

Book Excerpts

Quantitative value investing: A practitioner's approach to stock valuation

Sharad S Ramnarayanan shares excerpts from his latest book on practical aspects of stock valuations from a quantitative perspective that are useful for actuaries both in a wider investment context as well as potential considerations for related actuarial work when undertaking company valuations in the context of M&A pricing.

Introduction:

There are many books on value investing. But, only a few have covered the valuation process from a quantitative perspective. Fewer still have been written from an Indian market perspective. Quantitative Value Investing: A practitioner's approach to stock valuation is an attempt in this direction.

Most value-investing books focus on the individual experiences of the authors. They describe their past successful investments and what prompted them to buy what they bought. Advice on why it is essential to buy with a margin of safety, how to do the fundamental analysis to identify companies with a competitive advantage, and the required mental makeup to embrace the value philosophy are also covered in detail. Books that provide implementable frameworks are few and far between.

Value investing requires investors to buy stocks below their intrinsic value. But what is the intrinsic value of a stock? Is it something quantifiable? As actuaries, we try to quantify uncertainty. Where the uncertainty is high, we at least try to narrow it down to a range. Can the intrinsic value of a stock be also quantified?



Valuation approach

Valuation approaches often begin and ends with discounted cash flow models, which can be applied meaningfully to only a handful of companies that generate stable free cash flows. Many companies lie outside this universe of mature free cash flow generators. This book outlines some quantitative approaches other than discounted free cash flow models that can be applied to estimate the fair market value of stocks. While every investor who researches a company develops some understanding of the business fundamentals and forms expectations about the future outlook of the business, translating these expectations into numbers does not come naturally to most investors. Finally, the narratives should translate into mathematics.



From the book

The approaches suggested in this book attempt to get the right blend of these three factors - return on capital, earnings growth, and the price you pay using quantitative techniques. For example, you know that if everything else remains the same, a higher ROE is desirable compared

to a lower ROE. But, if you compare two businesses, how much more should you pay per unit of incremental ROE? For example, if one business operates at 18% ROE and another operates at 15% ROE, how much more can you pay the former in terms of P/B or P/E multiple is a question we will try to address in this book. We will also see how to incorporate profit growth into the valuation. For example, if presented with a 20% ROE business with 4% growth versus a 16% ROE business growing at 10%, how can you compare the price you can pay for the two businesses?

We will also address the tricky question of valuing high-growth companies, where growth is much more than the required rate of return. Such stocks usually sell at high valuations. DCF approach becomes error-prone in such cases as high growth is often accompanied by reinvestment of capital which impacts free cash flows. This leads to a large part of value depending on terminal value estimate many years out. The farther you go from the present, the more uncertainty. Then how do you appraise the value for such cases? This book can provide some insights.



Position sizing

Another equally important aspect of investing is position sizing. The discussions on exposure have usually been confined to stock and derivative trading and seldom discussed from an investment perspective. As George Soros said, "It's not whether you're right or wrong, but how much money you make when you're right and how much you lose when you're wrong." This book attempts to bring quantitative rigour into the process of position sizing.



From the book

Many a time, investors get carried away by individual stock performances. A portfolio that generates adequate returns while minimising the probability of permanent capital loss should be your ultimate goal. In this context, position sizing is critical. A 10% position generating a 25% return is more valuable than a 1% position that doubles. While investors put in a lot of time and effort to identify the stock to buy, they spend little time deciding how much to invest in the stock. We discussed the valuation frameworks that can help you decide whether to buy a stock. The position sizing framework answers the second and equally important question - how much to buy?



Capital allocation

While a good business that generates a good ROE enjoys a healthy valuation, the extent of value created or destroyed by the management's capital allocation decisions is seldom discussed. The book attempts to quantify the impact of poor capital allocation decisions.

From the book

Unnecessary capital retention leads to a decrease in the valuation multiple due to its adverse impact on ROE. Poor capital allocation can be an expensive acquisition, diversification into a new line with poor return ratios, or even simple cash hoarding. Retention of unnecessary cash is equivalent to a capital allocation in a business that earns only a fraction of the required rate of return. There are several good businesses in the market. But many of them suffer from poor valuations due to improper capital allocation and shareholder unfriendly behaviour.

Modelling market-implied growth expectations

Valuing high-growth companies is always tricky, as growth is a sizable part of the fair value. If the ROE of the business is healthy, the value increases exponentially for each percentage increase in the growth assumption. While assuming the growth and estimating the fair value is one approach, a better technique is to understand the growth implied by the current market price and analyse it for reasonableness. The book provides the reader with a closed-form model that can be utilised for estimating the market-implied growth expectation of high growth stocks.

From the book

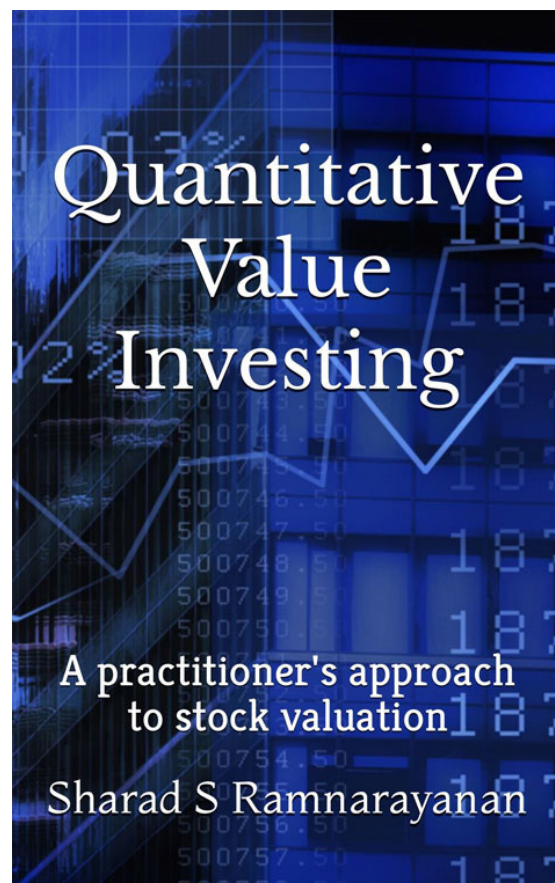
*The market-implied expectation can also be applied to discounted cash flow models. This has been explained at length in the fantastic book *Expectations Investing* by Rappaport and Mauboussin. In the approach I have highlighted in this chapter, I am extending the argument of using market-implied growth expectations in another way, especially when companies are not easily amenable to the DCF approach.*

Once you have an idea about the market-implied growth expectation, then you can see whether the market's assumption is reasonable or not compared to what you have assumed based on your fundamental analysis.

Buying and holding a good growth stock is probably one of the most effective investment strategies that lead to phenomenal returns with an effort level at a fraction of most other strategies. When growth is expected to sustain over the long term, you may get good entry opportunities even at seemingly high entry valuations.

Conclusion

While there are not many books on quantitative investing, the majority of those there focus on backtesting to find out the ratios that have given outperformance in the past with an expectation that they may work in the future, without any consideration to the business fundamentals. Quantitative Value Investing maintains that fundamental analysis is the key to the investment process and provides the investor with tools to translate the fundamental analysis into quantifiable numbers.



About the author(s)



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Sharad is a seasoned finance professional with actuarial as well as asset management experience. Sharad completed Chemical Engineering from ICT, Mumbai and PGDM from MDI, Gurgaon. He is a certified Financial Risk Manager (FRM) and a Fellow member of the Institute of Actuaries of India. Previously, he has also worked as a Finance professor at the Asian School of Business.