



60%

NORTH WEST UNIVERSITY

FINANCIAL MANAGEMENT

MBAC 813

PRESENTED BY

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MASTERS IN BUSINESS ADMINISTRATION

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Question 1 (See Annexure A)

Executive summary

This assignment is based on the historic financial data of Netcare. The historic financial statement is for the past 10 years until 2017. Other information for Netcare was extracted from the online source.

Calculations of Standard deviation, Coefficient of variations and Beta were done in order to analyze the business risk and share price risk relationship when considering on a standalone basis. After analyzing the risks there are recommendations to the management in order for them to improve the situation.

In order to assess whether their share price is in equilibrium, the FCF (free cash flow) method, the NAV (Net asset value) method and the PE (price earnings) ratio was used.

What is business risk?

According to Brigham & Ehrhardt (2016) Business risk is described as the risk inherent in the operations of the firm, prior to the financing decision. Thus business risk is the uncertainty inherent in future operating income or earnings before interest and taxes. Business risk can be caused by sales variability and operating leverages.

Business Risk can be loosely translated as the chance that some unfavorable event will occur and the investors or business end up with lower return than expected. The asset standalone risk is the risk an investor would face if she/he held only this one asset. Most assets are held in portfolio, but it is necessary to understand the stand-alone risk in order to understand the risk in a portfolio context.

In this study the Historical data is going to be used to calculate the estimated risk, information from the past is going to be used to make an estimate. We are going to assume that the past is relevant to the future.

In order to assess business risk of Netcare we are going to look at the performance volatility of the following aspect:

- ❖ Sales
- ❖ Profit
- ❖ Dividend
- ❖ Share price

To analyze the business risk of Netcare we are going to use the following statistical or historical trends:

From the calculation we can deduce that the share price is more volatile at 25.43% followed by the profit margin at 15.94%, then the dividends at 12.59%. The sales or turnover is the least volatile at 0.35%. All of these are against the market or index of 0.32%.

Coefficient of variations

This is the risk measurement that is normally used for selecting the type of investment you would like to invest in.

The advantage of Coefficient of variation is that it measures the amount of risk taken to earn R1.00.

When using the coefficient of variation to determine our standard deviation we realise that the profit margin is more risky at 70.30% followed by the share price at 1.87% then dividends at 0.41%. The least volatile is still sales at 0.068%.

Beta

Beta is the unit measurement of market risk (Systematic risk). Netcare beta is 2.071, which indicates that Netcare is more riskier than the all share index (Market) with the tendency of movement in the same direction with the All share index. The high beta indicates high market risk exposure by Netcare. Any investor investing in Netcare will require high return using Capital Asset Pricing Model. Netcare managers have no control over market risk.

Nice but not stand-alone

Conclusion

The sales are more stable, the number of sales was slow for the past years. It doesn't look like there were major increases or decline in sales.

Historical trends of sales didn't show a significant high growth or any significance decline which could have led the volatility to be low. The volatility can be attributed to the cost management within the company because if sales are not growing there must be away of managing cost in order to improve the profit.

Volatility of sales should correspond to the volatility of profit as **profit=sales-cost**. Volatility of profit impacted on the dividend that has affected the dividends policy of the company which has led to volatility of 12.59%.

The share price was more volatile as it was tracking the performance of the company, mainly the profitability and the dividends stability.

It should also be noted that we have the market sentiments of perception that influence the company. Netcare was also highly volatile compared to the

Share valuation and equilibrium

See notes - general - on Efundi.

<u>SUMMARY</u>	<u>Value per share</u>	<u>current Netcare JSE price</u>	<u>Comment</u>
NAV	R6.52	R 23.54	overvalued/ overpriced
Constant growth model FCF	R10.38	R 23.54	overvalued/ overpriced
Variable growth model FCF	R19.17	R 23.54	overvalued/ overpriced

Free Cash flow

The FCF valuation method has taken assumptions namely:

- ❖ The required rate of return was assumed to be 12%
- ❖ The growth of the company according to the sales was taken as 6%
- ❖ The FCF valuation was conducted over 2 scenarios
 1. Constant growth 6% to infinity, this approach yield the results that shows that the value per share is R10.38 which concludes that the share price is over valued
 2. Calculate value per share using multiple growth of FCF from high growth to low growth, tis has yielded multiple growth of the FCF from the high growth to the low growth in the long run. We got the value of share price as R19.70c which still indicates that the share price is overvalued.

NAV –Net Asset value

- ❖ This method is applicable for companies that will cease /stop to operate in future. It is not highly recommended for a going concern company like Netcare, however we will still use it to get the minimum value of the company.
- ❖ It helps to see if the company is trading above the NAV. Company that trades above the NAV increases the market value added to the shareholder.
- ❖ Results of NAV shows that the value per share is R6.52 which still indicates that share price is overvalued.

Activity ratio this is a measure of the speed with which various accounts are converted into sales or cash Meggison & Smart (2010).

The collection period has improved in last two years 2016 has been 49 compared to the previous year 2012/2015 which was 50 days and above this it implies that Netcare was able to collect cash faster from the customers than they did in the previous years.

Collection period improvement will increase the cash available within the company.

Debt ratio this is the measurement of the proportion of total assets financed by firm's creditors Meggison & Smart (2010).

Debt to equity ratio is the measurement calculated by dividing long term debt by stockholder's equity.

Debt to equity in 2017 was the highest compared to the previous years. This is a concern when sales are not improving as sales and profit didn't increase in 2017.

The concern is that financial risk is increasing in 2017 while sales and profit are not increasing. Managers of Netcare must align an increase in debt with an increase in sales.

Normally when the company increase debt and there is poor performance, the debt is to supplement the cash needed for creditors as well as the dividends.

Profitability Ratio

Ratio that shows the combined effect of liquidity, asset management, and debt on operations.

The profitability ratio shows the decline in the profit margin for the past 3 years. In 2017 it even went to -7.86%. Company needs to improve its profitability by improving sales and managing their cost.

PE ratio or price earnings ratio this is a measurement of a firm's long term growth prospects by determining the amount investors are willing to pay for each dollar of a firm's earnings. Price earnings measure the market confidence towards Netcare.

The higher the PE the higher the confidence, the lower the PE the lower the confidence towards that company. The confidence has declined to 12% due to the performance of the company and gearing that increases the debt to equity.

Share price - capital gains				
Year	Capital Gains %	AVG		
	A	B	A - B	(A - B) ²
2009				
2010	31%	14%	18%	0.03
2011	-2%	14%	-16%	0.03
2012	39%	14%	26%	0.07
2013	29%	14%	15%	0.02
2014	39%	14%	25%	0.06
2015	14%	14%	1%	0.00
2016	-13%	14%	-28%	0.07
2017	-28%	14%	-42%	0.17
Avg	14%		Variance	0.08
Standard deviation			25.43%	
Coefficient of variation			1.87	

Considering the above 1) is the risk enough to be concerned and 2) what would you recommend to manage the risk in capital gains rate?

(B) Use the CRI index to calculate the stand-alone risk for the market over the past years.

CRI index stand alone risk: See market CRI in the market data file									
Year	CRI index Values		AVG				CRI index %	AVG	
	A	B	A - B	(A - B) ²		A	B	A - B	(A - B) ²
2009	25164	41383	-16219	263059061					
2010	28433	41383	-12950	167700831	12.99%	10.73%	2.27%	0.00051316	
2011	30430	41383	-10953	119987016	7.02%	10.73%	-3.70%	0.00137099	
2012	35838	41383	-5545	30748085	17.77%	10.73%	7.05%	0.00496355	
2013	43560	41383	2177	4739697	21.55%	10.73%	10.82%	0.01171018	
2014	50974	41383	9591	91981995	17.02%	10.73%	6.29%	0.00396045	
2015	49840	41383	8457	71512467	-2.23%	10.73%	-12.95%	0.01677330	
2016	52380	41383	10997	120940925	5.10%	10.73%	-5.63%	0.00316758	
2017	55829	41383	14445	208670865	6.58%	10.73%	-4.14%	0.00171662	
Avg	41383		Variance	134916113	Average	10.73%		Variance	0.005310829
Standard deviation				11615	Std dev				0.32%
Coefficient of variation				0.28	CV				0.0294

(C) If one works on the assumption that future returns will follow the probability distribution pattern of the past what would the future stand-alone risk of investing in the Class company be? (work with only a Best case; Most likely case; and Worst case scenario). NB this is one procedure that one may use to determine probability

Assume we consider only capital gains as relevant for this exercise

			More than 15	6 to 15	Less than 6
			Best case	Most likely	Worst Case
Year	Share price	Capital gains	times occurred	times occurred	times occurred
			2	0	3
2009	R 1 035.00	-23.7%			-23.7%
2010	R 1 357.00	-42.6%			-42.6%
2011					
2012					
2013					
2014	R 2 373.00	-27.9%			-27.9%
2015	R 3 292.00	-12.5%	-12.5%		
2016	R 3 762.00	14.7%	14.7%		
2017	R 3 281.00				
	Average	-18.5%	1.08%		-31.49%

(NB here I cheated a bit due to insufficient data points I simply on assumption added most likely case returns to be in line with current sales rate of 8.63 also - we still have two to few data points)

Scenario	Probability	Expected return
Best case probability	40%	1.08%
Most likely case probability	0%	0.00%
Worst case probability	60%	-31.49%

Scenario	Probability	Expected Return %	AVG			
	P	A	B	A - B	(A - B) ²	(A - B) ² * P
Best Case	0.40	1.08	-18.5	19.54	381.89	152.76
Most likely case	0.00	0.00	-18.5	18.46	340.72	0.00
Worst case	0.60	-31.49	-18.5	-13.03	169.73	101.84
	Average	-18.46			Variance	254.59
Standard deviation			15.98			
Coefficient of variation			0.88			

Annexure C

Annexure C

Year	2017	2016	2015	2014	2013
Financial Year End Share price	R 23.54	R 32.81	R 37.62	R 32.92	R 23.73

First question is whether the share was fairly valued at the end of the last reporting period. A share fairly valued means the market price of the share must be equal or almost equal to the intrinsic or underlying value of the share. Second question obviously is what is the fair value at the point in time. We will at later stage in the module deal with issues regarding determination of discount rate therefore for now we assume a required return of 15% (based on long term returns of the JSE). Finally keep in mind that we already calculated the long term sales growth previously. For now it is preferred to use sales growth as proxy for growth in general.

Valuation Models are: 1) Zero growth model 2) The constant growth model and 3) the uneven / unequal growth model

Answer

Assumptions	
Required return	12%
Growth rate according to sales	6.17%
Average longterm growth rate for large companies	5.00%
We calculated FCF to be	R 1 423 200

1) Zero growth model

Value of operations	R 11 860 000	We cannot really use the model since the Netcare is a growing company
Share issued	1360000	
Distributable / Net income	-R 2 683 000	
Earnings per share	-R 1.97	
Value per share	R 8.72	

NB - We cannot really use the zero growth procedure since we know that the Netcare is not stagnant.

2) The constant growth model: Value = $FCF_{new} / (r - g)$

We calculated FCF to be	R 1 423 200	R 1 423 200
We expect the FCF to grow at 6% longterm therefore the FCFnew is	R 1 494 360	R 1 510 881
Company value based on Constant Growth model is	R 21 349 000	R 21 585 437
Long Term Interest Bearing	7232000	R 7 232 000
Shares issued (See financial information)	1360000	1360000
Value per share	R 10.38	R 10.55

NB When judging this value determined above keep in mind that the Netcare is 1) a growing company according to sales growth and 2) the growth in non-current assets MAY suggest super normal growth for the near future (therefor the growth assumptions as per the exercise information / assumptions)

2) The constant growth model: Value = $FCF_{new} / (r - g)$	Required return		12%
We calculated FCF ₂₀₁₄ to be	R 1 423 200	Growth rate	15%
Expected FCF ₁₈	R 1 636 680	Growth rate	20%
Expected FCF ₁₇	R 1 964 016	Growth rate	16%
Expected FCF ₁₆	R 2 278 259	Growth rate	6%
Expected FCF ₁₅	R 2 414 954		
Present Value FCF ₁₈	R 1 461 321		
Present Value FCF ₁₇	R 1 565 702		
Present Value FCF ₁₆	R 1 621 619		
Present Value FCF ₁₅	R 28 648 610	R 40 249 235	Terminal value
Company value based on Variable Growth model is	R 33 287 253		
Long Term Interest Bearing	R 7 232 000		
Share issue as previously calculated	1360000		
Value per share	R 19.17		

NB: Do not buy or sell this share based on the above calculations. In terms of what we can do thus far the valuation above is correct however based on a more sophisticated approach the underlying value of the company in my opinion may be different

What would a fair share price be in 5 years. Remember the assumption is the company grows on average 6% per year

Based on calculations above	Current Value	Fair price in 5 Years
Constant growth model	R 10.38	R 13.88
Variable growth model	R 19.17	R 25.65

The above is only one approach one can based, on one's assumptions follow other procedures.

Net Asset value	
Total assets	R 28 112 000
Total Equity	R 8 862 000
Non-Current Liabilities	R 11 589 000
Total Current Liabilities	R 7 661 000
Total Liabilities	R 28 112 000
Net asset value	R 8 862 000
Number of share issued	1 360 000
Value per share	R 6.52

SUMMARY

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