The Gordon Growth Model

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- The Gordon Growth Model is the most common example of the Dividend Discount Model
- Named after Myron J Gordon who originally published it along with Eli Shapiro in 1956

The Gordon Growth Model

- The formula is shown here, where
- P= Current Stock Price
- D1 is the value of next year's dividend
- r = the required rate of return
- g = growth rate

- $P = D1 / (r - g)$

The Gordon Growth Model

- This can be rearranged to derive the rate of return
- Dividend Yield plus growth = Cost of Equity

- $(D1 / P) + g = r$

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- Taking this further you can look at the growth rate as a proxy for the growth of earnings and by extension the stock price and capital gains
- The Cost of Equity Capital derived from the Model can be taken as a proxy for the investors required rate of return

- $(D1/P) + g = r$
- Income + Capital Gain = Total Return

The Gordon Growth Model

- It follows from the original formula that (r - g) cannot be negative
- In the event that the growth rate is expected to exceed the cost of equity in the short term, a multi stage DDM is required.

- $P = D1 / (r - g)$

The Gordon Growth Model

- The Gordon Growth Model is most appropriate for mature businesses
- When a company does not pay a dividend, such as a growth stock or as a matter of policy such as Amazon, different techniques need to be used

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- In these situations we can adopt the Modigliani-Miller hypothesis of dividend irrelevance and replace the stock dividend with earnings per share.
- This requires growth and discount rate assumptions for earnings rather than dividends which may be different.

The Gordon Growth Model

- As with all valuation methods, the models is only as good as its assumptions
- It does offer another relatively simple way to arrive at a valuation and in this case there is no requirement to construct an excel spreadsheet to arrive at a value.

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