

Corporate finance essay sample

[Business](#), [Company](#)



Introduction:

This paper answers two questions which seek to illustrate how to evaluate investment opportunities on stocks. The first question does not give the cash price of the stock hence the comparison is based on the computed cash prices of the present dividend policy as against the change in the amount of cash price of the same stock in the light of change of dividends to be distributed as a result of an investment opportunity.

The second question has a cash price of the stock as given and to be able to make the comparison with the result of investment opportunity, which also has changes reflected in the amount of dividends to be distributed, there is a need to compute the cash price for the latter in terms of discounted cash flows or total net present values. In the both cases, the dividend share valuation model is used as formula. The implications of the calculations are explained and the limitations of models are also discussed as a requirement of each of the questions.

QUESTION 1:

Opportunity plc has just paid a dividend of 30 p per share. Dividends are expected to grow an annual rate of 10% next year and thereafter dividends are expected to grow at a constant rate of 6%. The cost of capital of Opportunity plc is 12%. The management of the company is faced with an investment opportunity which will require dividends to be reduced to 12 p per annum for the next years, but dividends will be 35 p at the end of year 4.

Thereafter dividends will grow at 8% per annum. It is believed that the cost of the capital will not change as a result of the investment. Use the dividend share valuation model to determine whether the share offers a good investment. Fully explain the terms and the model you use. Briefly discuss the implications of your calculations. Use a dividend share valuation model to determine the impact of the investment on the current share price, and comment on the limitations of this approach. (24 marks)

Answer:

The problem requires us to determine whether to take advantage of the investment opportunity or not. As per computation in Appendix A, the investment opportunity has a higher cash price, hence it is advisable to sacrifice a decline in dividend from 30 p per year to 12 p per year for the first three years if at the end of four years, it will increase to 35 p per year at a higher growth rate of 8% as compared to growth rate of 6% of not availing of the investment opportunity. The Net present value (Holmes, 1998) if the opportunity is taken advantage, is 651.65 p as against the present cash price of 604.99 p.

As used in Appendix A, P_0 is equal to cash price or net present value at year zero, so P_n is the cash price where n is any year. The symbol \square represent perpetuity and there means the dividends will continue to be received until the stock is sold which is uncertain as of the time of discounting (Brigham, 2000) and there irrelevant because of perpetuity of dividends. For other explanations of the other terms, please see Appendix A.

Globusz Publishing (2005) gives the some of the limitations of the model and they are as follows:

- (a) Anticipated values for dividends and prices – all of the dividends and prices used in the model are the investor's estimates of the future.
- (b) Assumption of investor rationality – the model assumes investors act rationally and make their decisions about share transactions on the basis of financial evaluation.
- (c) Application of discounting – it assumes that the conventional compound interest approach equates cash flows at different points in time.
- (d) Share prices are ex div
- (e) Dividends are paid annually with the next dividend payable in one year.

The share valuation model actually evolved into the dividend valuation model, then into, One Period Valuation Model, Generalized Dividend Valuation Model and to the Gordon Growth Model, which uses the following formula:

$$P_0 = \frac{D_0(1+g)^1}{(1+k_e)^1} + \frac{D_0(1+g)^2}{(1+k_e)^2} + \dots + \frac{D_0(1+g)^8}{(1+k_e)^8}$$

where

D_0 = the most recent dividend paid

g = the expected growth rate in dividends

k_e = the required return on equity investments

The model can be simplified algebraically to read:

$$P_0 = \frac{D_0(1 + g)}{(k_e - g)}$$

As a result of the latter, it is also assumed that dividends continue to grow at a constant rate for an extended period of time. The growth rate is assumed to be less than the required return on equity, k_e . In solving question, the uses of the symbols not found the formulas as illustrated above, are restatements which do not change the meaning. To facilitate computation, actual data are substituted in to the formula, the soonest.

QUESTION 2:

Four years ago Fortitude plc paid a dividend of £0.80 per share. Today the company paid a dividend of £1.66 per share. It is expected that the company's dividends will grow at the same rate for the next 5 years.

Thereafter, the growth rate will level off at 8% per year. The current price of the shares is £27. Assume the required rate of return on shares of this risk class is 18%. Use the dividend share valuation model to determine whether the share offers a good investment. Fully explain the terms and the model you use. Briefly discuss the implications of your calculations.

Answer:

As in number question number 1, the problem requires us to determine whether the share offers a good investment (Murphy, 2000). Since cash price is given, the thing to be done is to get the cash price of the stocks (Kopcke, 1997) using dividend share valuation model.

The model (Rashid M., and Amoaka-Adu, B, 1992) used per computations is a combination of the Generalized Dividend Valuation Model and the Gordon Growth Model as evolutions of the share valuation model, since it is assumed

that stocks will not be sold the growth rates will be in perpetuity (Van Horne, 1992). For the fuller explanations of the terms of model, please refer to Appendix B.

As per computation as per Appendix B, the investment opportunity will not increase the price of the stocks. At £15.18 as compared to market value of £27, it is not advisable to invest now because prices are expected to go down as a result of leveling of rate of increase to 8% from 20% annual increase as computed. The result of the model means that investing at the companies stock will result in the decline of the stock price in the near future. Hence a purchaser is not advised to buy but the present owner is expected to sell his stock otherwise, he runs the risk of capital loss.

Conclusions

It appears that the dividend valuation model is logical. However, if a firm is not paying dividends nor has a predictable growth rate, the model will not work. In such other models must be used.

1. Brigham, J. (2000), Fundamentals of Financial Management, Ninth Edition, Thomson South-Western, U. K.
2. Globusz Publishing (2005), Models For The Valuation Of Shares, {www document} URL <http://www.globusz.com/ebooks/Valuation/00000012.htm>, accessed May 11, 2006
3. Holmes, P. (1998), Investment Appraisal, International Thompson Business Press, London, U. K.
4. Kopcke, R. (1997), Are Stocks Overvalued?; New England Economic

Review Journal article by M. Rashid, Ben Amoaka-Adu

5. Murphy, A. (2000) Scientific Investment Analysis, Quorum Books

6. Rashid M., and Amoaka-Adu, B, (1992), Valuation of the Growth Firm under Inflation and Differential Personal Taxation Revisited; Quarterly Journal of Business and Economics, Vol. 31.

7. Van Horne, J. (1992), Financial Management and Policy, Prentice-Hall International (UK) Limited, London.