

Peter Elston: Investment Letter

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This document is intended for professional investors only

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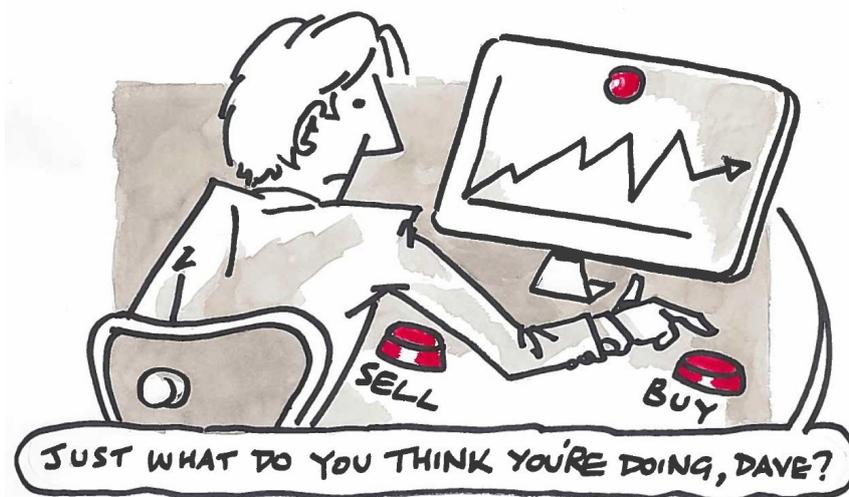


Is a computer going to steal my job as a fund manager?

Question: what is significant about the dates February 1996, October 2015 and January 2017? Answer: these were the dates on which, for the first time, a computer beat the world's best at chess¹, the Chinese board game 'Go'², and poker³, respectively. How long will it be before computers are beating the world's best fund managers?

I have a general fascination with the artificial intelligence systems (computers) that lie behind these three momentous conquests. But I also have a particular interest in relation to whether my job as a fund manager will at some point be usurped by a computer.

I'm 51 and so do not worry too much about my own personal situation in this regard. Although the active management industry is under pressure and will continue to be, it is not going to disappear in the next few years. If anything, the relentless shift towards passive investing and, more recently, so-called smart beta, has helped to promote the value of truly active management. But artificial intelligence is to passive investing what the computer chip was to the internal combustion engine, and I do wonder how my younger colleagues will fare a decade or two from now in their battle with silicon.



¹ <http://www.nytimes.com/1996/02/11/us/in-upset-computer-beats-chess-champion.html>

² <https://en.wikipedia.org/wiki/AlphaGo>

³ <https://www.theguardian.com/technology/2017/jan/30/libratus-poker-artificial-intelligence-professional-human-players-competition>

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Multi-Asset Value Investing

To assess this question effectively, it is important first to consider how active management works. There are many well-renowned academics who believe that it is impossible to ‘beat the market’¹, and thus that active managers are in effect tossing coins with each other (and being paid by hapless customers to do so). This is also a position endorsed by practitioners in the passive investment industry (though presumably passive fund providers believe it is possible to beat their competitors!)

Market inefficiency, or the lack thereof, is thus framed in objective terms, with consistent index-beating performance being beyond the reach of *everyone*. Herein lies my beef. I think market efficiency should be framed subjectively not objectively. In other words, there are some individuals who can beat the market; in the same way, there are individuals who tend to be good at poker.

If stocks and markets truly followed a random walk, I would be the first to hang up my boots. But they don’t.

Randomness in markets means that price movements are not dependent on previous price movements. Coin tossing is a good example of this – no matter how many consecutive heads are tossed, the probability of another head is still 50%, biased coins excepted. Non-randomness, also known as ‘pattern’, means that there *is* dependence.

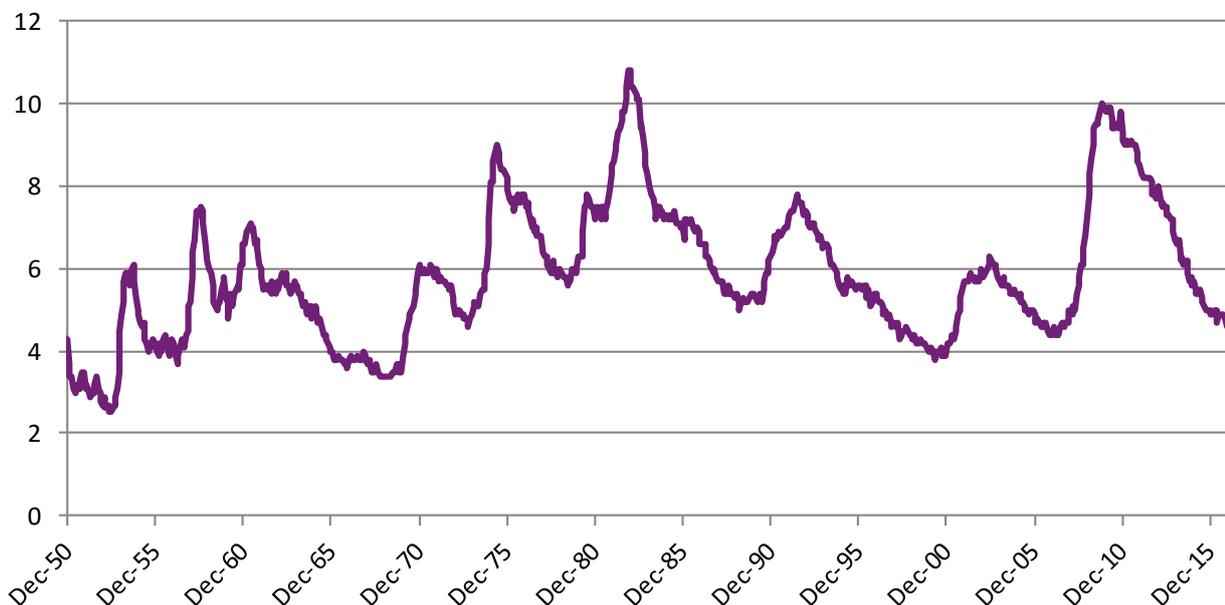
The two most common patterns in markets are ‘momentum’ and ‘mean reversion’. Momentum means that if the market price moves in a particular direction, the future price is more likely to move in the same direction. With mean reversion, the price is more likely to move in the *opposite* direction. These patterns exist in financial markets, over both short and longer timescales.

Furthermore, randomness and pattern can co-exist – there will always be a ‘noisy’ element to prices. In fact, randomness tends to predominate.

What I as a fund manager seek to do is to identify patterns that are bold enough for me to take advantage of, having assessed that in all likelihood they are patterns that will persist i.e. continue into the future.

In the case of asset allocation, the patterns that I believe I can take advantage of relate to the business cycle, namely the tendency of unemployment to rise and fall in a somewhat predictable manner. Take a look at the chart below of the unemployment rate in the US, then tell me that looks random!

Chart 1: US unemployment rate (%)



Source: Bloomberg, April 2017

I also suspect it is highly likely that unemployment will continue to rise and fall as it has in the past. In fact, the chart above suggests that the cycle has become more discernible in recent decades not less!

¹ https://en.wikipedia.org/wiki/Efficient-market_hypothesis

In their 2009 paper titled “Dynamic Strategic Asset Allocation - Risk and Return Across Economic Regimes”¹, Robeco’s David Blitz and Pim van Vliet set out a framework for using the business cycle to inform tactical asset allocation (what they call ‘dynamic strategic asset allocation’). They mapped the four phases of the cycle (expansion, peak, recession and recovery) to the performance of various asset classes, using data going back to 1948. Their study revealed some interesting results, which are set out in the table below.

Table 1: Annualised returns in excess of cash (%)

	Equity	Value	Growth	Small	Credits	Bonds	Commod	SAA
Full sample	5.6	6.4	4.7	6.6	0.5	0.6	1.3	2.9
Expansion	3.7	3.2	3.9	0.9	-1.0	-0.4	5.7	1.8
Peak	0.2	1.9	-1.6	2.9	-3.0	0.1	-0.2	0.5
Recession	10.2	11.1	9.0	12.7	1.6	1.4	-3.7	4.8
Recovery	5.1	7.1	3.3	9.4	3.0	1.2	6.1	3.4

Source: Dynamic Strategic Asset Allocation - Risk and Return Across Economic Regimes, 2009

Excess returns from equities ranged from 0.2% per annum during ‘peak’ phases to 10.2% during ‘recession’ phases. Bonds performed worst during ‘expansion’ phases. These are empirically derived results, but they are also logical. Expansion phases tend to see both inflation and central bank policy rates rising, which naturally is bad for bonds. Peak phases see tight monetary policy begin to impact economic growth, which is bad for equities, while recession phases see the opposite (readers may be interested to know that we will very likely continue to reduce our funds’ equity targets over the next two years, in anticipation of the onset of the next global recession in or around 2020).

So, back to the question of whether computers will make the business of active management redundant.

The simple point I would like to make is this. While the games of chess, Go and poker are complex in that there are an unimaginable number of permutations, either in terms of possible moves (in chess and Go) or possible hands (poker), the rules that govern each of them are simple and could be written on the back of a cigarette packet. In chess, there are only six different pieces, and each is only allowed to move in a particular, simple way. In poker, there are a small number of meaningful hands and the rules clearly state which beats which.

The same cannot be said about investing. Why? Because financial asset prices are driven by human behaviour, and you can’t write the rules that govern human behaviour on the back of a cigarette packet as you can with chess, Go and poker.

Simplistically, but importantly, what distinguishes computers from humans is that humans have the ability to imagine. And it is the ability to imagine that gives and *perhaps may always give* humans the edge over computers.

The US Air Force knew this. Top brass there realised long ago that pilot capability could be more effectively appraised by a test of a candidate’s imagination, rather than by an IQ test. As recounted by renowned scientist Michio Kaku (around the 5 minute mark in this video²) the USAF tested prospective pilots on their ability to imagine different solutions to a problem. The particular case that Kaku cites was one in which candidates were told they were stuck behind enemy lines, then asked how many escape plans they could hatch.

How does all this relate to investing? Simple.

Imagination requires an appreciation of the future. As Kaku says, computers can only *at best* appreciate the future in one dimension – they can predict, for example, the airflow over an airplane wing. Humans, on the other hand, have the capacity to predict the future on multiple scales. This ability is the result of the hundreds of millions of years of the evolution of life that have culminated in the emergence of the human brain. It does not therefore take a huge leap of logic to believe that humans have a key edge over computers, whether in the world of investing or in other areas.

Indeed, in a recent article in Prospect Magazine, Resolution Group’s chief economist Duncan Weldon wrote, “Machines are less likely to be able to replicate creativity, social interaction, and the need for human-to-human contact anytime soon, and a surprising number of jobs involve these attributes”.

1 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1343063
 2 <https://www.youtube.com/watch?v=iONlo9WcKgQ>

Furthermore, although there are many instances in which artificial intelligence is helping to improve decision making, there are others where this is not the case. AI systems designed to perform the same task can end up in conflict rather than working together. One example of this is so-called 'bots' designed to correct errors on Wikipedia. According to The Guardian¹, "One of the most intense battles played out between Xqbot and Darknessbot which fought over 3,629 different articles between 2009 and 2010. Over the period, Xqbot undid more than 2,000 edits made by Darknessbot, with Darknessbot retaliating by undoing more than 1,700 of Xqbot's changes. The two clashed over pages on all sorts of topics, from Alexander of Greece and the Banqiao district in Taiwan to Aston Villa football club."

One can imagine bots of the future designed to make investment decisions also coming into conflict with each other, with a plethora of inputs telling one to buy and the other to sell.

Even if AI can be used to make good investment decisions, we are a long way from such systems becoming refined and widespread. A search on ssrn.com for the terms "artificial intelligence" and "investing" yields just one result², and the paper in question, which puts forward a framework for picking stocks based on an analysis of past data, concedes that there are flaws in its methodology.

It looks like my younger colleagues can breathe a sigh of relief.

1 <https://www.theguardian.com/technology/2017/feb/23/wikipedia-bot-editing-war-study>

2 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2740218

Current fund targets

The target weights in the table below are where funds should be positioned currently. Actual positions may deviate slightly from these target weights as a result of market movements or ongoing trades for example.

Table 2: Current fund tactical asset allocation (TAA) target weights as of 31 March 2017 (prior month's targets in brackets)

TAA target Weights (%) (prior month's targets in brackets)		OEICs		Investment Trust
		CF Seneca Diversified Income Fund	CF Seneca Diversified Growth Fund	Seneca Global Income & Growth Trust plc
Equities	UK	25.5 (26.5)	23.0 (24.0)	33.0 (33.0)
	North America	0.0 (0.0)	4.0 (4.0)	1.5 (2.5)
	Europe ex UK	6.0 (6.0)	9.0 (9.0)	8.0 (8.0)
	Japan	1.0 (1.0)	8.0 (8.0)	4.5 (4.5)
	Asia Pacific ex Japan	5.5 (5.5)	10.5 (10.5)	9.5 (9.5)
	Emerging Markets	1.0 (1.0)	4.5 (4.5)	3.0 (3.0)
	Global Funds	2.0 (2.0)	2.0 (2.0)	1.5 (1.5)
	Equities Subtotal	41.0 (42.0)	61.0 (62.0)	61.0 (62.0)
Fixed income	DM Government	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	EM Debt	5.0 (5.0)	2.0 (2.0)	1.9 (1.5)
	Corporate	26.2 (25.0)	8.0 (8.0)	6.3 (5.5)
	Fixed income Subtotal	31.2 (30.0)	10.0 (10.0)	8.2 (7.0)
Specialist assets*	Property	5.5 (5.5)	5.5 (5.5)	5.8 (5.8)
	Private equity	4.0 (4.0)	4.5 (4.5)	5.4 (5.4)
	Specialist financial	9.3 (9.3)	8.1 (8.1)	10.2 (10.2)
	Infrastructure	5.0 (5.0)	4.7 (4.7)	5.4 (5.4)
	Specialist Subtotal	23.8 (23.8)	22.8 (22.8)	26.8 (26.8)
Cash	4.0 (4.2)	6.2 (5.2)	4.0 (4.2)	
Total	100.0	100.0	100.0	

Source: Seneca Investment Managers, 31 March 2017

* Target weights for the specialist assets subsectors are the aggregate of holding level targets as top down driven asset allocation targets are not applied to this sector.

Increased Decreased

General

- In the UK, prime minister Theresa May triggered Article 50, thereby formally starting divorce proceedings with the EU
- The Fed raised short term interest rates for the third time this cycle, as inflation pressures continued to grow
- FOMC committee members on average expect a further two increases this year, accelerating the pace of the last two years
- Good results from several holdings, including Arrow Global, One Savings Bank, Polypipe and Ultra Electronics
- Bovis Homes attracted takeover interest from Redrow and Galliford Try
- We increased Doric Nimrod Air 2 due to the aircraft leasing vehicle's valuation offering a lot of protection against a negative outcome on residual value on the A380
- We reduced Ranger Direct Lending as we feel the risks of disappointment in US credit quality may not be fully reflected in the valuation

SDIF

- Sainsbury's was exited, in order to facilitate the 1% reduction in the TAA to UK equities
- Positions in Royal London Short Duration Global High Yield Bond Fund and Muzinich Short Duration High Yield Bond fund were increased to maintain portfolio income as equity exposure was reduced

SDGF

- Several UK equity holdings were reduced, in order to facilitate the 1% decrease in the TAA in the UK
- Stewart Investors Asia Pacific Leaders Fund was exited, with the majority of funds reinvested into Pacific Assets Trust, a small-cap focused vehicle run by the same team at Stewart Investors
- As part of the readjustment in Asia Pacific ex Japan, the Prusik Asian Equity Income Fund was also added to during the month

SIGT

- Cullen North American High Dividend Value Equity Fund was reduced, following a decrease in the tactical asset allocation for North American equities
- Royal London Short Duration High Yield Bond Fund was increased as a low risk alternative to holding cash

Important Information

Past performance is not a guide to future returns. The value of investments and any income may fluctuate and investors may not get back the full amount invested. This document is provided for the purpose of information only and if you are unsure of the suitability of these investments you should take independent advice.

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These funds may experience high volatility due to the composition of the portfolio or the portfolio management techniques used. Before investing you must read the key investor information document (KIID) as it contains important information regarding the funds, including charges, tax and fund specific risk warnings and will form the basis of any investment. The prospectus, KIID and application forms are available from Capita Financial Managers, the Authorised Corporate Director of the funds (0345 608 1497).

Seneca Global Income & Growth Trust plc

Before investing you should read the latest Annual Report for details of the principle risks and information on the trust fees and expenses. Net Asset Value (NAV) performance may not be linked to share price performance, and shareholders could realise returns that are lower or higher in performance. The annual investment management charge and other charges are deducted from income and capital.

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