VALUATION OF FRANCESCA HOLDING CORPORATION

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Your number one financial adviser

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GROUP N

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EXECUTIVE SUMMARY

The report seeks to provide details about the intrinsic value of Francesca Holding Corporation. Francesca Holding Corporation holds a chain of boutiques where it sells jewelry clothes and a whole lot but then this corporation is under financial distress. There firm has experienced a major reduction in its sales over the past five years.

The report provides an extensive analysis of the financial statements of the company, the Economy of the United States and how it affects Francesca Holding Corporation. The extensive financial analysis of the firm looked at the profitability, leverage, liquidity, solvency and market value of the firm. An industry analysis was done to explain why Francesca is in its current state.

The report entails a proforma statement of the firm for the next five years. At the end of the proforma forecast, it was discovered that the firm will need $ 1,188,669.58 as external financing to meet its future operations.

In valuing the firm, the cost of capital was calculated using CAPM because the firm's capital structure was solely equity. The firm's cost of capital was calculated to be 2.71%. In valuing the firm, Net Asset value, comparable, Earnings Capitalization and the free cash flow to the firm model was used.

At the end of the valuation, the terminal value per share of the firm was $45.58. This amount represents the value per share the firm should expect to receive if it sold its operating assets in 2023. The present value per share of the firm was $49.00. The intrinsic value of the firm amounted to $39.01. Comparing the intrinsic value to the current market price, the share price of the firm was noted to be undervalued.

To determine if the company was going to become bankrupt the Altman z-score of the firm was calculated which was 4.5 which meant it was not going to become bankrupt. Based on the analysis it was recommended that investors should buy a stake in Francesca Holding Corporation since its current share price is undervalued.

CURRENT STATE OF FRANCESCA'S HOLDING CORPORATION HOLDINGS CORPORATION

About the Company

Francesca's Holding Corporation Holdings Corporation, through its subsidiaries, operates a chain of boutiques. The company offers fashion apparel, jewellery, accessories, and gifts for women between the ages of 18 and 35. Its apparel products include dresses, fashion tops, sweaters, cardigans and wraps, bottoms, outerwear and jackets, tees and tanks, and intimates; and jewellery comprising necklaces, earrings, bracelets, and rings (Yahoo Finance, 2019).

Downward Spiral of Francesca's Holding Corporation Holding Corporation

Francesca's Holding Corporation is in financial distress. On Feb 2, 2019, it estimated its cash and cash equivalent for the first quarter of the year to be $20.1 million outstanding under its asset-based revolving credit facility (Howland, 2019). Unfortunately, as of April 6, 2019, its cash and cash equivalent fell to $15 million outstanding under its ABL revolving credit facility (Howland, 2019). This fall in cash and cash equivalent was paramount in the past five years.
Also, its sales figure over the past five years has been reducing at an average reduction rate of 10%. Not only that, the firm has been experiencing fluctuating in its net income over the past five years within a cap of $ 15,000,000 to $50,000,000. In the most recent fiscal year, the firm recorded a loss of $40.9 million.

Currently, Francesca's is performing poorly on the US stock exchange market. The CEO, Michael Prendergast announced earlier in the second quarter that they will be closing at least 20 stores due to "suboptimal execution and lack of focus" (Takahashi, 2019). The company is currently struggling to compete against online retailers and other boutiques that have been able to capitalise on fast trends. Their failure to be on comparative advantage over competitors can be traced to their undefined target market. Their target market has more interests in trends and online shopping as opposed to visiting the physical shops; of which the firm owns over 700 of them (Amed, Berg, Brantberg & Hedrich, 2016). However, Francesca's is not leveraging on the needs of their target market to come up with a value to satisfy them.

Given the firm's distress state, it is currently at risk of being delisted due to the loss of institutional investors it is facing now. The company is in the red as the poor performance has affected its bottom line; thus, the company's income after all expenses have been deducted from revenues.

Financial Statement Analysis

Profitability ratio

The profitability ratio looks at the company's ability to make or earn a profit. A company's profitability is significant for both creditors and stockholders. For this analysis, we will be looking at the net profit margin and the return on equity ratio.

Return on Equity

Return on Equity measures the company's ability to generate profits from the shareholders' investment and how the money from shareholders is used effectively to generate profit. It is calculated as: Return on Equity (ROE) = Net Income after Tax ÷ Total Stockholder's Equity.

For the past five years, it recorded a return on equity (ROE) of 0.27, 0.72, 0.60, 0.59 and 1.15 for the years 2018, 2017, 2016, 2015 and 2014 respectively. The recorded ratios show that, the ROE of Francesca's has been on the decrease. The firm recorded the lowest ROE in 2018. This simply means that the Francesca's is not very efficient in generating profit. In other words, it also informs us that the firm is not worth investing in since its management simply cannot make very good use of investors' money.

Comparing Francesca's to American Eagle Outfitters its major competitor, Francesca's is not doing good in the industry. American Eagle Outfitters over the past five years have had its ROE increasing. American Eagle Outfitters constant increase shows that the firm uses its shareholders' money judiciously to generate profit. Given this, an analyst can conclude that American Eagle Outfitters is performing well in the industry than Francesca's in terms of shareholders' money is used.

Net Profit Margin

The Net Profit Margin is one of the significant ratios used to assess the profitability of a firm. It measures the net income generated by a dollar of sales, and it is calculated as Net Income / Sales.

For the past five years, Francesca recorded a net profit margin of 3.29%, 8.62%, 8.68%, 8.50% and 13.17% for the years 2018, 2017, 2016, 2015 and 2014 respectively. This shows a decrease in the net profit margin for Francesca's. Given this, an analyst can conclude that the firm is not effective at converting revenue into actual profit over the past five years and it is not performing well in terms of profitability.

Comparing, Francesca's to American Eagle Outfitters, a significant competitor, American Eagle Outfitters is performing better than Francesca's. American Eagle Outfitters' net income margin has been on the rise for the past five years. This primary failure of Francesca's can be attributed to its constant decrease in the volume of sales and increasing operating expenses. With this result, one can say Francesca's does not stand in a better position to pay a reasonable high dividend to its investors.

Liquidity Ratios

Liquidity ratio measures a firm's ability to meet its short-term liabilities. If a firm can meet its short-term liabilities, there is a high chance that it will be able to meet its long-term liabilities hence not finding itself bankrupt to a greater extent due to its inability to pay its short-term liabilities to its creditors.

Current Ratio

The current ratio shows the firm's ability to indicates a firm's ability to pay its current liabilities from its current assets. It is the primary indicator of the company's liquidity. It is calculated as Current Ratio = Current Asset / Current Liabilities.

Over the past five years, Francesca's has had its current ratio been 1.194, 1.370, 1.649, 1.525 and 1.7360.66 in 2018, 2017, 2016, 2015 and 2014 respectively. Even though the firm's current ratio has been decreasing for the past years, it is above the current ratio of the industry which is 1. Given this, an analyst can say Francesca's always finds strategies that enable it to meet its short-term liabilities in every year.

Comparing Francesca's to American Eagle Outfitters, American Eagle Outfitters has higher potentials of meeting its short-term liabilities than Kellogg. Over the past five years, American Eagle Outfitters has had its current ratio increasing despite a fall back in 2016.

Leverage Ratio

A leverage ratio is any one of several financial measurements that look at how much capital comes in the form of debt (loans) or assesses the ability of a company to meet its financial obligations.

Total Debt ratio

The debt ratio shows a company's ability to pay off its liabilities with its assets. The formula is, Debt Ratio = Total Debt / Total Assets

Over the past five years, Francesca's total debt ratio has been decreasing; 0.382, 0.385, 0.347, 0.340 and 0.481 for the years 2018, 2017, 2016, 2015 and 2014 respectively. Comparing

Francesca's to American Eagle Outfitters, American Eagle Outfitters has a lower debt ratio than Francesca's even though its debt ratio has also been decreasing over the past three years.

Looking at the ratio values, American Eagle Outfitters is doing better than Kellogg. Because a lower debt ratio signals a stable company with a smaller proportion of debt. A higher ratio means that the company's creditors can claim a higher percentage of the assets. This translates into higher operational risk as financing new projects will get difficult.

Efficiency ratio

The efficiency ratio indicates the expenses as a percentage of revenue, with a few variations, it is essentially how much a corporation or individual spends to make a dollar. In analyzing Francesca's, we will be using the asset turnover.

Asset Turnover Ratio

The asset turnover ratio is an efficiency ratio that measures a company's ability to generate sales from its assets by comparing net sales with average total assets.

Over the past five years, the asset turnover ratio of Francesca's has increased by 13%. The same can be said for American Eagle Outfitters, its competitor. However, comparing the ratio values, American Eagle Outfitters has a high inventory turnover than Francesca's. American Eagle Outfitters' asset turnover ratio increased by 30%. This means American Eagle Outfitters is using its assets more efficiently than Francesca's. Francesca's low asset turnover ratio can be attributed to the management and production problems it is currently facing in the industry.

Market Value

Market value ratios are used to evaluate the current share price of a publicly held company's stock. For this analysis, we will be using the earning per share ratio to analyze the current financial state of Francesca's Holding Corporation.

Earnings Per Share

Over the past five years, Francesca's earning per share has been falling. The decreasing nature of the firm's EPS can be traced to the low earnings the firm has been incurring over the past years. The firm's low earning per share can be a reason why it has a low P/E ratio and not been able to pay dividend for the past five years. This signals trouble for the firm since its share price is likely to fall. Further analysis shows that the firm is currently engaging in buying back its shares to increase its earnings.

The same cannot be said for American Eagle Outfitters, Francesca's competitor. Over the past five years, American Eagle Outfitters has had its earning per share increasing. This indicates American Eagle Outfitters as a potentially worthwhile investment

ECONOMIC ANALYSIS

Country of Operation

Francesca holding corporation operates in 47 states in the United States of America. The president of the country in which it operates is President Donald Trump and his vice is Mike Pence. The United States of America comprises of fifty states. The country gained independence on the 4th of July 1776 and has an estimated population of 327,167,434. With a GDP per capita of $19.39 trillion, it can be seen as a developed country.

GDP and Economic Growth

The US recorded its slowest economic growth in 2016 as sparse trade data dragged on the economy in the fourth quarter. The recovery from this remains steady rather than spectacular ('US economy: Statistics at a glance', 2019.). The gross domestic product of the country is $21.34 trillion which is the annualised nominal rate for the second quarter of 2019. Also, the GDP growth rate was 2.1% at the end of the second quarter of 2019. The GDP per capita of the country is $57,800 as at the second quarter of 2019 according to the St. Louis Federal Reserve (2019).

Since 1999, the federal government of the US has had deficits ('US Economy: Facts, Definitions, Influences', 2019.). A deficit is when the spending of the country is higher than the revenue of the country. The unemployment rate in the country as at July 2019 was 3.7% and the minimum wage per hour currently in the US is $7.25 per hour ('US Economy: Facts, Definitions, Influences', 2019.).

According to the financial times, the US economy is expecting to grow steadily over the next few years thereby outpacing other western countries. It also predicts that the growth in the current quarter would be 2.43% which is 42% higher than what it was in the second quarter ('US economy: Statistics at a glance', 2019.).

Inflation

The annual inflation rate for the United States is 1.7% as of 31st August 2019. In 2018, the inflation rate was 1.9%. Whereas in 2017 and 2016, the inflation rate was 2.1% for both years. We could say that from this, the inflation rate in US seems to be dropping steadily after the sudden increase in 2015. The steady decrease in inflation in the United States of America can be attributed

to a contraction in the supply of money and credit, low production cost, increased productivity and technological progress.

The decrease in inflation is likely to satisfy consumers since they will now have enough money at hand to buy goods and services at a cheaper price as well as decreasing the cost of borrowing. However, while it may seem like the decrease in inflation is good, deflation can ripple through the economy, such as when it causes high unemployment, and can turn a bad situation, such as a recession, into a worse situation, such as a depression.

Interest Rate

The interest rate in the United States of America as of May 2019 was 2.5%. At the end of 2018, 2017 and 2016, the interest rate was 2.25%, 1.25%, and 0.75% respectively. We can see steady growth in interest rates over the past years. The increase in interest rates does not correspond to the decrease in inflation rate. Because when inflation rate decreases, interest rates are likely to decrease since investors will not be seeking a higher return for the monies they have borrowed out.

Further analysis shows that the current increase in the interest rate is due to the high demand of loans or credit of longer duration. The steady increase in the interest rate is liable to increase the cost of borrowing, reduce disposable income and therefore limit the growth in consumer spending. The increase in interest rate is likely to make the price of lower yield bonds drop. Because as interest rates move up, the cost of borrowing becomes more expensive and this means demand for lower-yield bonds will drop, causing their price to drop. However, investors will benefit from this growth rate as they will be earning more as returns.

Currency, NASDAQ Securities and The Stock Market

The stocks markets in the United State is generally seemed to be performing well as a whole. The New York Stock Exchange composite index appears to have grown by1.515% with a daily value of 12,831. The Dow Jones Industrial Average has also increased by 1.42% with a daily value of 26,573.72.

The dollar to euro rate is 0.91 as of August 2019. The dollar to euro rates as of August 2019 indicates that one needed 0.91 Euro to buy one USD. However, as of September 2019, one needed 0.89 euros to buy one dollar. Given this, it was realized that the value of the dollar as compared to the Euro keeps depreciating as the months went by because less euros were needed to buy one dollar even though the dollar is noted to be of a high value.

The U.S 10-year government bond yielded 1.635% as of 31st September 2019. The bond's yield to maturity (YTM) over the past three months kept fluctuating. This fluctuation in the yield to maturity can be traced to the fluctuation in the bond's prices. For the two-year bonds, the YTM was 1.552% as of October 1, 2019 (World Government bonds, 2019).

INDUSTRY ANALYSIS

Francesca's Holding Corporation is in the fashion industry. In the United States of America, the United States Fashion Industry Association (USFIA) is dedicated to handle all fashion related global and local trades in the United States. The association was founded in 1989 to eliminate tariff and non-tariff barriers that impede the fashion industry's ability to trade freely and create jobs in the United States (United States Fashion Industry Association, 2019).

Industry Performance

The fashion or textile and apparel industry in the United States is one of the very few successful industries that thrives even stronger as the years go by. In 2018, the sale of apparel and accessories contributed $275 billion to the U.S. economy. Across the supply chain, the U.S. textile and apparel industry directly employs more than 1.8 million people, who undertake positions ranging from textile mill workers, warehousing, sourcing managers, wholesalers, retail floor associates, merchandisers, buyers, technical designers, and marketing professionals, just to name a few (Lu, 2019).

Over a decade, the fashion industry has grown at 5.5% annually, according to McKinsey Global Fashion Index, and it is now worth $2.4 trillion (Amed, Berg, Brantberg & Hedrich, 2016). It is the world's 7th largest economy in the USA (Amed, Berg, Brantberg & Hedrich, 2016). Yet in 2016, the industry faced several challenges. Generally, sales growth has slowed down in this industry at most 3%, with stagnating profit margins. This contrasts with the industry's performance over the previous decade, as the industry expanded at 5.5% annually. Even with this sluggish growth, the industry has seen some big winners: the athletic wear companies (e.g. Nike, Adidas, Under Armour, etc.) and the affordable luxury (e.g. Ganni, Ella Moss, etc.)

Currently, Francesca has been performing poorly in the industry as they recorded a loss of $40.9 million in the most recent fiscal year. The CEO, Michael Prendergast announced earlier in the second quarter that they will be closing at least 20 stores due to "suboptimal execution and lack of focus" (Takahashi, 2019). The company is currently struggling to compete against online retailers and other boutiques which have been able to capitalize on fast trends. This is because their

main target market (20-30-year-old women) have more interests in trends and online shopping as opposed to visiting the physical shops; of which Francesca owns over 700 of them (Amed, Berg, Brantberg & Hedrich, 2016).

SUGGESTIONS, STRATEGIES, RESTRUCTURING DECISIONS

Certain factors have blocked Francesca's Holding Corporation Corporation's road to profitability. These factors include difficulty in finding a niche market to penetrate, low sales growth, undifferentiated products, competition and increasing operating costs. The following strategies can help steer the firm into profitability in the next five years.

Finding a niche market

Francesca's Holding Corporation market is undefined. This makes it difficult for the company to meet the needs of its customers. The inability of the firm to meet its customers' needs has led to a decline in the firm's sales over the past years. To rectify this, Francesca needs to define its target market. Questions such as if it is serving only high school students or college students? Once the target market is identified and well defined, the company can now design products that will suit and satisfy the specific needs of its customers.

Product Differentiation

Francesca's Holding Corporation products are undifferentiated. You can find a similar product of the firm in almost all the competitors' shops. This has led to a decrease in brand awareness, hence low sales over the past years. To improve profitability, Francesca's needs to practice product differentiation.

Successful product differentiation involves identifying and communicating the unique qualities of a company's offerings while highlighting the distinct differences between those offerings and others on the market. Product differentiation together with the strong value proposition of the firm will make a product attractive to its target market. If successful, product differentiation will create a competitive advantage for the firm and ultimately build brand awareness. As the brand awareness increases, potential sales are likely to increase.

Reduce Operating Cost

Operating cost is one of the main factors of profitability. If a firm's operating costs such as cost of goods sold and operating expenses are high, gross profit or net income will be reduced. Over the past five years, Francesca has had its operating cost been on the rise and this has affected its profit. To steer into profitability, the firm needs to reduce its operating costs. It can reduce its

operating costs by reducing inventory level and make bulk purchases of resources. Inventory level can be reduced when the firm adopts the sales credit system. The firm can also outsource certain business practices to a third-party specialist.

Increasing sales growth

Sales Revenue is one of the significant factors that drive profitability. Over the past five years, Francesca has had its sales declining. To have a stable sales growth, Francesca's needs to adopt a sales strategy that will draw customers to its products. The firm can adopt a credit sale system with an effective collection system. Under this system, the firm can get its targeted customers to purchase their products on credit and pay later at an agreed date between the firm and the customer. This system puts the firm at an advantageous state over its competitors because its competitors do not operate under this system. Hence drawing more customers to them since most customers will instead buy on credit than by in cash.

Also, the firm can undertake sales promotions such as giving discounts, gift card, freebies, point of purchase displays, premiums, prizes, product samples, and rebates. The sales promotion can be directed at either the customer, sales staff, or distribution channel. This will help boost sales for the firm.

FORECAST ANALYSIS

Assumptions

The forecast of Francesca's Holding Corporation income statement and balance sheet for the next five years were based on the following assumptions:

- **Sales Growth:** Sales for Francesca's was estimated to grow by the average growth rate over the past five years. This assumption was made for sales because the sales of the firm over the past five years were not growing at a constant rate. Also, sales were fluctuating. The average growth rate of sales can be calculated by summing up the growth rate over the past five years and dividing it by the number of years which was 5 in this case.
- Line items such as **cost of goods sold, selling general and administrative expenses, and other income expenses** in the income statement were made to vary with sales. Because for an additional increase or decrease in sales, these line items are likely to increase or decrease to effect the change. To calculate the values of these items for the forecasted years, the percentage of sales approach was adopted.

- Line items such as **current assets and liabilities** in the balance sheet were made to vary with sales. Because for an additional increase or decrease in sales, these line items are likely to increase or decrease to effect the change. To calculate the values of these items for the forecasted years, the percentage of sales approach was adopted. For line items that did not vary with sales, the historical data of such values were analyzed to identify the trends. The identified trends were used to forecast the next five years.
- From the data collected, in the past five years, Francesca did not seek for long term debt but instead bought back already issued shares from investors, and this served as a source of revenue for the company. Additionally, from their financial statements, the company did not pay dividends for the past five years as they were not performing well in the industry. Given this, we assumed no dividends will be paid and the firm will operate under a 100% retained earning system for the next five years.
- The percentage of sales in the year 2018 was used as a base for the forecast. The percentage of sales calculated was charged on the projected sales for the forecasted years to get their values.

COST OF CAPITAL

Cost of capital refers to the opportunity cost of making a specific investment. It is the rate of return that could have been earned by putting the same money into a different investment with equal risk. It is normally viewed as the Weighted Average Cost of Capital, thus the WACC. The WACC is therefore calculated by multiplying the cost of each capital source (debt and equity) by its relevant weight, and then adding the products together to determine the value (Shobhit, 2019).

In computing the cost of capital for Francesca Holding Corporation, the two components of capital costs were analyzed. Given that the firm only used equity to finance its operation in the past five years, the cost of its capital is equivalent to its cost of equity. Since cost of debt is zero. In computing the cost of equity, the Capital Asset Pricing Model (CAPM) or dividend growth rate model could be used. From historical analysis, Francesca has not been paying dividends over the past five years. Given this, the dividend growth model cannot be used to determine the firm's cost of equity but rather the CAPM.

Capital Asset Pricing Model (CAPM)

The CAPM defines the relationship that exists between systematic risk and expected return for assets, particularly stocks (Kenton,2019). The CAPM is calculated as: $ERj = Rf + \beta i\ (ERm - Rf)$.

where: ERj =Expected return of investment, Rf=Risk-free rate, βi=Beta of the investment and (ERm−Rf) =Market risk premium

The risk-free rate accounts for the time value of money whiles the other components that forms the CAPM formula accounts for the investor taking on risk (Kenton, 2019). The excess in return of the risk-free rate and the return on market is what it is referred to as the risk premium. It is a form of compensation for investors who tolerate the extra risk (Hayes,2019).

In calculating the CAPM, data on the risk-free asset and the stock market were collected from yahoo finance for computation. Since the firm forms part of NASDAQ in the US stock market, the composite values of NASDAQ over the past five years were collected. The return on these composite values were calculated to get the return on the stock market. For the risk-free rates, we collated the US 90-day Treasury bill monthly rates for the past five years.

A Beta coefficient is a measure of the volatility, or systematic risk, of an individual stock in comparison to the unsystematic risk of the entire market (Kenton, 2019). In this analysis, Beta was calculated by dividing the covariance between market returns and individual stock returns by the variance between market returns and individual stock returns. The total value of the Beta using the above-mentioned formula was 0.8018. With the beta value being less than 1.0, it could be interpreted that the Francesca's security is less responsive to changes in the market.

The risk-free rate was calculated by multiplying the risk-free rate as of December 2018 by 12 to get the annualized risk-free rate for 2018. The risk-free rate calculated was 29.40%. Also, the return on the market was calculated by dividing the NASDAQ composite index value for December 2018 by NASDAQ composite index value for December 2017. The result was then subtracted from 1 to get the return on the market. The risk premium on the other hand was calculated by subtracting the annualized risk-free rate from the return on the market as of December 2018. From calculations, the risk premium was -3.88%. With an estimated beta of 0.08, an annualized risk-free rate of 29.40% and a risk premium of -3.88%, the expected return of the stock using the CAPM model was 2.71%.

FIRM VALUATION

In valuing Francesca Holding Corporation we used the discounted cashflow method, net asset value (NAV), earnings capitalization and equity valuation multiples such as the PE Ratio and Price – to – book ratio. Using these valuation tools, we compared Francesca Holding Corporation

to its major competitor, American Eagle Outfitters Inc. Also, we determined the vulnerability of the firm to bankruptcy using the ALTMAN Z Score.

Net Asset Value

The net asset value of a company is the difference in assets and liabilities over the share outstanding of the firm. From the data collected, Francesca Holding Corporation's total assets for the fiscal year 2018 was $185,240,000.00 and the total liabilities was $70,792,000.00. With an outstanding share of 36million, the Net asset value per share for the fiscal year 2018 was $3.18. For Francesca's major competitor American Eagle outfitter, their Net asset value for 2018 was $1.5638. Comparing the two of them, Francesca seems to have a higher Net asset value than American Eagle Outfitters. A fund with a high NAV is often perceived to be expensive and wrongly noted to provide a low return on investments made. Given this, investors may perceive Francesca Holding Corporation as a firm with lower returns on investment hence not worth investing.

Earnings Capitalization

The Capitalization of Earnings Method is an income-oriented approach. This method is used to value a business based on the future estimated benefits, normally using some measure of earnings or cash flows to be generated by the company. Using this method, we first calculated the firm's earnings per share as at 2018 using the formula, net income over total outstanding shares. The calculation resulted to an EPS of 0.43225. With our profit retention rate and return on equity, we calculated the growth rate of the firm. Using the growth rate, we projected the expected earnings per share for the next year. We then discounted the projected earnings using a capitalization rate to determine the value of the firm.

Using this method, we had a negative capitalization rate. Because the firm's growth rate was greater than its cost of equity. However, we did not use this capitalization rate. Because the negative cap rate was correct in theory but practically wrong. Given this, we looked at the historic growth rate of the firm and that of the industry it operates in. Comparing the two rates, we resulted to a growth rate of 2% in earnings for the firm. Because the industry growth rate was 5.6% and the firm understudied was not doing well in the industry, hence the average growth rate of the firm over the past five years was better to be used.

At the end, the value of the firm per share using the earnings capitalization model was $68.84/share.

Valuation Multiples

Valuation multiples are financial measurement tools that evaluate one financial metric as a ratio of another, in order to make different companies more comparable. Multiples are the proportion of one financial metric (i.e. Share Price) to another financial metric (i.e. Earnings per Share). Valuation multiple is an easy way to compute a company's value and compare it with other businesses. Under valuation multiples, we have the equity multiples and enterprise multiples.

The equity multiples and not the enterprise multiple was because the firm only uses equity to finance its operations and not equity and debt combined, hence, it is suitable to use the equity multiple to value the firm. Also, the equity multiple is more relevant to equity valuations, reliable and familiar to investors. Under the equity multiples, we used the PE Ratio, Price – to – book ratio and price/sales ratio. We did not use the dividend yield multiple because the firm did not pay dividend to its shareholders over the past five years.

PE Ratio/Multiple

The price to earnings ratio (PE Ratio) is the measure of the share price relative to the annual net income earned by the firm per share. PE ratio shows current investor demand for a company share. The PE ratio is calculated as Share Price / Earnings Per Share (EPS)

From our valuation, the PE ratio of Francesca Holding Incorporation as at the end of the fiscal year 2018 was 26.9289. This clearly shows a low PE ratio when compared to the industry PE ratio but a higher PE ratio when compared to Francesca's major competitor. The industry's PE ratio is 28.9 and Francesca's major competitor, American Eagle Outfitter's PE ratio is 16.54. Francesca's low PE ratio may indicate that investors are not confident about the firm's future prospect. The current distress state of the firm makes it evident for investors to lose their confidence in the value of the firm.

The low PE ratio of the firm shows a genuine lack of growth potential, hence, investors paying low for each earnings since they expect low earnings to be received on each share. Also, the low PE ratio as against the industry indicates that Francesca's stock is undervalued.

To get the value of Francesca Holding Corporation using the PE multiple, we multiplied the firm's earning per share as at 2018 to the industry's PE ratio. This gave us a result of $12.49/share.

Price to book Ratio

Price to book ratio of a firm is the stock price to the book divided by the book value of the firm. The book value of the firm is calculated as the Shareholder's equity divided by the average

number of common shares. For Francesca Holding Corporation the price to book ratio was 3.66 whereas their competitor, American Eagle outfitter's Price to book ratio was 1.7744. The fashion industry in US as at the fiscal year of 2018 had an average price to book ratio of 14.43.

The price to book ratio says that the higher the ratio, the higher the premium the market is willing to pay for the company above its hard assets. Therefore, from this, it is observed that investors would be willing to pay a higher premium for the stocks of Francesca than American Eagle outfitters. However, given that the P/B ratio of both stocks is below that of the average industry's, it is evident that both stocks are underpriced. To get the value of Francesca Holding Corporation using the P/B ratio, we multiplied the firm's book to equity ratio as at the end of the fiscal year 2018 to the industry's P/B ratio. This gave us a result of $45.87/share.

Free Cash Flow

Free cash flow (FCF) is the cash from operations that is available for distribution to investors, including stockholders, bondholders, and preferred stockholders. Given that the firm incorporated long term debt and not only equity in the projections, we used the free cash flow to the firm and not free cash flow to equity. The free cash flow to the firm looks at a firm that uses both debt and equity in its capital structure.

Estimating Cash Flows

In estimating the free cash flows, we calculated the net operating profit after tax and then subtracted the investment in operating capital from it. The net operating profit after tax was calculated by multiplying the earnings before interest and tax by "1-tax rate." The investment in operating capital was calculated by subtracting the previous operating capital from the current operating capital.

From our calculations, we had our net operating profit after tax (NOPAT) to be $24,961,480 $23,005,530 $21,202,860 -$26,603,340 and -$95,400,320 for the years 2023, 2022,2021,2020 and 2019 respectively. The free operating cash flows were $11,475,460, $10,576,260, $9,747,520, $-37,161,050 and -$105,130,740 for the years 2023, 2022,2021,2020 and 2019 respectively.

The negative free cash flow seen in the early years of the forecast period is typical for a high-growth company like Francesca that is currently in distress. The free cash flow to equity is negative in the first two years of forecast because of the need to invest in intensive operating assets in order to steer the firm into profitability in the next five years. The negative free cash flow means

the company will have to obtain new funds from investors, and the forecasted balance sheets in the appendix show that long-term debt, and shareholders' equity all increase from 2019 to 2021. Stockholders will also help fund Francesca's vision of growth—they will receive no dividends until 2023, so all the net income from 2019 to 2023 will be reinvested. However, as growth slows after the first three years of forecast, free cash flow will become positive, and it is assumed that Francesca will start to have plans to use some of its FCF to pay dividends beginning in 2024.

TERMINAL VALUE

The Terminal value (TV) is the value of a business beyond the forecast period when future cash flows can be estimated. It assumes a business will grow at a constant growth rate after the forecast period. In determining the terminal value of Francesca Holding Corporation, we used the discounted cashflow method along with certain assumptions. The discounted cash flow method is used in corporate acquisitions and stock market valuations. The future cash flows generated is then discounted to the present value at the cost of capital.

The discounted cash flow method can be done using the dividend growth rate method and the free cash flow method. For the purpose of this assignment, we used the free cash flow method because the firm understudy did not pay dividends over the past five years. All profits earned were retained.

Calculation of Terminal Value

To find the value of Francesca at the end of its forecast period when its free cash flow begins to stabilize, we assumed the firm will grow at a constant rate of 2% at the end of the forecast. We came at this growth rate because examining the growth rate of the estimated cash flows for the next five years, the growth rate was within a range of 0.5-3%. Hence, we took the average of the growth rate to be the constant growth rate after the forecast period.

We discounted the free cash flow at the end of the forecast period using the cost of capital and the estimated constant growth rate to give us the terminal value.

Our calculation resulted to the terminal value of Francesca Holding Corporation to be $1,640,897,860. The terminal value per share of the firm was $45.58. This amount is the value per share Francesca Holding Corporation should expect to receive if it sold its operating assets in 2023.

PRESENT VALUE

With the assumption that Francesca Holding Corporation will operate into a foreseeable future after our proforma forecast and overwhelming strategies that will steer the firm into

profitability in the next five years, the firm's value can be calculated as the present value of its expected future free cash flows from operations and its terminal value. The present value is the value the firm should expect to have if it sold its operating asset today, thus December 2018.

To find the present value, we estimated the future free cash flows to be received for the next five years and the terminal value at the end of the forecasted period. The free cash flows and the terminal value were discounted at the capitalization rate (WACC – growth rate). The results were then summed up to get the present value of Francesca Holding Corporation.

At the end of the calculation, the present value of Francesca Holding Corporation was $1,764,190,500. The present value per share of the firm was $49.00. This represents an estimate of the price per share Francesca Holding Corporation could expect to receive if it sold its operating assets "today," December 31, 2018.

FINAL INTRINSIC VALUE

In determining the final intrinsic value of Francesca Holding Corporation, we used the weighted average method. Under this method, we allotted weights to the various valuation method used. The discounted cashflow method, net asset value, earnings capitalization valuation method, PE multiple valuation method and the P/B multiple valuation method had weights of 0.30, 0.25, 0.20, 0.15 and 0.10 respectively. The discounted cashflow valuation method had the highest weight because it was our principal valuation method. Also, research shows that the discounted cash flow valuation method is the favorable method to use in identifying the intrinsic value of a firm that will operate into a foreseeable future.

After allotting the weights to the various valuation method, we multiplied the value per share derived under each valuation method by its respective weight. The results for all the methods were then summed up to get the weighted average price or the intrinsic value of the firm. At the end the intrinsic value of the firm was $39.01.

VULNERABILITY TO BANKRUPTCY

Considering the fact that Francesca Holding Corporation is currently on a financial distress position, bankruptcy risk test for the firm is very imperative. The Altman's Z-score model validates the degree of bankruptcy risk that Francesca Holding Corporation is exposed to. The Altman's Z-score's model is defined as: $Z = 0.718R1 + 0.847R2 + 3.107R3 + 0.420R4 + 0.998R5$

Where: R1 = Working Capital / Total Assets

R2 = Retained Earnings/Total Assets

R3 = Earnings before Interest and Tax/ Total Assets

R4 = Book value of equity/Total liabilities

R5 = Sales/Total assets

From our calculation, the Z-score of Francesca Holding Corporation between the periods of 2014 and 2018 was 4.50. According to the Altman's z score theory, when a company's Altman Z-score is 1.8 and below this is a vivid indicator that the company is going bankrupt. On the other hand, if the Altman's z score is 3 and above it indicates that it is safer and not distressed. Francesca Holding Corporation has an Altman's z score of 4.50, which shows that it is not likely to go bankrupt.

CONCLUSIONS

Francesca Holding Corporation is currently experiencing financial distress. Its sales over the past five years has experienced a major decline. Its net profit has also been fluctuating and there has been a rumor that the firm is liable to go bankrupt.

The computations of the pro forma concluded that external financing would be needed to meet the long-term financial needs of the firm. From the forecast, the firm's total assets exceeded its total liabilities and shareholders' equity. The total external financing needed from the forecast amounted to $ 1,188,669.5774.

Using the selected valuation methods stated above, the intrinsic value of the firm was $39.01 per share. This value is above the current market price of the firm. The current market price per share of the firm is $11.64. From this, we concluded that the share price of Francesca Holding Corporation is underpriced since the intrinsic value is greater than the market value.

RECOMMENDATIONS

Business operations

Francesca Holding Corporation should focus on online retailing and close most of the physical shops it has. This will help the firm generate more sales and increase profits since most consumers are moving from the traditional way of shopping (going to shops) to online shopping. Also, thanks to internet technology, companies are able to grow their businesses profitably through a website or ecommerce platform.

Based on forecast

As the company is struggling in recording stable profits, we recommend that the firm postpone dividend payments to stabilize the growth of their profits. The computations of the pro

forma concluded that, external financing will be needed as the total assets exceed the total liabilities and shareholder's equity.

With an average of $60,000 needed to be raised from externally over the forecasted years, we recommend Francesca look beyond retaining earnings. Francesca should consider the relatively cheaper source of capital, debt. A corporate bond or bank loan may be a good option for Francesca as the interest paid on debt is typically tax-deductible and costs less than other sources of capital.

Valuation

Given that the intrinsic value of the firm is higher than the current market price of the stock, the stock of the firm is undervalued. Ideally, a buy recommendation is often given to investors because there might be a possible increase in the firm's stock price in the near future.

Assessing the financials of Francesca Holding Corporation, we strongly recommend that a potential investor should buy the stocks of Francesca Holding Corporation due to the positive financial position the firm finds itself after the forecasted five-year period.

Francesca Holding Corporation's stock currently trades at $11.64 per share on the NASDAQ Stock Exchange. However, its intrinsic value after valuation was $39.01. Given this, we concluded that its share price is undervalued. Also, since its beta is less than 1.0, there is a high possibility that the firm's stock moves less than the market, hence posing less risks.

In summary, we solely recommend a potential investor to buy shares in Francesca Holding Corporation because its share price undervalued and there is no chance of bankruptcy, making it a profitable investment.

LIMITATIONS OF THE PROJECT ANALYSIS

In valuing the value of Francesca Holding Corporation, we faced a lot of limitations. Some of the limitations draws from the fact that the assumptions made may not be enough to predict the true intrinsic value of the firm. Perhaps, the assumptions were overestimated or underestimated since we do not know into the future what the firm is likely to be.

The financial statements used were found on the firm's website, and the accuracy of the results may not be reliable. It may also be linked to the fact that book values cannot always be relied on and so variables such as the company's fixed assets, can also cause variation in estimates since they are key determinants of valuing companies. Given that the future is unpredictable, the recommendations made may not be able to meet the changing trends in the fashion industry.

REFERENCES

Amed, I., Berg, A., Brantberg, L., & Hedrich, S. (2016). The State of Fashion 2017. Retrieved From https://www.mckinsey.com/industries/retail/ourinsights/the-state-of-fashion

Hayes, A. (2019). Risk Premium Definition. Retrieved November 10, 2019, from Investopedia website: https://www.investopedia.com/terms/r/riskpremium.asp

Howland, D. (2019). *The downward spiral of Francesca's Holding Corporation | Retail Dive*. Retrieved from https://www.retaildive.com/news/the-downward-spiral-of francescas/553129/

Kenton, W. (2019). Capital Asset Pricing Model (CAPM). Retrieved November 10, 2019, from Investopedia website: https://www.investopedia.com/terms/c/capm.asp

SEC. (2019). *Francesca's Holding Corporation Holdings Corp 2019 Current Report* 8-K. Accessed September 24, 2019, from SEC.report website: https://sec.report/Document/0001144204-19-033043/

Shobhit, S. (2019). What is the Formula for Weighted Average Cost of Capital (WACC)? Retrieved 10 November 2019, from https://www.investopedia.com/ask/answers/063014/what-formula-calculating-weighted-average-cost-capital-wacc.asp

Takahashi, P. (2019). *Francesca's Holding Corporation to close at least 20 stores this year as Sales plummet.* Retrieved from https://www.apnews.com/aaa21c7b3fb24e13a4003da4d7e38d06

The downward spiral of Francesca's Holding Corporation. (2019). Accessed September 24, 2019 from Retail Dive website: https://www.retaildive.com/news/the-downward-spiral-of-francescas/553129

Understanding Beta and How to Calculate It. Retrieved November 10, 2019, from Investopedia website: https://www.investopedia.com/terms/b/beta.asp

US Economy: Facts, Definitions, Influences. (n.d.). Retrieved 1 October 2019, from https://www.thebalance.com/us-economy-facts-4067797

US economy: Statistics at a glance. (n.d.). Retrieved 1 October 2019, from https://ig.ft.com/sites/numbers/economies/us/

APPENDIX

Table 1: Financial Statement of Francesca Holding Corporation for the past five years.

COMPREHENSIVE NET INCOME STATEMENT					
ITEM	2018	2017	2016	2015	2014
	USD('000)	USD('000)	USD('000)	USD('000)	USD('000)
Net sale	471678	487188	439377	377497	340325
Cost of goods sold and occupancy costs	264915	258561	229673	199919	164260
Gross profit	206763	228627	209704	177578	176065
Selling, general, and administrative expense	176801	160702	147387	124804	101795
Earnings Before Interest and Tax	29962	67925	62317	52774	74270
Interest expense(Income)	-452	-464	-457	-623	-588
Other income (expense)	346	147	-151	88	208
Earnings Before Tax	29856	67608	61709	52239	73890
Income tax expense	14295	25607	23557	20131	29051
Net Income	15561	42001	38152	32108	44839

Consolidated Balance Sheet					
ITEM	2018	2017	2016	2015	2014
	USD('000)	USD('000)	USD('000)	USD('000)	USD('000)
Fixed Asset	100737	89518	82808	79646	68120
Total Current Asset	84503	100075	110769	85899	82425
Total Asset	185240	189593	193577	165545	150545
Current Liabilities	70792	73058	67185	56331	47478
Long Term (Debt)	0	0	0	0	25000
Total Liabilities	70792	73058	67185	56331	72478
Common Stock	463	461	459	455	452
Additional Paid In Capital	111439	109008	107693	105498	101192
Treasury Stock	-156499	-136491	-83316	-63404	-54873
Retained Earnings	159045	143557	101556	63404	31296
Total Stockholder Equity	114448	116535	126392	109214	78067
Total liablities and shareholders equity	185240	189593	193577	165545	150545

Table 2: Economic Assumptions for five years Financial Projections

Assumptions	Rate	Varies With Sales
Average Sales Growth	9%	
Cost of goods sold and occupancy costs	56%	Yes
Gross profit	44%	
Selling, general, and administrative expense	37%	Yes
Exceptional Cost - Calculated as a % of sales		No
First Year	10%	
Second Year	5%	
Years After	0%	
Restructuring Cost - Calculated as a % of sales		No
First Year	30%	
Second Year	10%	
Years After	0%	
Income from operation		No
Interest expense	10%	No, long term debt
Other income (expense)		Yes
Income before income tax expense		No
Income tax Rate	45%	Yes; but not directly with sales revenue as it is moderated by tax payment plan
Consolidated Balance Sheet		
Total Current Asset	18%	Yes
Total Fixed Asset	21%	Yes, since it operates to full capacity
Current Liabilities	15%	Yes
Long Term Liabilities		No
Common Stock	$463,000	No, constant for the forecasted five years
Dividend Payout Ratio	0%	No, of profit after tax
Retained Earnings	100%	No, of profit after tax

Table 3: Projected Income Statement

	PROJECTED				
ITEM	**2023**	**2022**	**2021**	**2020**	**2019**
	USD('000)	**USD('000)**	**USD('000)**	**USD('000)**	**USD('000)**
Net sale	709,308.77	653,728.45	602,503.32	555,292.11	511,780.30
Cost of goods sold and occupancy costs	398,378.84	367,162.50	338,392.22	311,876.34	287,438.20
Gross profit	310,929.93	286,565.95	264,111.10	243,415.77	224,342.09
Selling, general, and administrative expense	265,873.12	245,039.72	225,838.79	208,142.42	191,832.71
Exceptional Cost	-	-	-	27,764.61	51,178.03
Restructuring Cost	-	-	-	55,529.21	153,534.09
Earnings Before Interest and Tax	45,056.82	41,526.24	38,272.31	(48,020.47)	(172,202.73)
Interest expense(Income)	9,032.76	9,701.04	10,213.45	10,608.88	6,318.95
Other income (expense)	(381.76)	140.57	243.65	(251.18)	146.38
Earnings Before Tax	36,405.82	31,684.63	27,815.21	(58,378.16)	(178,668.07)
Income tax expense	16,236.99	14,131.34	12,405.58	(26,036.66)	(79,685.96)
Net Income	20,168.82	17,553.28	15,409.63	(32,341.50)	(98,982.11)
Dividend	-	-	-	-	-
Retained Earnings	20,168.82	17,553.28	15,409.63	(32,341.50)	(98,982.11)

Table 4: Projected Balance Sheet

Consolidated Balance Sheet					
	PROJECTED				
ITEM	**2023**	**2022**	**2021**	**2020**	**2019**
	USD('000)	**USD('000)**	**USD('000)**	**USD('000)**	**USD('000)**
Fixed Asset	151,488.1710	139,617.7968	128,677.5663	118,594.5951	109,301.7096
Total Current Asset	127,075.5027	117,118.0667	107,940.8796	99,482.8025	91,687.4869
Total Asset	278,563.6737	256,735.8634	236,618.4460	218,077.3976	200,989.1966
Current Liabilities	106,456.9185	98,115.1222	90,426.9760	83,341.2607	76,810.7709
Long Term (Debt)	90,327.6352	97,010.4441	102,134.4556	106,088.7505	63,189.5382
Total Liabilities	196,784.5537	195,125.5664	192,561.4316	189,430.0112	140,000.3091
Common Stock	463.0000	463.0000	463.0000	463.0000	463.0000
Additional Paid In Capital	-	-	-	-	-
Treasury Stock	-	-	-	-	-
Retained Earnings	80,853.1200	60,684.2971	43,131.0144	27,721.3864	60,062.8874
Total Stockholder Equity	81,316.1200	61,147.2971	43,594.0144	28,184.3864	60,525.8874
Total liablities and shareholders equity	278,100.6737	256,272.8634	236,155.4460	217,614.3976	200,526.1966

TRIAL ASSET BALANCES					
ITEM	**2023**	**2022**	**2021**	**2020**	**2019**
	USD('000)	**USD('000)**	**USD('000)**	**USD('000)**	**USD('000)**
TRIAL ASSETS	278,563.6737	256,735.8634	236,618.4460	218,077.3976	200,989.1966
TRIAL LIABILITIES AND EQUITY	188,236.0385	159,725.4193	134,483.9903	111,988.6471	137,799.6583
PLUG: DEBT (EXTERNAL FINANCING)	90,327.6352	97,010.4441	102,134.4556	106,088.7505	63,189.5382

Table 6: Financial Ratio Analysis of Francesca Holding Corporation

Financial analysis ratio	Formulas	2018	2017	2016	2015	2014
Profitabilty ratio						
NET INCOME MARGIN	**Net Income/Sales**	0.03	0.09	0.09	0.09	0.13
RETURN ON EQUITY	Total Earnings/Average Total Equity	0.27	0.72	0.60	0.59	1.15
Liquidity ratio						
Current ratio	Current Asset/Current Liabilities	1.19	1.37	1.65	1.52	1.74
Efficiency ratio						
Asset Turnover	Total Revenue/Average Total Assets	5.09	5.14	4.54	4.56	4.52
Market value ratio						
Earnings Per Share	Total Earnings/Total Outstanding Shares	0.43	1.09	0.91	0.76	1.03
Leverage						
Total Debt Ratio	Total Liabilities/Total Assets	0.382	0.385	0.347	0.340	0.481
Debt to Equity Ratio	Total Liabilities/Total Equity	0.62	0.63	0.53	0.52	0.93

Table 7: Cost of Equity Calculation

covariance between market returns and individual stock returns	0.0012	
variance between market returns and individual stock returns	0.0015	
Beta	0.8018	
Slope	0.8018	
CAPM		
Rf	29.40%	Dec 2018 annual T-bill rate
Rm	-3.88%	Dec 2018 annual market return
βj	0.80	Estimated from historical returns
Rj	2.71%	<--- =Rf + Be*(Rm - Rf)

Table 8: WACC Calculation

Interest expense (From notes)		
	2018	
	$'000	
Interest income	452	
Interest Expense	-	
Net Interest expense	452	
Interest bearing liabilities (Value of Debt)		
	2018	
	$'000	
Short Term Loan	0.00	
Long term Loan	0.00	
Total	**0.00**	
Analysis of Interest Expense		
	2018	
	$'000	
Total debt	0.00	
Interest Expense	0.00	
interest rate, kd	0.00%	
Effective Tax Rate		
	2018	
	$m	
(Loss)/Profit before Taxation	29,856	
Income Tax Expense	14,295	
Effective tax rate (used as proxy for Tc)	47.88%	<--- =C29/C28
After-tax Cost of Debt		
Cost of debt, k_d	0.00%	
Corporate tax rate, T_c	0.48	<--- Effective tax rate for 2018
After-tax cost of debt, $k_d(1-T_c)$	0.00%	
Calculating the WACC for PBC		
Cost of equity, ke	2.71%	from CAPM
After-tax cost of debt, kdt	0.00%	from FRAN financial statements
Dec 2018 equity value, E	114,448	
Dec 2018 debt value, D	0.00	
Dec 2018 total capital, V	114,448	
Percentage of equity, E/V	100.00%	
Percentage of debt, D/V	0.00%	
Using CAPM cost of equity:		
WACC	2.71%	<--- =E/V*ke + D/V*kdt

Table 9:Net Asset Value Calculation

	2018
	$'000
ASSETS	185,240.00
LIABILITIES	70,792.00
NET ASSET	114,448.00
OUTSTANDING SHARES	36,000
NET ASSET VALUE	3.1791

Table 10: Free Cash Flow (FCFF) Calculation

	PROJECTED						ACTUAL
ITEM	2023	2022	2021	2020	2019		2018
	USD'000	USD'000	USD'000	USD'000	USD'000		USD'000
NET OPERATING WORKING CAPITAL	20,618.58	19,002.94	17,513.90	16,141.54	14,876.72		13711
NET PLANT AND EQUIPMENT	151,488.17	139,617.80	128,677.57	118,594.60	109,301.71		100737
NET OPERATING CAPITAL	172,106.76	158,620.74	146,191.47	134,736.14	124,178.43		114,448.00
INVESTMENT IN OPERATING CAPITAL	13,486.01	12,429.27	11,455.33	10,557.71	9,730.43		
NET OPERATING PROFIT AFTER TAX	24,961.48	23,005.53	21,202.86	(26,603.34)	(95,400.32)		16598.948
INVESTMENT IN OPERATING CAPITAL	13,486.01	12,429.27	11,455.33	10,557.71	9,730.43		
FREE CASH FLOW	11,475.46	10,576.26	9,747.52	(37,161.05)	(105,130.74)		

Table 11:Terminal Value Calculation

INPUT	
	$'000
FCF FOR 2023	11,475.46
NEW WACC	2.71%
FCF GROWTH RATE	2%
	$'000
FCF_1	11,704.97
CAPITALISATION RATE (ke-g)	0.71%
	$'000
TERMINAL VALUE	1,640,897.86
Outstanding Shares	36,000
Terminal Value/share	45.58

Table 12:Present Value Calculation

		WACC	2.71%	
	PERIOD	**FCF**	**DISCOUNTING FACTOR (1+WACC)^n**	**PRESENT VALUE (FCF*DISCOUNTING FACTOR)**
		$'000		**$'000**
	1	(105,130.74)	1.027133273	(107,983.28)
	2	(37,161.05)	1.05500276	(39,205.01)
	3	9,747.52	1.083628438	10,562.69
	4	10,576.26	1.113030823	11,771.71
	5	11,475.46	1.143230992	13,119.10
(TERMINAL VALUE)	5	1,640,897.86	1.143230992	1,875,925.28
PRESENT VALUE				**1,764,190.50**
Outstanding Shares				36,000.00
Present Value per share				49.00529158

Table 13: Price-to-book Multiple Valuation

	$
Share holders equity	114,448.00
Outstanding Shares	36,000.00
Book Value per share	3.1791
Stock price	11.64
Price - to - Book Value per share	**3.6614**
Average Price - to - Book Value per share for the industry	14.43
Value per Share	45.87457333

Table 14: PE Multiple Valuation

	$
Share Price for 2018	11.64
Net Income for 2018	15,561.00
Outstanding Shares for 2018	36,000
Earning Per Share	0.4323
PE RATIO for 2018	26.9289
Average PE Ratio of the Industry	28.9000
Value Per Share	12.492025

Table 15: Earnings Capitalization Method

Inputs		
Recent PAT	15561	
Shares outstanding	36,000	
Total equity	114448	
EPS	0.43225	
Earnings payout ratio	0.0%	<--- Div policy for coming years
Profit retention ratio, b	100.0%	
ROE	13.6%	
Calculated Growth rate, g	13.6%	<--- = ROE x b
Industry growth rate	5.6%	
Estimated groth rate	2.0%	
Cost of equity, ke	2.71%	
Projected earnings for the coming year, E1	0.491021165	<--- = EPS*(1+g)
Capitalisation rate	0.71%	<--- = ke-g
Value per share of equity	**68.84**	<--- = E1/(ke-g)

Table 16: Final Valuation

Valuation method	**Value**	**Weight**	**Weighted average**
Net asset	3.18	0.2	0.64
Earnings capitalisation	68.84	0.25	17.21
FCFF	49.01	0.3	14.70
PE Multiple Valuation	12.49	0.15	1.87
Price - to - book value Multiple Valuation	45.87	0.1	4.59
Weighted average price			39.01
Current market price			11.64
Share is undervalued; it would be worthwhile to buy a stake in it at the current market price.			

Table 17: Altman Z-score

Inputs from normalised recent financials:				
Current assets	84,503			
Total assets	185,240			
Current liabilities	70,792			
Total liabilities	70,792			
Retained earnings (or income surplus)	159,045			
Total equity (or shareholders' fund)	114,448			
Earnings before interest and tax	29,962			
Sales revenue	471,678			
	Factor	**Factor value**	**Coefficient**	**Product**
T1	**NWC/TA**	0.0740	0.7180	0.0531
T2	**RE/TA**	0.8586	0.8470	0.7272
T3	**EBIT/TA**	0.1617	3.1070	0.5025
T4	**Equity/TL**	1.6167	0.4200	0.6790
T5	**Sales/TA**	2.5463	0.9980	2.5412
Z-score	4.50	<--- = SUMPRODUCT(Factor_values, Coefficient)		
What is the status?	Safe Zone			