# Example of term paper on finance 

Business, Company

## ASSIGN BUSTER

## Apple Inc: Financial Analysis

Problem 1:
Liquidity Analysis:
Liquidity Ratios are used to judge short term solvency of the company as if it have sufficient working capital to pay off its short term obligation. Generally, two measures of Liquidity Ratios are used by the analyst to adjudge the liquidity position of the company:

- Current Ratio
- Quick Ratio/Acid Test Ratio

1) Current Ratio: Calculated as ratio of Current Asset and Current liability, this liquidity ratio is considered to be true indicator of a firm's liquidity.

## Current Ratio: Current Assets/ Current Liabilities

2) Quick Ratio: Also known as Acid Ratio and a more stringent measure of liquidity assessment, quick ratio is calculated as ratio of Current Assets less Inventory to Current Liabilities.

## Quick Ratio: (Current Assets - Inventory)/ Current Liabilities

Summary:
Referring to above liquidity analysis of Apple Inc. It can be easily inferred that the company went into a liquidity trap during 2012 with falling current ratio and quick ratio providing evidence for it. However, the company improved its liquidity position during 2013 when the current ratio increased from 1. 49 to 1.68 and quick ratio increasing from 1.47 to 1. 67. Another important point to note was there is a very negligible difference between
current ratio and quick ratio which means that inventory accounts for a very small portion of current assets.

## Problem 2:

Please highlight that referring to the financial statements of Apple Inc, we found that the company has total bond outstanding worth $\$ 17$ Billion. Following is the detailed description of bonds issued by Apple Inc:

## Problem 3:

No bond issue of Apple Inc has experienced change in Yield to Maturity during last one year.

Problem 4:
Refering to the data issued by Apple Inc, the company has no bond issue with call option embedded with it. Call option is an option for the issuers of the bond which allows them to redeem the bond before maturity. Also there is no provision made for sinking funds.

## Problem 5:

Refering to Bond issued by Apple Inc with price of $\$ 99$. 3 and assuming that with the maturity of 1 year, the bond will have Yield to Maturity of $8 \%$, in such case the value of bond after one year will be:

Future Value $=$ Bond Value( $1+\mathrm{YTM}$ )number of years*2
$=99.3 *(1+(.08 / 2)) 1 * 2$
$=99.3 /(1+.04) 2$
$=\$ 107.40$
Thus, the Future Value of bond will be $\$ 107.40$. The difference between
present value and future value after one year is simply the interest amount that will be earned by the investor during one year of holding the bond.

## Problem 6:

Since zero coupon bonds do not have any interest payments associated with it and only makes one single payment at the time of maturity of the bond, the intrinsic value is simply the present value of the face value of the bond. Since my friend is willing to have $9 \%$ required return this will equal Yield to Maturity of $9 \%$ while the number of years are given to be 8 years.

## Thus, present value of bond with face value of $\$ 1000$ will be:

Bond Value $=$ Maturity Value/ $(1+$ YTM)number of years*2
$=1000 /(1+(.09 / 2)) 8 * 2$
$=1000 /(1+.045) 16$
$=\$ 494.47$
Thus, the present value of this zero coupon bond is $\$ 494.47$ while with the par value of $\$ 1000$, the difference will be the amount of compound interest that will be earned by the bond during 8 years of its maturity. Also, since present value of this bond is more than the market price, he should purchase the bond from the market.

## Problem 7:

Capital Asset Pricing Model was a revolutionary theory in finance where it was useful both for investors and corporations. While for investors, the CAPM formula facilitated in calculation of required rate of return, on contrary, the same formula is used by corporations to ascertain cost of equity for the company. Following is the formula for CAPM Model:

Expected Return on Asset $=$ RFR $+\operatorname{Beta}(E(r)-$ RFR $)$
Here, RFR= Risk Free Rate
$E(r)=$ Expected Return from the Market Portfolio
However, as discussed, since corporations use CAPM to ascertain cost of equity using same formula, thus for Apple Inc, the cost of equity using CAPM will be:
$=$ RFR + Beta( $E(r)-R F R)$
$=3.48 \%+1.13(13.29 \%-3.48 \%)$
$=14.54 \%$

## Below is the detailed description of various parts of CAPM Model:

i) RFR $=$ Risk free Rate of Return on Treasury Composites Securities
ii) $E(r)=$ Expected Return on Market Portfolio using S\& P 500 Index
iii) Beta $=$

## Problem 8:

Using Gordon Growth Model:
Price = Dividend( Growth Rate)/ (Cost of Equity - Growth Rate)

## Current Market Price of IBM Inc: \$540. 67

Dividend: \$12. 20
Cost of Equity(using CAPM)=14. $54 \%$

## Thus,

540. $67=12.20(1+G) / .1454-G$
541. $67(0.1454-G)=12.20+12.20 G$
542. $61-540.67 \mathrm{G}=12.20+12.20 \mathrm{G}$
543. $41=552.87 G$
$\mathrm{G}=66.41 / 552.87 * 100=12.01 \%$
Hence Growth Rate of the company= 12. $01 \%$

## Problem 9:

Price $=$ Dividend( Growth Rate)/ Cost of Equity - Growth Rate
Current Dividend= \$12. 20
Cost of Equity(Using CAPM)=14.54\%
Growth Rate= 4\%
Thus, Price $=12.20(1.04) /(.1454-.04)$
$=12.688 / .1054$
$=\$ 120.37$
Hence, Price for Apple Inc Stock under assumption of 4\% growth rate= $\$ 120$. 37

## Works Cited

Apple Inc. (AAPL) | Capital Asset Pricing Model (CAPM). n. d. Web. 20 January 2014.

MorningStar Analyst Team. Apple Inc: Bonds. n. d. Web. 20 January 2014.
Yahoo Finance. Apple Inc. n. d. Web. 20 January 2014.

