investors CHRONICLE

What new investors need to know

A minuscule proportion of the trading and investing community may be high-testosterone seat-of-the-pants ‘masters of the universe’ but, even so, many such genii eventually come unstuck, as did Sherman McCoy in The Bonfire of the Vanities. Few hedge funds have lived up to their promise and the tide has turned against the greed of the ‘two and 20’ fee structure when so many apparently high flyers end up, like Icarus, flying too close to the sun.

Many will have heard of the fabulous fortunes amassed in the high-frequency trading world (HFT) and we are now learning that much of such profit appears to come, effectively, from front running. There have been numerous other scandals in the investment world, including hedge funds trading on inside information and outright fraud in the case of Bernard Madoff and many others. Greed is the common factor and the most common cause of downfall and failure in the investment world.

People are out to get your money. The world of ‘signal’ generation, and mechanical trading systems is unfortunately populated by crooks and charlatans selling impossible dreams to gullible hopefuls. Ignore them – do your own research. However accomplished a neophyte trader is in his own field (a brilliant surgeon, a first-class lawyer, a successful manufacturer) never forget that it took him or her many years to learn a trade. Do not imagine that you can become a successful trader or investor without putting in the same amount of hard graft you put into your main career.

In the investment universe, just as in the world at large, the majority quietly work away doing an honest and worthwhile job looking after our pension funds or granny’s nest egg. As with religious faith so in the world of banking: the extremists, the greedy and the crooks have given a bad name to an otherwise honest cause.

Let me give you some more advice from the heart: fear and greed can destroy you. It has done for many traders and most of us oldies have fallen into the trap in the past. Many of us continue to. A few years ago I was trading far too much capital for my own comfort (greed) and after a poor trading year in 2011 (we all get those) I was hit by the MF Global collapse where I had about 25 per cent of my trading capital tied up (fear).

I ended up having to take a few years out and am only just ready to start trading the markets again. Hubris and nemesis writ large.

There are three basic skills to acquire in investment and in a sense, curiously, I use all three: fundamental analysis, technical analysis, and quantitative analysis.

Fundamental analysis

You are supposed to be able to use fundamental analysis to forecast share prices. You need to understand fundamental analysis, because fundamental factors in the real world are what drive share prices (and every other price). Even a purely quantitative trader should understand the mechanisms underlying the markets, or he will make a poor shot at devising successful quantitative models.

> **If you don’t understand what fundamental inputs your model needs then it’s going to be a case of ‘garbage in, garbage out’”**

You should have at least a basic understanding of economics, accounting and statistics. If you don’t grasp what drives prices you will botch the job. I have concentrated over the years on trend following and momentum investing and so, in a sense, I no longer need to read the financial pages in any depth (and I don’t). But you need to understand what real world factors drive prices up and down. You need to know that prices can also be driven by sheer irrational exuberance based on no fundamental factors at all: witness the tech boom of the 1990s.

You need to understand that you can build a successful quantitative system based on EPS growth or any number of other factors which form the basis of pure fundamental analysis. If you don’t understand what fundamental inputs your model needs then it’s going to be a case of ‘garbage in, garbage out’.

Technical analysis

Again, you are supposed to be able to use technical analysis to forecast stock prices. There is nothing wrong with technical analysis except for the way most people use it, which turns it into the equivalent of looking at chicken entrails to forecast stock prices.

I remember going to a technical analysis seminar in Hong Kong back in the late 1980s when I was working out there for an investment bank. The presenter was a leading proponent of the ‘art’ and clearly a man of education and intelligence. He talked of wedges and pennants, heads and shoulders, support and resistance lines, flags, cups and handles, pots and pans... and so on.

> **If you can explain the rules to a computer and back-test them on market data then, in my view, technical analysis is valid”**

But it was all so horribly vague and unquantifiable. It was all a question of the ‘eye of the beholder’ seeing arcane patterns in past data. Different ‘beholders’ would see different patterns and draw different conclusions.

Very few people bother to define such patterns in logical and arithmetic terms and ask themselves the big question: if I followed these quantifiable rules would I have made a profit or a loss? If you can explain the rules to a computer and back-test them on market data then, in my view, technical analysis is valid. If you can’t, it’s junk and should be consigned to the scrap heap.

Quantitative analysis

You take your fundamental view of how markets work and (with or without the use of technical indicators such as moving averages) and you code rules that can be explained to a computer. You add time series – data of historic price movements in stocks or whatever instrument you want to trade. You apply the rules to the time series and you assess whether (on historic data) your method works. You then apply the method on a day-by-day basis to the chosen markets and hope to profit. At heart it can be devastatingly simple. But the details are devilishly complex.

Obtain data

I am not a day trader: I am a position trader and my trades last several months on average. So for me (and frankly for most people) end-of-day prices suffice (the daily open, high, low close and volume). I subscribe to several end-of-day data providers for instruments I want to trade. None of these providers is perfect and you should not rely on a single provider – you need at least two providers for each market you cover in case one provider fails to deliver or goes bust, leaving you and your positions high and dry. For many years I have used CSI data (www.csidata.com) in the US for world futures markets, currencies and also for stock prices in the US, Canada, the UK and Switzerland. US stock market data goes back to 1985, the UK to the mid-1990s. I have found them reliable and responsive, but you need to make your own mind up – I take no responsibility for your choice.

I have also used MetastockDatalink in the past for world equity prices (www.metastock.com/products/endofday/reutersdatalink/?overview). One problem is the output format – I like CSV or txt files, but Metastock uses a proprietary machine-readable format which needs translating by your back-testing software. The data is provided by Reuters.

I currently subscribe to Thomson Reuters Eikon, which gives me access to much world data as well as news and fundamental information on stocks and markets. However, the download of daily end-of-day data is manual and so not at all convenient unless you automate it. For a cut-down retail version of the full Reuters product for $99 a month see www.metastock.com/products/realtime/xenith/?overview.

Wherever you get your data from make sure it includes de-listed stocks. To back-test the current constituents of only, say, the FTSE 100 is a waste of time. To do the job properly you need to test every constituent past and present and, if such is your goal, only take a trade when the particular stock is or was an index member. Not to include now-defunct instruments will give you a warped back-test.

Back-testing engine

For many years I have used Trading Blox for back-testing with great satisfaction. I have used the top of the range ‘Builder’ edition which currently costs around $4,000 plus an annual service charge of around $1,000 a year if you want to receive upgrades. It comes with many built-in systems which you can learn from and adapt to your own purposes. My only real criticism is that it has to ‘phone home’ each time you load it on to a new PC – you are only allowed to load it on to two PCs (unless you pay extra). The point is, if the company goes out of business you are basically stuffed and it is for this reason that, however delighted I have been with the product, I am moving to open-source software and building my own back-testing engine with my computer scientist business partner.

I have also used Mechanica Software (www.mechanicasoftware.com/products.htm) in the past and found it excellent, but it comes with the same limitations as Trading Blox. It is proprietary and therefore you can’t ‘see under the hood’ and it comes with a security dongle without which the software is unusable. One better than 'phoning home' but nonetheless hardly ideal.

But here is my top recommendation for a beginner: take a look at https://www.quantopian.com/.

At present, this product is not sufficiently sophisticated for my own needs, but it serves as a very useful introduction for anybody interested in discovering whether quantitative investing is their cup of tea. And it is currently completely free. It provides free data on the US stock market and a free, very slick online back-testing engine. It has a big and growing online community and contains endless example systems, some of them reasonable, some of them silly in the extreme.

> **If it's all too much for you then buy someone else's fund or perhaps use something as simple as Excel and an uber-simple rotational strategy for infrequent trend trading"**

It uses the open-source Python programming language and indeed the underlying back-testing engine is itself open-source and the sophisticate can download it and customise it to his or her own needs.

Quantopian will teach you whether you have sufficient interest in the subject to take it further and whether you can make head or tail of the often complex world of computer programming. Quantopian makes programming as simple as it comes and if that is not simple enough for you then do not pass 'go' and do not waste any further time, effort or money.

If it's all too much for you then buy someone else's fund or perhaps use something as simple as Excel and an uber-simple rotational strategy for infrequent trend trading or rotational asset allocation. You would still need end-of-day data of course and this would be very much a desperate last resort. But I thought I would point out the possibility.

Frankly, what I have given you above is all you need to begin. You don't need piles of expensive books and you most certainly do not need to buy anybody else's system.

What you do need is a few examples of simple algorithms (which you will get from Trading Blox, Mechanica and Quantopian) and hundreds if not thousands of hours playing around with systems and markets. That, in my view, is the only way to learn.

Here's one I made earlier

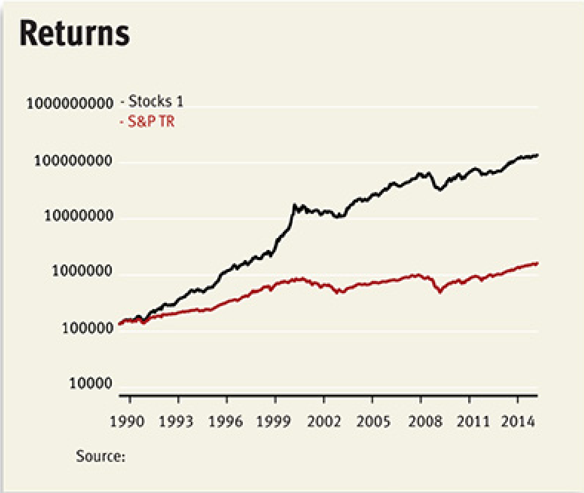
No article would be complete without a few nice illustrations. So, as they used to say on Blue Peter, here is one I made earlier. You will find it more fully described here: http://anthonyfjgarner.net/stock-momentum-strategy-i/.

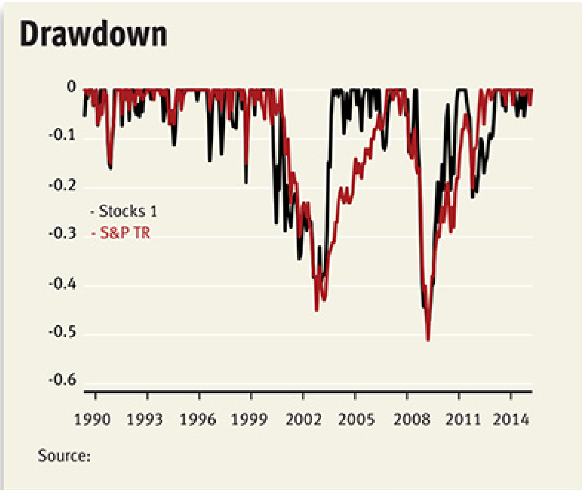
In essence it is an ultra-simple way to trade individual stocks in any market or combinations of markets on a monthly rotational basis. For those who distrust complexity, it doesn't come much simpler.

My portfolio strategy: A brief explanation of the rules

- Rotates into the top 100 US-listed stocks each month
- Momentum based.
- Equal weighting.
- Rebalanced monthly.
- 'Fully' invested at all times.
- Minimal rules.
- Two asset class: stocks, cash/bonds.

	S&P 500 TR	Stocks Momentum I
CAGR %	10.49	30.15
Risk-Adjusted CAGR %	10.49	17.28
MAR	0.21	0.62
Standard Deviation %	14.45	25.21
Max DD % (monthly)	50.95	48.91





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