Matengus and Underamour Financial Analysis

Managerial Finance FIN6A1

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Word Count:

MATENGUS

Week 1 Activity (Adrian,Henrik,Eugen)

Part A

Matengus Activewear is a company that specialises in the retail of sports equipment and sports activewear across a wide range of activities. The company targets both professional athletes as well as those performing at grassroots level. The equipment produces aims to ensure the best performance and protection for all its users, thus making the sporting experience enjoyable and safe.

The advantage of going public is the acquisition of significant capital, therefore enabling Matengus to acquire a larger piece of the market share, increase funding in research and development as well as continuously expand our product line and range of sports covered. Another positive of going public is the increased exposure the company receives including additional publicity when releasing new products. Once public the company is also able to utilize equity in new ways such as offering stock as additional incentives, using stock during the takeover of other companies including the potential for liquid equity therefore offering the option of converting owned shares into currency. However, in order to do so the company (Matengus) must ensure excellent and constant financial reporting. Also in order to guarantee a sustainable approach for the future, Matengus must cope with the increased pressure from shareholder and avoid focusing on short-term, unsustainable results, instead a long-term strategy needs to be employed, such strategy needs to focus on constantly increasing shareholder value.

Part B

The managerial roles decided to lead Matengus are as follows:

- CFO (Chief Financial Officer) (Mr. Adrian Matei) – Oversees and manages the financial activities and decisions within the company, assists in formulating the company's future direction, monitors and directs the implementation of strategic business plans, developing financial and tax strategies, participates in key decisions of the company as a member of the executive team, supervises acquisitions, due diligence and negotiates acquisitions, analyses and understands the company's risk exposure and also ensures that the company complies with regulatory and legal requirements.

- CMO (Chief Marketing Office) (Eugen 'Pete' Stanciu) – In charge of all marketing and advertising campaigns, responsible for increasing sales, improving brand recognition, negotiates with potential endorsers.

- CEO (Chief Executive Officer) (Mr. Henrik R. England) – responsible for leading the development and execution of the Company's long term strategy with a view to creating shareholder value. The CEO's leadership role also entails being ultimately responsible for all day-to-day management decisions and for implementing the Company's long and short term plans. The CEO

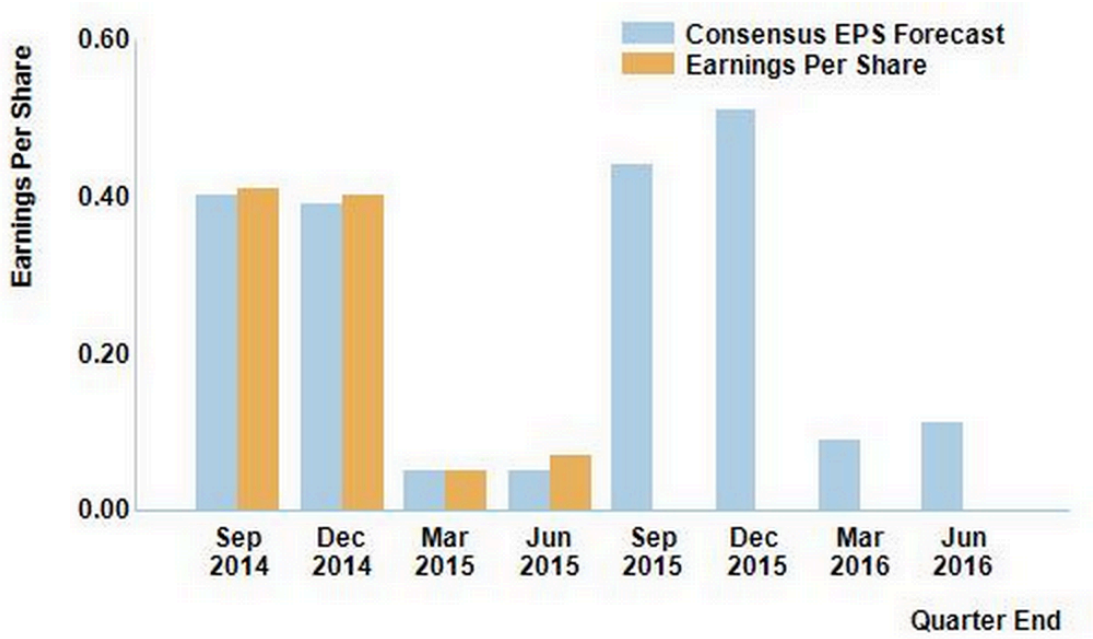
acts as a direct liaison between the Board and management of the Company and communicates to the Board on behalf of management. The CEO also communicates on behalf of the Company to shareholders, employees, Government authorities, other stakeholders and the public. (Sterling-Resources, 2015)

- COO (Chief Operations Officer) (Arnaldo Bernardo) – Usually the second in command, oversees day-to-day operations and keeps the CEO apprised of significant events, creates operations strategy and policies, communicates strategy and policy to employees, oversees human resource management.

- CCO (Chief Compliance Officer) (Daniel Babes) – Primarly responsible for overseeing and managing regulatory compliance issues within an organization. The role of the CCO will be particularly more demanding as the company becomes public.

Part C

The company that acts as a shadow firm for Matengus is Underarmour. They specialise in the production of sports equipment. Underarmour have a global scale operation with a strong presence in all major sports. The company is traded on the New York Stock Exchange and the industry status is consumer non-durable.



Graph 1: Underarmour Quarterly Earnings Per Share in 2014 and future forecast (NASDAQ.com, 2015)

Yearly Earnings Forecasts

Fiscal Year End	Consensus EPS* Forecast	High EPS* Forecast	Low EPS* Forecast
Dec 2015	1.08	1.12	1.02
Dec 2016	1.4	1.5	1.25
Dec 2017	1.77	1.9	1.62
Dec 2018	2.27	2.27	2.27

Graph 2: Underarmour Yearly Earnings Forecasts from 2015 to 2018 (NASDAQ.com, 2015)

Quarterly Earnings Forecasts

Fiscal Quarter End	Consensus EPS* Forecast	High EPS* Forecast	Low EPS* Forecast
Sep 2015	0.44	0.46	0.42
Dec 2015	0.51	0.54	0.48
Mar 2016	0.09	0.1	0.05
Jun 2016	0.11	0.14	0.05
Sep 2016	0.58	0.61	0.55

Graph 3: Underarmour Quarterly Earnings Forecast from September 2015 to September 2016 (NASDAQ.com, 2015)

It is noticeable that the company's trend is to have higher dividends in the months of September and December each year, while in March and June, the Earnings per Share are negligible.

We can see that Underarmour represents a terrific opportunity for any investor. Its strong earnings/share growth rates are forecasted to more than double in next 4 years.

This should serve as no surprise because over the past 13 years, Underarmour has seen a mean of 34% in terms of EPS growth rate with the highest at 71% on a 3 year average. (GuruFocus, 2015)

Provision for income taxes increased $35.5 million to $134.2 million in 2014 from $98.7 million in 2013. The effective tax rate was 39.2% in 2014 compared to 37.8% in 2013. The effective tax rate for 2014 was higher than the effective tax rate for 2013 primarily due to increased foreign investments driving a lower proportion of foreign taxable income in 2014 and state tax credits received in 2013.

'We are subject to income taxes in the United States and numerous foreign jurisdictions. Our effective income tax rate could be adversely affected in the future by a number of factors, including changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in tax laws, the outcome of income tax audits in various jurisdictions around the world, and any repatriation of non-US earnings for which we have not previously provided for U.S. taxes. We regularly assess all of these matters to determine the adequacy of our tax provision, which is subject to significant judgment'. (Underamour, 2014)

Week 2 Activity Section 1(Adrian,Henrik,Eugen)

Part A

For the information collection we looked at 3 websites, Google Finance, Yahoo Finance and NASDAQ. What concerns the shadow firm financial information, all three websites have similar and close values, however, the beta for UnderArmour differs. Google and Yahoo Finance have the same beta of 0.56, while NASDAQ offers a beta for the shadow firm of 1.22. In terms of market information, Google and NASDAQ offer a more in-depth analysis than Yahoo, and we chose to use NASDAQ as the only source for data collection.

Part B

O:	96.2100	H:	98.5400	V:	3.3m
C:	96.3873	L:	94.6800	D:	09/30/2015

*stock information for UnderArmour as at 30/09/2015

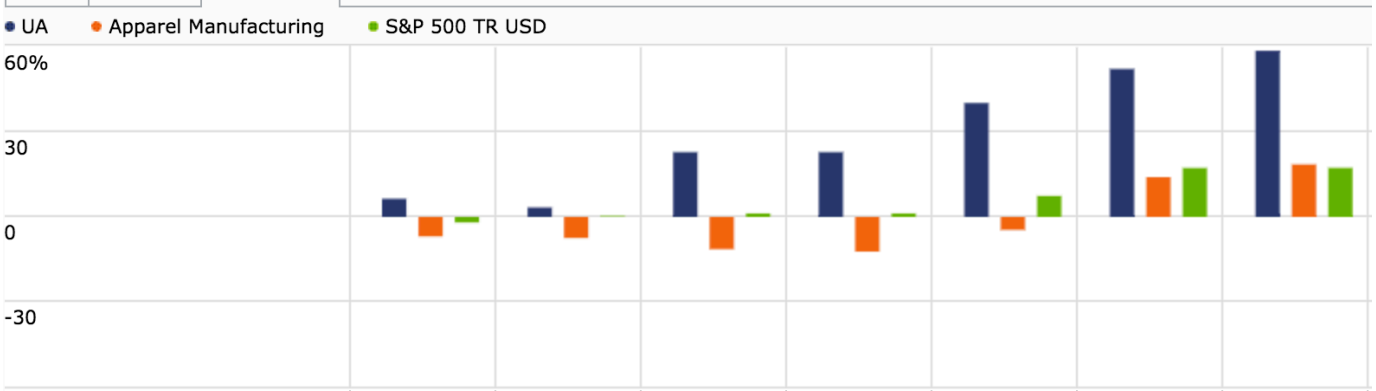
O:	70.07	H:	70.50	V:	2.5m
C:	69.10	L:	68.88	D:	09/30/2014

*stock information for UnderArmour as at 30/09/2014

We can see that the company's stock opened at 96.210 $ today (30/09/2015), which represents a notable increase compared to its value precisely one year ago when the opening stock was 70.07 $. In other words, the company's stock has increased by $26.14, which represents a growth of 37.305 %. When compared to the Nasdaq 100 index Underarmour shows a considerably better performance as the Nasdaq 100 Index has a one year growth rate of 19.4%(NASDAQ, 2015). Underarmour is growing at a rate of almost double the Nasdaq 100 Index average. One potential explanation for these outstanding performances could be the fact that Underarmour is not currently paying out dividends rather focusing on capital gains.

Trailing Total Returns UA

Daily | Monthly | **Quarterly**



Total Return % (06/30/2015)	**1-Month**	**3-Month**	**6-Month**	**YTD**	**1-Year**	**3-Year**	**5-Year**
UA	6.42	3.33	22.89	22.89	40.26	52.30	58.72
Apparel Manufacturing	-6.88	-7.42	-11.39	-12.24	-4.56	14.06	18.56
S&P 500 TR USD	-1.94	0.28	1.23	1.23	7.42	17.31	17.34
+/- Apparel Manufacturing	13.29	10.75	34.27	35.13	44.81	38.23	40.17
+/- S&P 500 TR USD	8.35	3.05	21.66	21.66	32.84	34.99	41.38

S&P 500 index data: S&P 500 Copyright © 2015
Currency is displayed in USD.

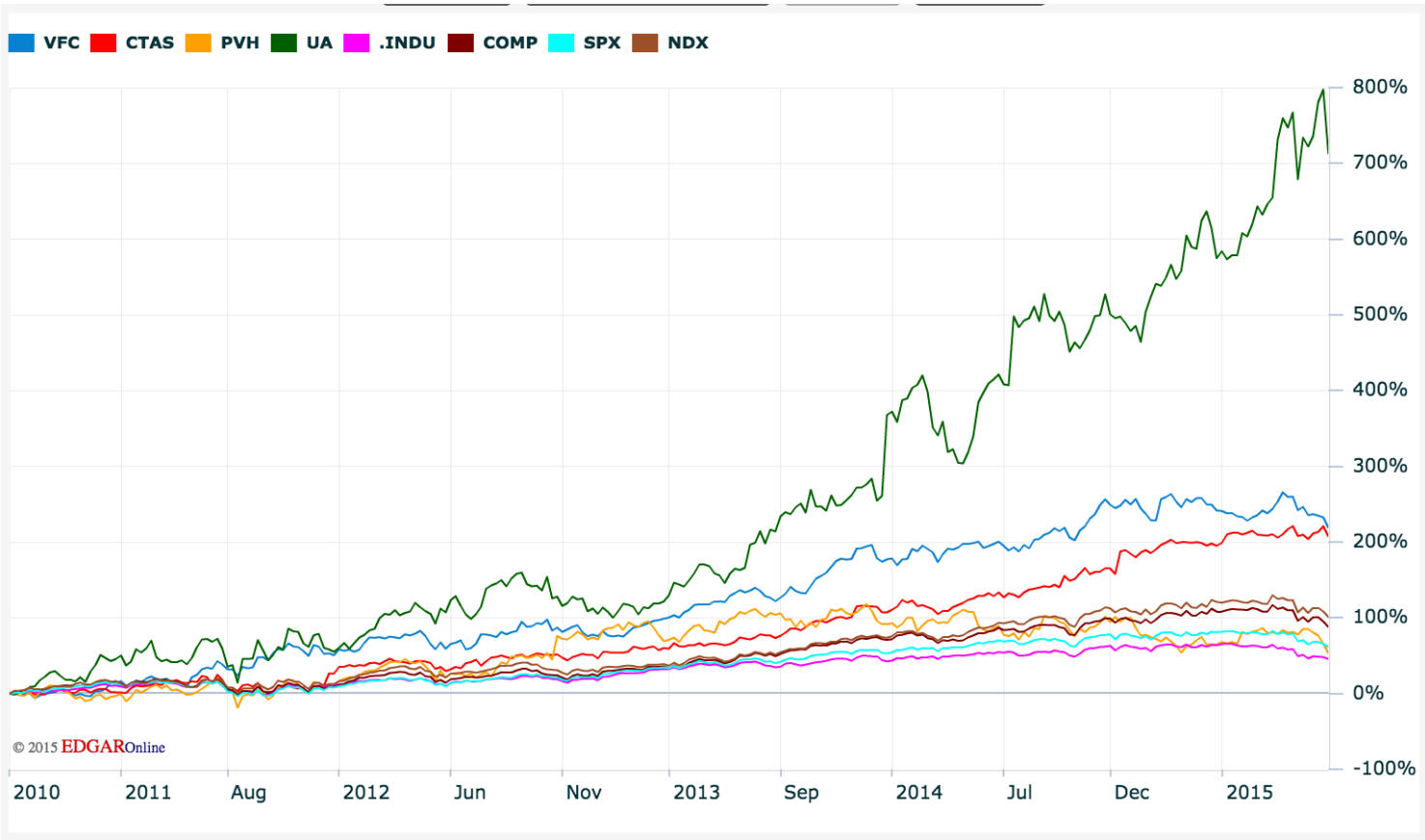
Graph 4: Return rate of Average Apparel Manufacturing industry and S&P 500 companies (Performance.morningstar.com, 2015)

It can be seen that across periods, UnderArmour boasts strong return percentages, significantly higher than the apparel manufacturing industry benchmark.

	2015	2014	2013	2012	2011	2010
Stock Price	$96.21	$70.07	$39.54	$28.02	$18.43	$11.24
Year on Year Growth	37.305%	77.212%	41.113%	52.034%	63.967%	

The 1-year return of UA is smaller than the 5-year growth rate. However, this comes as a consequence of the fast growth rate, the company experiencing a fantastic level of growth attaining at one point a 77.212% year on year growth.

From a long term point of view the NASDAQ 100 5 year return index is 140.97% this is considerably lower compared to Underarmour's 5 year return of 522% (18.43$/96.21$*100) . This further confirms our previous finding ,Underarmour is outperforming both its industry competitors and the Nasdaq 100 in terms of growth. Nevertheless despite the positive data it has to be considered that Underarmour is still at the growth rate stage while its competitors (Nike, Adidas, New Balance) or the Nasdaq 100 companies have reached the maturity stage which is characterized through lower growth rates.



Graph 5: Underarmour's Performance over the past 5 years compared to its competitors

As evident in the above graph, UA's performance is superior to that of competitors as well as companies' listed across all major indexes.
There is no obvious correlation after the date of November 2012 between fluctuations in value as whilst the other indices growth rates have plateaued more or less, UA has continued to have strong growth rates above the industry averages.

Part C

	2015	2014	2013	2012	2011	2010		
Stock Price	$96.21	$70.07	$39.54	$28.02	$18.43	$11.24		
Year on Year Growth	37.305%	77.212%	41.113%	52.034%	63.967%			
Probability	20%	20%	20%	20%	20%		Total	
Expected Return	7.461%	15.442%	8.223%	10.407%	12.793%		54.326%	Expected return taking into account the growth rate
Expected Return	$19.24	$14.01	$7.91	$5.60	$3.69		$50.45	Expected return taking into account the Stock Price
Standard Deviation							28.734	ST Dev Opening Stock
Standard Deviation							13.020%	ST Dev Year on Year Growth

Underarmour's stock has increased by 855% over the past five years (96.21$/11.24$) this growth is phenomenal compared to the NASDAQ 100 5 year Index of 140.97% (NASDAQ, 2015). It should be noted that such high rates of growth are unsustainable for long periods of time as Underamour will at some point reach a plateau as the company size increases resulting in market share additions becoming more and more difficult to achieve.

Part E

CAPM = Rf + b (Rm – Rf)
CAPM = 0.0008 + 1.22 (0.1924 – 0.0008)
CAPM = 0.0008 + 1.22 * 0.1916
CAPM = 0.0008 + 0.233752
CAPM = 0.234552
CAPM = 23.4552%

Rf (Risk Free Rate) = 3-month T-bills = 0.08% as stated by Treasury.gov (2015) for 06 November 2015
Rm (Market Risk) = benchmark market return rate NASDAQ 100 Average Return Index = 19.24% (NASDAQ, 2015)
b = 1.22 beta for UnderArmour as at September 30th 2015 (NASDAQ, 2015)

Week 2 Activity Section 2 (Arnaldo,Daniel)

Part A:

Underarmour, our shadow company, does not provide the information on debt issuance and credit ratings. Therefore, a proxy company, Nike Inc., is taken and analysed.
Nike's current long term debt issuance is $1.079B in Long term Bonds issued in 2003 maturing in 2015. They issued new bonds with the value of $1 billion. They have further short term liabilities of $181M.

Part B:

According to Standard and Poor's rating agency, Nikes debt is rated at A-1+, meaning that: "the companies capacity to meet its financial commitment on the debt is very strong" (Standardandpoors.com).
The Bonds (10 year bonds) mature in 2023 and have a yield to maturity of 2.53%. The coupon rate is 2.25% (S&P A-1+).
As discussed before the last bond issuance made from our proxy company has been made in 2013, issuing short-term and long-term bonds for a value of £1 billion.

Part C:

Being Nike a US traded company the most comparable free-risk investment are U.S. treasury bonds. An U.S. treasury bill with a maturity of 10 years provides a yield of 2.07%. As a result choosing to invest in Nike the risk premium is 0.46% for the bonds.

Part D

The previously mentioned shadow firm rating is A-1+ this rating would typically qualify for a 2.53% bond issuance. Matengus, therefore, could potentially gather a debt on a 2.53% basis over the period of 10 years.

Investment Project:

The investment project looks at possible strategies to increase market share and increase productivity. As Matengus outsources production it would be of great importance to open up a self-maintained production site. The investment project looks into the cost of opening up a production site in the U.S. (shadow firm location) and Romania. The U.S. production site would require higher investment due to the higher labour cost of approximately $ 100 million whereas the Romanian investment would require costs of new market entrance and could potentially cost around $ 95 million. The expected return for Matenugs investment should at least equal to Underarmour's (shadow company) return, which currently is 15.39%, in order to accept the investment.
In theory, bond prices have an inverse relationship towards changing interest rates, as the interest rate act as a competitor to the yield on the investment. Assuming, a bond generates a yield of 4% whereas interest rates currently are at 10%, then the

bond price will decrease due to a potential lack of demand in order for the yield to equal the 10%.

Week Three Activity Section 1(Adrian,Henrik,Eugen)

Part A

Matengus does not currently have a production facility. They outsource their production manufacturing to various factories in Asia, Central and South America. These outsourced production manufacturers focus on both obtaining the raw materials and also producing the finite products (Underarmour, 2015). This means that Matengus is incurring third party costs of production. On the long term it could be more financially viable to develop their own production facility/s.

In order to reduce production costs on the long term the company could consider building its own production factory in the US. Such a decision could reduce the costs of goods sold that the company are incurring. Furthermore this decision could serve as a PR move due to the fact that the company would be creating workplaces for its domestic citizens, and it would come as a image improvement in terms of the quality perception as the company would lose the stereotypical 'Made in China' label and switch to the 'Made in the USA' label.

Alternatively the company could open production facilities in a traditional developing economy such as Romania which would reduce the operating costs of the factory due to the much cheaper labour force.

Part B and C

In order to fully analyse the long term impact of these decisions certain issues and assumption have to be considered.

US project:

- In order to estimate the initial investment we made an approximation based on the example of New Balance who opened a factory in New England USA. We approximate that the initial outlay would be of **95 mil $.** Also the company will need to invest **5mil $** in working capital that will be recovered at the end of the project. The initial investment will be fully depreciated on a straight line basis by the end of the 10 years.
- In terms of the Cash Inflow of this project. The company could potentially save 5% of its costs of goods sold by undergoing this project. Almost **78,608,000 $** could be saved in the first year (5% of 1.5 bn). For the future cash inflows we also need to consider the company's rate of growth in terms

of sales but also costs of goods sold. A conservative approach would suggest that **a constant growth of 10% for the first 5 years and then a growth rate of 5% for the remaining period** would be realistic for Matengus's future prospects. However the decision to open a factory in US and being able to put the 'Made in US' label could potentially attract more customers and serve as a USP for Matengus who could benefit growth rates higher than 10%.

- By developing a domestic production facility Matengus could potentially receive some tax exemptions from the Government (in this case we decided to take a 3% deduction of its tax rate) as they are helping the community by creating workplaces.
- The operating expenses that need to be taken into account for this facility are the salaries of the workers. The average salary of the workers and the management will be around **28k per person per year. The company will have employed 500 workers**. (***Should we reference this?)*** **Other Operating costs such as maintenance, electricity, training of staff, insurance would rise up to 3 mil$ per year.**

YEAR	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenue	-	$78,608,200.00	$86,469,020.00	$95,115,922.00	$104,627,514.20	$115,090,265.62	$120,844,778.90	$126,887,017.85	$133,231,368.74	$139,892,937.18	$146,887,584.03	
Wages/ Salaries		($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	
Other OperatingExpenses		($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	
Total Operating Expenses	-	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	($17,000,000.00)	
Less Depreciation & Amortisation	-	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	
TAX	-	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	
Capital Expenditure	($95,000,000.00)											
Working Capital	($5,000,000.00)										$5,000,000.00	
Add Depreciation & Amortisation		$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	**Total**
Free Cash Flow	($100,000,000.00)	$44,933,576.00	$50,278,933.60	$56,158,826.96	$62,626,709.66	$69,741,380.62	$73,654,449.65	$77,763,172.14	$82,077,330.74	$86,607,197.28	$96,363,557.14	**$600,205,13**

Romania Project

- The cost of building the project in Romania will be cheaper in terms of labour and materials. However there will be further costs due to the need of further planning and overseeing. In other words the company will be required to do more planning as it is a new continent and a new country. Initial investment will be **90 mil $.** The necessary working capital is **5 mil $ that would be regained at the end of the 10 years.** The initial investment will be fully depreciated on a straight line basis by the end of the 10 years. (**However for the purpose of the future exercises we decided to make the**

initial outlay higher in order to make the Payback Period more realistic. Therefore the Initial Outlay that will be used in the Excel Calculations will be of 140 mil $)

- The company would reduce its costs of goods sold by 5% by removing the 'middle man' (**78,608,000 $** in the first year as it represents 5% of 1.5 bn) furthermore Underarmour would be able to reach the EU market which the second biggest market after North America. The growth of the company will be maintained at 10% for the whole period in order to reflect the income that the company gains through increasing its reach in the European Market.
- The Operating expenses that need to be taken into account are the salaries and the other operating expenses. The average salary in Romania is **8000$ per year and the company would be employing 500 workers. Other operating expenses are 2.5 mil $.**
- **The tax rate in Romania is 16%.**

YEAR	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenue	-	$78,608,200.00	$86,469,020.00	$95,115,922.00	$104,627,514.20	$115,090,265.62	$126,599,292.18	$139,259,221.40	$153,185,143.54	$168,503,657.89	$185,354,023.68	
Wages/ Salaries		($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	
Other OperatingExpenses		($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	
Total Operating Expenses	-	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	
Less Depreciation & Amortisation	-	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	
TAX	-	$0.16	$0.16	$0.16	$0.16	$0.16	$0.16	$0.16	$0.16	$0.16	$0.16	
Capital Expenditure	($140,000,000.00)											
Working Capital	($5,000,000.00)										$5,000,000.00	
Add Depreciation & Amortisation		$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	**Total**
Free Cash Flow	($145,000,000.00)	$62,810,888.00	$69,413,976.80	$76,677,374.48	$84,667,111.93	$93,455,823.12	$103,123,405.43	$113,757,745.98	$125,455,520.57	$138,323,072.63	$157,477,379.89	**$880,162,298.84**

Week Three Activity 2 (Adrian,Henrik,Eugen)

Part A,B and C

Payback Period, NPV, IRR US Project

Year	Cash Flow	Cumulative Cash Flow	Discount Rate	Discounted Cash Flow	
0	($95,000,000.00)	($95,000,000.00)		($95,000,000.00)	
1	$44,933,576.00	($50,066,424.00)	1.04200	$43,122,433.78	
2	$50,278,933.60	$212,509.60	1.08576	$46,307,423.71	
3	$56,158,826.96	$56,371,336.56	1.13137	$49,638,068.13	
4	$62,626,709.66	$118,998,046.22	1.17888	$53,123,749.37	
5	$69,741,380.62	$188,739,426.84	1.22840	$56,774,320.58	
6	$73,654,449.65	$262,393,876.49	1.27999	$57,543,023.18	
7	$77,763,172.14	$340,157,048.63	1.33375	$58,304,212.71	
8	$82,077,330.74	$422,234,379.37	1.38977	$59,058,372.19	
9	$86,607,197.28	$508,841,576.65	1.44814	$59,805,966.58	NPV
10	$96,363,557.14	$605,205,133.79	1.50896	$63,860,988.02	$452,538,558.27
Payback Period		2.00	Years		
IRR	56.5365%				

Payback Period, NPV, IRR Romania Project

Year	Cash Flow	Cumulative Cash Flow	Discount Rate	Discounted Cash Flow	
0	(140,000,000.00)	(140,000,000.00)		(140,000,000.00)	
1	62,810,888.00	(77,189,112.00)	1.0420	60,279,163.15	
2	69,413,976.80	(7,775,135.20)	1.0858	63,930,998.63	
3	76,677,374.48	68,902,239.28	1.1314	67,774,149.58	
4	84,667,111.93	153,569,351.21	1.1789	71,819,746.85	
5	93,455,823.12	247,025,174.33	1.2284	76,079,521.44	
6	103,123,405.43	350,148,579.76	1.2800	80,565,838.69	
7	113,757,745.98	463,906,325.74	1.3337	85,291,734.33	
8	125,455,520.57	589,361,846.31	1.3898	90,270,952.54	
9	138,323,072.63	727,684,918.94	1.4481	95,517,986.02	NPV
10	157,477,379.89	885,162,298.84	1.5090	104,361,662.95	655,891,754.19
Payback Period		$ 2.10	Years		
IRR	53.6747%				

For the purpose of this exercise by taking into account Underarmour (Matengus) excellent credit rating (rated A on morningstar) better rating than one its direct competitors (Nike rated B on morningstar), we will take a 4.2% interest rate. This decision is based on the research done by Business-Case-Analysis (Schmidt, 2015) and quoted below:

'In 2011, for example, a company with an AAA credit rating, or the US treasury, can sell bonds with a yield somewhere between 4% and 5%, which might be taken as the cost of capital for these organizations. '

In order to complete this exercise successfully we have used the above presented assumptions and the strategy of loaning capital from a bank in order to fund our investment however our suggested ideal course of action which takes into account the strong financial position of the company at present time can be found in Appendix 1.

Part D

Project Analysis and Decision

In terms of NPV there is a clear difference between the two projects. The Romanian project has a considerably higher NPV of $ 655,891,754 million compared to the NPV of $ 425,538,558 of the American Project. In other words the Romanian project earns the investors almost 204 million $ more than the US project. However the Payback period is incrementally longer by 37 days than the American projects. This small difference should not carry much weight in the final decision making process as the financial gains far outweigh the actual length the project will take to pay for itself. In terms of IRR, the US project is shown to perform better (again incrementally) at 56,5365% compared to the IRR of the Romanian project at 53,6747%.

In the present situation it is our recommendation that the Romanian project boasting the higher NPV should be chosen as a result of an inherent assumption that the cash flow will be reinvested at the same discount rate (the IRR rate). As such the lower IRR rate can be considered the more realistic and more conservative option of the two. It is our belief that the NPV results for the Romania projects should be regarded as the deciding factor in pursuing this investment. (Finance Train, 2012)

Week 4 Activity (Adrian,Henrik,Eugen)

Part A

A) Assumptions US

Pessimistic :

Donald Trump is elected as president thereby limiting the amount of migrant workers coming into the country and receiving green cards, this will eventually result in driving employee wages higher therefore incurring significant additional costs for the company.

Operational cost increase: 12.5 %
Trading Costs imposed: 4% of the revenue that the project earns

Optimistic:

Bernie Sanders wins the Iowa caucus and is later on elected as the presidential candidate on behalf of the Democratic party, regardless of his success in the final stretch, his left leaning policies are likely to have an effect on whoever takes over the presidency thus forcing the president elect to put into motion a financial support plan for American businesses allowing them to train and hire employees with the backing of government funds. This will result in a considerable cost decrease for the company. The above scenario also accounts for significant fiscal easing for the companies willing to take part in the governments jobs program.

Operational cost decrease by 25% from government grants
Tax Reduction: due to fiscal easing tax drops from the 35% to 28% for the company

Assumptions Romania

Pessimistic:

Portugal, Spain and Greece default on their debt to the European Union. A new bailout scheme is put in place in order to save the Union thereby forcing the Romanian government to impose punitive taxes and policies on the private sector.

Tax increase: due to punitive austerity measures from 16% to 30%

Optimistic:

Political manuverings work in Romania's favour due to its status as an extremely important strategic location (NATO anti-missile shield), the country is able to secure trade agreements with a number of important NATO member countries regarding freedom of trade. Thereby decreasing the operational costs that the company is incurring due to tariffs

Increase of 25% in revenues

Part B

US Project Pessimistic

Operational cost increase: 12.5 % from
Trading Costs imposed: 4% of the revenue that the project earns

YEAR	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenue	-	$78,608,200.00	$86,469,020.00	$95,115,922.00	$104,627,514.20	$115,090,265.62	$120,844,778.90	$126,887,017.85	$133,231,368.74	$139,892,937.18	$146,887,584.03	
Wages/ Salaries		($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	
Other OperatingExpenses		($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	($3,000,000.00)	
Additional Operating Costs		($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	($2,125,000.00)	
Trading Costs		($3,144,328.00)	($3,458,760.80)	($3,804,636.88)	($4,185,100.57)	($4,603,610.62)	($4,833,791.16)	($5,075,480.71)	($5,329,254.75)	($5,595,717.49)	($5,875,503.36)	
Total Operating Expenses	-	($22,269,328.00)	($22,583,760.80)	($22,929,636.88)	($23,310,100.57)	($23,728,610.62)	($23,958,791.16)	($24,200,480.71)	($24,454,254.75)	($24,720,717.49)	($25,000,503.36)	
Less Depreciation & Amortisation	-	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	
TAX	-	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	
Capital Expenditure	($95,000,000.00)											
Working Capital	($5,000,000.00)										$5,000,000.00	
Add Depreciation & Amortisation		$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	**Total**
Free Cash Flow	($100,000,000.00)	$41,350,432.96	$46,481,976.26	$52,126,673.88	$58,335,841.27	$65,165,925.40	$68,922,471.67	$72,866,845.25	$77,008,437.51	$81,357,109.39	$90,923,214.86	**$554,538,928.44**

Year	Cash Flow	Cumulative Cash Flow	Discount Rate	Discounted Cash Flow	
0	($95,000,000.00)	($95,000,000.00)		($95,000,000.00)	
1	$41,350,432.96	($53,649,567.04)	1.04200	$39,683,716.85	
2	$46,481,976.26	($7,167,590.78)	1.08576	$42,810,386.29	
3	$52,126,673.88	$44,959,083.10	1.13137	$46,074,099.65	
4	$58,335,841.27	$103,294,924.37	1.17888	$49,483,976.21	
5	$65,165,925.40	$168,460,849.76	1.22840	$53,049,582.71	
6	$68,922,471.67	$237,383,321.43	1.27999	$53,846,134.26	
7	$72,866,845.25	$310,250,166.68	1.33375	$54,633,111.39	
8	$77,008,437.51	$387,258,604.19	1.38977	$55,411,072.99	
9	$81,357,109.39	$468,615,713.58	1.44814	$56,180,556.79	NPV
10	$90,923,214.86	$559,538,928.44	1.50896	$60,255,624.71	$416,428,261.85
Payback Period			2.14	Years	
IRR	52.7810%				

US Project Optimistic

Operational cost decrease by 25% from government grants :
The total operating expenses will reduce by 4,250,000 $ from 17,000,000 $ to 12,750,000 $

Tax Reduction : due to fiscal easing tax drops from the 35% to 28% for the company

YEAR	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenue	-	$78,608,200.00	$86,469,020.00	$95,115,922.00	$104,627,514.20	$115,090,265.62	$120,844,778.90	$126,887,017.85	$133,231,368.74	$139,892,937.18	$146,887,584.03	
Wages/ Salaries		($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	($10,500,000.00)	
Other OperatingExpenses		($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	($2,250,000.00)	
Total Operating Expenses	-	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	($12,750,000.00)	
Less Depreciation & Amortisation	-	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	($9,500,000.00)	
TAX	-	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	
Capital Expenditure	($95,000,000.00)											
Working Capital	($5,000,000.00)										$5,000,000.00	
Add Depreciation & Amortisation		$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	$9,500,000.00	**Total**
Free Cash Flow	($100,000,000.00)	$50,077,904.00	$55,737,694.40	$61,963,463.84	$68,811,810.22	$76,344,991.25	$80,488,240.81	$84,838,652.85	$89,406,585.49	$94,202,914.77	$104,239,060.50	**$666,111,318.13**

Year	Cash Flow	Cumulative Cash Flow	Discount Rate	Discounted Cash Flow	
0	($95,000,000.00)	($95,000,000.00)		($95,000,000.00)	
1	$50,077,904.00	($44,922,096.00)	1.04200	$48,059,408.83	
2	$55,737,694.40	$10,815,598.40	1.08576	$51,334,999.50	
3	$61,963,463.84	$72,779,062.24	1.13137	$54,768,712.35	
4	$68,811,810.22	$141,590,872.46	1.17888	$58,370,324.42	
5	$76,344,991.25	$217,935,863.71	1.22840	$62,150,117.61	
6	$80,488,240.81	$298,424,104.52	1.27999	$62,881,967.47	
7	$84,838,652.85	$383,262,757.37	1.33375	$63,609,170.33	
8	$89,406,585.49	$472,669,342.86	1.38977	$64,332,104.31	
9	$94,202,914.77	$566,872,257.63	1.44814	$65,051,133.73	**NPV**
10	$104,239,060.50	$671,111,318.13	1.50896	$69,080,154.28	$504,638,092.83
Payback Period		1.83	**Years**		
IRR	61.9147%				

Romania Project Pessimistic

Tax increase: due to punitive austerity measures from 16% to 30%

YEAR	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenue	-	$78,608,200.00	$86,469,020.00	$95,115,922.00	$104,627,514.20	$115,090,265.62	$126,599,292.18	$139,259,221.40	$153,185,143.54	$168,503,657.89	$185,354,023.68	
Wages/ Salaries		($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	
Other OperatingExpenses		($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	
Total Operating Expenses	-	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	
Less Depreciation & Amortisation	-	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	
TAX	-	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	
Capital Expenditure	($140,000,000.00)											
Working Capital	($5,000,000.00)										$5,000,000.00	
Add Depreciation & Amortisation		$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	Total
Free Cash Flow	($145,000,000.00)	$54,675,740.00	$60,178,314.00	$66,231,145.40	$72,889,259.94	$80,213,185.93	$88,269,504.53	$97,131,454.98	$106,879,600.48	$117,602,560.53	$134,397,816.58	$733,468,582.36

Year	Cash Flow	Cumulative Cash Flow	Discount Rate	Discounted Cash Flow	
0	(140,000,000.00)	(140,000,000.00)		(140,000,000.00)	
1	54,675,740.00	(85,324,260.00)	1.0420	52,471,919.39	
2	60,178,314.00	(25,145,946.00)	1.0858	55,424,856.60	
3	66,231,145.40	41,085,199.40	1.1314	58,540,861.44	
4	72,889,259.94	113,974,459.34	1.1789	61,829,062.99	
5	80,213,185.93	194,187,645.27	1.2284	65,299,096.36	
6	88,269,504.53	282,457,149.80	1.2800	68,961,130.92	
7	97,131,454.98	379,588,604.78	1.3337	72,825,900.19	
8	106,879,600.48	486,468,205.26	1.3898	76,904,733.23	
9	117,602,560.53	604,070,765.79	1.4481	81,209,587.95	NPV
10	134,397,816.58	738,468,582.36	1.5090	89,066,630.68	542,533,779.75
Payback Period		$ 2.38	Years		
IRR	46.9718%				

Romania Project Optimistic

Increase of 25% in revenues

YEAR	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenue	-	$78,608,200.00	$86,469,020.00	$95,115,922.00	$104,627,514.20	$115,090,265.62	$126,599,292.18	$139,259,221.40	$153,185,143.54	$168,503,657.89	$185,354,023.68	
25% Increase in Revenues		$19,652,050.00	$21,617,255.00	$23,778,980.50	$26,156,878.55	$28,772,566.41	$31,649,823.05	$34,814,805.35	$38,296,285.89	$42,125,914.47	$46,338,505.92	
Total Revenue		$98,260,250.00	$108,086,275.00	$118,894,902.50	$130,784,392.75	$143,862,832.03	$158,249,115.23	$174,074,026.75	$191,481,429.43	$210,629,572.37	$231,692,529.60	
Wages/ Salaries		($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	($4,000,000.00)	
Other OperatingExpenses		($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	($2,500,000.00)	
Total Operating Expenses	-	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	($6,500,000.00)	
Less Depreciation & Amortisation	-	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	($14,000,000.00)	
TAX	-	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	
Capital Expenditure	($140,000,000.00)											
Working Capital	($5,000,000.00)										$5,000,000.00	
Add Depreciation & Amortisation		$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	$14,000,000.00	**Total**
Free Cash Flow	($145,000,000.00)	$79,318,610.00	$87,572,471.00	$96,651,718.10	$106,638,889.91	$117,624,778.90	$129,709,256.79	$143,002,182.47	$157,624,400.72	$173,708,840.79	$196,401,724.87	**$1,143,252,873.55**

Year	Cash Flow	Cumulative Cash Flow	Discount Rate	Discounted Cash Flow	
0	(140,000,000.00)	(140,000,000.00)		(140,000,000.00)	
1	79,318,610.00	(60,681,390.00)	1.0420	76,121,506.72	
2	87,572,471.00	26,891,081.00	1.0858	80,655,161.71	
3	96,651,718.10	123,542,799.10	1.1314	85,429,216.17	
4	106,638,889.91	230,181,689.01	1.1789	90,457,533.08	
5	117,624,778.90	347,806,467.91	1.2284	95,754,727.63	
6	129,709,256.79	477,515,724.70	1.2800	101,336,209.91	
7	143,002,182.47	620,517,907.17	1.3337	107,218,229.86	
8	157,624,400.72	778,142,307.89	1.3898	113,417,924.78	
9	173,708,840.79	951,851,148.68	1.4481	119,953,369.39	NPV
10	196,401,724.87	1,148,252,873.55	1.5090	130,157,173.23	860,501,052.47
Payback Period		$ 1.72	Years		
IRR	66.0707%				

Part C

NPV Ranges for USA and Romania projects between optimistic and pessimistic:

Range USA: 88,209,831

Range Romania: 317,967,273

Whilst the higher range in the case of the Romania project would normally tend to suggest that the project carries a higher degree of risk, it is observable that the pessimistic NPV for the Romania project exceeds the optimistic NPV for the USA project thus clearly suggesting that the Romanian project is the one that should be preferred in this situation. It is the author's opinion that in this scenario, comparing the two ranges is of no real value in determining the better project.

Part D

For the purpose of this exercise we have chosen a fixed discount rate for both countries in terms of each of the two scenarios Romania and USA to maintain comparability when examining the final results.

For the pessimistic case the discount rate will increase by 40% up to 5.88%.

For the optimistic case the discount rate will decrease by 40% down to 2.52%.

US Pessimistic

Discount Rate	Discounted Cash Flow	
	($95,000,000.00)	
1.05880	$39,054,054.55	
1.12106	$41,462,617.88	
1.18698	$43,915,538.88	
1.25677	$46,417,285.03	
1.33067	$48,972,345.38	
1.40891	$48,918,963.63	
1.49176	$48,846,386.20	
1.57947	$48,755,863.30	
1.67234	$48,648,574.16	**NPV**
1.77068	$51,349,409.86	$371,341,038.88

US Optimistic

	($95,000,000.00)	
1.02520	$48,846,960.59	
1.05104	$53,031,242.80	
1.07752	$57,505,567.66	
1.10467	$62,291,471.88	
1.13251	$67,412,054.32	
1.16105	$69,323,558.91	
1.19031	$71,274,401.83	
1.22031	$73,265,704.34	
1.25106	$75,298,610.66	**NPV**
1.28258	$81,272,667.34	$564,522,240.31

Romania Pessimistic

Discount Rate	Discounted Cash Flow	
	(140,000,000.00)	
1.0588	51,639,346.43	
1.1211	53,679,955.95	
1.1870	55,798,235.81	
1.2568	57,997,304.58	
1.3307	60,280,396.88	
1.4089	62,650,868.10	
1.4918	65,112,199.46	
1.5795	67,668,003.12	
1.6723	70,322,027.54	**NPV**
1.7707	75,901,941.86	**481,050,279.75**

Romania Optimistic

Discount Rate	Discounted Cash Flow	
	(140,000,000.00)	
1.0252	77,368,913.38	
1.0510	83,320,220.23	
1.0775	89,698,211.98	
1.1047	96,534,205.25	
1.1325	103,861,797.03	
1.1611	111,717,031.13	
1.1903	120,138,576.85	
1.2203	129,167,920.64	
1.2511	138,849,571.72	**NPV**
1.2826	153,129,661.49	**963,786,109.70**

Part E

Presuming that both scenarios in the case of each country based project carry identical probabilities, it is the author's opinion that the project that should be chosen is the project boasting the higher NPV value in the case of the most pessimistic scenario. Thus by choosing the Romanian project, in the case in which the opposite turn of events is to take place and an optimistic prediction can be enforced, the NPV is far more positive than the optimistic NPV of the USA project ($986,786,109.70 compared to $564,522,240.31) therefore further strengthening the argument favouring the Romanian project.

Week 5 Activity Section 1(Daniel,Arnaldo)

Part A:

Thorough investigations of Under Armours' 2014 balance sheet have revealed that their long-term debt is $255.25M, and their total Shareholders Equity is $1.35B. According to this data the debt to equity ratio is $\frac{\$255\ 250\ 000}{\$1\ 350\ 000\ 000} = 0.167$. The Long term Debt – Equity ratio suggests that Under Armour currently hold 16.7% debt in relation to their equity, this proves that Under Armour has a strong financial stability. Another advantage of such a low ratio is that the company could acquire more debt for expansion possibilities.

Part B:

Matengus' balance sheet would hold the following numerics for the long-term debt and the shareholders equity:

Long-term Debt: $95 000 000
Shareholders Equity: $568 862 185

This would result in the same long-term debt to equity ratio as for the shadow firm.

Part C:
The cost of equity used to calculate the weighted average cost of capital is 4.48%, this is the same figure as our shadow company's cost of equity. Further, the cost of debt is estimated at 4% due to the potential interest payments on the debt. The corporate tax rate is 39.1%.

$$WACC = \frac{568\,862\,185}{95\,000\,000 + 568\,862\,185} * 0.0448 + \frac{95\,000\,000}{95\,000\,000 + 568\,862\,185} * 0.4 * (1 - 0.391)$$

$$WACC = 0.0732 = \mathbf{7.32}\%$$

Part D:
The weighted average cost of capital results in 7.32 per cent, suggesting that each source of capital is averagely costing the company 7.32% when issued. Therefore, money invested into the company would averagely give a return of 7.32%.

Week 5 Activity Section 2(Daniel,Arnaldo)

Part A

From a detailed analysis of Under Armour 2014 income statement, has derived that the EBIT is $347.54M, fixed operating costs are $1572.09M and variable operating costs are $1160M.

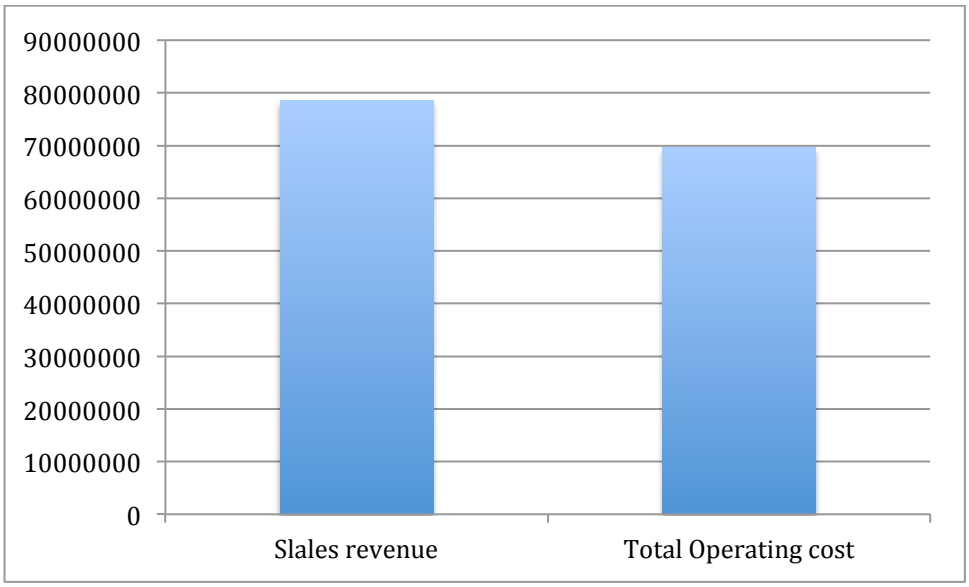
Part B

A simple per-unit price of $70 will be taken as an average and considered for the calculation of Matengus earnings before interest and tax. Assuming 1 122 975 pieces were sold at $70 each then Matengus would generate a revenue of $78,608,200. Resulting in an EBIT of $8,856,184. The fixed cost will be $ 40,123,105.56. Finally, the variable costs would be $ 29,605,685.7.

Part C

Calculate the *operating breakeven point* for your firm. Create a simple graph for sales revenue and total operating costs, highlighting the breakeven sales level in units.

$$Breakeven\ point\ in\ units = \frac{\$40{,}123{,}105.56}{\$70 - \$7.886} = 645{,}689\ units$$



The graph above represents the Sales Revenue in relation to the Total Operating Costs. As mentioned before the total revenue is comprised of 1,122,975 units sold, whereas the Total Operating Costs are less than the total revenue. Therefore, the graph clearly shows that the breakeven point is reached prior to one year of sales resulting in 645,689 units sold.

Part D

Calculate the *degree of operating leverage* for your fictitious firm at a base sales level.

$$DOL = \frac{\$8{,}856{,}184 + \$40{,}123{,}105.56}{\$8{,}856{,}184} = 5.53$$

The degree of operating leverage gives a multiple at which the EBIT is effected when the Sales fluctuate. Matengus DOL is 5.53 meaning that when sales increase by 5% then the EBIT will increase by: $5\% * 5.53 = 27.65\%$. Due to the fact that we are a multi-product company, in order to calculate the DOL we used an average price per unit of $70.

Part E

Going back to our shadow firm we calculate its *degree of financial leverage* at its current levels of EBIT and EPS. In the same way we calculate it's *degree of total leverage* at current sales and EPS levels.

$$DFL = \frac{\$347{,}540{,}000}{\$347{,}540{,}000 - \$5{,}340{,}000 - [\frac{0}{1 - 0.39}]} = 1.01$$

DFL measures the relation of the company's earnings per share towards any change in the EBIT. The resulting degree for Under Amour is 1.01 suggesting that the earnings per share are not sensible towards any change in the EBIT.

$$DTL = \frac{\$347{,}540{,}000 + \$1{,}572{,}090{,}000}{\$347{,}540{,}000 - \$5{,}340{,}000 - [\frac{0}{1 - 0.39}]} = 5.60$$

DTL combines the DFL and the DOL and measures how sensible the earnings per share are towards the Sales. Under Amour's earning per share therefore are highly sensible due to the high degree of operating leverage rather than the degree of financial leverage.

Part F

At this point we will carry out a valuation of our shadow firm. We are going to use estimates for our firm's weighted average cost of capital. Consequently we are going to apply the same method of valuation to our fictitious firm, using the numbers we assigned in section1. Matengus valuation is carried out from financial data retrieved from first year's operations.

The valuation of the companies shows that Under Armour is valued at $2,896,166,667 and Matengus: $73,680,547.21. Under Armour has been valued at a tax rate of 39%, which was accurate for 2014 whereas Matengus is valued at a tax rate of 39.1% due to the change in 2015. The weighted average cost of capital remains the same at 7.32%

$$V(Under\ Armour) = \frac{\$347{,}540{,}000 * (1 - 0.39)}{0.0732} = \$2{,}896{,}166{,}667$$

$$V(Matengus) = \frac{\$8{,}856{,}184 * (1 - 0.391)}{0.0732} = \$73{,}680{,}547.21$$

Week 6 Activity (Henrik, Adrian, Eugen)

Part A

The dividend history of the UnderArmour has not seen any change since 2005. The company has not paid any cash dividends to its shareholders, despite the continuous growth of above 20%, nor will they offer cash dividends to the shareholder in the near future. (UnderArmour, 2014)

Part B

For the purpose of comparing the EPS and dividend numbers, we are returning to our previously chosen proxy company – NIKE (Week 2 Activity Section 2).

Fiscal Year End (Dec.)	2014	2013	2012	2011	2010
EPS	2.97	2.7	2.35	2.2	1.93
Dividends	0.93	0.6	0.695	0.6	0.53

As in the UnderArmour case, it is noticeable that NIKE has been constantly growing during the past 5 years in terms of EPS. The EPS has grown 53%, as it is also seen in the dividend payout that increased 75% from 2010. However, in terms of dividends, the company has maintained a relatively constant between the years 2010 and 2013, but this was not the case for the final year, where the dividends pay-out has shown no correlation with the previous years and increased to $0.93 from $0.6 in 2013.

Fiscal Year End (Dec.)		2014	2013	2012	2011	2010
EPS		0.95	0.75	0.61	0.46	0.335
Dividends	$	0.350	0.304	0.265	0.230	0.200
Dividend Growth	15%					

It can be observed above that we have chosen the EPS and Dividend payout for our shadow firm to mimic the rate of growth experienced historically by NIKE but we have tried to also incorporate the EPS growth rates for our original company Under Armour in this simulation. We have used a conservative dividend growth rate of 15% in order to convey the status of our company as being focused on driving the growth

rate of Matengus implicitly the share value growth, but to also offer our shareholders value in the form of dividends so as to maintain their trust.

Part C

Fiscal Year End (Dec.)		2018	2017	2016	2015	2014
EPS		2.27	1.77	1.4	1.08	0.9
Dividends (September)	$	0.300	0.300	0.300	0.300	0.30

The change of dividends in the future years to a steady rate of $0.3 has been agreed considering the choice of either one of the 2 mutually exclusive project projects Matengus will be involved in (US or Romania). Besides the large investment required to put the chosen project into effect, we also took into consideration the extra risk involved in the new venture. Even though the EPS is forecasted to increase in the next 5 years, having a constant dividend payout will offer us the opportunity to lower the risk and ensure that the company has funds available in the event of the project reaching stumbling blocks and not matching it's predicted yearly cash flows or NPV.

Part D

Stockholders' equity		
Class A Common Stock, $0.0003 1/3 par value; 400,000,000 shares authorized as of December 31, 2014 and 2013; 177,295,988 shares issued and outstanding as of December 31, 2014 and 171,628,708 shares issued and outstanding as of December 31, 2013.	59	57
Class B Convertible Common Stock, $0.0003 1/3 par value; 36,600,000 shares authorized, issued and outstanding as of December 31, 2014 and 40,000,000 shares authorized, issued and outstanding as of December 31, 2013.	12	13
Additional paid-in capital	508,350	397,248
Retained earnings	856,687	653,842
Accumulated other comprehensive income (loss)	(14,808)	2,194
Total stockholders' equity	1,350,300	1,053,354
Total liabilities and stockholders' equity	$2,095,083	$1,577,741

In the UnderArmour's balance sheet, the Total Stockholders' Equity has increased with $300 million from the previous year of 2013.

Part F

A big change that can be observed in the Equity account is the stock split UnderArmour has gone through during the 2013-2014 financial year.
The stock split was a significant change due to the fact that it also makes changes in the management department, as the C.E.O Kevin Plank bought the majority of Class B shares. (Brumley, 2015)

Appendix 1

According to UnderArmour's Balance Sheet, the company has $593 million in cash. Therefore, when it comes to choosing how to finance projects, it seems more suitable to use its own cash assets. By using cash, the company does not have to pay back interest and the cash assets can be discounted as expenses in the purpose of future tax payments.

For the purpose of financing this investment, UnderArmour should use its own money, as this offers 2 benefits:

1. The money invested in the required assets will go down as expenses in the current financial year thus being written off with the purpose of lowering the annual tax deductibles.

2. By now loaning the money required from a bank, the company will avoid entering a long-term interest paying arrangement. The only negative that can be stipulated is that by using its only money, UnderArmour forfeits the added security that a bank loan normally grants.

The only relevant issue that has to be considered is that by investing this money into the project, the company may miss out of other potential investment in the near future, although the company's cash assets suggest that arranging the required funding would not be an issue.

We decided to take a more conservative approach so we decided to take a discount rate/opportunity cost of 10%.

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