

Why a Quant System

Any investment framework needs to encompass the following:

- Universe selection
- Stock selection
- Portfolio allocation
- Selling

The focus of the majority of books on investing is only on stock selection. However, for good portfolio performance, all the 4 aspects are important. Think of times when one or more of the aspects have gone wrong and how things unfolded. For example, allocating too little or selling too early can make a huge difference to the portfolio returns.

This is true irrespective of whether you are investing or trading. It does not depend on your time horizon or the methodology of stock selection. It is not important if you are selecting stocks based on fundamental analysis, technical analysis, macro trend analysis etc. It is also not important whether you are following the value, growth, GARP, momentum or any other style.

These 4 aspects are constant and are always true. The idea of quantitative investing is to put into mathematical terms conditions for all these 4 parameters.

Let us look at Joel Greenblatt's magic formula. For those who do not know about it, can read it here - <https://www.investopedia.com/terms/m/magic-formula-investing.asp> 11

- Universe Selection - S&P 500.
- Stock Selection - Rank selected companies by highest earnings yields and highest return on capital. Select top 20 or 30 stocks based on ranking.
- Portfolio Allocation - Equal weights for each stock
- Selling - Sell everything after 1 year and repeat the process.

Now, this example should quell the fears of those who are ready to jump at hearing the word quant that it is hi-frequency trading or some such ignorant criticism.

For those who believe in passive investing in index ETFs like Sensex or Nifty also need to understand that, in fact, any index is also primarily a quant system.

This is the index selection criteria for Sensex. See how it is setup and has a review frequency of 3 months.

<https://www.bseindia.com/markets/Derivatives/DeriReports/FAQs.aspx#!#3> 3

The advantage of following a quant system is:

1. It takes away the emotional challenges and brings in a systematic approach.
2. You can theoretically backtest the result of your system to see how it would have performed over time including times of extreme stress, volatility or exuberance.
3. It brings a lot more discipline to the process of investing. You should objectively follow this practice of thinking through the 4 aspects highlighted here even if you are doing bottom-up fundamental investing.

The Q30 Stock Selection

Stock	TTM PE	Total Debt/ Equity	TTM PEG
Au Small Finance Ban..	52	2.7	0.6
Amber Enterprises In..	39.9	0.2	0.4
Jindal Steel & Power..	-5.8	1.1	0
Polycab India Ltd.	23.7	0.1	1.1
Mas Financial Servic..	36.3	2.2	1.2
Welspun Corp Ltd.	22	0.4	2.8
Granules India Ltd.	16.4	0.6	0.3
Avenue Supermarts Ltd.	126.3	0.1	3.1
Johnson Controls-Hit..	66.1	0.3	1.6
Metropolis Healthcar..	74.9	0-	