Greiner, Stephen P. – Ben Graham Was A Quant

John Wiley & Sons, 2011, [Equity Investing] Grade ★★★★

Was Ben Graham really a quant? Yes, in some respects. He surely formulated lists with quality and valuation criteria that a prospective investment would have to pass. Graham also shared the quants basic premise that history gives guidance to the future. With an academic background in mathematics, chemistry and physics, twenty years of working experience as a practicing quant and a current post as the head of Risk Research at FactSet, Steven Greiner could surely have written a hugely technical book. Instead he aims for the broader audience of less math-savvy readers. The book is a slightly odd mix of Graham admiration, a quant textbook example and a defence of quantitative risk models.

The author's motivation to write the book appears mainly to have been to educate those who are in the finance industry on quantitative and statistical methods as the knowledge level in his view is rather poor. Greiners appreciation of Graham is genuine and he is credited with "great instincts". Graham is however merely a supporting character in this story and he is mainly used as the supplier of a list of factors to build a quant strategy around. The main volume of the book's text is spent on showcasing how to construct a quantitative portfolio strategy complete with back testing of the various factors, construction of the multifactor model, risk management, position sizing etc. The presentation of this textbook example is competent but in my opinion the text is also a bit dull.

Temperament is however what you get when it comes to the topic if weather quants were partly to blame for the financial crisis. The author's answer is a resounding no. The line of defence is this: there are for practical reasons two different statistical distributions of price movements in financial markets. The first is close to normally distributed and is applicable most of the time. The other is characterized by "*extreme tails, infinite variance, and allows for discontinuous jumps*". The second type of markets is rare and hence gives poor possibilities to collect data to be able to model the distribution. Also, with today's knowledge it's not possible to foresee shifts between the two regimes. Hence, the role of quant in risk models is only to concern itself with the first type of markets. Then quants then can't be held responsible for not doing what they never meant to do. I have no problem with this description even though there surely were investors who were given the notion, and naively believed, that their risk models could handle a broader scope. The problem is that the author at times becomes slightly too patronizing for my taste.

I had planned to give the book a lower grade but then one chapter changed the picture. The chapter starts off with a discussion on complex systems and then goes on to introduce Stochastic Portfolio Theory. In this section the author describe the relevance of Benoit Mandelbrot's work for financial markets. An equation is put forward formalizing the pendulum-like impact of momentum and reversal-to-the-mean on markets and, most importantly, the effects of moving from Modern Portfolio Theory's academic "one period model" into the real world, where there is cumulative time, is explained.

Modern Portfolio Theory separates return from variance to play them against each other. In reality the long run returns is partly a function of variance. The higher the volatility, the lower the long-run returns, everything else alike. Many disgruntled holders of leveraged ETFs can testify to this. As a rule of thumb, the realized Long-Term Growth Rate of return of a stock is:

$$\text{LTGR} = \text{expected return} - \tfrac{1}{2}\,\text{variance}.$$

How simple! I have for ages been pondering on how to, as a long term return maximizing investor, allocate between volatile assets with higher expected return but also higher volatility leakage of realized returns and less volatile, "robust" assets with more modest return expectations. This is it.

Mats Larsson, March 9, 2013