behavioral finance and market studies shows, different analysts have different price ranges, as the expectations of the future differ from person to person (Ackert and Deaves, 2009). Research also shows that purchases of assets require a certain premium and research has shown that such positive pricing effects are based on the control premium and the potential for synergies (Berk and DeMarzo, 2014). Thus acquirers must pay a higher price than the current market capitalization to gain the right to control the assets. In A&F's case the company will be de-listed from the public markets and the PE fund will require an illiquidity premium, which partly off-sets some of the former two premium (Rosenbaum and Pearl, 2009).

For LBO's and M&A driven transactions, premiums have ranged from 30-50% on top of the share price (Rosenbaum and Pearl, 2009). The share price used usually varies over a 1-6 month back-trailing average and we have therefore apply a 3-month historic average on A&Fs share prices from the cut-off date of 1st of February 2017. According to Greisen (2017) this is done to avoid paying for rumors of a potential acquisition, which would have already been priced in to the share price. Based on A&F's recent share price development, and ownership structure, we believe that the incentive-structure of portfolio managers in the various large institutional companies, could allow for a relatively small premium, as managers are usually paid by yearly performance. Here, a quick 20-30% premium could net an easy sale to these

shareholders (Greisen, 2017). Contrary to this, a lot of shareholders might not sell their shares at such a premium, explained by behavioral aspects, since A&Fs share price has decreased a lot over the last horizon, thus causing a lot of losses for current holders of A&Fs stock. Therefore, we assume that we will acquire A&F at a 40% premium, to ensure that the final investors would sell their shares. These investors may require a higher premium to let go of their shares, as they would otherwise hold on to them in the long run, until the share price potentially reverses (Ackert and Deaves, 2009). Based on the amount of 67,76 million fully diluted outstanding shares, the derived Equity value therefore becomes $1261,7 million. In relation to the later analysis on our debt components, the underlying EV/EBITDA multiple equals 5,52x, as the Enterprise Value can be derived to equal $1161,79 million. As this value is directly dependent on the implied offer premium, its effect on our final return will be tested in a scenario analysis in section 15. The calculation of both the equity value and EV will be done in greater detail in section 13.

Finally, in relation to the acquisition and the due diligence process, we argue that a 3% transaction fee of the Enterprise Value will have to be paid by the PE fund out of pocket. Currently a 3% estimate is in line with a recent report from PitchBook (2017). These costs are shown in section 13, in which we will discuss the necessary debt composition as well as the final leverage in our LBO.

13. Debt Structure

13.1 Leverage

To determine the amount of debt that a PE firm is able to obtain in the LBO of A&F, we have been estimating it using a Debt/EBITDA multiple. This multiple has been chosen since it is the most common multiple used when determining the total debt for a LBO, but also because it is highly connected to the conversion into cash flows (Greisen, 2017). Due to this, banks are often using EBITDA values, since it comprises a good estimate of the company's ability to service the debt. In order to enable us to determine a proper Debt/EBITDA multiple, we have collected global historical data for the Debt/EBITDA multiples from 1Q 2012 to 1Q 2017, which are shown in figure 21 below.
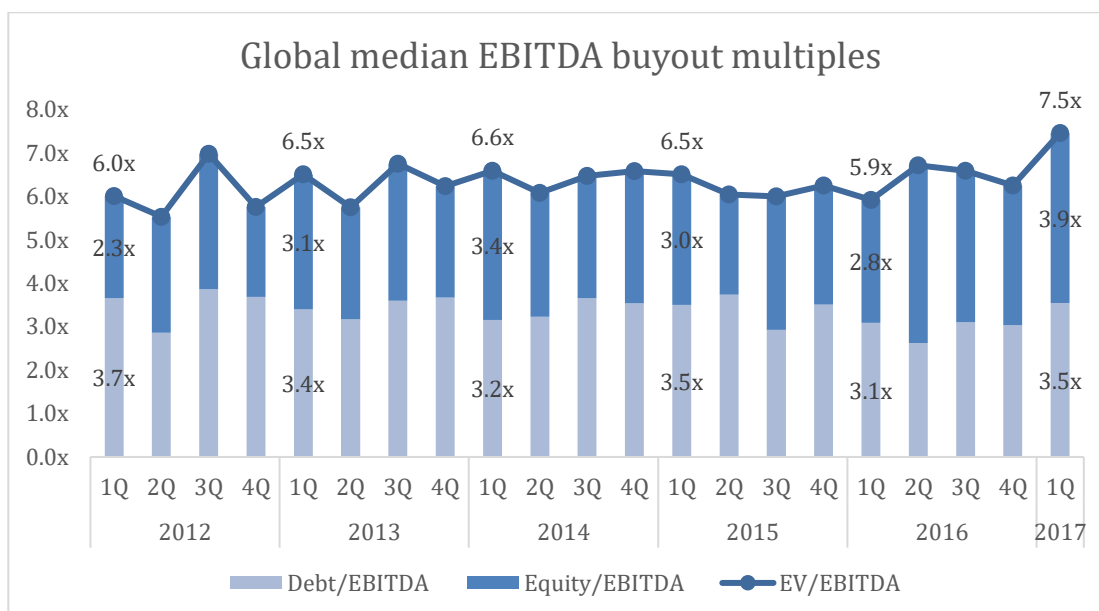
Figure 21 - Compiled by the authors with data from PitchBook

As seen from the graph above, the level of Debt/EBITDA that PE buyouts have been able to acquire has been fairly volatile during the period, ranging from 3x EBITDA to 4x EBITDA (PitchBook, 2017). During the last years, banks' willingness to lend to PE buyouts has been reduced and they are now requiring a higher equity contribution from PE firms whom wish to borrow. The debt level as a percentage of the total value has reached record low levels with PE firms, during 2016, paying 40-60% of the total purchase price out of their own pocket on a more regular basis. Furthermore, banks are also becoming more selective in which LBO deals they choose to finance. This is a result of the highly competitive environment between strategic- and PE buyers, who are both competing for the best financing deals (Schwarzberg and Deo, 2016). There are also clear differences between the European and the US loan market. According to Tommy Greisen, associate director at Danske Bank Leveraged Finance, a very distinct difference between the two markets,

is the fact that the US market use a lot more corporate bonds. As a result, US bank loans are not the go to for financing is needed, and banks has thus come to act as a revolving credit facility rather than as senior lenders in a LBO transition. There are also some structural differences between the two markets, as the US market is operating in a more covenant light environment. This is a result of the preference of bonds over bank loans, resulting in less amortization and fewer covenants needed. However, bank loans are still used in the US, but with a higher proportion of a bullet payment structure, where no amortization is needed (Greisen, 2017).

Evaluating the individual risk profile of the target company is very important when determining the debt level that a PE firm is able to acquire and it is one of the first things that a bank does when presented with a new LBO case (Greisen, 2017). To determine the Debt/EBITDA multiple applied for the buyout of A&F, we will assess both the industry as well as company specific factors in the next section, incorporating the most relevant factors discussed in our strategic and financial analysis.

As discussed in our strategic analysis, A&F is, through its global operations, exposed to exchange rate and interest rate risks, where fluctuations in foreign currency and interest rates has the potential to adversely impact their financial performance. Even though A&F, to the best of their ability, are hedging their exposures, these fluctuations still propose a risky element, which is why it will be reflected in their individual risk profile.

Another factor is the political risk that A&F is exposed to through its operations. More specifically, the minimum wages set by the different states in the US. According to A&F, the majority of A&F's labor force is located in the US, which exposes them to the risk of potential increases in the minimum wage, which in turn will affect their financial result and should therefore be part of their risk profile. Furthermore, as discussed in our PESTEL analysis, the commodities needed to produce clothes, such as cotton, has experienced huge fluctuations in recent years, which has the potential to affect the financial performance and should also be considered.

Moreover, the apparel industry is largely affected by changes in customer preferences, with a larger preference of purchasing online and get your purchases delivered to you already next day, which has given rise to an increased competition within the industry. As a result, the direct to consumer business has become an important part of apparel companies' survival. Thus, this factor is considered to highly affect A&F's individual risk profile due to its inability to, in later years, adequately adapt to such changes.

Other risks facing the apparel industry is the intensified competition within the US and European markets, where fast fashion companies such as H&M and Zara are increasing their presence. A vast majority of

A&F's revenue is attributable to the US market, and as a result, the risk associated with the increased competition in the US is considered moderate. The increased competition is introducing a new and more agile business models, such as fast fashion, which forces apparel companies to become more agile and respond quicker to changing customer preferences.

The apparel industry is a very cyclical industry with a significant amount of the sales occurring during the fourth quarter, in relation to Christmas. Furthermore, extreme weather conditions and changes in weather patterns can seriously affect customer purchase patterns, store traffic and the profitability of the business, as failure to sell certain weather dependent apparel might lead to severe markdowns. As a result of these two factors, we asses A&F's business to be fairly dependent on both seasonality and more sudden changes to the weather, as was observed during fiscal 2016, when sales fell due to a disappointing Christmas campaign. This must therefore be reflected in A&Fs risk profile.

In addition to the above discussion it also possible to evaluate A&F's risk by evaluating its Beta, to get an indication of its current and historical volatility in relation to an appropriate market portfolio. To ensure that individual occurrences don't affect our Beta estimate, we have measured A&F's Beta during a period of between 1-10 years. Furthermore, we have chosen to look at 1, 3, 5 and 10-year Beta's in order to see how A&F's volatility, in relation to the apparel industry, has changed during different time periods. A&F has been evaluated against the S&P 500 Apparel Retail Index in order to evaluate its riskiness, compared to the industry. This index has been chosen as we in collaboration with Tommy Greisen, have established that a normal leverage is around 50% for the apparel industry. We are therefore interested in seeing if A&F would be more or less risky in comparison to the industry they operate in. As seen in appendix 6, A&F's beta against the aforementioned index for a 3-10 years' period ranges between 1,176-1,275, while its one-year beta is remarkably higher at 1,563. In order to understand what beta is the most accurate it is important to understand that the apparel industry has been going through major changes the last 2-3 years, and that many "traditional" retail companies are now struggling. As described in our company presentation, A&F is currently struggling to adapt to these changes, which is why a higher beta might not be temporary and might reflect its true riskiness, compared to its industry. After dialogue with Tommy Greisen, we have decided that a realistic estimate must lie between the 3-10 years and 1 year betas.

All the betas for A&F lie above 1, which gives us an indication of that they are more volatile than the overall apparel industry, as well as the overall market. This since the apparel industry as a whole has a beta of 1 compared to the world market index (Stern, 2017). This finding, together with the above mentioned factors gives us an indication that A&F is more sensitive to changes in the market, and as a result more cyclical than its peers and should be associated with a higher risk profile.

Another very important factor, which cannot be left out when evaluating A&F's risk profile, is its weak financial performance during the last 5 years. With failed cost saving programs and failure in attracting millennial customers to its stores, A&F has experienced a constant decline in its like for like sales, thus affecting its margins, among other things due to increased price reductions, and consequently also its bottom line result. More importantly, is A&F's FCF, which although has been positive, has been very volatile and unpredictable. A factor which in the end is one of the most important factors in determining how much leverage a PE fund will be able to obtain from a bank for the acquisition of A&F (Greisen, 2017).

As can be seen in figure 22, debt is now constituting just below 50% of the total deal multiple, and the Debt/EBITDA multiple is currently at a level of 3,5x. However, this number only gives us an indication of the median multiple given to companies, which all has different risk profiles. Given the information discussed above, we are assessing A&F to have a riskier profile than its peers and thus, it is assumed that a PE firm will be able to obtain a lower leverage level than this. As discussed with Tommy Greisen, it is further assumed that only senior debt will be raised, due to the fact that lower tranches has been both more expensive and difficult to obtain, and as figure 22 shows, the senior tranche only amounts to 2,7x EBITDA. Based on the above given information about median leverage multiples together with the individual risk profile of A&F, a Debt/EBITDA multiple of 2,21x has been established for the acquisition of A&F, which amounts to a leverage percentage of 40% of the EV.
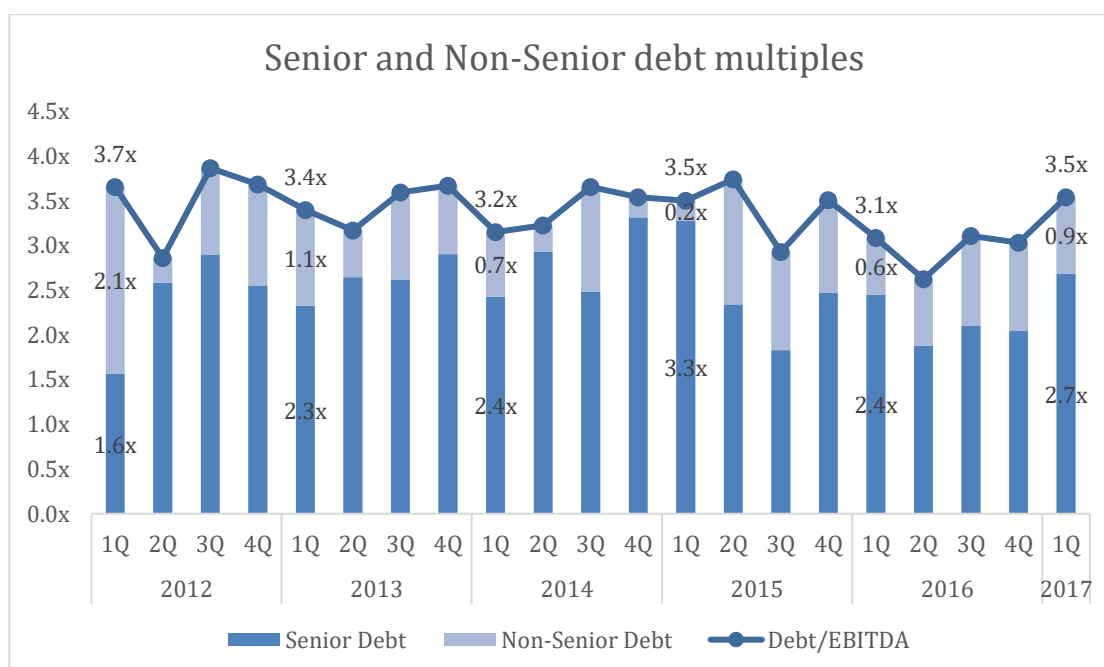
Figure 22 - Compiled by the authors with data from PitchBook

When determining the debt level, there are multiple factors that has to be taken into consideration, as seen above, which makes the estimated of debt level exposed to uncertainties. As a result of this, and due to the fact that the leverage set for an LBO has a significant impact on the final return, a sensitivity analysis will be made in section 15, to evaluate the set debt levels impact on the IRR.

13.2 Leverage amount and equity contribution

With the debt multiple established, the total debt can now be determined. In order to do so we have applied A&Fs LTM EBITDA, which amounts to 210,6 million dollars. Thus with a Debt/EBITDA multiple of 2,21x the total debt acquired by the PE firm will amount to 464,7 million dollars.

Now with the debt contribution determined, we will have to determine the equity contribution needed to finance the rest of the LBO. To do so we first have to establish the uses of funds for the LBO of A&F. As table 16 shows, the sources of funds contain the amount of funds needed to buy the equity, including the offer premium of 40% set in section 12, and the transaction costs needed to be paid in relation to the buyout. In order to determine the purchase price of the equity we have started by using a 3-month average share price for A&F, as is considered common practice according to Tommy Greisen, and then added the determined offer premium on top of that. Finally, this offer price per share has been multiplied with the current number of fully diluted outstanding shares to get the amount that the PE fund has to pay in order to acquire the equity. The calculation can be seen below:

$$
\begin{aligned}
Price\ &to\ aquire\ Equity \\
&= 3\ month\ aveage\ share\ price * (1 + offer\ premium) \\
&* number\ of\ fully\ diluted\ outstanding\ shares = \$13{,}3 * (1 + 0{,}4) * 67{,}8\ million \\
&= \$1.261{,}7\ million
\end{aligned}
$$

In addition to the equity, the PE firm also has to pay transaction fees. According to latest PE research report from PitchBook (2017), the current transaction cost, covering various fees mentioned in section 1.2, amounts to around 3% of the enterprise value paid for the firm . Thus A&F's enterprise value has to be derived to be able to determine the transaction costs. In order to do so A&Fs net debt is determined and added to the equity value. Our definition of the net debt and calculation of such can be seen in the equation below:

$$
\begin{aligned}
Net\ debt &= Short\ term\ debt + Longterm\ debt + Minorities \\
&- (Cash\ and\ equivialents - Minumum\ cash) \\
&= 20{,}1 + 385{,}7 + 8{,}6 - (547{,}2 - 32{,}9) = -\$99{,}9\ million
\end{aligned}
$$

A&F's minimum cash level has been determined by calculating a 1-year average of the NWC used throughout the year, in order to determine the average level of WC needed to run the business. A&F's current NWC is then been subtracted from the average to get the minimum cash needed. The reason for deducting the minimum cash, from cash and equivalents, is that we need to adjust the current cash balance up or down depending on whether the current NWC is below or above the LTM average. The argument made, is that, since the average NWC is in our case higher, we would have to reduce the current cash level, since the business, on average during the year, require more WC than the ending balance for fiscal 2016. This is something the buyer would have to pay for and thus the enterprise value has to increase.

The Enterprise value can now be determined by adding the equity value with the net debt, thus giving us an Enterprise value of $1161,8 million. The reason for why the EV is lower than the Equity value is due to the fact that A&F's cash balance is greater than its debt and minorities. This results in a negative net debt. The transaction cost further amount to $35,1 million, which is 3% of the EV. Thus the total use of funds amounts to $1296,8 million, which is the sum of the amount required to purchase the equity value plus the transaction costs.

The equity contribution needed to finance the buyout of A&F can now be determined from the source of funds, which can be seen in table 16. As determined above, the total debt amounts to $464,7 million, which is 40% of the EV. Further, when acquiring the equity, a cash balance of $99,9 million will be acquired as described above, which is added as a source of funds. Thus the Equity contribution required by the PE firm amounts to $732,2 million, consisting of 697,1 million, which is the remaining 60% of the EV, and 35,1 million, which is the total transaction costs. The reason why the PE firm's total equity contribution is higher than the remaining part of the EV, is due to that they, from their own pocket, have to pay the transaction costs.

Firm Value			Uses of Funds	
Leverage	40.0%		Purchase Equity	1,261.7
LTM EBITDA	210.6		Transaction Cost	35.1
Deal value	**1,196.9**		**Total**	**1,296.8**
Transaction Costs	35.1			
EV/EBITDA Multiple	**5.52x**		Sources of Funds	
Enterprise Value	**1,161.8**		Term Loan A	139.4
Minimum Cash	(32.9)		Term Loan B	325.3
Cash	547.2		**Total Debt**	**464.7**
Debt	(405.8)		Equity part of EV	697.1
Minorities	(8.6)		Transaction cost	35.1
Equity Value	**1,261.7**		**Equity Contribution**	**732.2**
NOSH [m]	67.8		Net Debt	99.9
Equity Value per share	**18.6**		**Total**	**1,296.8**
Current Price	13.3			
Offer Premium	**40.0%**			

Table 16 - Compiled by the authors

Finally, we can determine that 40% of the EV is financed with debt and the remaining 60% is financed by the PE firm. Comparing this number to the historical values seen in figure 22, we can determine that our debt percentage seem to be below that of the current and historical acquired leverage levels. However, it is hard to justify a higher leverage level closer to the average, since A&Fs risk profile is evaluated higher than that of its peers and the overall market, as implied by its beta and risk profile.

13.3 Debt composition and repayment

As can be seen in figure 22, the proportion that senior debt makes up of the total debt amount has increased significantly between Q1 2012 and Q1 2017. One explanation for this could be that less senior tranches have become more expensive and difficult to acquire (Greisen, 2017). As a result of this, and due to A&F's risk profile and current FCF pattern, we have together with Tommy Greisen, established a debt structure consisting of a Term Loan A (TLA) and a Term Loan B (TLB), with a tenure of 7 and 8 years. According to Tommy Greisen, the US debt market is much more centered around TLB, due to that it has the same structure as a zero coupon corporate bond, which is the preferred debt instrument in the US (Greisen, 2017). He therefore argues that a higher proportion of the debt should consist of TLB to account for this difference. Together with Tommy Greisen, it has been decided that 70% of the debt should consist of TLB and only 30% of TLA. The split between the two, is due to the fact that a higher proportion of amortizing debt could not be supported without breaching any of the two covenants set up with Tommy, which will be discussed further in section 13.4.

The interest rates on the loans will consist of two parts. One which is the floating USD LIBOR rate and the banks margin, which is added on top that number. TLA is more senior than TLB, which is why it will have a lower interest rate. Normally, the difference is 50 basis points compared to TLB, due to its amortizing structure. The current margin for TLB is currently 2,031% and the margin for TLA is currently 1,531%, 50 basis points below TLB (Greisen, 2017). According to Tommy Greisen, it is normal that the bank demands that the company hedge the underlying USD LIBOR with a 3-5 years SWAP to make sure that the underlying rate won't fluctuate as much. We have therefore chosen to use a 5-year SWAP as the underlying base rate for both loans, which on the 2nd of May 2017 was 1,969%, as can be seen in appendix 7. The interest rate for each loan will therefore be 3,5% for TLA and 4% for TLB. TLA will be amortized annually on a straight line basis, with interest expenses being paid based on the loan amount outstanding at the beginning of each year. TLB will follow a bullet structure with annual interest payments, based on the total loan amount, with full repayment of the loan being made in year 8 at maturity. A more detailed description of the repayment schedule for each loan type, and a summary of the total interest and principal payments made each year can be seen in table 17.

Debt	Amount	x EBITDA	% Debt	Interest Rate	Tenure	Principal Payment	Equity Participation
Term Loan A	139,4	0,66x	30,0%	3,5%	7,0	1	--%
Term Loan B	325,3	1,54x	70,0%	4,0%	8,0	0	--%
Revolver	300,0	1,42x	64,6%	4,0%	-	0	--%
Total Debt w/o Revolver	**464,7**	**2,21x**	**100,0%**				

	Historic	Forecast									
Debt Schedule	**02-2017**	**02-2018**	**02-2019**	**02-2020**	**02-2021**	**02-2022**	**02-2023**	**02-2024**	**02-2025**	**02-2026**	**02-2027**
Debt											
Term Loan A	139,4	119,5	99,6	79,7	59,7	39,8	19,9	-			
Term Loan B	325,3	325,3	325,3	325,3	325,3	325,3	325,3	325,3	-	-	-
Revolver	-	-	-	-	-	-	-	-	-	-	-
Total Debt w/o Revolver	**464,7**	**444,8**	**424,9**	**405,0**	**385,1**	**365,1**	**345,2**	**325,3**	**-**	**-**	**-**
Interest Expense											
Term Loan A		(4,9)	(4,2)	(3,5)	(2,8)	(2,1)	(1,4)	(0,7)	-	-	-
Term Loan B		(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	-	-
Revolver		-	-	-	-	-	-	-	-	-	-
Interest Expense		**(17,9)**	**(17,2)**	**(16,5)**	**(15,8)**	**(15,1)**	**(14,4)**	**(13,7)**	**(13,0)**	**-**	**-**
Principal Payment											
Term Loan A		(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	-	-	-
Term Loan B		-	-	-	-	-	-	-	(325,3)	-	-
Revolver		-	-	-	-	-	-	-	-	-	-
Principal Payment		**(19,9)**	**(19,9)**	**(19,9)**	**(19,9)**	**(19,9)**	**(19,9)**	**(19,9)**	**(325,3)**	**-**	**-**

Table 17 - Compiled by the authors

Finally, a revolving credit facility of $300 million has been established to help cover any temporary NWC needs. According to Tommy Greisen, using a revolver is a clever way of staying away from building up an unnecessary large cash balance, which currently pays a negative interest rate, and thus it is ensured that

the capital will always be used and help generate business. The revolver has been included into the model, and will automatically be used if the total cash in the firm goes below the set minimum cash balance of $32,9 million, with the same interest rate as TLB (Greisen, 2017). The covenants established in relation to the debt is a very important element for the bank, since they serve as a safety net for the bank, which has no upside potential, and will be discussed in detail in section 13.4.

13.4 FCF and Debt Covenants

In order to asses A&F's ability to service and meet their debt commitments, as described in the previous sections, we will have to determine their estimated FCF available for debt service for each year. This can be seen in table 18. To derive the FCF available for debt service, we started with EBIT from section 10.1, and then deducted the tax expense incurred by the firm. To do this, we have used the effective tax rate, in which we have taken the increased interest payments and the obtained tax shields into consideration for each forecasted year, and then used an average of these yearly rates for the duration of the holding period as our effective tax rate, amounting to 30%. Depreciation is then added back into the calculation since this item is an accounting based number and not an actual cash outflow. Our estimated capital expenditure for each period from section 10.2.4 is then deducted from the calculation to account for the investments made in property, plant and equipment throughout the year. The change in NWC for each year has then been deducted, as the change in this reflects an actual use of cash. Worth mentioning is that even though we have made substantial improvements to the NWC, we have also increased our sales and COGS, which is why almost every year has an increase in NWC and thus reduce the FCF.

Finally, we have taken the disposal gained from our lease back agreement into account. It is assumed that no tax will be paid on this amount, which is why it is not being taxed in our FCF calculation. The reason behind this assumption is due to the fact that no original purchase price for their home office has been given, and from this lack of information we assume that the purchase price equals the disposal, and thus no profit has been made, why no tax has been deducted.

Free Cash Flow	Forecast						
	2017	2018	2019	2020	2021	2022	2023
EBIT	(3,9)	44,0	105,5	169,1	234,6	312,5	356,1
Tax	1,2	(13,2)	(31,6)	(50,7)	(70,4)	(93,8)	(106,8)
Depreciation	185,4	180,6	174,7	168,3	163,7	152,4	139,1
CapEx	(276,7)	(186,6)	(184,5)	(177,7)	(168,1)	(156,4)	(142,6)
Change in NWC (cash down)	(15,5)	15,6	(23,1)	(5,0)	(4,1)	(4,5)	(10,3)
Disposal	200,0	-	-	-	-	-	-
FCF	**90,5**	**40,4**	**41,0**	**103,9**	**155,7**	**210,3**	**235,4**

Table 18 - Compiled by the authors

As described in section 13.3 covenants are a very important element for the bank, since they provide an extra safety net, making it much easier for them to get their money back. If a company were to breach any of the covenants set up by the bank, a variety of actions can be taken, with the debt holders taking control of the company being one of them (Greisen, 2017). As described in section 13.1 the US and European debt markets are significantly different from each other, with the US debt market operating in a covenant light environment. This means that fewer and less strict covenants will be put in place by the US banks when companies wants to borrow money, with less strict requirement on amortization. This is a result of the US preference for bond financing, which generally has much lighter paperwork behind them with fewer and less strict covenants in place (Greisen, 2017). As a result, we have, together with Tommy Greisen only established two covenants to reflect the covenant light environment that A&F is operating in.

The first covenant is a so called negative covenant, which means that an upper limit is set that the company may not exceed. The second one, is a so called positive covenant, which conversely means that a minimum level must be maintained at all times. The first covenant is a so called leverage test, which is measured by determining the Debt/EBITDA ratio each year for A&F's case, based on our projected numbers. The bank then allows a 25-30% headroom on top of that amount. To reflect the covenant light US environment, a 30% headroom is established (Greisen, 2017). Table 19 shows how the covenant would look like for our estimated 6 year holding period of A&F.

The second covenant is a so called Cash Flow Cover, which according to Tommy Greisen is a covenant that is included in close to every transaction. This covenant measures if A&F, with the above calculated FCFs, have the ability to cover the interest payments and principal repayments, established in section 13.3. The ratio between the FCF available for debt service and the total debt commitments must under no circumstances reach a level below 1 and a breach of this covenant would have severe repercussions (Greisen, 2017).

Covenant 1: Debt/EBITDA	Forecast					
Free Cash Flow	**02/2018**	**02/2019**	**02/2020**	**02/2021**	**02/2022**	**02/2023**
Headroom	30%	30%	30%	30%	30%	30%
Total Debt	444.8	424.9	405.0	385.1	365.1	345.2
EBITDA	181.3	224.6	280.2	337.4	398.3	465.0
Debt/EBITDA multiple	2.45	1.89	1.45	1.14	0.92	0.74
Covenant	**3.19**	**2.46**	**1.88**	**1.48**	**1.19**	**0.97**

Covenant 2: Cash Flow Cover	Forecast					
Free Cash Flow	**02/2018**	**02/2019**	**02/2020**	**02/2021**	**02/2022**	**02/2023**
Free Cash Flow	**90.4**	**40.4**	**41.0**	**103.9**	**155.7**	**210.3**
Interest payment	17.9	17.2	16.5	15.8	15.1	14.4
Principal Repayment	19.9	19.9	19.9	19.9	19.9	19.9
Total Debt Commitments	**37.8**	**37.1**	**36.4**	**35.7**	**35.0**	**34.3**
Cash Flow Cover	**2.39**	**1.09**	**1.13**	**2.91**	**4.45**	**6.13**

Table 19 - Compiled by the authors with input from Tommy Greisen

Looking at table 19, we can see how the set Debt/EBITDA level for covenant 1 is decreasing with time as the total debt outstanding is being repaid and the forecasted EBITDA level increases. The ratio of our Cash Flow Cover covenant varies over time, but is constantly maintaining a level above 1. We are thus not breaching any covenants, which further goes to prove that our chosen leverage level is realistic. Worth noting is that our covenants might be breached, if our forecasted numbers were to differ from the realized. The importance of setting realistic estimates can therefore not be stressed enough since a too optimistically set forecast could result in a breach of the above established covenants.

14. Valuation

The following sections aim to discuss whether the expected return gained, in our different scenarios are of reasonable value to the PE Fund. In our valuation of the LBO of A&F, we will be using two components to estimate whether the total return is of substantial value or not. The two measures are IRR, the internal rate of return for the investment, and as the cash on cash multiple, used to measure how many times the total investment returned.

The internal rate of return is calculated by finding the yearly rate which causes the net present value of the investment case to be equal to zero. In this case, the equation is the following:

$$NPV = 0 = Initial\ Equity + \frac{Equity\ Value\ at\ Exit}{(1 + r)^t}$$

In our case, the IRR can be approximated to below equation since we only have two investment flows.

$$IRR = \left(\frac{Equity\ Value\ at\ Exit}{Initial\ Equity}\right)^{(\frac{1}{t})} - 1$$

The cash on cash multiple removes the time factor of money from the above, and looks like the following.

$$Cash\ on\ cash = \frac{Equity\ Value\ at\ Exit}{Initial\ Equity}$$

14.1 Exit Price

From the former sections, all the necessary components needed for the final valuation of the return, except for one has been discussed and substantiated. The final value needed to determine the return, is the price with which the PE fund is able to sell the company. This value will lead to the Equity Value at Exit which is used to evaluate our business case, as our Initial Equity value was, $732,2 million.

When establishing the price, different exit strategies could have different implications on what price can be derived. As discussed in the literature review, there are many options to choose from when exiting. In all cases, it is relevant to discuss whether the relevant premiums applicable to the acquisition should also be used when estimating the exit price. Usually, a PE fund would normally not want to let go of its assets at a lower applicable premium than it paid for them, as selling them off at a lower valuation multiple would impact returns significantly (Rosenbaum and Pearl, 2009). However, if the firm is sold through an IPO to the public stock markets, there isn't necessarily anyone to take control of the company, because of the dispersed ownership structure the stock market usually provides. This entails that buyers of the stock

wouldn't want to pay a control premium, as they have no direct control over the assets. This would in theory mitigate the control premium that the fund paid during the acquisition. On the other hand, as PE funds are usually very well versed in executing both strategic implementations and ensuring operational efficiency, one could argue a premium related to abnormal performance, relative to peers, could potentially off-set any loss of premium in an IPO (Rosenbaum and Pearl, 2009).

A sale towards a strategic buyer could also enable the PE fund to generate a high value. In this case, the sale of the firm would entail that the strategic buyer would potentially have a large amount of expected synergies to create value from as their incentive in the takeover (Rosenbaum and Pearl, 2009). A strategic buyer would in this case be able to integrate A&F and optimize on the current operations by leveraging them with their own. Within the apparel retailing environment, a strategic buyer could possibly be GAP, AEO, PVH (Philip Van Heusen) or possibly a brand conglomerate fit for A&F, like Kering is for Gucci, and LVMH is for Dior. The main reasons behind the strategic acquirers is the fact that they have a potential for both economies of scale and economies of scope in the acquisition of A&F (Grant, 2010; Rosenbaum and Pearl, 2009).

As shown in section 12 and 13, the equity value at entry was deriving it with a premium on top of the price per share and the amount of outstanding shares. The Equity value then derived the Enterprise Value, with which we compiled the EV/EBITDA value for the acquisition. By using the exact same multiple as the basis for the exit, the aforementioned premiums could be argued to be included in the valuation, as the basis for the multiples valuation is identical. However, the total price for the company is certainly different, based on the estimated scenario as the EBITDA metric has increased. For our base case scenario, while keeping the same exit- as entry multiple, it would entail that the firm would be sold at an EV/EBITDA multiple of 5,52x. For LBO modeling, having the same entry and exit multiple is usually the norm (Greisen, 2017; Rosenbaum and Pearl, 2009). As a result, our Equity Vale at Exit, after accounting for the net debt, becomes, $2603,23 million.

Another perspective to consider is also the basis for valuation and the foundation for financial theory, that any assets and its value is derived by the expected value of its future cash flow. If a firm is able to increase its operational excellence, and gain a larger foothold and presence in the market, the expectations to future cash flows might increase. Furthermore, these future cash flows might have a lower uncertainty, settling for a lower discount rate, which in turn should increase the value of the company (Berk and DeMarzo, 2014).

With these thoughts in mind, research by Daniel Pindur (2007) shows that PE funds in LBO's on average manage to sell the firm at an increased value relative to entry, through an EV/EBITDA multiple which is 0.9X higher (Pindur, 2007). This research is supported by Acharya et. Al. (2012) who find a similar multiple expansion. Some of the possible reasons behind the increase in valuation could possibly be that on average, PE funds are able to time the market, with which their returns are partly increased based on a higher market valuation. Another reason behind the general increase in the valuation multiple could be that the changed circumstances and fundamental values of the company are changed to the better. Finally, it's plausible that the PE fund exploits any potential insider information with regards to the entry and exit transaction values (Pindur, 2007). These thoughts, as Pindur also states, should however be concretized in future research. In general, the differences between the entry- and exit multiple shows that the PE funds, historically, were able to benefit from 'buying low' and 'selling high'. In his research, Pindur also considers the immediate standard deviation aligned to his results, stating that even though the above mentioned result on average is the 'true' result, there are as always variations over time, quite probably related to boom and bust cycles, where PE funds are either forced to sell at discounts or sells easily at a higher premium (Pindur, 2007).

Along these thoughts, there could be a rationale behind exiting the firm at a different multiple. As the basis for LBO's, are usually contingent on operational improvements and a more streamlined use of cash flow and investment, different LBOs could suddenly prove to have incurred a multiple expansion based on increased firm size and scale of operations or other meaningful operational improvements. Furthermore, The PE fund could have repositioned the existing business towards highly valued segments and caused an acceleration of both growth and profitability (Rosenbaum and Pearl, 2009).

Another way to consider the current value of the company, as its assets aren't being constantly valued by the market, could be to compare it with market competitors, and with what values they are currently being perceived at. The values from constant market perception could establish a valuation basis for which the exit multiple could be derived. In such a valuation comparison, it is however important to notice that it is unlikely to find any single firm, truly identical to A&F, for which there exists bias and uncertainty behind the method.

14.2 EV/EBITDA Regression

Based on these thoughts, we will be estimating the related exit EV/EBITDA multiple with the help of a regression model, containing the 1-year forward EV/EBITDA multiple, as the dependent variable, explained by the 3-year forwardly estimated sales growth (CAGR). A forward-looking variable has been used instead

of a historical one, to reflect the fact that a company's value is the sum of its future cash flows (Berk and DeMarzo, 2014). Based on the model results, we expect to substantiate a discussion towards which exit multiple will be applicable to the exit of A&F. In this case, the chosen time and result will be based on the expected growth rates after a holding period of 6 years, as this was the middle of the estimated holding period. Our sample consists of 32 publicly listed companies of similar characteristics that have been provided with a 1-year forward EBITDA estimate, a current Enterprise Value, as well as a 3-year sales CAGR estimate, collected from Bloomberg. The 3-year time horizon for the CAGR has been selected based on the available data, since sales estimates were not available beyond 2019 a cut had to be made. Moreover, any estimates beyond this period are becoming more variable and thus it is assumed that the three-year period selected is the most relevant period for the 1 year forward EV/EBITDA multiple. We are aware that the sample size used in the regression is of small size, but the limited availability of information has set a direct limitation to the regression's scope in consideration to the value it creates for our LBO model. Although this limitation exists, we have still made sure that our sample size exceeds 30, enabling us to assume an approximated normal distribution. The sample size, values and other descriptive statistics used in the linear one-factor regression analysis is in appendix 8.

Moreover, we have been conducting multiple regressions where we included multiple variables such as binary variables controlling for the size of the company and if the company during the last 6 months has experienced a share price drop of more than 50%. Additionally, we have also included a variable controlling for if there are any difference between companies for which the share price has increased compared to its share price one year ago. When controlling for these different characteristics, we found that none of them were significant at a 10% level, and as a result we have chosen not to include these factors and only use the 3 year forward CAGR as the independent variable for our regression.

Using an OLS regression method with the data in appendix 8, we have achieved the linear function, as shown below and in figure 23.

$$EV/EBITDA = 4,8342 + 45,525 * CAGR_{3yearforward}$$

This table showcases the 95% Confidence Interval determined by our regression, including input value and sample average				
Lower 95%	Regression Estimate	Upper 95%	A&F's CAGR (23-26)	Average sample multiple
5,12	6,43	7,74	3,5%	5,23

Table 20 - Compiled by the authors with regression results

As can be seen in figure 23, our regression shows a positive relationship between the EV/EBITDA and the 3-year forward growth rate, indicating that an expected higher sales growth leads to a higher valuation multiple. With an exit after 6 years of holding period, in 2023, the expected sales growth for the following

3-year period can be calculated to 3,5% as derived in the income statement in table 10. By applying the expected sales growth of 3,5% into the regression, a valuation multiple of 6,43 is obtained for A&F and should according to our regression model be applicable for a potential exit in 2023, as seen in table 20. In order to determine if this value is suitable to use as an estimated level for our exit multiple, a t-test has to be made to evaluate if the p-value of each variable is significant at a 95% significance level or more.

Exit EV/EBTIDA Multiple

$y = 45,5252x + 4,8342$
Adj. $R^2 = 0,5574$
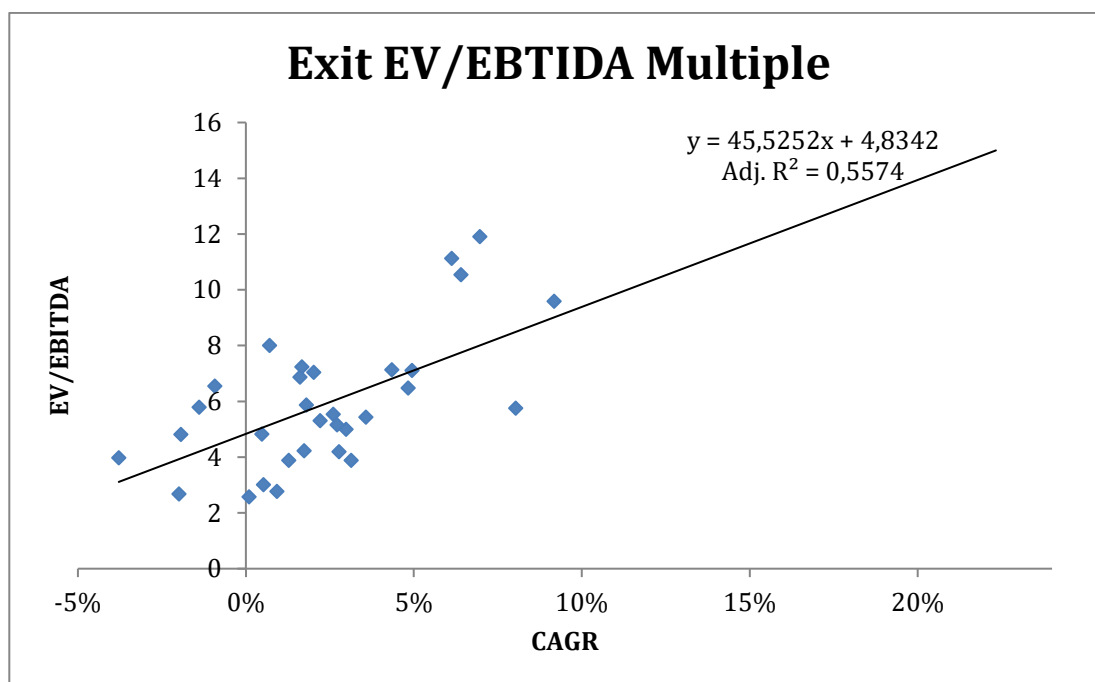
Figure 23 - Compiled by the authors

As can be seen in appendix 8, both the intercept as well as the CAGR variable are both significant at a 95% and 99% level, with their respective p-values both being 0,0000. Moreover, an evaluation of the adjusted R^2, which measures how much of our dependent variable that is explained by our independent variable, has to be made to. As can be seen in appendix 8, the adjusted R^2 is suggesting that 55,74% of the variation in the 1 year forward EV/EBITDA multiple is explained by variations in the 3 year forward looking CAGR, which indicates that there are more variables that can have an impact on the EV/EBITDA multiple. Such variables could be the forecasted margin levels of the different companies, which should have an impact on the multiple, but have not been included in the model due to lack of data.

Additionally, we have constructed a 95% confidence interval to see what possible values that our estimated exit multiple could lie within. As can be seen from table 20, our exit multiple should according to our regression model, with a 95% confidence, lie between 5,12 and 7,74. Thus our entry multiple of 5,52x is contained within our confidence interval. We have therefore chosen to assume the same exit multiple as used at entry to ensure that a conservative multiple is applied when determining our estimated

EV and return at exit. It could however still be argued that the exit-multiple could be increased, based on the significance of the model's explanation. However, the effects of a different exit multiples will however be discussed in section 15.1 including our sensitivity analysis. In conjunction to this, our chosen exit multiple will be 5,52x, resulting in an Enterprise Value of $2564,98 million.

14.3 Return

With the derived exit multiple, we assume that our exit method entails an IPO, although there could be both positive and negatively attributed effects to the valuation from this method, we believe the derived multiple based on earlier discussion is a conservative estimate, as A&F as a firm is entirely different than at acquisition. Based on the estimated Enterprise Value, the Equity Value at Exit can be derived. By adding the existing cash portion at exit, and deducting the remaining debt portion, the Equity Value, as shown in table 21, is $2.603,4. This value is under the assumption that the exit and sale of A&F happens immediately after the financial year of 2022 ends, as it is the ending cash balance and related numbers at this time that is used in the calculation. As cash flow to and from the PE Fund only happens at entry and exit, the return from the investment is calculated isolated on the equity value at entry and equity value at exit.

Exit Valuation	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
EBITDA	210,6	181,3	224,6	280,2	337,4	398,3	465,0	495,2	513,7	532,9	552,8
Enterprise Value on exit	1.161,8	1.000,4	1.239,2	1.545,7	1.861,2	2.197,0	2.565,0	2.731,7	2.833,7	2.939,5	3.049,4
Cash	32,9	64,0	72,5	82,0	154,9	280,1	460,4	666,3	573,8	826,8	1.089,3
Total Debt	(464,7)	(444,8)	(424,9)	(405,0)	(385,1)	(365,1)	(345,2)	(325,3)	-	-	-
Equity Value on Exit	730,0	619,6	886,8	1.222,7	1.631,1	2.112,0	2.680,2	3.072,7	3.407,5	3.766,2	4.138,7
Transaction cost	(34,9)	(30,0)	(37,2)	(46,4)	(55,8)	(65,9)	(76,9)	(82,0)	(85,0)	(88,2)	(91,5)
Equity Value	695,1	589,6	849,6	1.176,3	1.575,2	2.046,0	2.603,2	2.990,8	3.322,5	3.678,1	4.047,2
Dividends	-	-	-	-	-	-	-	-	-	-	-
Initial Equity Investment	732,2										

GP return	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Initial Equity	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)
Equity Value at Exit	590,4	-	-	-	-	-	-	-	-	-
	-	849,7	-	-	-	-	-	-	-	-
	-	-	1.176,5	-	-	-	-	-	-	-
	-	-	-	1.575,4	-	-	-	-	-	-
	-	-	-	-	2.046,2	-	-	-	-	-
	-	-	-	-	-	2.603,4	-	-	-	-
	-	-	-	-	-	-	2.990,9	-	-	-
	-	-	-	-	-	-	-	3.322,6	-	-
	-	-	-	-	-	-	-	-	3.678,2	-
	-	-	-	-	-	-	-	-	-	4.047,3
IRR	(19,4%)	7,7%	17,1%	21,1%	22,8%	23,5%	22,3%	20,8%	19,6%	18,6%
CoC	0,8x	1,2x	1,6x	2,2x	2,8x	3,6x	4,1x	4,5x	5,0x	5,5x

Table 21 - Compiled by the authors

As shown in table 21, our base case scenario with formerly established debt, equity and entry/exit multiple levels generates an internal rate of return for the PE fund at 23,5%. This value is well within the normal of

minimum expected PE LBO return above 20%. The underlying calculation for the IRR and CoC is derived below:

$$IRR = \frac{2603{,}4^{\left(\frac{1}{6}\right)}}{732{,}2} - 1 = 23{,}5\%$$

$$Cash\ on\ Cash = \frac{2603{,}4}{732{,}2} = 3{,}6x$$

In our valuation of the equity value at exit, it is however important to stress that it is the book value of equity being used. The market and valuation perspective is in this sense related through the use of an exit multiple and the premium we apply in relation to the EBITDA and Enterprise Value. The true estimation of the market value of equity is thus not the focus and as such out of scope of this thesis. Furthermore, lack of information provides a natural limitation, and hence the book value of equity provides a reliable estimate of the equity for our model.

Our base-case return of 23,5%, as can be seen on in table 21, is the highest possible yearly return for our scenario. However, the return in both 2021 and 2022, might be tempting for a PE fund to cash in on, if the economic circumstances changes, or other investment portfolios has turned the overall return under pressure. Even though the IRR in 2020 is above 20%, which should be at the border of acceptable PE return, it is unlikely that a PE fund would accept a return, measured with the CoC multiple, of only 1,6x with an investment as risky as A&F. Research has shown that the CoC multiple, even with fast exits, range from a minimum of a multiple of 2 to 5 (Rosenbaum and Pearl, 2009). The fast exit perspective is even more interesting to consider in a financial environment in which everyone is chasing yield, as guaranteed returns have become lower than ever.

14.4 Up & down Case Scenario

Within the base case scenario, the return seems promising. However, as with all estimation and forecasting, inherited uncertainty follows, which underlines the need for testing said scenario and returns in both an up- and down-case scenario. On the other hand, it is also entirely possible that the business environment and more specifically, the apparel and retailing environment could face a much brighter future, than estimated in our forecasting.

In our down-case scenario, which composes a much more conservative perception of the future economic environment, and the level with which the fund is able to optimize, a return table including the IRR & CoC multiple and other forecasted financials can be seen in appendix 5. As shown in the income statement for

the down scenario in appendix 5, the EBITDA used in the valuation, is $ 131,3 million lower than in the base case scenario. The direct effect is a valuation of A&F that is $ 724,3 million lower than the base case scenario. However, as the related appendix shows, there are small issues in relation to generating enough free cash flow to support debt service in 2018 and 2019. As discussed in section 13, the loan issuers require that the firm should at all times be able to support the debt composition, which is not the case in the down-scenario. It could be argued, based on the apparent cash flow issues, whether the loan and repayment composition should be changed and potentially lowered further. In the down scenario, the obtained return to the PE fund constitutes of an IRR at 14,1% with a CoC multiple of 2,2. Even though there is an apparent issue in relation to the debt repayment from the free cash flow stream, the derived return is still of substantial value, even though it is below the 20% boundary.

In our up-case scenario, as all cash flow related activities are attributed to positively, there are no inherent issues to supporting the debt repayments from the stream of free cash flow. In this scenario, the positively related adjustments lead to an increase in EBITDA, in 2023, of $105,9 million. In relation to the valuation, it leads to an increase of the related enterprise valuation of $584,2 million. The higher valuation leads to total obtained IRR of 29,8% and a CoC multiple of 4,7x. As the related free cash flow in the up scenario, is attributably more positive, in this scenario, it could be argued that it's possible to increase the % of debt composition related to the term loan A, as the PE fund is able to support an increased amortization. All other related components to the up-case scenario can be found in appendix 6.

All in all, the intention of the previous sections has been to shed light on whether the investment case of the LBO and our scenarios of A&F is reasonable. As shown in our base-case scenario, the return of 23,5% should be assessed as an acceptable business case. Although the down scenario does not provide a return above the 20% limit, and has serious cash flow implications, it is still within our judgment that a PE fund would be able to generate the necessary operational improvements and margin re-establishment as our base case provides. As A&F is currently in a relatively poor business condition, it is imminent that the PE fund would be able to increasingly optimize the existing cash flow structure, and increase margins to generate a substantial return. These thoughts are well in line with the overall value creation of PE funds in LBOs, as covered in section 4, and will be discussed even further in the forthcoming sections, which aim to test the isolated effects of the different major components of our model setup.

15. Sensitivity Analysis

Besides testing the returns on the up and down case scenario, the forthcoming sections aim to test the sensitivity of different value creating components in the LBO model. Hence, we will be testing the economic effects of the forthcoming variables in an isolated testing, entailing that the return will, ceteris paribus, be tested with relative changes for one or two variables.

15.1 Valuation Multiples

First variables to be tested, is the related entry premium and exit multiple, used in the valuation component. Below in table 22, a data table containing the IRR at different entry and exit multiples at rounded intervals of 0,5x reveals that both increases and decreases in the related multiples has serious effects on returns. As formerly described in section 14, if the PE fund is able to increase the relative multiple with 0.9x, compared to the entry multiple, as both research and our regression could indicate, an IRR of close to 27% is achieved instead. Contrary, in relation to the current ownership structure of A&F, if large institutional blockholders or nominee accounts do not have any intention of selling their shares at the base case premium of 40%, an increase in the purchase price premium to 63,4% would cause a serious effect to the investment case. In this case, the PE fund's return would be just below the rule of thumb with of 20% return (Rosenbaum and Pearl, 2009). As shown with our interval ranging from 4,5 to 7,5, the cause and effects of the entry and exit price shows how big of an effect it can cause on final return, as the IRR ranges from 11,9% in the worst scenario to 34,8% in the best scenario within this specific sensitivity analysis. However, as encased with boxes in the table, most exit and entry multiple scenarios within decent intervals of the base case, provide the firm with a reasonable return. In this case, the PE fund will potentially have leeway in their investment case, as they would be able to offer a larger premium on the share price, and still manage to generate a decent return.

Enterprise Value	Entry Multiple	Premium	Exit Multiple						
			4,5x	5,0x	5,5x	6,0x	6,5x	7,0x	7,5x
951	4,5x	16,6%	24,7%	26,7%	28,5%	30,2%	31,9%	33,4%	34,8%
1.056	5,0x	28,3%	22,1%	24,1%	25,9%	27,6%	29,2%	30,8%	32,2%
1.162	5,5x	40,0%	19,7%	21,7%	23,5%	25,3%	26,9%	28,4%	29,8%
1.267	6,0x	51,7%	17,5%	19,5%	21,4%	23,1%	24,7%	26,2%	27,7%
1.372	6,5x	63,4%	15,5%	17,5%	19,4%	21,1%	22,7%	24,2%	25,7%
1.478	7,0x	75,1%	13,6%	15,7%	17,6%	19,3%	20,9%	22,4%	23,8%
1.583	7,5x	86,7%	11,9%	13,9%	15,8%	17,6%	19,2%	20,7%	22,1%

Table 22 - Compiled by the authors

The sensitivity of our return in relation to the entry and exit multiple, is well aligned with what theory and research on LBO transactions and value creation states. As formerly discussed in the literature review, partly descriptions of value creation could be highly attributable to market movements and differentiated exit multiples, just as our data table supports.

15.2 Leverage

The foundation of the LBO method is the debt or leverage gained in the transaction. In figure 24, as well as table 23, the return scenarios for the base case, up- and down case scenario can be seen at different leverage intervals. These intervals range from 0-95% leverage of the EV. In our base case, the column labeled '1', the IRR increases from 23,5% to 29,3% just by increasing the leverage by 20%! Even though the leverage should supposedly be a large part of the value creation in the leveraged buyout, and partake a substantial value of it through the financial engineering and its spillover effects, the measurement in our model isn't of same substantial value. By setting the leverage to 0%, the IRR in our base-case scenario is still at a high double-digit value, at 17,4%. However, when increasing the leveraged upwards, the effect on IRR is at rocket high return levels, as the increase in return approximates an exponential effect.
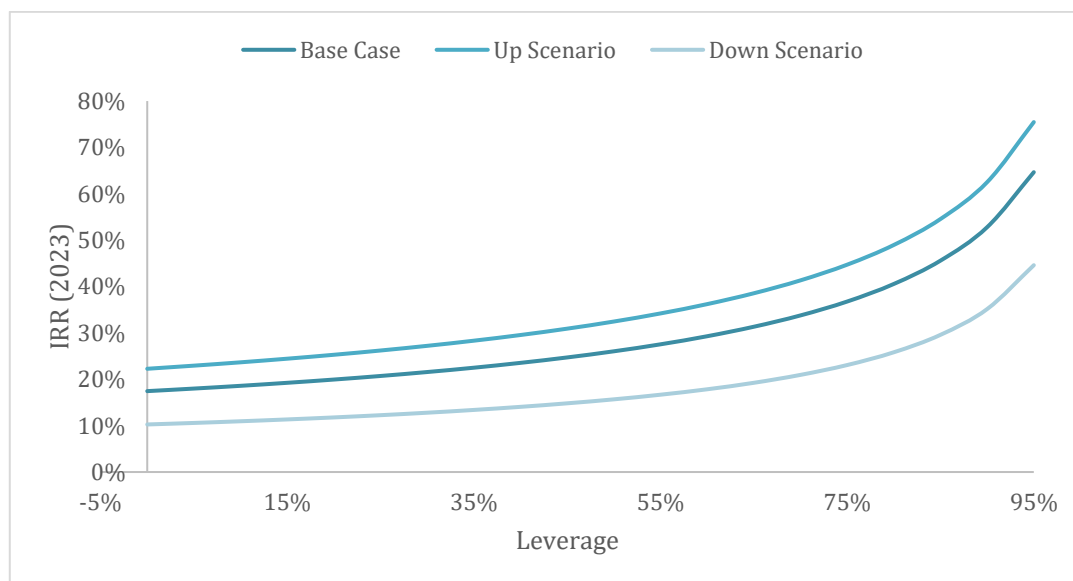
Figure 24 - Compiled by the authors

However, compared to the actual and theoretical effects from the financial engineering, our model may not capture the exact same value measure as researched by the academic world. The spillover effects from financial engineering, which as an example, could be through the 'stick' incentive structure, could lead to relatively improved cash flow and operational improvements. In this analysis, we have no way of measuring these effects, as they will be directly translated into operational improvements and our EBITDA-margin. Our measure is solely on the isolated leverage, and the sensitivity of our returns may in

comparison to the real world be underestimated. However, the small significance with which the leverage pose to our return, highlights the need for operational improvements and turning around the cost base, by finding and targeting high growth and profitable areas, to increase A&F's existing margins.

As can be seen from our FCF structure, it is however also important to state that even though substantially higher returns could be generated from an increased leverage, the forecasted business model might not be able to sustain the increased interest and principal payments, as is the situation with our down-case scenario. This once again helps underline the fact that our chosen leverage is well in line with the present market and firm conditions (Greisen, 2017; Pitchbook, 2017). The 'up' case scenario is labeled '2', while the down case scenario is labeled '3'.

		Scenario		
		2	1	3
Leverage	95,0%	75,5%	64,7%	44,6%
	90,0%	62,5%	52,8%	35,1%
	85,0%	54,6%	45,6%	29,6%
	80,0%	49,0%	40,6%	25,8%
	75,0%	44,7%	36,8%	23,1%
	70,0%	41,3%	33,8%	20,9%
	65,0%	38,6%	31,3%	19,2%
	60,0%	36,2%	29,3%	17,8%
	55,0%	34,2%	27,5%	16,7%
	50,0%	32,5%	26,0%	15,7%
	45,0%	30,9%	24,7%	14,8%
	40,0%	29,6%	**23,5%**	14,1%
	35,0%	28,3%	22,5%	13,4%
	30,0%	27,2%	21,6%	12,8%
	25,0%	26,2%	20,7%	12,3%
	20,0%	25,3%	19,9%	11,8%
	15,0%	24,4%	19,2%	11,3%
	10,0%	23,7%	18,6%	10,9%
	5,0%	22,9%	18,0%	10,6%
	0,0%	22,3%	17,4%	10,3%

Table 23 - Compiled by the authors

15.3 Sales

Another major component worth testing the sensitivity effect on return is the CAGR related to A&F's overall sales. As our sales is built on a bottom-up approach of the total amount of square feet in the US and Internationally, the sales component has been tested by both lowering and raising the underlying sales efficiency indicators, to generate a wanted CAGR, and henceforth led to different equity and return values. Furthermore, as other components are directly related to sales, this sensitivity analysis does not heed to the ceteris paribus example, of showing an isolated effect, as these are affected as sales change.

In table 24, it can be seen that changes in sales growth, at 0,5% interval levels, does have an effect on our return, although its effect isn't that noticeable. With an overall increase in sales of only 2,2%, even though it has a derived effect on the level of EBITDA, the return for our base case scenario is still almost 20%. In this case, the effects and certainty with which our base case provides revenue growth, does not seem to be of large importance, as a significant return is still generated solely by focusing the business towards profitability and the improvement of the EBITDA margin.

Sales Growth	2,2%	2,7%	3,2%	3,7%	4,2%	4,7%	5,2%	5,7%	6,2%	6,7%
EBITDA	374	390	408	426	438	465	484	506	528	551
EV at Exit	2066	2153	2249	2348	2418	2565	2672	2790	2913	3041
Equity to GP	2106	2193	2289	2387	2457	2603	2710	2827	2949	3077
IRR	19,3%	20,1%	20,9%	21,8%	22,4%	23,5%	24,4%	25,3%	26,1%	27,0%
CoC	2,88	3,00	3,13	3,26	3,36	3,56	3,70	3,86	4,03	4,20

Table 24 - Compiled by the authors

15.4 EBITDA / Profitability

As the EBITDA level is directly related to the valuation of our transaction, the final component we will test the sensitivity of, in relation to our returns, is the EBITDA-margin (target) that the EBITDA will extrapolate towards, as explained in the forecasting section of the income statement. As PE funds have proved to be effective at managing costs, the derived effects should be measureable directly at the EBITDA-level.

As table 25 shows, the sensitivity of returns in relation to the EBITDA-margin can be seen at intervals of 0,5%. It is quite clear, that the percentage point changes of the EBITDA-target has a significantly larger effect on the derived return, than for example sales growth did. Even with an EBITDA-margin at a level of 8%, which was the margin level of 2015, a return of 14,2%, ceteris paribus, can be achieved. If for example the PE fund is able to increase the EBITDA-margin level to that of the most profitable competitors, to levels of +15%, the fund has suddenly amassed yearly returns of above 30%! The derived effect from changes to the EBITDA margin is imminent, as the IRR changes as much as 22 percentage points from a derived target of 7% to 15%. We believe based on this, that the largest value-creating component of the model is the EBITDA-margin the PE fund is able to obtain.

EBITDA-Margin (target)															
7,0%	7,5%	8,0%	8,5%	9,0%	9,5%	10,0%	10,5%	**11,0%**	11,5%	12,0%	12,5%	13,0%	13,5%	14,0%	14,5%	15,0%
10,0%	12,2%	14,2%	16,1%	17,8%	19,3%	20,8%	22,2%	23,5%	24,8%	26,0%	27,1%	28,2%	29,3%	30,3%	31,3%	32,2%

Table 25 – Compiled by the authors

16. Value Creation

In an attempt to identify the value creation contributed by the fund's strategic changes, we have tried to separate the value contribution, measured as the difference in total equity, to the different components of our income statement. The total value created in our base case is $1.871,07 million after transaction costs, as this is the difference between the stake invested and the stake gained.

As discussed in the sensitivity analysis, sales did not show to have as substantial an impact on the IRR as the EBITDA-margin did. However, the actual value contribution gained from the sales increase is calculated, by deriving how big of an increase sales growth would contribute to the EBITDA. The actual value from sales growth is calculated with the following equation:

$$Sales\ Growth\ value = (Exit\ Revenue - Entry\ Revenue) * EBITDA\ Margin_{Entry} * Entry\ Multiple$$
$$= (\$4.481,0\ million - \$3.326,7\ million) * 6,3\% * 5,52 = \$403,1\ million$$

By multiplying the sales growth on the initial EBITDA margin at entry, the value does not account the value created by an increase in this margin, and thus isolates the sales growth effect. As shown in figure 25, the sales growth contributes 21,5% of the total value created in the LBO. The explanation behind this value creation is partly attributable to the first underlying strategic initiative of increasing the international store presence. As the investments into stores are directly translated into sales growth, the increased international presence is a large driver behind this particular value creation. Furthermore, by optimizing the inventory management, we expect that the amount of price reductions would decrease, thus having a direct impact on the average sales price, and our margins. Finally, we expect that by re-targeting the brands towards different consumer segments, A&F would avoid any further cannibalization, thus positively affecting sales.

As the literary review discussed, a large part of value creation in LBOs is a result from operational improvements. As our valuation is based on an EBITDA-multiple, the operational improvements are attributable to the Gross-margin and the Operating-margin, and thus their effect on the EBITDA margin. To separate the attributable value creation and link it to the strategic changes, they have been calculated separately. The value created by improvements in the gross margin has been calculated accordingly:

$$Gross\ Margin\ Value$$
$$= (Gross\ Margin_{Exit} - Gross\ Margin_{Entry)} * Exit\ Revenue * Entry\ Multiple$$
$$= (74,0\% - 71,0\%) * \$4.481 * 5,52 = \$747,1\ million$$

The strategic initiatives further attributable to the gross margin value, counts our increased focus on inventory management. This initiative should increase margins because of the expected decrease in price reductions. Further, the value created should also reflect the increased cooperation with suppliers and the attempt of optimizing costs through cost saving initiatives with suppliers on interdependent value chain activities, such as distribution optimization. Finally, the effects from implementing fabric platforming should further affect positively, as we expect the average cost per item is reduced by scaling production inputs.

The final component related to the strategic initiatives, is the value derived from operational improvements, which has been calculated with the following equation:

$$\begin{aligned} Operating\ Margin\ Value \\ = \left(Operating\ Margin_{Exit} - Operating\ Margin_{Entry}\right) * Exit\ Revenue \\ * Entry\ Multiple = (54,65\% - 53,62\%) * \$4.481\ million * 5,52 = \$253,0\ million \end{aligned}$$

As many of the operating costs are directly related to an increase in operations, it is no surprise that the operating margin contribution is only 13,5% of the created value. However, we expect this value to be attributable to the efforts into making the E-commerce operation leaner, by enabling initiatives such as the in-store pickup. Thus, decreasing A&F's shipping and handling costs, positively affecting the operating margin. As discussed in the forecasting section, the effects from these aren't major, which is the reason why the value contribution is only of this size.
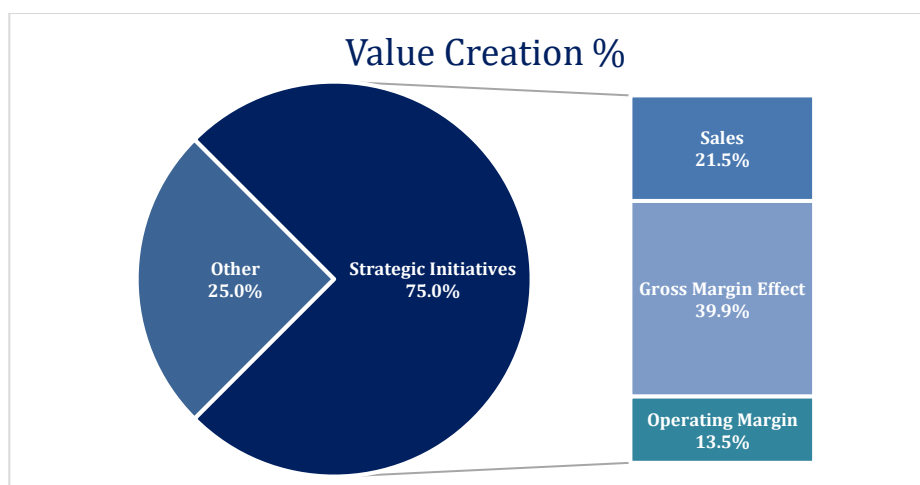
Figure 25 - Compiled by the authors

Finally, it is worth mentioning that the reason for why we are using the entry multiple in the aforementioned formulas is to be able to separate the value created due to a multiple expansion or contraction, but since the entry and exit multiples are the same, no value is attributable to this.

Overall, the strategic initiatives and their underlying value creation accounts for 75% of the value created through our LBO, which leaves 25% of the total value creation unaccounted for. Even though 25% of the remaining value is unexplained, it is highly likely that the leverage accounts for a majority of the remaining value, as it expected to be a major value-adding component.

As the literature review discussed, the financial engineering is a major value creation component. One of its main functions is to function as a lever on the IRR, decreasing the equity contribution needed in the transaction. As a result, we have chosen to measure the value creation from leverage through its impact on the IRR, rather than the absolute dollar amount.

As discussed in the sensitivity analysis of leverage, the return relationship follows an exponential function, as seen in figure 24. By excluding the leverage from our base case, the effect on return showed to be a reduction in the IRR of approximately 6%, which means that just above 25% of our IRR is due to increased leverage. However, if the debt level used were to increase, the value created from its effects would increase remarkably, due to its exponential impact on IRR.

17. Discussion

In the following section, we aim to discuss the most important elements of our thesis, and how the choices we have made, and point of view of our analysis has affected our derived results and final assessment of our hypothetical LBO of A&F.

With a share price reaching a 17-year low, constantly declining margins and a like for like sales that has been negative for 15 of the last 16 quarters, it is clear that A&F has become a favorable LBO target for a potential PE-fond. Thus, A&F was selected with the purpose of evaluating it as a target and see if a PE fund, through the implementation of diverse value creating activates, could earn an acceptable return. In addition, this thesis has also served as a means of showcasing the different facets of the commonly used LBO model, which has been used as a tool to analyze A&F's potential as a LBO target. When doing so there are of course multiple firms that could have served equally as well as a target company for the purpose of showcasing the LBO model, but since it was imperative for the authors to also select a company, which represented a realistic and potential target at the time of selection, A&F has been deemed to be a more than satisfying choice.

Furthermore, another very important aspect has been the chosen acquisition date of A&F, which has been of great importance for the case. If A&F were to have been analyzed as a potential target during 2011 the outcome of this paper could have been a complete different one. This is due to A&F's, by then, high share price and booming business, which most likely would have proposed far less opportunities for efficiency improvements. Thus the time aspect has been an important factor for the potential return found in this paper, due to A&F's very favorable share price at the date of acquisition. Thus, an acquisition made at a different date could have resulted in a very different result.

Moreover, the final results shown in this thesis has been greatly dependent on the PE-funds ability to implement our proposed strategic changes, and, even more important, its ability to change the target audience's perception of the brand. A failure to do so would most likely have created another result than the one shown in this paper, which is a limitation we have been aware of. Moreover, as AEO has shown, a successful transformation of the outdated teen retailer business model is imperative for survival in the now fiercely competitive retail industry. AEO has therefore been of great importance throughout this thesis, due to its successful transformation. A lack of such role model company could have severely limited our ability to realistically assess the impact of strategic changes and costs related to such, which in turn could have provided a different result.

On the other hand, due to the importance of the PE fund's own expertise within retail, for the success of our proposed changes, a different strategic direction could have been chosen if the PE-fund did not possess the specialized expertise needed to turn around the two brands and especially A&F's Abercrombie brand. Such alternative strategy might have been only to buy the Hollister brand through a spinoff from A&F's side. Thus, focusing on the development of the Hollister brand, which, relative to Abercrombie, have shown signs of strength in the latest period, wouldn't leave the PE fund too dependent on a successful transformation of the current brand perception, which could have proven to be a more viable option under such assumptions.

Another important assumption for this thesis, which could potentially propose a limitation, has been the assumption that growth is mainly generated by the opening of new stores, which as a result has resulted in large capital expenditures to support the growth. This has resulted in large forecasted capital expenditures, which has had a negative result on our estimated IRR and obtained leverage level, due to its negative effect on the FCF available for debt service. With the growing importance of the direct to consumer segment of retail, it is therefore quite possible that this assumed way of growing is becoming obsolete. Thus, our assumed way of growing could be contrasted against the alternative way of growing through an increased e-commerce presence and reduction in stores, which would have required far less capital expenditures and potentially resulted in an increased leverage level and a higher IRR. Unfortunately, the research made in this area is not as extensive, which is why this will be discussed further in section 18.1, where future research will be the focus.

Our sales estimate, has despite its detailed estimation, been subject to limited information in terms of how different countries, segments and products are performing both in terms of sales volume and margins. Thus, our estimation of sales and related strategic changes has been subject to limitations due to the limited access to a more detailed composition of sales. Looking at our thesis in the light of this, it is worth mentioning that access to e.g. sales numbers, relative size and margins for A&F's apparel and sportswear would have enabled us to conduct a more thorough analysis of the relative strength of respective brands, thus making it possible to implement more detailed and accurate value adding activities.

Furthermore, as mentioned in section 15, the leverage obtained can be proven to have an exponential relationship to the final IRR. Thus, a higher obtained leverage, in A&F's case, could have had a substantial effect on the PE-funds final IRR, which is why a discussion regarding the set level is of importance. Although increased leverage would have resulted in a higher IRR, it has been deemed unrealistic to assume a higher debt level since an increase most likely, under our current assumptions, would have resulted in a failure

to meet the covenants established by the bank. On the contrary, if less capital expenditures were to be needed to support the future growth, the scene could have been different, with potentially higher returns as a result.

An element central to the LBO-model is the assumed entry and exit multiple, and under our current assumptions, our exit and entry multiple has been estimated to equal each other. Thus, no value is assumed to be created as a result of a multiple expansion. Thus, an argument could be made that, as our regression showed, a higher multiple at exit would have been justified, which would have had a substantial effect on our estimated exit year, IRR and CoC. On the contrary, if deal multiples were to decrease during the holding period and the estimated efficiency gains were to be smaller than expected, a multiple reduction is equally as plausible with a decreased IRR and CoC as a result.

Furthermore, our assumed holding period and year of exit has been derived from our IRR and CoC. Thus, any potential bids received throughout the holding period has not been taken into consideration, which, if there would have been any, could have resulted in an earlier exit than determined in this thesis. Furthermore, one might also reason that the PE fund has an option to extend or shorten the holding period depending on the profitability. As a result, one might also argue that there might be value embedded in this option, which is something that has not been taken into consideration in our case. It can therefore be argued that our estimated exit year, based on our IRR, could have been different if the value attributable to the PE fund's option-like flexibility would have been incorporated into the model.

In this paper it has been assumed that the PE fund will exit its investment though an IPO. This alternative exit method would of course result in a potential loss of the control premium, which was paid for in relation to the initial acquisition. This, since the vast majority of investors would be minority investors with only a few potential block holders. On the other hand, the PE fund could potentially, if the exit occurs during similar stock market conditions as today, capture additional value in an IPO due to high valuations on the public market. On the contrary, if market conditions were to be unfavorable for an IPO, it could prove to be more lucrative to resell A&F to either another PE fund or a strategic buyer such as AEO. Furthermore, in the case of a strategic buyer, a discussion might have to be made about our applied exit multiple, which potentially could be expanded upwards due to synergies gained through the purchase. Moreover, it is also possible that a control premium would have been added to the price and thus it is highly likely that our current assumption of no multiple expansion would have to be revised. As a result, our IRR and chosen exit year could have changed and thus the results would have differed from the one presented in this thesis.

The discussion above also raises the question of whether our case would have looked different if a strategic buyer would have been applied to A&F's case from the beginning, instead of a PE-fund. It is therefore not sure that a PE fund would have been the best alternative for A&F or the one that resulted in the highest value creation. Thus, it is quite possible that a potential strategic buyer, such as AEO, would have been a better alternative due to possible synergies as well as the sector specific knowledge, which such a buyer might possess. Such synergies could involve the potential of leveraging the existing sales force and store fleet, thus making operations leaner.

In the literature on PE funds, it is argued that value is generated though either strategic initiatives, tighter governance, financial engineering, such as leverage, or through a combination of the three. As a result, we have tried to identify how much of the value creation that is attributable to e.g. different strategic initiatives and leverage. The value creation attributable to the different strategic initiatives, which affects sales, costs and in the end margins, is estimated to account for 75% of the total absolute dollar value created during the holding period, with an IRR contribution of similar magnitude. The leverage effect on the other hand, measured by its impact on the IRR, has been found to only account for 25% of the IRR, which is half of the effect found by Acharya et. al. (2013). In relation to this, it is worth mentioning that our obtained leverage level of 40% is far below the 70% found by Acharya et. al. (2013), and due to the exponential effect leverage has on the IRR, we still argue that our result seems to be in line with previous research within the area, this is also since an applied leverage of 70% in our case would have resulted in a similar conclusion to that of the researchers. Moreover, it is likely that our operational improvements have been overestimated, since one might argue that 75% is a lot, but due to the need for a drastic transformation of A&F's business model, supported by both analysts and the company itself, we still believe our estimates to be realistic.

Finally, it would have been both useful and interesting to apply another valuation method to our case, such as an Economic Value Added or DCF analysis, since our results in this thesis is the result from only one applied valuation method. Nonetheless, since the purpose of this thesis was to show the return a PE-fund would be able to achieve, while at the same time illustrate the different facets of the LBO model, such additional analysis has been deemed to lie outside the scope of this thesis. However, it is still worth mentioning that the application of more than one valuation method could have resulted in a different result than the one presented in this thesis.

18. Conclusion

This thesis has through the application of the LBO model together with an extensive analysis, been aiming to determine if a PE fund could earn an acceptable return with A&F as a target company. The analysis has uncovered that A&F is operating in a labor intensive industry which is highly affected by various macro-economic factors such as government regulations, trade agreements, increases in minimum wages, changes in disposable income, fluctuations in commodity prices, changing customer preferences and volatile weather conditions. Furthermore, it has also been discovered that the apparel industry is subject to fierce competition driven by new fashion trends such as fast fashion, an increased demand for shopping online and sportswear's new role as casualwear.

Due to a failure to apprehend these changing trends in the market and maintaining their strong brand image A&F has reached a 17-year low share price with a steady fall in like for like sales and decreased margins due to an increased need for price reductions. Furthermore, with the majority of its revenue generated in the US market, A&F has become heavily dependent on a market, which, compared to e.g. the Asia Pacific region, represents markedly lower future growth prospects.

As a result, a strategy focused on capturing the athleisure trend, building a seamless online experience, expanding into high growth countries such as China, India and United Arab Emirates and rebuilding brand image by focusing on their heritage, has been implemented in an attempt to turn around the now seemingly distressed firm. Thus, value will be created by the establishment of a seamless omnichannel-platform, new product offerings within sportswear to accommodate changing customer preferences, as well as expanding the international presence with the expectation of capturing increased consumption due to growing disposable income. Moreover, the aforementioned strategy will be strongly supported by cost cutting initiatives creating leaner operations, decreased cannibalization through the shift of target audience and a change in corporate culture.

Moreover, for the acquisition of A&F, the PE fund will have to raise a total of $1196,9 million, which includes the 40% purchase premium, negative net debt position and 3% in transaction costs. To cover part of the uses of funds a fairly low leverage multiple of 2,21x, amounting to $464,7 million, has been determined, reflecting A&F's high risk profile and inability to meet established covenants above such level. Thus, the remaining part equaling $732,2 million will be the equity contribution from the PE fund, which includes the $35,1 million in transaction costs.

Furthermore, our chosen exit multiple of 5,52x, from which our EV at exit has been derived, was set to equal our entry multiple. Thus, no multiple expansion has been assumed since a regression analysis, of the

1 year forward EV/EBITDA on the 3 year forward-looking CAGR, was unable to adequately support such expansion. As a result, our EV at exit, after a 6 year holding period, will amount to $2565 million with an equity value of $2680,3 million, giving us an IRR and CoC at exit equal to 23,5% and 3,6x respectively.

Based on the aforementioned, we can therefore, supported by both academia and observed historical PE returns, conclude that a LBO of A&F would yield an acceptable return from a PE fund's perspective. Furthermore, it has been found that an IRR above 20% would be achieved already after 4 years and remain above such level until year 8. Thus, it can also be concluded that a PE fund, given the results found in this thesis, would possess a certain degree of flexibility, which could prove to be very valuable when trying to accurately time the market in relation to a potential exit. However, as our sensitivity analysis has unveiled, A&F would also be a very risky, but potentially profitable case to undertake, with IRR's ranging between 14,1% and 29,6% dependent on future market conditions and degree of success in implementing proposed changes.

Finally, A&F has been found to provide an acceptable return from a PE fund's perspective and despite the involved risk, we still find A&F to be a more than viable option for a potential LBO, due to its rewarding IRR and provided flexibility in terms of exit.

18.1. Future Research

In the past, growth in the retail industry has always been assumed to occur though the opening of new stores and according to Greisen (2017) that's still how growth is assumed to be generated. Nonetheless, with more and more customers preferring to conduct their shopping online it is highly likely that such assumption of growth no longer holds. It would therefore be interesting to through a multivariate regression analysis try to identify if an increased store presence really generates higher growth than the one gained from an increased online presence and then try to identify if such effect would vary with the overall price level of each company. Thus, it would be possible to determining if the way growth is generated is dependent on company specific characteristics rather than being assumed identical for every company. Moreover, it would also be interesting to determine if the level of risk appetite in the market today is different from what it was before the financial crisis in 2008. By adjusting for effects such as the current low interest rate environment it could possible to determine if the market is more willing to take on risk today than what it was in 2008, after various factors has been adjusted for. Finally, it would be interesting to analyze the possibility of a potential spinoff of A&F's Hollister brand as they have shown great improvements in recent years and have come to represent more than 50% of the company's total sales.

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21. Appendix

Appendix 1

Stock price development for A&F.

Appendix 2

E-Commerce retail sales % of total retail – E- Commerce quarterly sales results
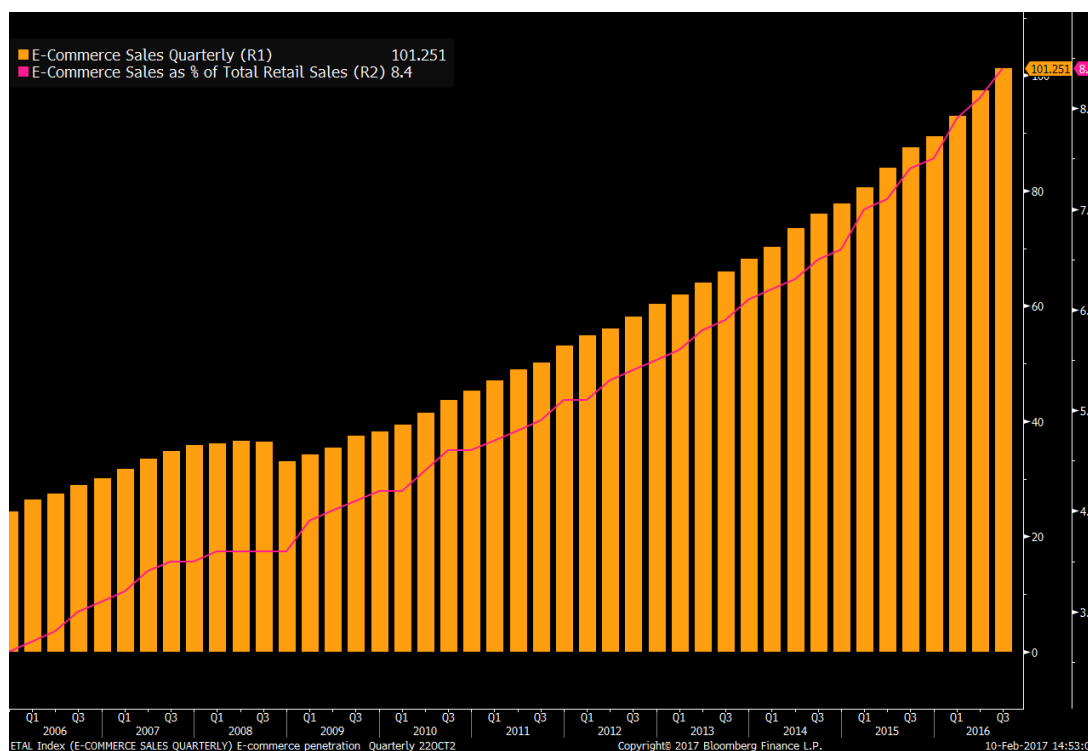
Appendix 3 – A&F Financial Data

Historical Income Statement

Income Statement	Historic				
	2012	2013	2014	2015	2016
USA	3.087,2	2.659,1	2.408,4	2.282,0	2.123,8
INT	1.423,6	1.457,8	1.335,6	1.236,6	1.202,9
Net sales	**4.510,8**	**4.116,9**	**3.744,0**	**3.518,7**	**3.326,7**
Abercrombie	2.086,7	1.894,0	1.771,3	1.641,0	1.487,0
Hollister	2.424,1	2.222,9	1.972,7	1.877,7	1.839,7
Net sales	**4.510,8**	**4.116,9**	**3.744,0**	**3.518,7**	**3.326,7**
COGS	(1.694,1)	(1.541,5)	(1.430,5)	(1.361,1)	(1.298,2)
Gross Profit	**2.816,7**	**2.575,4**	**2.313,6**	**2.157,5**	**2.028,6**
Store & distribution exp. (minus D&A)	(1.365,1)	(1.239,8)	(1.068,8)	(1.000,3)	(981,6)
Rental Expense	(391,2)	(432,6)	(407,9)	(390,2)	(401,5)
MG&A	(473,9)	(481,8)	(458,8)	(470,3)	(453,2)
Other operating income	11,9	(105,1)	(38,2)	(10,2)	18,3
EBITDA	**598,5**	**316,1**	**339,9**	**286,5**	**210,6**
D&A	(224,2)	(235,2)	(226,4)	(213,7)	(195,4)
EBIT	**374,2**	**80,8**	**113,5**	**72,8**	**15,2**
Interest expense	(7,3)	(7,5)	(14,4)	(18,2)	(18,7)
EBT	**366,9**	**73,3**	**99,2**	**54,6**	**(3,5)**
Taxes	(129,9)	(18,6)	(47,3)	(16,0)	11,2
Total Net Income	**237,0**	**54,6**	**51,8**	**38,6**	**7,7**
Net Income from Noncontrolling Interest	-	-	-	(3,0)	(3,8)
Net Income to Common	**237,0**	**54,6**	**51,8**	**35,6**	**4,0**

Historical Balance Sheet

Balance Sheet	Historic				
	2012	2013	2014	2015	2016
Cash	643,5	600,1	520,7	588,6	547,2
Receivables	99,6	68,0	52,9	56,9	93,4
Inventories	427,0	530,2	460,8	436,7	399,8
DTA	32,6	21,8	14,0	-	-
Other current assets	105,2	100,5	116,6	96,8	98,9
Total Current Assets	**1.307,8**	**1.320,6**	**1.165,0**	**1.179,0**	**1.139,3**
PPE	1.308,2	1.131,3	967,0	894,2	824,7
Other Assets	371,3	399,1	373,2	359,9	331,7
Total non-current assets	**1.679,6**	**1.530,4**	**1.340,2**	**1.254,1**	**1.156,5**
TOTAL ASSETS	**2.987,4**	**2.851,0**	**2.505,2**	**2.433,0**	**2.295,8**
Payables	140,4	130,7	141,7	184,2	187,0
Accrued expenses	398,9	322,8	282,7	321,2	273,0
Deffered lease credit	39,1	36,2	26,6	23,3	20,1
ST Debt	-	15,0	2,1	-	-
DTL	112,5	63,5	32,8	6,0	5,9
Total Current Liabilities	**690,8**	**568,2**	**486,0**	**534,7**	**486,0**
LT Debt	63,9	180,7	341,8	333,7	309,4
Deffered lease credits	168,4	140,8	106,4	89,3	76,3
Other liabilities	246,0	231,8	181,3	179,7	172,0
Total non-current liabilities	**478,3**	**553,3**	**629,5**	**602,6**	**557,7**
Total liabilties	**1.169,1**	**1.121,5**	**1.115,5**	**1.137,3**	**1.043,7**
Common Stock + APIC	404,3	434,7	435,2	408,1	397,6
Retained Earnings	2.567,3	2.556,3	2.550,7	2.530,2	2.474,7
OCI	(13,3)	(20,9)	(83,6)	(114,6)	(121,3)
Treasury Stock	(1.140,0)	(1.240,5)	(1.512,6)	(1.532,6)	(1.507,6)
Total stocholers' Equity	**1.818,3**	**1.729,5**	**1.389,7**	**1.291,1**	**1.243,4**
Noncontrolling Interest	-	-	-	4,7	8,6
Total Equity	**1.818,3**	**1.729,5**	**1.389,7**	**1.295,7**	**1.252,0**
TOTAL LIABILITIES AND EQUITY	**2.987,4**	**2.851,0**	**2.505,2**	**2.433,0**	**2.295,8**

Appendix 4

Brand positioning map of the current Brand environment. Compiled by the authors.

Appendix 5 – Down Case Scenario

Forecasted Income Statement

	Pro-forma		Forecast									CAGR
Income Statement	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027	'17 - '27
USA	2.123,8	1.945,9	2.013,3	2.065,3	2.097,6	2.124,7	2.151,7	2.178,4	2.235,8	2.294,8	2.355,3	1,0%
INT	1.202,9	1.287,0	1.406,2	1.547,4	1.661,2	1.764,7	1.874,1	1.989,8	2.082,8	2.180,1	2.282,0	6,6%
Net sales	**3.326,7**	**3.232,9**	**3.419,5**	**3.612,7**	**3.758,8**	**3.889,4**	**4.025,7**	**4.168,2**	**4.318,6**	**4.474,9**	**4.637,3**	3,4%
Abercrombie	1.487,0	1.718,8	2.231,6	2.361,0	2.456,7	2.559,6	2.667,4	2.780,5	2.874,3	2.971,5	3.072,3	7,5%
Hollister	1.839,7	1.514,1	1.188,0	1.251,7	1.302,1	1.329,8	1.358,4	1.387,7	1.444,3	1.503,3	1.564,9	(1,6%)
Net sales	**3.326,7**	**3.232,9**	**3.419,5**	**3.612,7**	**3.758,8**	**3.889,4**	**4.025,7**	**4.168,2**	**4.318,6**	**4.474,9**	**4.637,3**	3,4%
COGS	(1.298,2)	(1.260,8)	(1.326,8)	(1.394,5)	(1.443,4)	(1.485,7)	(1.529,8)	(1.583,9)	(1.641,1)	(1.700,4)	(1.762,2)	3,1%
Gross Profit	**2.028,6**	**1.972,1**	**2.092,8**	**2.218,2**	**2.315,4**	**2.403,6**	**2.496,0**	**2.584,3**	**2.677,5**	**2.774,4**	**2.875,1**	3,5%
Store & distribution exp.	(981,6)	(892,6)	(995,6)	(1.061,5)	(1.104,4)	(1.139,2)	(1.175,0)	(1.224,2)	(1.276,1)	(1.329,5)	(1.384,5)	3,5%
Rental Expense	(401,5)	(378,5)	(365,9)	(393,2)	(417,3)	(440,4)	(464,9)	(490,7)	(518,0)	(546,9)	(577,4)	3,7%
MG&A	(453,2)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	0,6%
Operating lease	-	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	--%
Other operating income	18,3	(9,3)	(10,0)	(10,6)	(11,1)	(11,6)	(12,0)	(12,5)	(13,1)	(13,7)	(14,3)	--%
EBITDA	**210,6**	**181,3**	**211,0**	**242,5**	**272,2**	**302,1**	**333,7**	**346,5**	**360,0**	**374,0**	**388,5**	6,3%
D&A	(195,4)	(185,4)	(180,6)	(176,7)	(173,5)	(178,4)	(172,9)	(166,8)	(172,7)	(179,0)	(185,4)	(0,5%)
EBIT	**15,2**	**(4,1)**	**30,3**	**65,8**	**98,7**	**123,6**	**160,8**	**179,6**	**187,2**	**195,0**	**203,1**	29,6%
Interest expense	(18,7)	(17,9)	(17,2)	(16,5)	(16,1)	(15,1)	(14,4)	(13,7)	(13,0)	-	-	--%
EBT	**(3,5)**	**(22,0)**	**13,1**	**49,3**	**82,6**	**108,5**	**146,4**	**165,9**	**174,2**	**195,0**	**203,1**	--%
Taxes	11,2	-	(3,9)	(14,8)	(24,8)	(32,6)	(43,9)	(49,8)	(52,3)	(58,5)	(60,9)	--%
Net Income	**7,7**	**(22,0)**	**9,2**	**34,5**	**57,8**	**76,0**	**102,5**	**116,2**	**121,9**	**136,5**	**142,2**	--%

Forecasted Balance sheet

	Pro-forma					Forecast					
Balance Sheet	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Cash	32,9	32,9	32,9	32,9	32,9	32,9	32,9	32,9	(232,7)	(118,9)	(0,1)
Receivables	93,4	78,6	81,8	86,0	87,9	89,9	92,1	94,4	98,3	101,9	105,6
Inventories	399,8	437,0	451,9	472,2	480,5	488,5	498,1	512,0	533,1	552,5	572,5
Other current assets	98,9	-	-	-	-	-	-	-	-	-	-
Total Current Assets	**625,0**	**548,5**	**566,6**	**591,1**	**601,4**	**611,3**	**623,1**	**639,3**	**398,8**	**535,4**	**678,1**
Goodwill	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7
PPE	824,7	716,0	721,9	731,8	741,5	741,3	741,1	741,0	741,0	741,1	741,1
Other Assets	331,7	-	-	-	-	-	-	-	-	-	-
Total non-current assets	**1.166,1**	**725,7**	**731,6**	**741,5**	**751,2**	**750,9**	**750,8**	**750,7**	**750,7**	**750,7**	**750,8**
TOTAL ASSETS	**1.791,1**	**1.274,2**	**1.298,2**	**1.332,5**	**1.352,5**	**1.362,2**	**1.373,9**	**1.390,0**	**1.149,5**	**1.286,2**	**1.428,8**
Payables	187,0	193,9	200,5	209,5	213,2	216,8	221,0	227,2	236,6	245,1	254,1
Accrued expenses	273,0	-	-	-	-	-	-	-	-	-	-
DTL	5,9	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	**465,9**	**193,9**	**200,5**	**209,5**	**213,2**	**216,8**	**221,0**	**227,2**	**236,6**	**245,1**	**254,1**
Term Loan A	278,8	239,0	199,2	159,3	119,5	79,7	39,8	(0,0)	(0,0)	(0,0)	(0,0)
Term Loan B	650,6	650,6	650,6	650,6	650,6	650,6	650,6	650,6	-	-	-
Mezzanine	-	-	-	-	-	-	-	-	-	-	-
Revolver	-	6,7	68,3	112,4	124,7	108,8	66,7	11,8	300,0	300,0	300,0
Other liabilities	172,0	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	**1.101,4**	**896,3**	**918,1**	**922,4**	**894,8**	**839,0**	**757,1**	**662,4**	**300,0**	**300,0**	**300,0**
Total liabilties	**1.567,4**	**1.090,3**	**1.118,6**	**1.131,9**	**1.108,0**	**1.055,8**	**978,2**	**889,6**	**536,6**	**545,1**	**554,1**
Common Stock	223,8	223,8	223,8	223,8	223,8	223,8	223,8	223,8	223,8	223,8	223,8
Retained Earnings	-	(39,9)	(44,2)	(23,1)	20,7	82,6	172,0	276,6	389,2	517,3	651,0
Total Equity	**223,8**	**183,9**	**179,6**	**200,6**	**244,5**	**306,4**	**395,7**	**500,4**	**612,9**	**741,0**	**874,8**
TOTAL LIABILITIES AND EQUITY	**1.791,1**	**1.274,2**	**1.298,2**	**1.332,5**	**1.352,5**	**1.362,2**	**1.373,9**	**1.390,0**	**1.149,5**	**1.286,2**	**1.428,8**

Forecasted Working Capital

Measured in days	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Days of revievables	8,74	8,58	8,50	8,41	8,33	8,25	8,17	8,17	8,17	8,17
Days of Invetories	124,71	122,38	121,21	120,05	118,88	117,71	116,55	116,55	116,55	116,55
Days of Payables	-55,34	-54,30	-53,79	-53,27	-52,75	-52,24	-51,72	-51,72	-51,72	-51,72
CCC	78,11	76,65	75,92	75,19	74,46	73,73	73,00	73,00	73,00	73,00

Forecasted Capital Expenditure

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Capex	276,68	186,56	186,58	183,18	178,22	172,75	166,73	172,74	178,99	185,49
Percentage of Revenue	8,56%	5,46%	5,16%	4,87%	4,58%	4,29%	4,00%	4,00%	4,00%	4,00%

Forecasted Free Cash Flow

	Historic	Forecast									
Free Cash Flow	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
EBIT	15,2	(4,1)	30,3	65,8	98,7	123,6	160,8	179,6	187,2	195,0	203,1
Tax	(4,6)	1,2	(9,1)	(19,7)	(29,6)	(37,1)	(48,2)	(53,9)	(56,2)	(58,5)	(60,9)
Depreciation	195,4	185,4	180,6	176,7	173,5	178,4	172,9	166,8	172,7	179,0	185,4
CapEx	(126,0)	(276,7)	(186,6)	(186,6)	(183,2)	(178,2)	(172,8)	(166,7)	(172,7)	(179,0)	(185,5)
Change in NWC (cash down)	3,2	(15,5)	(11,5)	(15,4)	(6,6)	(6,4)	(7,6)	(10,0)	(15,7)	(14,3)	(14,9)
Disposal	-	200,0	-	-	-	-	-	-	-	-	-
FCF	83,3	90,4	3,8	20,8	52,8	80,4	105,1	115,8	115,4	122,2	127,2

Forecasted Debt Schedule

	Historic	Forecast									
Debt Schedule	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Debt											
Term Loan A	139,4	119,5	99,6	79,7	59,7	39,8	19,9	-			
Term Loan B	325,3	325,3	325,3	325,3	325,3	325,3	325,3	325,3	-	-	-
Revolver	-	-	-	7,8	-	-	-	-	-	-	-
Total Debt w/o Revolver	464,7	444,8	424,9	412,8	385,1	365,1	345,2	325,3	-	-	-
Interest Expense											
Term Loan A		(4,9)	(4,2)	(3,5)	(2,8)	(2,1)	(1,4)	(0,7)	-	-	-
Term Loan B		(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	-	-
Revolver		-	-	-	(0,3)	-	-	-	-	-	-
Interest Expense		(17,9)	(17,2)	(16,5)	(16,1)	(15,1)	(14,4)	(13,7)	(13,0)	-	-
Principal Payment											
Term Loan A		(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	-	-	-
Term Loan B		-	-	-	-	-	-	-	(325,3)	-	-
Revolver		-	-	7,8	(7,8)	-	-	-	-	-	-
Principal Payment		(19,9)	(19,9)	(12,1)	(27,7)	(19,9)	(19,9)	(19,9)	(325,3)	-	-
Cash Flow											
Beginning Cash		32,9	64,0	35,8	32,9	46,7	96,6	171,8	258,1	39,0	161,2
Change in Cash w/o Revolver		31,1	(28,2)	(10,7)	21,6	49,9	75,1	86,3	(219,1)	122,2	127,2
Ending Cash w/o Revolver		64,0	35,8	25,1	54,5	96,6	171,8	258,1	39,0	161,2	288,4
Revolver		-	-	7,8	(7,8)	-	-	-	-	-	-
Ending Cash		64,0	35,8	32,9	46,7	96,6	171,8	258,1	39,0	161,2	288,4

Valuation

Exit Valuation	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
EBITDA	210,6	181,3	211,0	242,5	272,2	302,1	333,7	346,5	360,0	374,0	388,5
Enterprise Value on exit	1.161,8	1.000,4	1.163,8	1.337,9	1.501,8	1.666,3	1.840,9	1.911,3	1.985,7	2.063,0	2.143,2
Cash	32,9	64,0	35,8	32,9	46,7	96,6	171,8	258,1	39,0	161,2	288,4
Total Debt	(464,7)	(444,8)	(424,9)	(412,8)	(385,1)	(365,1)	(345,2)	(325,3)	-	-	-
Equity Value on Exit	730,0	619,6	774,7	958,1	1.163,5	1.397,8	1.667,4	1.844,1	2.024,7	2.224,1	2.431,6
Transaction cost	(34,9)	(30,0)	(34,9)	(40,1)	(45,1)	(50,0)	(55,2)	(57,3)	(59,6)	(61,9)	(64,3)
Equity Stake	695,1	589,6	739,8	917,9	1.118,4	1.347,8	1.612,2	1.786,7	1.965,1	2.162,2	2.367,3
Dividends	-	-	-	-	-	-	-	-	-	-	-
Initial Equity Investment	732,2										

Return Analysis

GP return	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Initial Equity	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)
Equity Value at Exit	589,6	-	-	-	-	-	-	-	-	-
		739,8	-	-	-	-	-	-	-	-
			917,9	-	-	-	-	-	-	-
				1.118,4	-	-	-	-	-	-
					1.347,8	-	-	-	-	-
						1.612,2	-	-	-	-
							1.786,7	-	-	-
								1.965,1	-	-
									2.162,2	-
										2.367,3
IRR	(19,5%)	0,5%	7,8%	11,2%	13,0%	14,1%	13,6%	13,1%	12,8%	12,5%
CoC	0,8x	1,0x	1,3x	1,5x	1,8x	2,2x	2,4x	2,7x	3,0x	3,2x

Appendix 5 – Up scenario

Forecasted Income Statement

Income Statement	Pro-forma 02-2017	Forecast 02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027	CAGR '17 - '27
USA	2.123,8	1.945,9	2.013,3	2.175,6	2.324,7	2.474,4	2.630,4	2.792,7	2.866,5	2.942,2	3.020,0	3,6%
INT	1.202,9	1.287,0	1.406,2	1.568,9	1.707,0	1.836,5	1.974,4	2.121,2	2.220,4	2.324,3	2.433,0	7,3%
Net sales	3.326,7	3.232,9	3.419,5	3.744,5	4.031,6	4.310,9	4.604,8	4.913,9	5.086,9	5.266,5	5.453,0	5,1%
Abercrombie	1.487,0	1.718,8	2.231,6	2.444,3	2.627,7	2.823,0	3.028,2	3.243,9	3.350,4	3.460,8	3.575,1	9,2%
Hollister	1.839,7	1.514,1	1.188,0	1.300,3	1.404,0	1.488,0	1.576,6	1.670,0	1.736,4	1.805,7	1.877,9	0,2%
Net sales	3.326,7	3.232,9	3.419,5	3.744,5	4.031,6	4.310,9	4.604,8	4.913,9	5.086,9	5.266,5	5.453,0	5,1%
COGS	(1.298,2)	(1.260,8)	(1.299,4)	(1.385,5)	(1.451,4)	(1.508,8)	(1.565,6)	(1.670,7)	(1.729,5)	(1.790,6)	(1.854,0)	3,6%
Gross Profit	2.028,6	1.972,1	2.120,1	2.359,1	2.580,2	2.802,1	3.039,2	3.243,1	3.357,3	3.475,9	3.599,0	5,9%
Store & distribution exp.	(981,6)	(892,6)	(995,6)	(1.131,8)	(1.249,2)	(1.361,7)	(1.478,8)	(1.615,4)	(1.679,2)	(1.744,9)	(1.812,5)	6,3%
Rental Expense	(401,5)	(378,5)	(365,9)	(393,2)	(417,3)	(440,4)	(464,9)	(490,7)	(518,0)	(546,9)	(577,4)	3,7%
MG&A	(453,2)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	(481,8)	0,6%
Operating lease	-	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	(28,6)	--%
Other operating income	18,3	(9,3)	(10,0)	(11,2)	(12,2)	(13,2)	(14,2)	(15,4)	(16,1)	(16,8)	(17,5)	--%
EBITDA	210,6	181,3	238,3	312,5	391,2	476,5	570,9	611,2	633,7	657,0	681,3	12,5%
D&A	(195,4)	(185,4)	(180,6)	(169,0)	(155,5)	(141,0)	(119,9)	(95,2)	(101,8)	(105,4)	(109,1)	(5,7%)
EBIT	15,2	(4,1)	57,7	143,6	235,7	335,5	450,9	516,0	531,9	551,6	572,1	43,7%
Interest expense	(18,7)	(17,9)	(17,2)	(16,5)	(15,8)	(15,1)	(14,4)	(13,7)	(13,0)	-	-	--%
EBT	(3,5)	(22,0)	40,5	127,1	219,9	320,4	436,5	502,3	518,9	551,6	572,1	--%
Taxes	11,2	-	(12,1)	(38,1)	(66,0)	(96,1)	(131,0)	(150,7)	(155,7)	(165,5)	(171,6)	--%
Net Income	7,7	(22,0)	28,3	88,9	153,9	224,3	305,6	351,6	363,2	386,1	400,5	--%

Forecasted Balance Sheet

Balance Sheet	Pro-forma 02-2017	Forecast 02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Cash	32,9	64,0	85,7	131,3	259,9	464,5	751,8	1.077,8	1.099,7	1.474,6	1.863,4
Receivables	93,4	78,6	76,1	81,2	82,0	82,4	82,7	82,5	86,8	89,9	93,1
Inventories	399,8	437,0	407,0	423,0	415,5	405,7	395,1	400,2	421,2	436,1	451,6
Other current assets	98,9	-	-	-	-	-	-	-	-	-	-
Total Current Assets	625,0	579,6	568,8	635,4	757,4	952,6	1.229,6	1.560,5	1.607,8	2.000,6	2.408,1
Goodwill	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7
PPE	824,7	716,0	721,9	731,4	740,1	744,9	748,9	752,0	751,9	751,8	751,7
Other Assets	331,7	-	-	-	-	-	-	-	-	-	-
Total non-current assets	1.166,1	725,7	731,6	741,0	749,7	754,6	758,6	761,6	761,5	761,5	761,4
TOTAL ASSETS	1.791,1	1.305,2	1.300,3	1.376,5	1.507,2	1.707,2	1.988,1	2.322,1	2.369,3	2.762,1	3.169,4
Payables	187,0	193,9	180,6	187,7	184,4	180,0	175,3	177,6	186,9	193,5	200,4
Accrued expenses	273,0	-	-	-	-	-	-	-	-	-	-
DTL	5,9	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	465,9	193,9	180,6	187,7	184,4	180,0	175,3	177,6	186,9	193,5	200,4
Term Loan A	139,4	119,5	99,6	79,7	59,7	39,8	19,9	-	-	-	-
Term Loan B	325,3	325,3	325,3	325,3	325,3	325,3	325,3	325,3	-	-	-
Mezzanine	-	-	-	-	-	-	-	-	-	-	-
Revolver	-	-	-	-	-	-	-	-	-	-	-
Other liabilities	172,0	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	636,7	444,8	424,9	405,0	385,1	365,1	345,2	325,3	-	-	-
Total liabilties	1.102,6	638,7	605,5	592,7	569,4	545,2	520,6	502,9	186,9	193,5	200,4
Common Stock	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5	688,5
Retained Earnings	-	(22,0)	6,4	95,3	249,2	473,5	779,1	1.130,7	1.493,9	1.880,1	2.280,6
Total Equity	688,5	666,5	694,9	783,8	937,7	1.162,0	1.467,6	1.819,2	2.182,4	2.568,6	2.969,1
TOTAL LIABILITIES AND EQUITY	1.791,1	1.305,2	1.300,3	1.376,5	1.507,2	1.707,2	1.988,1	2.322,1	2.369,3	2.762,1	3.169,4

Forecasted Working Capital

Measured in days	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Days of revievables	8,74	8,58	8,50	8,41	8,33	8,25	8,17	8,17	8,17	8,17
Days of Invetories	124,71	122,38	121,21	120,05	118,88	117,71	116,55	116,55	116,55	116,55
Days of Payables	-55,34	-54,30	-53,79	-53,27	-52,75	-52,24	-51,72	-51,72	-51,72	-51,72
CCC	78,11	76,65	75,92	75,19	74,46	73,73	73,00	73,00	73,00	73,00

Forecasted Capital Expenditure

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Capex	276,68	186,56	178,41	164,23	145,81	123,92	98,28	101,74	105,33	109,06
Percentage of Revenue	8,56%	5,46%	4,76%	4,07%	3,38%	2,69%	2,00%	2,00%	2,00%	2,00%

Forecasted Free Cash Flow

	Historic	Forecast									
Free Cash Flow	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
EBIT	15,2	(4,1)	57,7	143,6	235,7	335,5	450,9	516,0	531,9	551,6	572,1
Tax	(4,6)	1,2	(17,3)	(43,1)	(70,7)	(100,7)	(135,3)	(154,8)	(159,6)	(165,5)	(171,6)
Depreciation	195,4	185,4	180,6	169,0	155,5	141,0	119,9	95,2	101,8	105,4	109,1
CapEx	(126,0)	(276,7)	(186,6)	(178,4)	(164,2)	(145,8)	(123,9)	(98,3)	(101,7)	(105,3)	(109,1)
Change in NWC (cash down)	3,2	(15,5)	19,2	(14,0)	3,3	5,0	5,6	(2,6)	(16,0)	(11,4)	(11,8)
Disposal	-	200,0	-	-	-	-	-	-	-	-	-
FCF	83,3	90,4	53,6	77,1	159,6	235,0	317,3	355,5	356,4	374,9	388,8

Forecasted Debt Schedule

	Historic	Forecast									
Debt Schedule	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Debt											
Term Loan A	139,4	119,5	99,6	79,7	59,7	39,8	19,9	-			
Term Loan B	325,3	325,3	325,3	325,3	325,3	325,3	325,3	325,3	-	-	-
Revolver	-	-	-	-	-	-	-	-	-	-	-
Total Debt w/o Revolver	464,7	444,8	424,9	405,0	385,1	365,1	345,2	325,3	-	-	-
Interest Expense											
Term Loan A		(4,9)	(4,2)	(3,5)	(2,8)	(2,1)	(1,4)	(0,7)	-	-	-
Term Loan B		(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	(13,0)	-	-
Revolver		-	-	-	-	-	-	-	-	-	-
Interest Expense		(17,9)	(17,2)	(16,5)	(15,8)	(15,1)	(14,4)	(13,7)	(13,0)	-	-
Principal Payment											
Term Loan A		(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	-	-	-
Term Loan B		-	-	-	-	-	-	-	(325,3)	-	-
Revolver		-	-	-	-	-	-	-	-	-	-
Principal Payment		(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(19,9)	(325,3)	-	-
Cash Flow											
Beginning Cash		32,9	64,0	85,7	131,3	259,9	464,5	751,8	1.077,8	1.099,7	1.474,6
Change in Cash w/o Revolver		31,1	21,7	45,6	128,6	204,5	287,3	326,0	22,0	374,9	388,8
Ending Cash w/o Revolver		64,0	85,7	131,3	259,9	464,5	751,8	1.077,8	1.099,7	1.474,6	1.863,4
Revolver		-	-	-	-	-	-	-	-	-	-
Ending Cash		64,0	85,7	131,3	259,9	464,5	751,8	1.077,8	1.099,7	1.474,6	1.863,4

Valuation

Exit Valuation	02-2017	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
EBITDA	210,6	181,3	238,3	312,5	391,2	476,5	570,9	611,2	633,7	657,0	681,3
Enterprise Value on exit	1.161,8	1.000,4	1.314,7	1.724,1	2.158,2	2.628,4	3.149,2	3.371,9	3.495,9	3.624,6	3.758,2
Cash	32,9	64,0	85,7	131,3	259,9	464,5	751,8	1.077,8	1.099,7	1.474,6	1.863,4
Total Debt	(464,7)	(444,8)	(424,9)	(405,0)	(385,1)	(365,1)	(345,2)	(325,3)	-	-	-
Equity Value on Exit	730,0	619,6	975,5	1.450,4	2.033,1	2.727,8	3.555,7	4.124,4	4.595,6	5.099,2	5.621,5
Transaction cost	(34,9)	(30,0)	(39,4)	(51,7)	(64,7)	(78,9)	(94,5)	(101,2)	(104,9)	(108,7)	(112,7)
Equity Stake	695,1	589,6	936,0	1.398,7	1.968,3	2.648,9	3.461,3	4.023,2	4.490,8	4.990,4	5.508,8
Dividends	-	-	-	-	-	-	-	-	-	-	-
Initial Equity Investment	732,2										

Return Analysis

GP return	02-2018	02-2019	02-2020	02-2021	02-2022	02-2023	02-2024	02-2025	02-2026	02-2027
Initial Equity	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)	(732,2)
Equity Value at Exit	589,6	-	-	-	-	-	-	-	-	-
		936,0	-	-	-	-	-	-	-	-
			1.398,7	-	-	-	-	-	-	-
				1.968,3	-	-	-	-	-	-
					2.648,9	-	-	-	-	-
						3.461,3	-	-	-	-
							4.023,2	-	-	-
								4.490,8	-	-
									4.990,4	-
										5.508,8
IRR	(19,5%)	13,1%	24,1%	28,0%	29,3%	29,6%	27,6%	25,4%	23,8%	22,4%
CoC	0,8x	1,3x	1,9x	2,7x	3,6x	4,7x	5,5x	6,1x	6,8x	7,5x

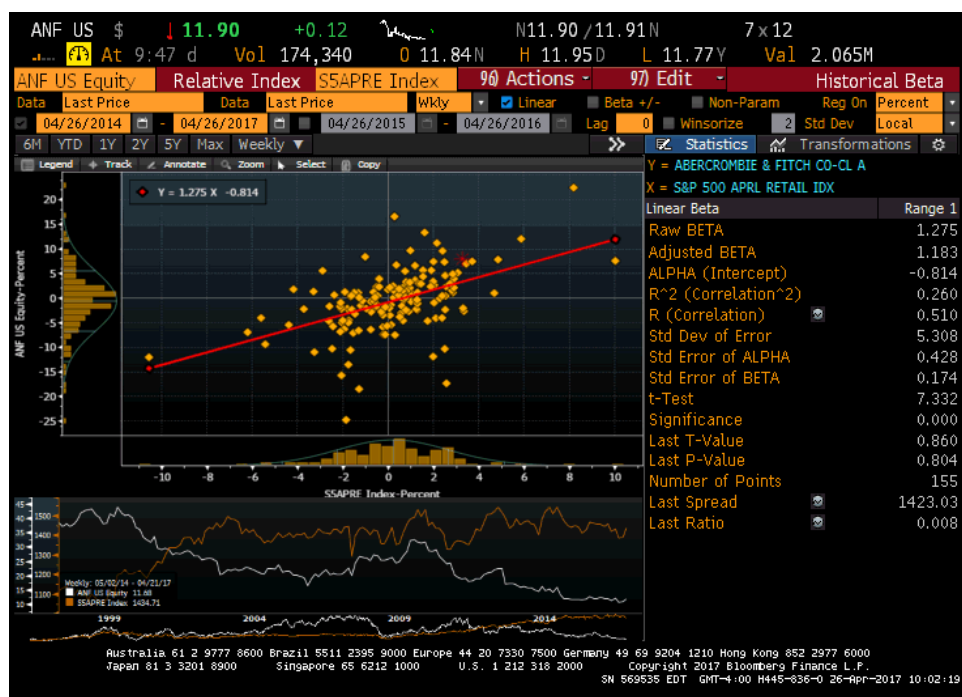**Appendix 6**
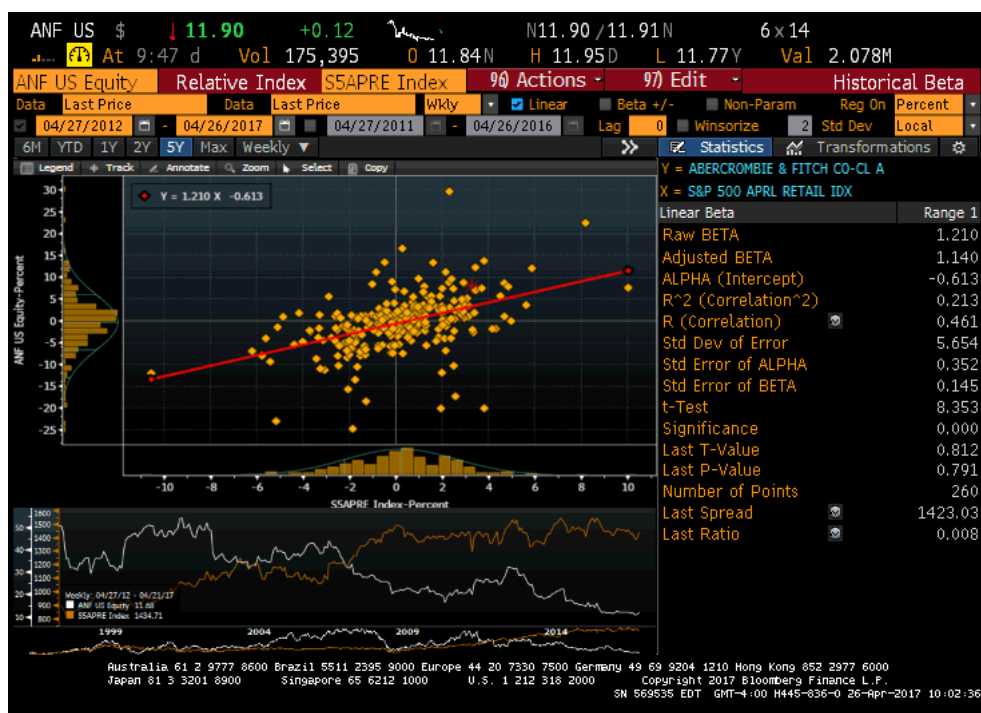
A&F's Beta - S&P 500 Apparel Index as Market Portfolio

1 Year – Figure Compiled from Bloomberg
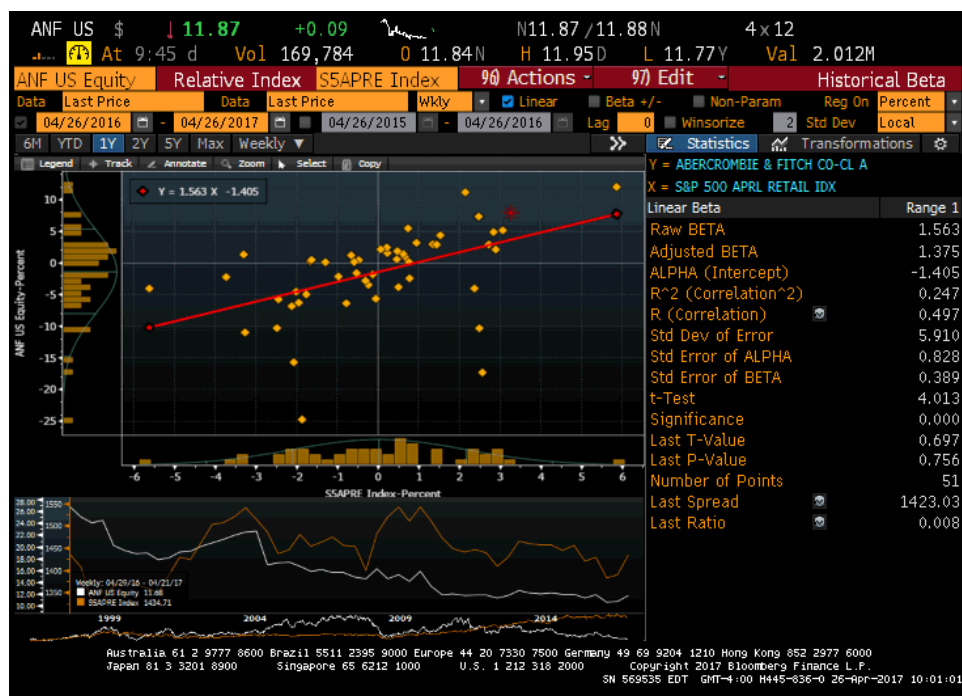
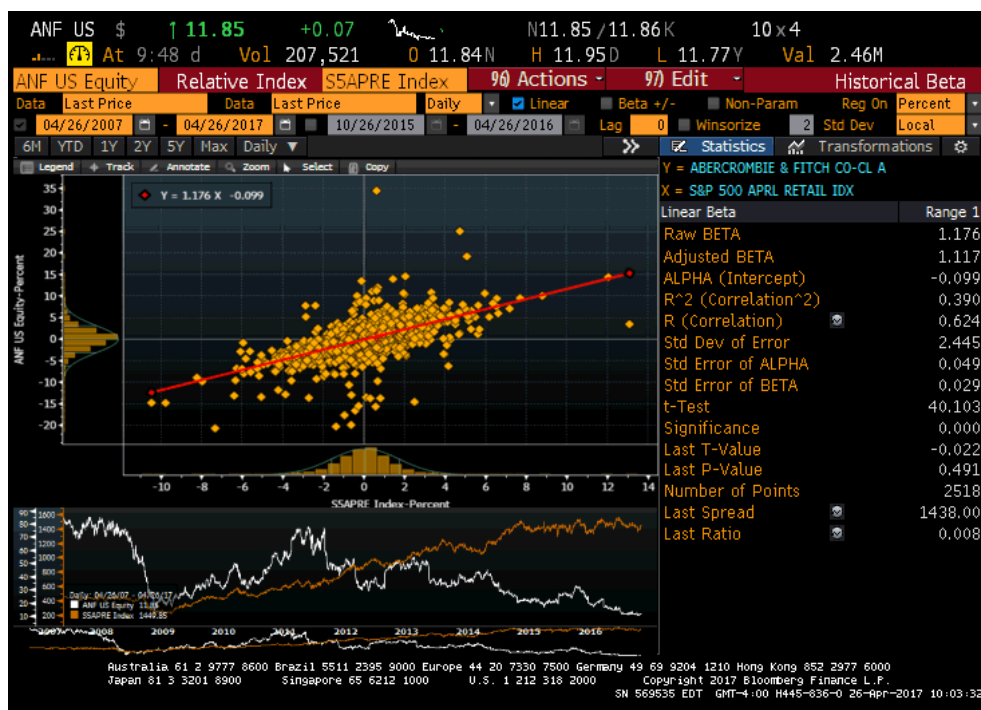
3 Year – Figure Compiled from Bloomberg

5 Years – Figure Compiled from Bloomberg

10 Years – Figure Compiled from Bloomberg

Appendix 7

5-year USD LIBOR SWAP rate. Figure compiled from Bloomberg.

Appendix 8

Descriptive Statistics from regression. Compiled by the authors.

Regression Statistics	
R Square	0,5717
Adjusted R Square	0,5574
Standard Error	1,8419
Observations	32

ANOVA

	df	SS	F	Significance F
Regression	1	135,8382	40,0381	0,0000
Residual	30	101,7818		
Total	31	237,6200		

	Coefficients	Standard Error	P-value	Lower 95%	Upper 95%
Intercept	4,8342	0,3908	0,0000	4,0362	5,6322
CAGR (16-18)	45,5252	7,1947	0,0000	30,8316	60,2188

Data used in the regression. Compiled by the authors.

Name	EV/Est. EBITDA (2018)	CAGR (16-19)
H&M	9,58	9,18%
TJX Companies	10,54	6,41%
GAP Inc.	4,83	0,48%
Ross Stores	11,13	6,13%
L Brands Inc.	7,24	1,67%
Foot Locker Inc.	7,14	4,35%
Burlington Stores Inc.	11,91	6,97%
Urban Outfitters Inc	4,99	2,98%
American Eagle Outfitters	4,22	1,74%
Tailored Brands Inc.	6,55	-0,92%
Abercrombie & Fitch	**2,68**	**-1,99%**
Genesco Inc	5,16	2,72%
Caleres Inc	6,48	4,84%
DSW Inc.	5,31	2,21%
Chico's Inc	5,79	-1,39%
Guess Inc.	4,20	2,78%
Express Inc.	2,77	0,93%
MQ Holding	7,04	2,02%
Finish line	3,89	1,28%
Children's Place Inc	8,00	0,71%
Stein Mart Inc	5,88	1,80%
Shoe Carnival Inc	5,54	2,61%
New York & Co.	2,57	0,10%
Cato Corp	4,81	-1,93%
Buckle Inc	3,98	-3,78%
Zumiez Inc	5,43	3,58%
Citi Trends Inc	3,88	3,14%
Tilly's Inc	3,01	0,53%
Francescas Holding	5,76	8,03%
Duluth Holding	14,16	22,33%
Destination XL Group Inc	7,10	4,95%
Christopher & Banks	6,87	1,61%