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INVESTMENT ANALYSIS USING THE PRAGMATIC MULTIPLIER APPROACH

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ABSTRACT

This paper describes a fundamental analysis research project used in an MBA Investments course. The project requires the students to use a top-down approach with a dividend valuation model. The students first choose a stock, then they must calculate an expected return for the stock market, for the stocks industry and for the stock. The objective of the exercise is for the students to learn the important elements of fundamental analysis.

INTRODUCTION

The fundamental analysis approach seeks to calculate the intrinsic value of a stock from publicly available economic information and to compare the derived value of the firm to its current market price. The students calculate the price for which the stock should sell one year from today, the dividend it should pay and calculate a holding period return. The holding period return is equal to the price at the end of the year, minus the price at the beginning of the year, plus the dividends for the year divided by the beginning price.

MODEL

The specific model used in this project i5 the Pragmatic Multiplier Model. The P/F ratio is also known as the multiplier (M), thus M= P/E. This expression can be rearranged for finding the price of stock: P = M * E. Thus, substituting terms gives P = P/E *E.

This approach uses a modified form of the Gordon Model for constant growth of dividends to calculate the expected future P/E ratio.

$$P_i/E_i = \frac{D_i/E_i}{k_i - g_i} \qquad (1)$$

where

P_i = price of stock i,
E_i = the last year's earnings per share,
D_i = expected dividend in period i,
k_i = the required rate of return on stock i, and
g_i = the expected growth rate of dividends for stock i.

For the students, the main part of the project is to determine what economic data are needed in the analysis, to find where the data are available and to perform the analysis on the data.

PROCEDURE

First, the students estimate the earnings per share for the company for the next year. Then the future P/E ratio must be calculated using equation 1. The first step requires the preparation of a pro forma income statement. The procedure entails forecasting the next year's Sales, Gross Profit Margin (GPM), depreciation levels and the effective tax rate to calculate the expected earnings per share.

The estimate of the multiplier calls for forecasts of the expected dividend payout (DPO = D/E) ratio, the required rate of return (k), and the growth rate (g). Each of these components is broken down into several mini-factors. The paper details the factors. For example, an average of the past dividend payout ratios would indicate an estimate for the next period.

After each component is estimated, the future P/E is calculated. The estimated P/E is multiplied by the estimate of the earnings per share for the firm to calculate the future price of the firm's stock. The expected return is then calculated. In the critical evaluation, the student would recommend that the stock be purchased if its expected rate of return is greater than it's required rate of return.

CONCLUSION

This project has been very helpful in getting the students to think about the security analysis process. This project requires individual students to locate actual financial statement information in the Library, to record the information, to sort through the vast amount of information for only the specific data that are needed, and to think about how the data are used in the security evaluation process.

The exercise often brings together much of the information they have learned in their previous years of' study. It encompasses aspects of their studies in economics, accounting, quantitative methods, and finance on one particular assignment. I frequently hear from my students that a lot of their previously studied material makes more sense after the project. One thing that they unanimously recommend is for the project to be required in future classes.