

UNDER ARMOUR

APPAREL & FOOTWEAR

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COMPANY REPORT

08 DECEMBER 2015

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Capitalizing on the *Athleisure* trend

UA's growth machine keeps on churning

- **We initiate the coverage of Under Armour (UA) with a BUY recommendation and a target price of USD 92.82 YE 2016.** Given the puny performance of the share, 22.88% decrease in the last 3 months, we see a window of opportunity to buy into a burgeoning growth story.
- **Share:** Historically, the share has performed remarkably well outperforming the S&P 500 by 187% in the last 3 years. The strong market performance of the share was justified, as UA could increase its revenue growth in each of these years, achieving a CAGR of 28% while also improving margins.
- **Growth:** The segments "Direct to consumer", "International", "Women's Apparel" and "Connected Fitness" leave "ample runway for continually high growth for the next years. However, this growth is capital intensive and is pressuring free cash flow and margins short term.
- **Valuation:** Our price target is derived from a discounted cash flow analysis of UA. We feel, although the P/E multiple is high at 59x, the market is still not reflecting the full potential of UA and has over-amplified short term retail concerns believed to be responsible for the decrease in the last month. Thus, our target price is a 19.00% mark-up to the current share price.

Company description

Under Armour develops, markets and distributes branded performance apparel, footwear and accessories. The company uses innovative heat regulating and moisture wicking fabrications to keep the athlete comfortable during exercise. The company's products are used by athletes and sports enthusiasts at all levels, from professional to amateurs. The company was founded in 1996 in Baltimore, USA.

Recommendation:	BUY
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<i>Vs Previous Recommendation</i>	-
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Price Target FY16:	92.82 \$
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<i>Vs Previous Price Target</i>	-
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Price (as of 9-Jan-16)	78.00 \$
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Reuters: NYSE: UA, Bloomberg: UA:US

52-week range (USD)	105.89-63.77
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Market cap (USD m)	16,833.6
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Outstanding shares (m)	215.8
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Free float	83%
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Avg. Daily Volume (last 3M, m)	3.29
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Expected Total Return	19.15%
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Expected Share Price Return	19.00%
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Source: Bloomberg, Analyst's estimates

in % based on 100% at 1st December 2014

Source: Bloomberg

(Values in USD millions)	2014A	2015E	2016E
Revenues	3,084	3,917	4,896
EBITDA	426	548	686
Net Income	208	289	355
EPS (USD)	0.94	1.32	1.63
P/E (x)	82.9	59.2	47.9
Dividends)	-	-	-
EV/EBIT (x)	51	44	37
EV/EBITDA (x)	43	34	28
Net Debt	(313)	719	771
Net Debt/EBITDA (x)	(0.74)	1.21	0.99
ROIC (%)	22.32	19.29	17.13
WACC (%)	6.62	6.62	6.62

Source: Bloomberg, Analyst's estimates

THIS REPORT WAS PREPARED BY "LARS VAJEN", A MASTERS IN FINANCE STUDENT OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS, EXCLUSIVELY FOR ACADEMIC PURPOSES. THIS REPORT WAS SUPERVISED BY ROSÁRIO ANDRÉ WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (SEE DISCLOSURES AND DISCLAIMERS AT END OF DOCUMENT)

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Executive summary

Under Armour is a US-based apparel & footwear company generating revenues of USD 3,084m with mid-twenties revenue growth

Under Armour is a branded performance apparel, footwear and accessories company, which was founded 1996 in Baltimore, United States, went public in 2005 and has since become one of the leaders in the US apparel & footwear market. The company is listed at the New York Stock Exchange (NYSE) under the ticker NYSE:UA and is a constituent of the index S&P 500.

North America is generating more than 90% of revenues, international exposure will be paramount to UA's growth projections

The major share of the company's revenue is generated in North America (91%), whereas only 8% is coming from International¹. The main product category sold is Apparel (74%), but newer categories e.g. Footwear and Connected Fitness are increasing their share and provide ample runway for growing revenues.

Consumer's economic condition, the development of the global apparel & footwear market and international expansion are key to UA's success

Going forward, we anticipate the key factors for the company's success to be: (i) macroeconomic conditions, mainly global GDP growth, household's disposable income and consumer confidence (ii) the development of the global apparel and footwear market and the ability of Under Armour to gain market share (iii) the execution of Under Armour's international expansion.

Revenue forecast shows a 26% CAGR (2014-2018) and strong free cash flow generation after 2016

Our forecasts see revenue growing at a CAGR of 26% and EPS at 23% from 2014 until 2018. Margins are believed to be pressured in the short term due to first-time investments, lower efficiencies in the nascent product categories and currency headwinds. The free cash flow potential is immense, although high capital expenditures lead to negative FCF in 2015/2016. However, mid-to-long term free cash flow generation is strong (CAGR 83% 2017-2020).

UA has high growth expectations implied by the share price (59x P/E), we see an even higher markup justified

UA's current P/E multiple is high at 59x compared to its peers average of 31x (90% premium), also in terms of EV/EBITDA² UA is at a premium of 164% (37 vs 14) to its peers. This shows that high growth for the company is already expected by the market. However, we believe that long term growth and foremost increasing free cash flow not only justify that premium, but also should be rewarded with an even higher markup.

Coverage of UA is initiated with a BUY recommendation and a target price of USD 92.82, a 19% upside

We initiate the coverage of Under Armour with a BUY recommendation and a target price of USD 92.82, representing a 19.00% upside to the current share price. Given the company's strong past success, the management's concentration on sustainable growth and the implications of a further growing global apparel & footwear market, we see the current state as a good opportunity to buy into a winning company for years to come.

¹ as of FY 2014

² Last twelve month

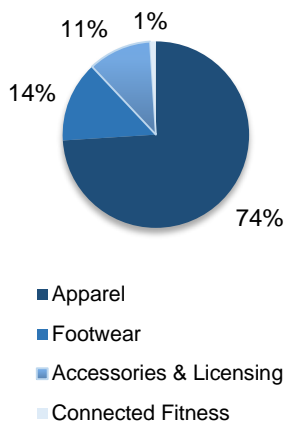
Company overview

UA is a branded sports apparel & footwear company with HQ in Baltimore, USA

Under Armour is a branded performance apparel, footwear and accessories company, which was founded 1996 in Baltimore, United States, went public in 2005 and has since become one of the leaders in the US apparel & footwear market. The company is listed at the New York Stock Exchange (NYSE) under the ticker NYSE:UA and is a constituent of the index S&P 500.

Company description

Figure 1: Revenue by product category in 2014 (%)



Source: Company data

Under Armour is engaged in the development, production and distribution of branded sportswear, designed to keep athletes comfortable while exercising and thereby possibly enhancing their performance. To address customer’s needs the company is using several product lines, which aim at solving particular issues. Among others the offering includes compression, fitted and loose apparel that is made to be either worn in cold, hot or in between temperatures regulating the athlete’s temperature and keeping him comfortable while exercising. The product categories are “Apparel”, “Footwear”, “Accessories & Licensing” and the newly established “Connected Fitness” category (see Figure 1 for the sales composition by product category). The revenue mix by segments shows 90% of net revenues are originated in North America, 9% in International and 1% in the Connected Fitness segment in 2014. The production processes of Under Armour are mostly outsourced to third-parties in developing economies, making use of their substantially lower labor costs, while only the brand-building processes e.g. research & development, design of new products, marketing and all strategic planning is made in-house in Baltimore.

- **Company evolution**

Under Armour grew out of an idea of founder Kevin Plank, a former American Football collegiate athlete at the University of Maryland, who was bothered by constantly having to change t-shirts in training sessions, because they were sweat soaked and became heavy. After extensive research of very light synthetic fibers he developed a t-shirt, which would regulate the athlete’s temperature, keep him dry due to its moisture wicking fabrication and thus enhances the comfort in which the athlete could exercise. Athletic apparel with this kind of characteristics were completely new to the market and were only imitated by competitors like Nike and Adidas years later. Under Armour thus ruled the synthetic performance apparel market and still owns a market share of roughly 70%³. By approaching many universities athletic programs and meeting their athletes and gear coordinators

UA is the market leader for synthetic performance apparel in the US (~70%)

³ United States Synthetic Performance Apparel market, Source: Forbes

Revenues grew from USD 17,000 to USD 3,084m with 21 consecutive quarters of 20%+ growth

personally, demonstrating the benefits of using the newly developed t-shirts, Kevin Plank achieved to make USD 17,000 in sales the first year. From day one, Under Armour was geared towards performance gear for professional athletes and until this day the company is still using the brand image of enhancing athletic performance at the highest levels to cater to the needs of and sell to amateur and casual athletes at all levels who aspire to be as great as professional athletes.

Since its start in 1996, the company has grown from the aforementioned USD 17,000 in revenue to USD 3,084m in 2014 and has shown 21 consecutive quarters of 20% and plus growth, being only one of two companies in the S&P 500 to have accomplished that feat.

Investors are certainly aware of this growth story and have made the company one of the main success stories in recent years. One the day of first issue on November 18, 2005 the share price doubled and since then the share price has increased 1,359% compared to 69% for the S&P 500 or 508% for one of its main competitors Nike during the same time-span.

Figure 3: Ownership structure as of 3rd December 2015

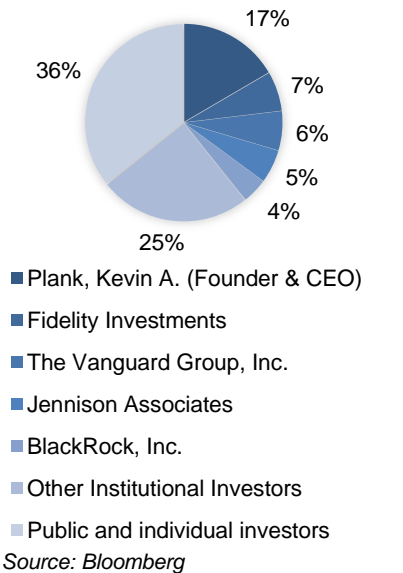
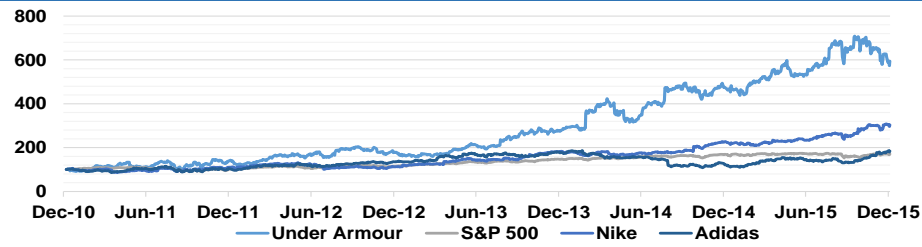


Figure 2: UA's share performance against peers and S&P 500 based to 100% at 1st of December 2010 (in %)

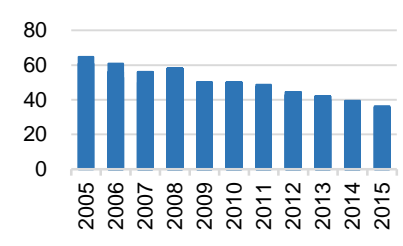


Source: Bloomberg

▪ Shareholder structure and key personnel

The ownership structure of Under Armour is made up of institutional investors holding 64.27% of total shares outstanding and individual investors 35.73%. The top holders in both of these categories are Kevin A. Plank, the founder and CEO of the company with 16.59%, Fidelity Investments (6.52%), The Vanguard Group (6.47%) and Jennison Associates (5.51%). The free float amounts to 83%.

Figure 4: Plank's share count (in millions of shares)



Source: Bloomberg

Until 2015 the company had issued two types of shares, the Class A Common Stock and Class B Convertible Stock. Holders of both Classes have identical rights, except that Class A Common Stock holders are entitled to one vote per share, whereas Class B Convertible Stock holders are entitled to 10 votes per share and they can only be held by the founder Kevin Plank or one of his relatives. As a result Kevin Plank has the majority of voting rights and thus is in control of the company⁴. In the last years however, Plank has been gradually decreasing his share count⁵

⁴ As of 5th January 2016 Plank holds 66.5% of the voting rights.
⁵ For the reasons of asset diversification, tax and estate planning and charitable giving purposes, as he stated it.
 Source: Under Armour SEC Filing

Kevin Plank keeps control of UA (66.5% voting power) by issuing new non-voting rights shares

and to that effect came close to losing majority voting rights. To keep control of the company, while also being able to diversify his portfolio by selling Under Armour shares, Plank instituted the creation of a third class of shares. The newly issued Class C Common Stock are equal to the Class A Common Stock, except they do not carry any voting rights. On the one hand some might see this as troubling, because Plank is tightening his grip at the helm of the company making it nearly impossible for the board or anyone else to terminate his position as CEO in the near future. On the other side, the track record of Plank as CEO speaks for itself, giving shareholders tremendous amount of value through share appreciation and at this point it would be hard to argue for anyone else being a better suitor for this position. Moreover being only 43 years old, Plank has plenty of time to set up a successor in case he loses the competitive nature and drive that helped him build this company.

Merited CFO Dickerson is leaving UA after 12 years with the company to work for start-up Blue Apron...

Recently, Under Armour announced a change in their top personnel ranks as Chief Financial Officer Brad Dickerson declared he is stepping down in February to take on the job as CFO at recipe and fresh ingredient delivery startup Blue Apron. During 12 years with the company, of which he served 8 years as CFO, he guided the company from pre-IPO and USD 281m in revenue to a publicly traded company in the S&P 500 with revenues exceeding USD 3bn. His expertise and financial savviness will surely be missed by the company⁶.

Nonetheless, on the 19th of December 2015, Under Armour announced the successor of Dickerson to be Chip Molloy, former CFO of PetSmart, Inc.⁷. His accolades include being named “Institutional Investor’s CFO of the Year for Specialty Retail” in 2011, having graduated from Navy Fighter Weapons School (“Top Gun”) and serving 10 years as a navy fighter, as well as having earned an MBA from Darden Graduate School of Business. Therefore, highlighting the right mix of business expertise in the retail sector, a competitive nature and the ability to handle pressure in difficult situations, will assumedly resonate well with Kevin Plank and the Under Armour brand⁸.

In consequence we see the departure of Dickerson as a weakening to UA’s management team, but also firmly believe that Molloy is a capable replacement at the position and will not hinder the company from its growth path.

...Chip Molloy, formerly CFO at PetSmart, Inc., is succeeding Dickerson

⁶ Investors reacted to the announcement of Dickerson leaving UA with a 2.4% decline in early trading on the 13th October 2015, Source: Bloomberg

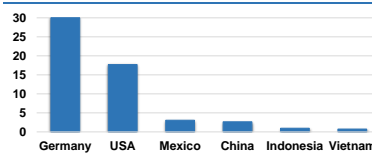
⁷ PetSmart, Inc. is a specialty retailer for pet foods, supplies and services. The company was generating revenues of USD 7,112m in 2014. Chip Molloy served as CFO from 2007 to 20013, afterwards he was working as a Senior Advisor for private equity group Roark Capital Group. Source: Bloomberg, Roark Capital Group

⁸ Shares of Under Armour gained 2.1% on the day of Molloy’s CFO announcement. Source: Bloomberg

▪ Value Chain

Significant parts of the production process are outsourced to third-parties in developing countries to save costs

Figure 5: Textile industry labor costs per hour in USD



Source: Werner International

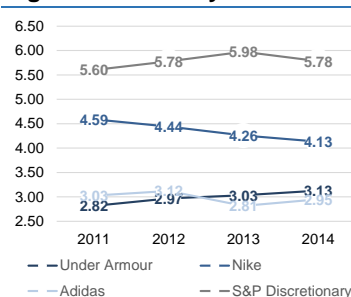
Almost all companies in the sports apparel & footwear market outsource significant parts of their value chain processes to third-parties in developing countries in order to save costs. UA’s raw materials used in the production processes – mainly petroleum based products for the synthetic fibers and cotton – are already being sourced by the manufacturing partners locally, and are then manufactured under UA’s guidance in their factories. Under Armour is pre-approving these suppliers and 65% of the fabrics used in the products come from only five suppliers, enabling a relatively lean monitoring process, but also making the company dependent on them. In case competitors strike a better deal with these suppliers, UA could be ousted from the partnership and severe production delays could be the result.

Moreover, 65% of the manufactured products are made in China, Jordan, Vietnam and Indonesia, thereby making use of the considerably lower labor-costs (one hour of labor in the textile industry in the United States costs USD 17.71 compared to USD 0.74 in Vietnam (see Figure 5).

While the labor-intensive processes are being outsourced to developing countries, the processes that build a competitive advantage in the market are handled in-house in Baltimore, as well as Austin for the Connected Fitness business unit. These processes are the development and design of new products, marketing, as well as parts of the distribution and servicing operations, which are also handled by third party retailers and wholesalers.

Project Glory aims at developing more cost-efficient production processes to save costs and enable local for local manufacturing

Figure 6: Inventory turnover

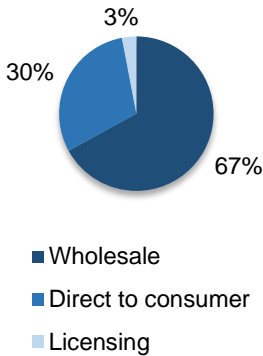


Source: Company data, Bloomberg, Analyst’s research

A new initiative for the revitalization of the manufacturing processes of apparel, which basically hasn’t changed for many years unlike in other industries, is called “Project Glory”. This project is about building a new factory in Baltimore, which is planned to act as an “Advanced Manufacturing Innovation Hub”, where new manufacturing techniques are tested and if successful rolled out to its supply chain. More importantly through the anticipated decrease of labor hours needed to produce products and a more automated production process, UA anticipates to be able to localize the manufacturing process. Thus manufacture in the United States for the US market, manufacture in Europe for the European market and so forth. This will, amongst others, lead to lower shipping and distribution costs and tax benefits for the company. Moreover, this should foremost decrease production costs and especially decrease the time to market for new products, enabling the company to react faster to changing consumer needs. Thereby improving the ability of inventory planning, enabling a decrease in inventory levels and shorter sales cycles. If successful, this project could help increase Under Armour’s profitability with higher gross and operating margins, as well as higher inventory turnover and less working capital.

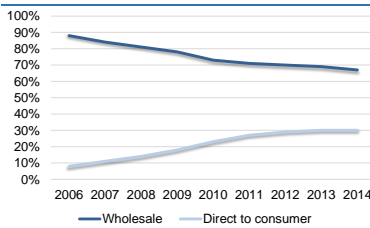
UA aims to shift from wholesale to DTC distribution, as margins are substantially

Figure 7: Revenue by distribution channel in 2014



Source: Company data

Figure 8: Revenue by wholesale and direct to consumer distribution channel



Source: Company data

What is more UA has already shown the capability of improving manufacturing processes, as they reportedly decreased the needed human touches for the manufacturing of a shoe by 30%. However the overall impact of Project Glory on the company’s financials is too early to analyze and recognize in the valuation model.

Under Armour’s distribution works majorly through the wholesale and direct to consumer (DTC) channel and decreasingly through licensing agreements. The wholesale channel mostly includes sporting goods chains like Dick’s Sporting Goods, The Sporting Authority, Macy’s, Foot Locker and Nordstrom among others. These are accountable for 67% of net revenues. The second most important distribution channel is direct to consumer. In 2005 this channel was made up of one United States based e-commerce site and four factory outlet stores, this has grown to 24 e-commerce sites worldwide, about 200 factory and brand houses in the United States and over 300 international retail partner stores owned by Under Armour in 2015. The DTC channel represents 30% of net revenues and is expected to gain importance, as the strategic display of the brand’s products is believed to enable increasing revenues and most importantly margins of DTC sales are estimated to be substantially higher (20% to 30% higher than wholesale sales⁹). Licensing agreements make up 3% of the distribution mix and are mainly originated by the Japanese joint venture company Dome Corporation partly owned by Under Armour.

Product categories

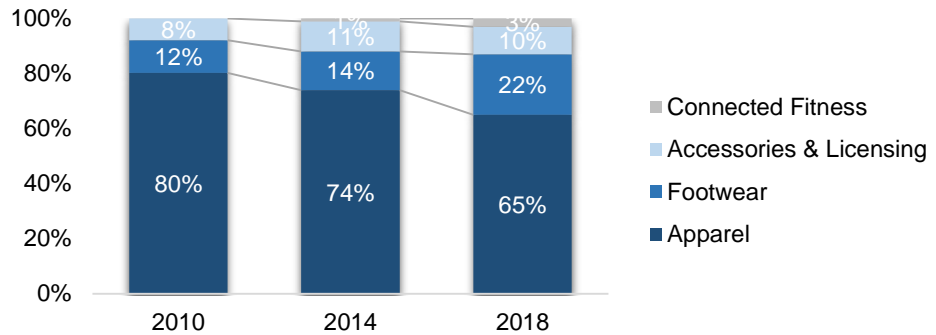
- **Apparel**

Apparel is Under Armour’s cornerstone product category on which the whole company was built. The first sales were generated by a brand defining tight fitted synthetic t-shirt and till this day, apparel is still the product category with the biggest portion of total sales (74%) attributed to it. However this proportion has become smaller in recent years, as UA is increasing its breadth of products and the company is starting to gauge focus to other categories like Footwear and Connected Fitness for which the growth potential is still largely untapped. Still one of the main slogans the company’s CEO likes to emphasize to his employees is “Don’t forget to sell shirts and shoes”, making clear that the company is not planning to abandon its cash cow. The apparel category includes t-shirt, sweaters, shorts, pants, jackets, in the company’s memorable tight-fitted, the loose fitted and regular fitted variations.

“Don’t forget to sell shirts and shoes.” – Founder & CEO Kevin Plank

⁹ To elaborate, Adidas is displaying a gross margin of 41.7% with wholesale distribution, whereas retail (comparable with UA’s DTC distribution) achieved a gross margin of 59.4% in 2014, showing the higher profitability of the retail segment. (Adidas is the only one of Under Armour, Nike and Adidas to display gross margins by distribution channel)

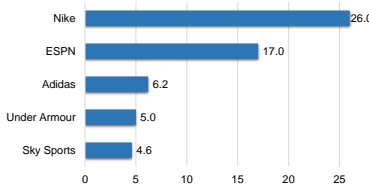
Figure 9: Development of revenue by product category 2010 vs 2014 vs 2018 in %



Source: Company data & guidance for 2018

To drive the apparel category, UA is now focusing on nine sport categories developing products tailored to address the specific needs of athletes in each category. The categories consist of: Team Sports, Men’s training, Women’s training & Studio, Outdoor, Golf, Run, Basketball, Global football and Sportswear. Of these categories UA has a double digit market share only in men’s training¹⁰, thus there’s a chance of significant growth in apparel revenue far beyond the current guidance of USD 5bn¹¹, if double digit market share can be won in the other categories. Out of these nine categories Sportswear is the only category UA has not tapped into, but is now actively pursuing to enter the market. Its two largest competitors generate 25% of their revenue from the Sportswear category, which resulted in revenues of USD 12.5bn in 2014, whereas UA’s revenues stands at zero in this category at this point. However with a new strategic approach to enter this market in 2016, there is ample runway to gain market share and grow revenues through capitalizing on Under Armour’s strong brand recognition and innovative products.

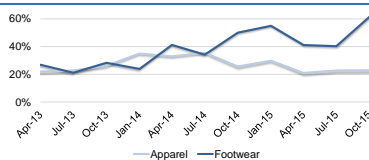
Figure 10: Most valuable sports business brands (USD billion) worldwide as of 2015, Source: Forbes



worldwide as of 2015, Source: Forbes

▪ **Footwear**

Figure 11: Yoy growth apparel vs footwear in %



Source: Company data, Analyst estimates

Since launching footwear in 2006 Under Armour was able to expand the category’s sales from USD 26.874m in 2008 to USD 430.987m in 2014. From 2010 until now, the company has achieved a CAGR of 36% and in 2014 had an increase of 44% year over year (yoy), demonstrating the momentum it has developed in the footwear market. UA was able to build a standing in the athletic footwear sector alongside Nike and Adidas through the release of new product lines with innovative features (running shoe platform Speedform¹²) and the addition of Stephen Curry

¹⁰ Source: Company data, Investors Day 2015

¹¹ Apparel revenue target for 2018, Source: UA Investors Day 2015

¹² The running shoe „Speedform Apollo“ was rated „Best new product“ by Competitor magazine and „Best new product launch“ by Runner’s World

Curry is the catalyst for the basketball footwear category taking off with a latest quarterly growth rate of 754%

(arguably the most prolific professional athlete in the United States at the moment¹³) and his signature basketball shoe.

In the first half of 2015, when Curry’s NBA-team was on the run to the championship, sales in the basketball category already surged with growth rates of 296% and 754% in the first and second quarter, respectively¹⁴. The second edition of his shoe line was released in October 2015 receiving rave reviews from experts and customers, hence quickly selling out in many colorways (see Appendix 2)¹⁵. Given the popularity of Curry at the moment, it is only reasonable to assume that his signature shoe will be in the top-3 of signature basketball shoes sold in 2016¹⁶. This would result in additional revenue generated of at least USD 100m with his shoe alone¹⁷ and lead to increased sale space at retailers like Dick’s Sporting Goods or Foot Locker.

Curry could be the inducement of consumers trying out the Under Armour brand for footwear for the first time. If product quality and design hold up to what consumers are accustomed to from more established brands like Nike, Adidas or New Balance, people will be inclined to come back to UA the next time they plan on buying footwear. As on court success and popularity of athletes comes and goes, it is important for the company to utilize this opportunity to establish Under Armour as a footwear brand now. So far reviews establish the view that UA’s footwear expertise is advanced enough to compete with the top brands in the market¹⁸.

Table 1: NBA player signature shoe sales in 2014 (in USD m)

Player	Sales
LeBron James (Nike)	340
Kevin Durant (Nike)	195
Kobe Bryant (Nike)	105
Chris Paul (Nike)	32
Derrick Rose (Adidas)	32

United States retail sales in 2014
Source: SportScanInfo

¹³ Stephen Curry won the NBA championship with his team the Golden State Warriors, was named Most Valuable Player of the 2014/2015 season and was the top vote-getter for the NBA All-Star game 2015, where fans vote in their favorite players to participate in

¹⁴ Source: Morgan Stanley Research

¹⁵ Source: Analyst research

¹⁶ The top two sold basketball signature shoes in 2014 belong to the Most Valuable Players of the seasons 2012-2014 (LeBron James, 2 times and Kevin Durant, 1 time), showing that on-court success correlates strongly to sales of the shoes that the player has worn. In 2015 Stephen Curry has won the MVP award and further has taken the top spot for jerseys sold, displaying his popularity with fans (Source: NBA Store, sales from April to June 2015).

¹⁷ Data that tracks weekly retail sales suggests that the Curry 2 was the 2nd best selling basketball shoe and 3rd across all athletic footwear categories in the week that ended November 7th. Further for that same week footwear sales for UA were 155% higher year-over-year.

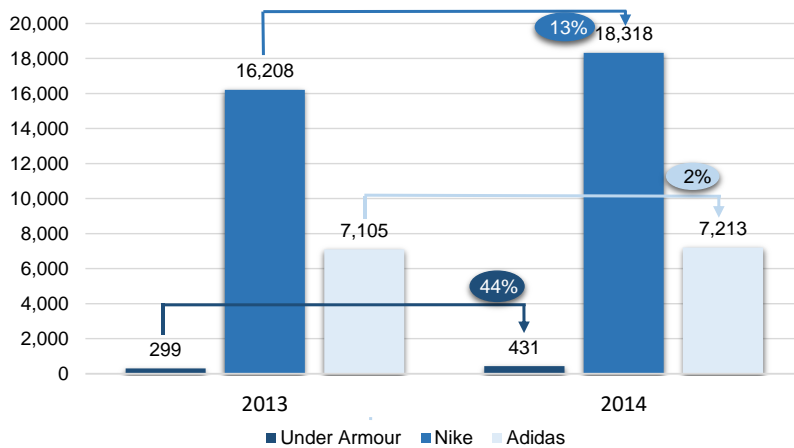
Source: Data compiled by Deutsche Bank analyst Dave Weiner from SportScanInfo’s database

¹⁸ See Appendix 2

US footwear market of USD 26.4bn remains significantly underpenetrated by UA

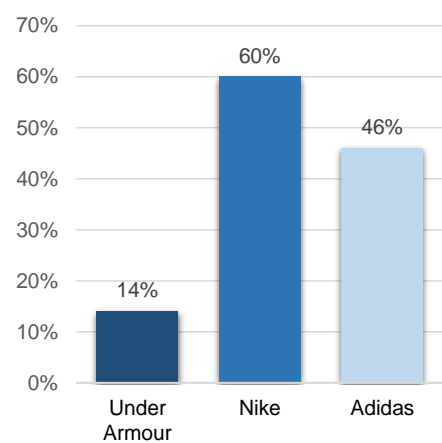
Still compared to its two main competitors Nike and Adidas, the sales figures in absolute numbers are meager and the mix of footwear to total revenues is low (14% for UA vs 46% Adidas vs 60% Nike), thus revealing that the important US footwear market estimated at USD 26.4bn¹⁹ is still largely underpenetrated (market share of less than 2%²⁰) by UA. On one hand this shows that opportunities to grow are abundant, but also that the path to become serious rivals for Adidas and Nike is still long.

Figure 12: Footwear revenues and yoy growth rates



All figures in USD and million except % (Adidas converted at historical rates)
 Nike Sales figures are from FY 2015/2014 and FY 2014/2013, respectively
 Source: Company data

Figure 13: Footwear revenues as % of total revenue

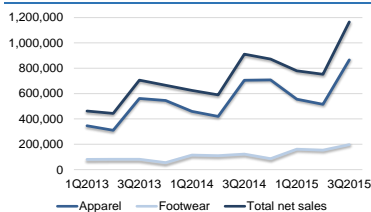


Data as of FY 2014 (Nike FY 2015/2014)
 Source: Company data

Strong growth in footwear puts pressure on margins

Aside from that, the footwear business is linked to lower margins due to higher costs of production in comparison to apparel. This drags on the company's overall gross margin and with the sales mix of footwear increasing, the impact on the company's profitability will be enhanced further²¹. In the 3rd quarter of 2015 footwear had an estimated negative effect of 60 bps on the company's gross margin²². For the future, it is expected that profitability of the footwear category will increase in connection with economies of scale and increases in efficiency but never fully converging with margins of the apparel category. For example Nike could continually increase efficiencies from the time it was roughly the size of Under Armour now²³

Figure 14: Quarterly sales of footwear, apparel and total sales



in USD million, Source: Company data

On another note, the footwear business seems to help decrease Under Armour's sales seasonality. Typically UA's overall sales pick up in the second half of the year, registering 60% of total sales due to the higher demand for higher-priced cold weather gear, whereas the footwear sales occur spread throughout the year. This

¹⁹ Source: Company data

²⁰ Source: Company Data from Investors Day 2015

²¹ Unfortunately UA is not publishing gross or operating margins per product category, therefore we cannot display specific numbers.

²² Source: Company data, 3rd quarter 2015 earnings release

²³ In 1994 with revenues of USD 3,790m

could help balance the company's revenue and cash flows if the footwear sales mix further increases as expected.

- Accessories & Licensing

The Accessories & Licensing category includes sales of headwear, bags and gloves, as well as products developed and produced by contracted companies under the name and supervision of Under Armour, these include socks, team uniforms, eyewear as well as footballs and basketballs. Sales generated by the Japanese joint-venture company Dome Corporation who are representing UA in Japan are also registered under this product category.

- Connected Fitness

Connected Fitness (CF), a term coined two years ago, encompasses the digital business of Under Armour. It is now seen as a key growth driver and embodies the vision of UA becoming a global business that reaches further than being a company that is selling apparel and shoes. Connected Fitness started to gain traction in the company with the acquisition of MapMyFitness in 2013 and again in 2015 with the acquisitions of Endomondo and MyFitnessPal for a total of USD 709m in consideration. Through these acquisitions UA now owns the self-proclaimed largest digital health and fitness community with over 150 million registered users, from which 60 million are active every month and have recorded 1.3 billion workouts and logged 6 billion foods with the various Under Armour mobile phone applications²⁴. This means UA is amassing huge amounts of data about their users, their eating and exercising habits, the gear worn when exercising and how often they buy new gear. If UA is able to more thoroughly understand their target audience and analyze the data to specifically market to users and turn them into customers, the CF business will be a very valuable supplement to the apparel and shoe business as it might amplify sales through targeted user marketing and other channels.

At last, Under Armour has announced the release of its own fitness and health tracking devices²⁵. Seeing the success of companies like Fitbit, who have built a company with revenues of USD 1,516.6m and a market capitalization of USD 4,820m only from wearable fitness tracking devices in 8 years displays the huge potential the market possesses. It is estimated that the global market will grow from USD 3,500m in 2014 to USD 14,900m by 2021, exhibiting a CAGR of 23%²⁶.

Table 2: UA acquisitions in USD m

Target	Size
Endomondo ApS	85
MyFitnessPal, Inc	474
MapMyFitness Inc	150

Source: Company data

Table 3: UA's digital health & fitness community

Registered users	150m	32%
Monthly active users	60m	29%
Workout	1.3bn	79%
Foods	6.0bn	37%

Source: Company data

²⁴ Source: Under Armour Investors Day 2015

²⁵ Announcement at CES 2016 on 5th January, release is scheduled for end of January

²⁶ Wintergreen Research Inc.

Table 4: Fitness and health tracking device market, 3rd quarter 2015 data, units sold in million

Company	Market share	Units sold	Yoy change
Fitbit	22.2%	4.7	102%
Apple	18.6%	3.9	-
Xiaomi	17.4%	3.7	815.4%
Garmin	4.1%	0.9	72.5%
BKK	3.1%	0.7	-
Others	34.6%	7.3	88.8%
Total	100%	21.0	197.6%

Data from 3rd quarter of 2015
 Source: IDC Worldwide Wearable Device Tracker

The fitness and health tracking device market is estimated to grow at a CAGR of 23% to USD 14,900m by 2021

Key to success will be enticing the existing community members to purchase UA's wearables

Nike's foray into wearables was deemed unsuccessful

Adidas has been emulating UA's entry into digital fitness by acquisitions

With its large digital community and the app infrastructure already in place, Under Armour is in a specifically good position to capitalize on the growing market. The capability of using the existing UA digital fitness ecosystem and enticing their users to purchase the products by enabling a hassle-free communication between the devices and the apps will be key for gaining market share and getting consumers to switch to Under Armour products.

The devices were developed through a partnership with HTC, a Taiwanese consumer electronics company, although the primary visible branding on the products is from Under Armour. Using the partnership is a smart way for the company to gain access to the knowledge needed for the development of the products, notwithstanding a supposed revenue sharing agreement with HTC would be expected to be a drag on margins.

The product offering includes a wristband, an upper body strap, a scale and running shoes with a build-in tracking device. Although it is too early to tell how UA's products differentiate from competitors like Fitbit or Jawbone and how the market reception will be, the first reviews from the CES are favorable²⁷.

An earlier push into the hardware space by Nike with "FuelBand" didn't turn out to be a success²⁸ and consequently Nike laid off most of its engineering staff working on the device. A few months later, the company released an update to their fitness-app, with which the device was no longer needed, because the motion tracking was taken over by the phone. Nike has now concentrated on improving the app and collaborating with Apple and its smart watch to capture fitness data.

The other main competitor Adidas has also taken the path of acquisitions, like Under Armour, to gain entry into the digital fitness area by buying popular fitness

²⁷ „These tools...provide the most comprehensive ecosystem of fitness products yet made.“ Source: „Wired“, Technology magazine

Revenues of Connected Fitness are estimated to be around USD 380m by 2020

Pennsylvania showed that Nike's FuelBand was the least accurate tracking device of their

tracking app “Runtastic”²⁹. Besides from a similar app experience like Under Armour, Runtastic also sells tracking hardware in the form of smart watches.

It remains to be seen if UA’s ambitious foray into smart wearables will be a success, they have been conservative and did not fully incorporating digital fitness financials into their guidance for 2018, but revenues are estimated to reach USD 380m by 2020³⁰.

Key drivers

At Under Armour it is all about growth, the current valuation at the stock market would not be justified if it weren’t for the substantial revenue growth projections investors, analysts and the company’s management credit to UA. On account of this it is very important to understand and analyze where this revenue growth will be coming from going forward and to test the growth projections for validity.

We see the key drivers of Under Armour’s business in the following categories:

- Athleisure trend

Under Armour has been one of the companies that could capitalize the most on the new fashion trend called “Athleisure”. The term stands for wearing athletic apparel in settings other than the gym or while doing sports. Women and men alike have been increasingly wearing athletic gear for casual situations and it is becoming more and more acceptable and wide-spread.

In 2014 consumers spent USD 323 billion on apparel, footwear and accessories, representing only a 1% increase over a year ago³¹. However as regular apparel sales were estimated to have remained flat, it was the surge of sports apparel that is responsible for the growing market. Data for the first quarter in 2015 suggest that the athleisure trend is picking up the pace increasing 9% overall, while Under Armour is estimated to have a market share in the activewear market of 6% only behind competitor Nike³² (see Table 5). Certainly this displays the strong growth momentum that is built by the Athleisure trend.

However, due to the increasing popularity for activewear, established apparel makers (Nike, Under Armour or newly established subsidiaries, for example Gap Inc.’s Athleta) and newly found start-ups (see Table 6) are flocking into the market, increasing the competition and making it difficult for companies to distinguish themselves from the competition.

Table 5: US Activewear market share

Company	Market share
Nike	13%
Under Armour	6%
Adidas	3%
Hanes	3%

United States activewear market shares in the 1st quarter of 2015, Source: NPD Group

Table 6: Activewear Start-Ups

Company (year)	Funding in \$m
Yogasmoga (2010)	12.5
Outdoor Voices (2013)	8.1
Tracksmith (2014)	5.7
Ellie (2012)	2
Aday (2014)	na
Alala (2014)	na
Cory Vines (2013)	na

Source: Analyst’s research

²⁹ Acquired on the 5th of August 2015, for a consideration of USD 239m, Runtastic’s community counts 70 million members vs 160 million of Under Armour. Source: company data

³⁰ Source: Credit Suisse estimates

³¹ Source: NPD Group

³² Source: NPD Group

To establish our thought that the Athleisure trend will have a long-term impact on UA's growth projections, we have a firm believe that this trend is here to stay and not only a short-lived fashion trend. This is because we see the unique selling proposition of activewear not as the fashionable look, but as the comfortable feel it gives to its wearers, which comes from innovations in materials and new manufacturing processes and the many occasions it is now acceptable to wear this type of clothing. Furthermore, once customer have gotten accustomed to the new feel and comfort of activewear and its acceptance spreads more widely throughout the world, demand is estimated to further increase leading to ample opportunity for companies to build a high-margin business around the new market (for example an average price for a yoga-pant is about USD 64³³, with many companies offerings between USD 80 to USD 100).

Activewear market will reach 178b by 2019 NPD

- Women's

The importance of the women's apparel sector is going hand in hand with the just described growth in activewear, as women are at the forefront of the athleisure trend increasingly wearing yoga pants and other apparel outside of the gym. Further, innovations for sport bras that increase comfort - through fewer seams in the materials - while exercising and simultaneously looking fashionable have created an additional growth driver for the women's apparel market.

So far women's apparel is contributing around 30% to the overall revenue of Under Armour³⁴, already up well above the figures of recent years. Previously UA's approach to appeal to women was to "pink it and shrink it", indicating that no real strategy was in place. Yet, since the women's activewear market has grown to an estimated USD 15.1bn in sales in the 12 months that ended in August³⁵ and with companies having tremendous success with specializing on women's activewear (see Lululemon Athletica Table 7) Under Armour is seeing the attractiveness of the market and is starting to specifically target it with a tailored strategy.

Recently UA has made sponsorships agreements with new brand ambassadors in the women's segment, namely Gisele Bündchen (Model), Misty Copeland (Ballerina for the American Ballet Theatre), Lindsey Vonn (Skier) and Kelley O'Hara (Soccer) – accompanied by a substantial marketing campaign and several new experienced hires in the women's segment. With this new determined concept to capture the women's activewear market, UA could gain a foothold in the market with lower end double figure market shares (see table 8).

"Pink it and shrink it" doesn't cut it for the women's sector

Table 7: Growth and profitability in the women's activewear market

Lululemon Athletica	USD
Revenue	1,797m
3-year CAGR	22%
Gross-margin	50.9%
EBIT-margin	20.6%
Market-Cap.	6,622m
P/E	26.4x

Source: Company data, Bloomberg as of 16.12.2015

Table 8: United States Under Armour market share in women's activewear

Segment	Market share
Sports footwear	1.14%
Apparel	11%
Yoga-bottoms	19%

Source: Trefis, Forbes

³³ Source: NPD Group

³⁴ Source: Company data

³⁵ Source: NPD Group

However this new strategic approach is cost-intensive, as research & development as well as marketing have to be specifically tailored for the women’s products in order to achieve the wanted impact in the market. Moreover, the company’s brand image is more recognized as masculine at this point with a change in brand image possibly watering down the brand equity for the men’s business.

Nonetheless, we see the women’s segment growing stronger than men’s in the near term and Under Armour aims at a 50/50 split of men’s to women’s sales in the future.

▪ International

International expansion has been on the agenda for UA’s management for a long time. However, with its presence deeply rooted in the United States and its product offering in the beginning catering more towards American sports like American Football, Baseball and Basketball, the International business hasn’t gained relevance in comparison to the North America operations. Moreover compared to Nike and Adidas³⁶ with international sales of 55% and 80% respectively of total sales UA’s 9% seem trivial³⁷.

As of now Under Armour is present in 33 countries through wholesalers, shop-in-shop concepts at specialty retailers and company-owned brand house stores. Moreover the company is operating e-commerce stores in 24 countries. Having laid the groundwork for international growth and still expanding the distribution channels with almost 100 newly opened stores in 2015 and over 650 new store openings planned until 2018, the exposure of UA on international soil is rapidly increasing.

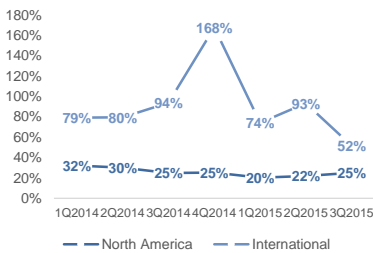
Thus, we see 2016 as an inflection point for International growth. In the past it has already gained traction posting a CAGR of 44% (2010-2014) and quarterly year-over-year sales growth from the 1st quarter of 2014 to the 3rd quarter of 2015 ranging from a low of 52% to a high of 168% leading International to doubling in the last year (see Figure 15).

Fueled was this growth by increased sponsorship of athletic teams and professional athletes internationally enhancing brand awareness around the globe and (see Figure 16) solidifying the high growth ambitions for 2016.

The drawback for UA and its international expansion however is that international growth is very expensive to attain for the company. Large investments in infrastructure and the opening of distribution channels had to and still have to be

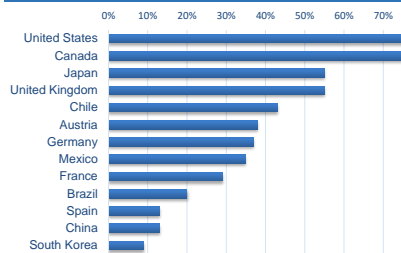
We see 2016 as catalyst for the international expansion

Figure 15: Quarterly year-over-year sales growth (%)



Source: Company data, analyst’s research

Figure 16: Aided brand awareness



Source: Company data, analyst’s research

Strong US dollar will hurt translated International revenue and income figures

³⁶ For Adidas everything outside of Germany counts to International, including the United States

³⁷ Source: Bloomberg, Analyst’s research

made. Further, operating efficiencies are lagging behind those of North America³⁸, as International posted an operating loss of USD 18m. Only in the longer term are margins expected to converge to North American levels, due to smoother running of operations and economies of scale in the single markets. Another malady of the growing International business is the nascent strength of the US Dollar compared to several other currencies UA is doing business in, as the translation of revenue and operating income will result in lower US dollar-denominated figures (**show impact on 2015**). This adds additional pressure on margins as International is gaining a bigger share of the company's revenues. For instance US competitor Nike's revenue grew by 5% in 2015 but would have grown by 13% if currency hadn't impacted the company³⁹.

Figure 17: US Dollar appreciation

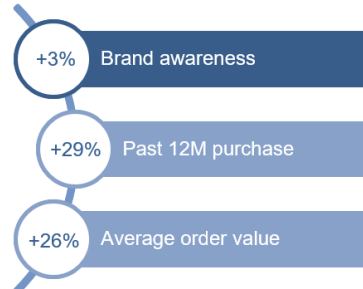


Source: Trade Weighted US Dollar Index: Broad, Federal Reserve Bank of St. Louis

The increase of the international business will help UA absorb recessions in the US and keep up with competitors during bad economic times in the US, as they also have more international business being braced against downturns in single markets.

▪ Digital

Figure 18: Connected Fitness user engagement

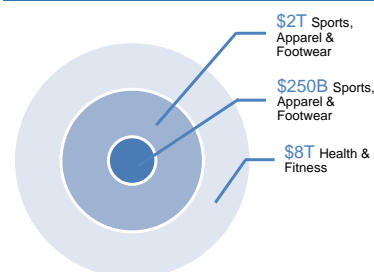


Source: Company data

As of now Connected Fitness has only a negligible impact on the company's financials with USD 25m to USD 30m in incremental revenue and negative margin impact. Nevertheless the digital arm of UA could be a very important success factor looking into the future, seeing that the wearable technology device market is growing drastically. Digital fitness devices already make up 20% of the overall sports instrument market, and the market for fitness trackers was estimated at USD 72m by beginning of 2015 with a yoy growth rate of 164%⁴⁰. In 2016 the company plans to sell self-developed connected devices and services, will engage in hardware partnerships starting in 2017 and is expecting to develop smart wear by 2020, where the devices are integrated directly into the apparel.

Most importantly though, UA anticipates to not only use Connected Fitness as additional revenue source but also as a revenue driver for the existing categories of apparel and footwear. The high user engagement on mobile apps often leads to stronger brand connection and additional sales. In the first six months of 2015 connected fitness users increased their brand awareness by 3%, had 29% higher purchase intent and their order value was 29% higher than from users visiting the UA e-commerce site without being a connected fitness user.

Figure 19: CF enables access to new industries



Source: Company data

Furthermore UA hopes to be able to enter new markets via the digital fitness community, for example the USD 2 trillion food and nutrition market for which the

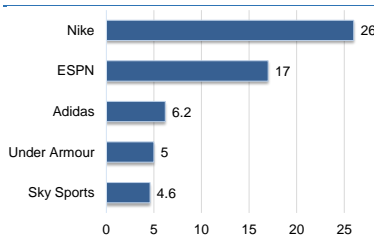
stores Day 2015
t 2015

data of logged foods consumed is a very valuable asset and could be used to develop products and services for their user community or the USD 8 trillion health & fitness market.

- Brand

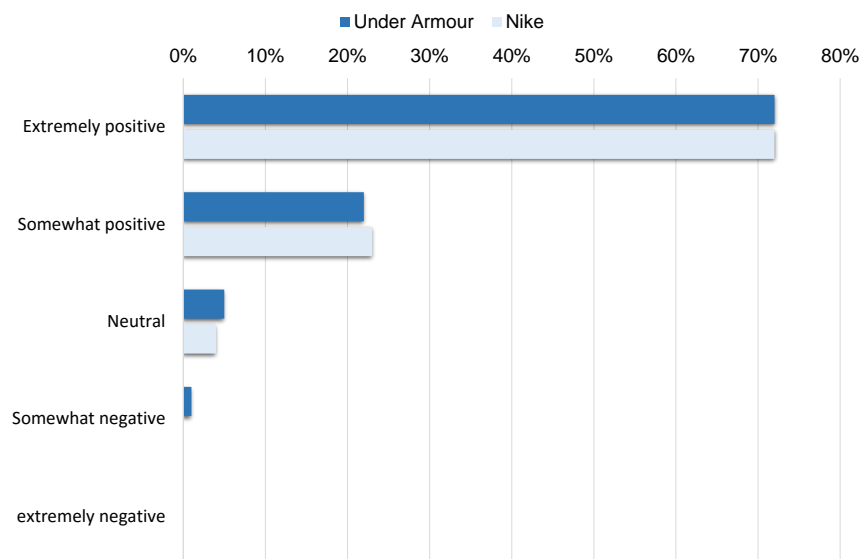
In the apparel & footwear sector, brand is the single most important factor determining product demand. Under Armour was established as an underdog brand that build the company’s humble beginnings⁴¹ into its brand image. Being the underdog, that has the world against him, but is not backing down from the challenge to compete against the biggest and best. Just like UA started its competition with apparel & footwear behemoths Nike and Adidas out of a car trunk and the mother’s basement of the company’s founder. Under Armour utilized this image from the start and advertised it in brand campaigns with the slogan “I Will”. Having developed a quality product that was new to the market and that athletes sought after fueled the first growth of the company and since has been working with the same strategy. The brand is building interest in the products and product quality convinces consumers to purchase. As of 2015 Forbes estimated the brand to be the 4th most valuable sports business brand in the world with a brand value of USD 5 billion. Moreover a product quality survey by SportsOneSource in 2014 displayed Under Armour’s product quality to be alongside rivals Nike.

Figure 20: Most valuable sports business brand in the world in USD billion



Source: Forbes 2015

Figure 21: Product quality Nike vs Under Armour



Source: SportsOneSource in 2014

To further develop the brand and its awareness, the company is building brand house stores. These stores are located in urban city’s at prime locations and

⁴¹ Selling the company’s first products out of a car trunk

enable and in-depth experience with the brand, as they tell their story throughout the store with additional experiences like professional athletes visiting the store.

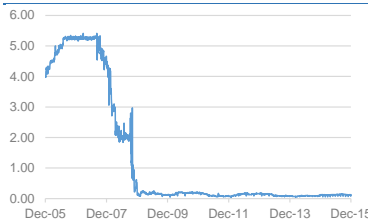
The Sector

Sports apparel and footwear is very cyclical and thus highly dependent on the state of the economy

The sports apparel and footwear sector is a cyclical sector, highly dependent on the health of the overall economy, as sales are largely influenced by actual and perceived economic conditions, unemployment rates and consumer income as well as spending amongst others. Since more than 85% of Under Armour's revenues are generated in the United States our analysis will concentrate on the US economy. Nonetheless the same factors and dependencies apply to other geographical areas when analyzing the economic environment of the apparel and footwear sector.

Economic drivers

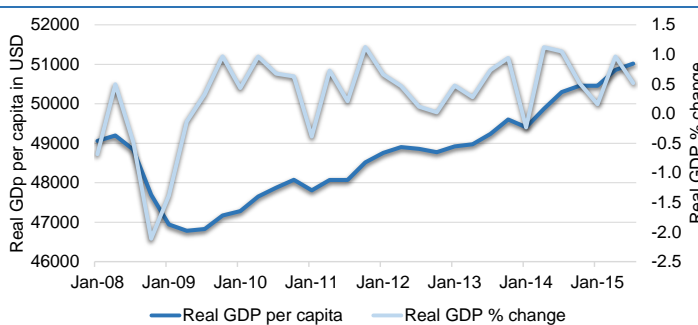
Figure 22: Federal Funds Rate



Source: Federal Reserve Bank of St. Louis

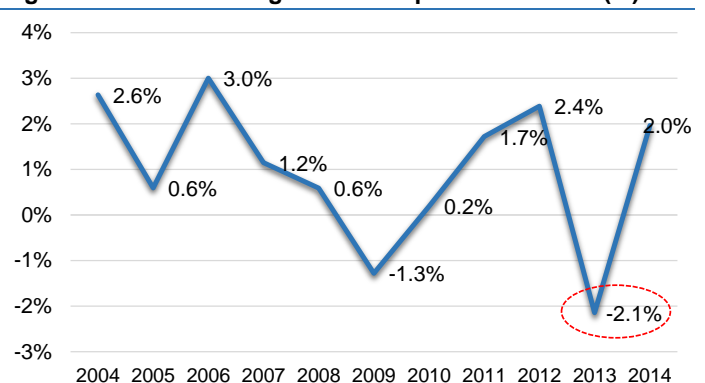
The US economy has been in recovery mode since the financial crisis started in 2008, as its impact could still be sensibly noticed until now. The Federal Funds Rate has been on record lows at 0% to 0.25% for the last six years and only in the end of November has Janet Yellen (Chair of the Federal Reserve) hinted that the Fed is inclined to raise rates in the near future. Fueled by the low Fed rates, the economy could regain some momentum and US gross domestic product (in real terms) recovered from its lowest point in April 2009 and since then quarterly growth change has been negative in only 2 quarters, leveling out in a range between -0.5% and 1.25%⁴².

Figure 23: Real GDP per capita and real GDP % change in the United States



Quarterly change in GDP (%) and quarterly real GDP per capita in USD from 2008 to July 2015, Source: Federal Reserve Bank of St. Louis

Figure 24: Annual change in real disposable income (%)

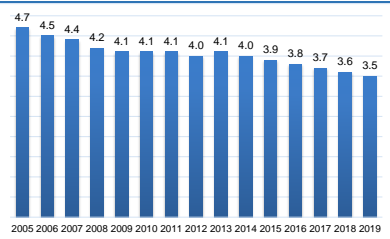


Source: Federal Reserve Bank of St. Louis

⁴² Source: Federal Reserve Bank of St Louis

Real disposable income is expected to grow at an average annual rate of 2.5% until 2020³⁰

Figure 25: Clothing and footwear spending as % of total household spending



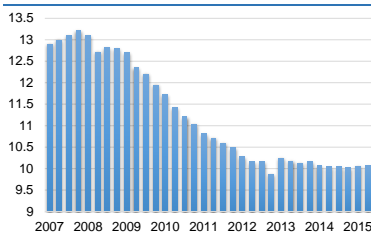
Source: Business Monitor International

A factor that is believed to more strongly influence the apparel and footwear sector directly is the real disposable income of households, which is the money available for spending and saving after personal income taxes or the discretionary income,

which also subtracts the current bills that have to be paid by the households. Since the recession and the associated decrease in real disposable income in 2009 of -1.3%, we can see a year-over-year recovery in each of the following years except in 2013. The outlier is due to 2012 year-end tax strategies in anticipation of new tax regularities in 2013. In the future real disposable income is expected to increase by an average of 2.5% yearly until 2020⁴³.

Further, what is important is how households spend their disposable income. Figure xx shows clothing and footwear spending in percentage of total household spending. One can clearly see the decrease over the years, with 4.7% in 2005 decreasing to only 3.5% in 2019 estimated. Undeniably a bad sign for Under Armour, however the data merges all categories of clothing and footwear and does not separate between sports apparel or even premium performance sports apparel and footwear, which is showing growth due to the athleisure trend described earlier. That is why we see this not affecting Under Armour as much, as they are in a premium brand position in categories that are still expanding in size.

Figure 26: Household's debt service ratio (%)



Quarterly United States household's debt service ratio in % from 1st quarter 2007 until 2nd quarter 2015

Source: The Federal Reserve Board

Another indicator used to gauge consumer's spending abilities is the household's debt-service-ratio, which is the ratio of total required household debt payments to total disposable income. This gives a clearer picture about the real spending capabilities of households, since money can't be spend for discretionary items like sporting apparel, if it is needed for near term debt payments. The debt-service-ratio decreased from its high levels before the crisis and has only started to increase again in the beginning of 2013 when consumers gained more trust in the prevailing economic conditions. In the last two years the ratio has leveled out at close to 10%, indicating that households have become more conservative when it comes to taking on debt and leaving room for increased spending in the future.

Figure 27: Consumer confidence



Source: The Conference Board

Relevant to the former mentioned debt-service-ratio is the consumer confidence index, which can be used to gauge how much of the households buying power will be spent in the near term to purchase discretionary goods like apparel. The index is built by surveying households about their perception of the current and future economic conditions. If consumers expect that the economy will take a downturn in the near future, they will be more careful about how they spend their money and thus might postpone purchases of goods like apparel & footwear and vice versa.. One can easily see the strong upsurge from 2009 on with a dent in 2011 when the

⁴³ Source: IBIS World

European government debt crisis loomed. Now it is almost back to pre-financial crisis levels, indicating that consumers are comfortable with the economic outlook and hence won't be as inclined to save money as in the last years. This can be seen as a good sign for the apparel & footwear sector.

Competition

A highly segmented and competitive market

Medium-to-high barriers of entry due to strong brand positioning and large bargaining power for established companies

The sports and apparel market is highly segmented and competitive, especially in the United States. Substantially the barriers of entry in the market are high. Gaining entry to the right distribution channels and manufacturing plants is extremely difficult, as the existing competition has high bargaining power with them and is using all the high quality factories for their own product and will not allow anyone else access to it. Furthermore customers don't incur any costs for switching between brands, hence differentiation in the market is done by innovation – developing new products that are not offered by competitors – and by brand image – the brand should stand for a unique message that connects well with customers – to reduce the risk of substitution by competitive products.

Another challenge in the industry is the strong market position of a few well-established players. Companies like Nike and Adidas are billion dollar companies, who have ruled this sector for many years, competing with their resourcefulness and standing in the market is very hard for direct competitors, because they have long-standing relationships with distributors and retailers, as well as high bargaining power with suppliers of raw materials and production factories.

Nike for example was able to build a sustainable competitive advantage by continually innovating and finding ways to make production cheaper, while still delivering high-quality products that enhance the brand equity. As a result, they are able to charge higher prices than their competitors and deliver great financial returns through their cost efficiencies.

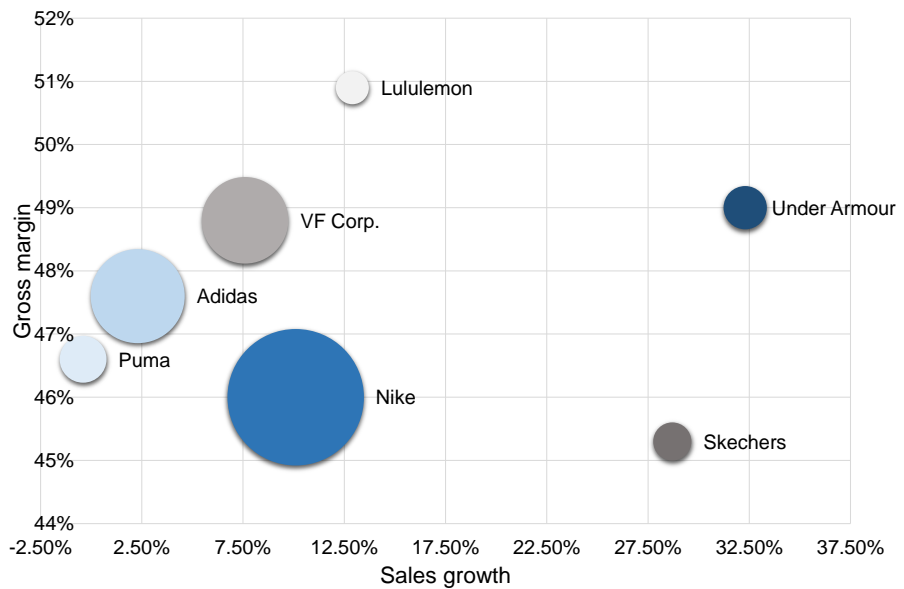
Building an edge and bringing something new to the market is essential to have the chance of establishing next to these apparel and footwear giants. Most new companies start in a niche market with an innovative product, for example Under Armour was the first company to produce tight-fitting synthetic t-shirts, or Lululemon Athletica focused on women and especially comfortable and fashionable yoga pants. Both companies were very successful in their niche market and from there one started to increasing their product breadth.

and have the most important factor in this sector is the brand. Having a well-established brand that customers long for is how companies can build a long lasting competitive advantage. The other factor that is gaining more and more importance for customers, is the use of advanced materials and technology that

enhances the customer’s product experience while wearing apparel and footwear. Not only is it important that the products wear is comfortable but also customers are expecting apparel and footwear to have additional benefits that enhance performance. Only companies that can address these competitive advantages through building a brand, which has a clear statement to its customers and that customers thirst for, while also offering additional benefits or solutions with its products can firstly build a business in this highly contested market and secondly demand higher prices for its product and thus achieve profitable margins for the longer term.

Competitive positioning

Figure 28 Competitive positioning in the sports apparel and footwear sector



Data from FY 2014/2015, Bubble-size indicates revenue of the companies
 Source: Company data, Analyst’s research

Valuation

We've used a discounted cash flow valuation with an explicit forecast period of 10 years

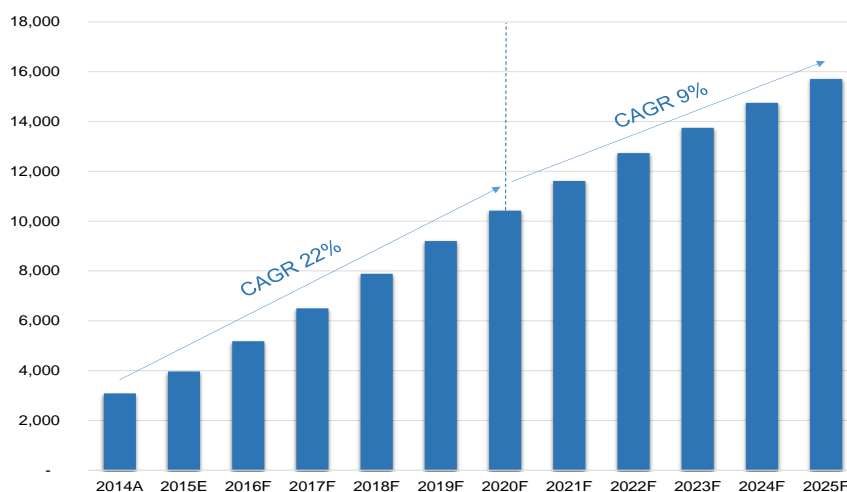
The valuation of Under Armour is made using the Discounted Cash-Flow (DCF) method. We abstained from using a Sum-of-Parts valuation, because Under Armour's business segments are very alike in respect to financial performance, as well as risk and the company's transparency when it comes to presenting financial figures for their respective segments is insufficient to build a precise model. We've chosen an explicit forecast period of 10 years in order to be able to accurately model the company's growth during that time-span. It is assumed that the company will have reached a steady-state by that time and thus a terminal value is calculated to project the value generated after 2025.

Forecasts

For a growth company like Under Armour it is very important to forecast the revenue accurately, but quantifying fashion trends (see Athleisure), brand positioning and innovativeness that all play a dominant role is difficult. Thus using the aforementioned economic indicators impacting the overall sector, as well as the available information about the company's expansion plans is essential.

As a result we have estimated an ongoing strong revenue growth until 2020 with a CAGR of 22%⁴⁴ with a slowly decrease in y-o-y growth each year. After 2020 revenue growth further decelerates (2020-2025 CAGR 9%), as the larger scale makes high growth numbers more difficult to attain. Revenue growth in the last explicitly forecasted year of 4% indicates the company reaches a steady-state phase of a mature company by 2025.

Figure 29: Revenue growth forecasts 2015-2025 in USD m



Source: Company data, Analyst's estimates

⁴⁴ below earlier revenue growth (2010-2014 CAGR 30%)

These values are derived from analyzing the revenue growth for the three distribution channels wholesale, direct to consumer (DTC) and Connected Fitness separately, although the growth metrics are the same for the first two.

Wholesale and DTC revenues are increasing due to an increase in sale space and same-store sales growth. Wholesalers are increasing the number of stores in North America as well as globally. Likewise is Under Armour's DTC channel through increasing the number of company-owned and partner-owned brand house stores, as well as increases in e-commerce due to more online stores globally and higher traffic being generated to the sites, mobile traffic is up triple digits in 2015⁴⁵. Room for growth can also be attained by gaining more floor space at wholesalers, as they always display the best-selling items in their stores. Therefore UA could increase its floor space in the past because their products were more highly demanded than other products.

Same-store sales are growing in both channels due to positive economic factors, brand strength and product quality (all described earlier).

The Connected Fitness channel is growing at a high pace, although revenues are at very low level at the moment (2014: USD 30.8m). So far only subscriptions to premium memberships of the app services and selling ads were revenue drivers for the channel, but, as described earlier, the company is beginning to sell own wearable devices at the end of June 2015 tapping into a new revenue source.

At the cost side of the business, we see gross margin hurting in the short-term, decreasing to 48.2% due to the company's increasing sales mix of Footwear and International, where margins are naturally lower and because of the strong US Dollar, which is putting pressure on translated revenues from overseas. Thus, we believe the company's guidance of achieving a 49% gross margin by 2018 is over-ambitious and will not be attained. We believe a gross margin 60bps lower is more realistic. However, the aforementioned factors will be offset in the long-term and were already partially offset in 2015 by product margin improvements, as UA is strengthening its position as a premium brand, being able to charge higher sales prices. This is also why we estimate UA's gross margin to be in the top end of the sports apparel & footwear sector long-term at 50%. Under Armour peers have an average gross margin of 45%.

The same story goes for the operating margin, as we see no improvements in the operating margins short-term due to investments in the company's global expansion and higher expenses for research & development. Historically capital expenditures made up 3%-5% of the company's revenues, however for the next

⁴⁵ Source. UA Investors Day 2015

three years we estimate this figure to be between 8% and 9% before converging to historical values again. Pushing up the CapEx are investments in the global store expansion plan, with which the number of international stores is planned to increase by 59% yearly on average until 2020, as well as investments in the facilities at the headquarters in Baltimore.

The terminal value is used at the end of the explicit forecast period to ascertain the value of Under Armour's cash flows after 2025. We determined a growth rate of the free cash flow of 3%, which is derived from a 2% inflation target and long term global GDP growth of at least 1%. For Under Armour the value that is derived after the explicit forecast period is 82% of the total value of the company.

Table 9: Discounted Cash Flow

Cash Flow								
In thousands of USD \$	2013A	2014A	2015E	2016F	2017F	2018F	2019F	2025F
EBIT	265,098	353,955	455,831	578,728	716,733	870,371	1,037,662	1,953,424
less: Notional Income Taxes	(92,784)	(123,884)	(159,541)	(202,555)	(250,857)	(304,630)	(363,182)	(683,698)
plus: Tax Adjustments	(7,315)	(14,395)	0	0	0	0	0	0
NOPLAT	164,998	215,676	296,290	376,173	465,876	565,741	674,481	1,269,725
plus: Depreciation	50,549	72,093	138,697	197,890	258,112	312,037	342,613	402,362
less: Net Capital Expenditures	(235,509)	(156,850)	(949,739)	(457,642)	(508,658)	(547,274)	(474,845)	(433,990)
less: Change in NWC	(143,755)	(116,105)	(104,177)	(121,730)	(123,077)	(82,886)	(186,557)	(131,844)
less: Change in other operating assets	(1,104)	(12,015)	(26,301)	(15,950)	(23,851)	(32,763)	(22,078)	(18,412)
plus: Change in other operating liabilities	8,143	12,090	3,291	16,028	15,005	11,405	15,384	10,066
plus: Change in accumulated other comprehensive income	(174)	(17,002)						
Operating Free Cash Flow	(156,852)	(2,113)	(641,939)	(5,231)	83,408	226,260	348,998	1,097,907
plus: After Tax Non-Operating Income	(762)	(4,167)	0	0	0	0	0	0
less: Change in Non-Operating Assets (in cash)	(24,714)	(14,897)	(23,030)	(35,489)	(33,878)	(39,393)	(36,800)	(26,437)
plus: Change Non-Operating Liabilities (in cash)	15,130	19,300	14,725	29,988	29,387	27,342	30,289	20,871
Non-Operating Free Cash Flow	(10,346)	237	(8,305)	(5,501)	(4,491)	(12,051)	(6,512)	(5,566)
Total Cash Flow available to all Investors	(167,198)	(1,877)	(650,244)	(10,732)	78,917	214,208	342,486	1,092,341
Net Interest expense	(2,933)	(5,335)	(7,826)	(24,987)	(26,388)	(27,721)	(28,949)	(35,319)
Tax Shield	1,027	1,867	2,739	8,745	9,236	9,702	10,132	12,362
Change in Financial Debt, net	94,829	(100,562)	1,048,645	53,383	53,317	51,424	49,666	36,605
Net Change in Equity (in cash)	74,276	105,906	(393,314)	(26,410)	(115,082)	(247,613)	(373,335)	(1,105,989)
Total Cash Flow from Investors	167,198	1,877	650,244	10,732	(78,917)	(214,208)	(342,486)	(1,092,341)
<i>Check Line</i>	0	0	0	0	0	0	0	0

Source: Company data, Analyst's estimates

Under Armour is exhibiting strong free cash flow growth, however due to the high CapEx just mentioned, the first two years have negative free cash flow and 2015 sees a large increase in net debt. This was needed to finance the acquisitions for the Connected Fitness segment. But the company's is right in line with its peers with a net debt of 4%.

Cost of capital

To discount the company's cash flows we have to determine the company's inherent risks of operations. For that we make use of the weighted average cost of capital (WACC), which includes calculating the cost of equity via the Capital Asset Pricing Model (CAPM) and the cost of debt.

We apply the CAPM with the input of the market risk premium estimated at 5.50% and a risk-free rate of 2.06%, based on the yield on the 10-year US government bond. The beta estimation⁴⁶ is done by choosing comparable companies which are exposed to the same risk profile as Under Armour. Consequently, the selected companies are either branded sports apparel & footwear companies or they are sport retailers, as they are exposed to the same impacts by economic conditions and consumer spending. The obtained equity betas are then unlevered at their current level of financial leverage (Debt-to-equity ratio, D/E ratio), respectively. In succession, the mean of the unlevered beta of the basket of companies, including Under Armour's, is relevered on the basis of UA's target D/E ratio, which the company is expected to uphold in the long-term (4%)⁴⁷. The derived beta of 0.86 is then used as input in the CAPM model. Ultimately, we've estimated the cost of equity at 6.81%.

In order to estimate the cost of debt of Under Armour we had to make use of a process that estimates a synthetic credit rating and hence a debt default spread, which is then added on to the risk-free rate to get an estimate for the company's cost of debt. This indirection is required due to the fact that UA does not have any public bonds outstanding from which a yield could be calculated. Furthermore using the company's current debt yields from corporate debt would not lead to the correct result as it would not reflect the future market cost of debt.

Therefore we calculated the Interest Coverage Ratio, which is commonly used as an auxiliary to estimate a credit rating, if a company's credit worthiness is not rated by any of the credit rating companies. Using this procedure we arrive at a synthetic credit rating of A, which corresponds to a default spread of 1%. This default spread is then added on top of the risk-free rate to derive a proxy for the company's cost of debt. Our estimated cost of debt for Under Armour is 3.06%.

Lastly, we insert our inputs into the WACC formula and arrive at a cost of capital of 6.62% with which we discount the company's cash flows.

⁴⁶ See Appendix 1: Beta estimation for a detailed view of the calculations

⁴⁷ The same D/E-ratio has to be used as target ratio for the WACC calculation

Appendix

Appendix 1: Beta estimation

Company	Raw Beta	Standard Error of Beta	Beta Upper Range (95% CI)	Beta Lower Range (95%)	D/E (Gearing)	Unlevered Beta
Adidas AG	1.24	0.215	0.81	1.67	4.18%	1.20
Columbia Sportswear Company	1.252	0.271	0.71	1.794	-4.16%	1.28
Deckers Outdoor Corp.	0.787	0.465	-0.143	1.717	15.07%	0.72
Finish Line Inc.	0.84	0.271	0.298	1.382	-13.59%	0.91
Foot Locker, Inc.	0.527	0.225	0.077	0.977	-8.13%	0.55
Genesco Inc.	0.859	0.222	0.415	1.303	4.99%	0.83
G-III Apparel Group, Ltd.	1.366	0.405	0.556	2.176	-0.57%	1.37
Hanesbrands Inc.	1.155	0.228	0.699	1.611	20.64%	1.03
Lululemon Athletica Inc.	0.93	0.391	0.148	1.712	-7.86%	0.98
NIKE, Inc.	0.541	0.203	0.135	0.947	-3.78%	0.55
Performance Sports Group Ltd.	0.964	0.303	0.358	1.57	86.48%	0.63
PUMA SE	0.474	0.219	0.036	0.912	-3.99%	0.49
Skechers USA Inc.	0.588	0.451	-0.314	1.49	-8.10%	0.62
V.F. Corporation	0.611	0.19	0.231	0.991	7.68%	0.58
Under Armour, Inc.	0.70	0.291	0.116	1.28	4.00%	0.68
Statistics						
High	1.37	0.47	0.81	2.18	86%	1.37
Low	0.47	0.19	-0.31	0.91	-14%	0.49
Mean	0.86	0.29	0.28	1.44	6%	0.83
Median	0.84	0.27	0.23	1.49	-0.57%	0.78
Under Armour, Inc.	0.70				4%	0.86

Appendix 2: Customer shoe reviews at retail online-shops

Brand	Shoe	Foot Locker	Eastbay
Nike	Kobe X Elite	4.8/5	na
Under Armour	Curry 1 Low	4.7/5	4.7/5
Under Armour	Curry 1	4.6/5	na
Nike	LeBron XIII	4.6/5	4.6/5
Adidas	D Rose 6	4.6/5	4.3/5
Adidas	J Wall	4.6/5	4.6/5
Under Armour	Curry 2	4.5/5	4.6/5
Nike	Kobe X	4.4/5	4.5/5
Nike	Kyrie 1	4.4/5	4.4/5
Adidas	D Lillard 1	4.3/5	4.4/5
Jordan	Melo M11	4.3/5	4.3/5
Jordan	CP3.VIII	4.3/5	4.3/5
Nike	Kyrie 2	4/5	na
Nike	KD VIII	3.9/5	3.7/5
Nike	Hyperdunk 2015	3.8/5	3.8/5
Jordan	CP3.IX	2.8/5	na

Under Armour Charged Bandit, Runner's World, Best Buy Fall 2015

Formulas:

Weighted Average Cost of Capital (WACC):

$$WACC = \frac{E}{V} r_e + \frac{D}{V} * (1 - t) * r_d$$

Capital Asset Pricing Model (CAPM):

$$r_e = r_f + \beta_{sector, relevered} * (r_m - r_f)$$

Unlevered Beta:

$$\beta_u = \frac{\beta_e}{1 + \frac{D}{E} * (1 - t)}$$

Relevered Beta:

$$\beta_{rel} = \beta_u * \left[1 * (1 - t) * \left(\frac{D}{E} \right) \right]$$

Interest Coverage Ratio:

$$ICR = \frac{EBIT}{Interest\ expense}$$

Abbreviations:

E = Market Value of Equity D = Market Value of Debt $V = D + E$ = Market Value of total Enterprise

t = Corporate tax rate r_f = risk-free rate (10y US Government Bond yield)

r_e = Cost of Equity r_m = Market Return β_u = Unlevered Beta

β_e = Beta of Equity (Regression Beta) β_{rel} = Relevered Beta

Financial Statements

Income Statement

In thousands of USD \$	2013A	2014A	2015E	2016F	2017F	2018F	2025F
Net Revenues	2,332,051	3,084,370	3,963,519	5,177,454	6,498,970	7,882,717	15,705,237
Cost of goods sold	(1,195,381)	(1,572,164)	(2,041,212)	(2,681,921)	(3,366,467)	(4,067,482)	(7,852,619)
Gross Profit	1,136,670	1,512,206	1,922,307	2,495,533	3,132,504	3,815,235	7,852,619
SG&A	(821,023)	(1,086,158)	(1,327,779)	(1,718,915)	(2,157,658)	(2,632,828)	(5,496,833)
EBITDA	315,647	426,048	594,528	776,618	974,846	1,182,408	2,355,786
Depreciation	(50,549)	(72,093)	(138,697)	(197,890)	(258,112)	(312,037)	(402,362)
Operating Income (Loss)	265,098	353,955	455,831	578,728	716,733	870,371	1,953,424
Interest expense, net	(2,933)	(5,335)	(7,826)	(24,987)	(26,388)	(27,721)	(35,319)
Other expense, net	(1,172)	(6,410)	0	0	0	0	0
Income before income taxes	260,993	342,210	448,005	553,741	690,345	842,649	1,918,105
Income Tax Expense	(98,663)	(134,168)	(156,802)	(193,809)	(241,621)	(294,927)	(671,337)
Net income	162,330	208,042	291,203	359,932	448,724	547,722	1,246,768
Earnings per share		0.94	1.32	1.63	2.03	2.48	5.64

Balance Sheet

In thousands of USD \$	2013A	2014A	2015E	2016F	2017F	2018F	2025F
Assets							
Current Assets							
Cash and cash equivalents	347,489	593,175	198,176	310,647	454,928	630,617	1,570,524
Accounts receivable, net	209,952	279,835	347,487	439,729	534,162	647,895	1,290,841
Inventories	469,006	536,714	651,537	780,164	890,270	971,842	1,936,262
Prepaid expenses and other current assets	63,987	87,177	105,198	151,785	193,579	225,036	456,998
Deferred income taxes	38,377	52,498	60,826	83,287	103,944	124,617	250,014
Total current assets	1,128,811	1,549,399	1,363,224	1,765,612	2,176,883	2,600,007	5,504,640
Non-Current Assets							
Property Plant And Equipment Net	223,952	305,564	594,528	854,280	1,104,825	1,340,062	1,727,576
Goodwill	122,244	123,256	591,872	591,872	591,872	591,872	591,872
Intangible assets, net	24,097	26,230	79,692	79,692	79,692	79,692	79,692
Deferred income taxes	31,094	33,570	48,272	61,300	74,520	93,240	183,879
Other long term assets	47,543	57,064	84,171	100,121	123,972	156,735	306,513
Total non-current assets	448,930	545,684	1,398,535	1,687,265	1,974,881	2,261,601	2,889,532
Total assets	1,577,741	2,095,083	2,761,759	3,452,877	4,151,764	4,861,608	8,394,172

Liabilities and Stockholders' Equity

Current Liabilities							
Revolving credit facility, current	100,000	0	92,133	108,612	125,944	146,012	252,899
Accounts payable	165,456	210,432	271,474	354,620	445,135	539,912	1,075,701
Accrued expenses	133,729	147,681	200,276	263,926	320,946	396,475	786,913
Current maturities of long term debt	4,972	28,951	82,920	97,751	113,349	131,411	227,610
Current maturities of capital lease obligations	0	0	0	0	0	0	0
Other current liabilities	22,473	34,563	37,854	53,882	68,887	80,292	162,764
Total current liabilities	426,630	421,627	684,658	878,791	1,074,261	1,294,101	2,505,887
Non-Current Liabilities							
Long term debt, net of current maturities	47,951	255,250	746,280	879,755	1,020,144	1,182,697	2,048,486
Revolving credit facility, long term							
Other long term liabilities	49,806	67,906	82,631	112,619	142,006	169,348	340,075
Total liabilities	524,387	744,783	1,513,570	1,871,165	2,236,410	2,646,146	4,894,448
Total stockholders' equity	1,053,354	1,350,300	1,248,189	1,581,712	1,915,354	2,215,462	3,499,724
Total liabilities and stockholders' equity	1,577,741	2,095,083	2,761,759	3,452,877	4,151,764	4,861,608	8,394,172

Source: Company data, Analyst's estimates

Disclosures and Disclaimer

Research Recommendations

Buy	Expected total return (including dividends) of more than 15% over a 12-month period.
Hold	Expected total return (including dividends) between 0% and 15% over a 12-month period.
Sell	Expected negative total return (including dividends) over a 12-month period.

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