## The Age of the Centaur Investor

July 2018





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## (Man + Machine) > Man or Machine alone

Growing up, I loved watching the Six Million Dollar Man – Steve Austin's human judgment combined with machine enhancements made him invincible. The idea of seamlessly integrating the best of human and machine has always captured the imagination – if you can take the best of each, who can beat that? As a real life example, chess champion Garry Kasparov invented Freestyle Chess after being defeated by the Deep Blue computer in 1997. He referred to the players as Centaurs; humans using inputs from computer programs to select the optimal move. 20 years on, this combination still beats humans and computers individually. Interestingly, it isn't always the best chess players that win at freestyle chess, but rather those who have the best process to combine them. There are some striking similarities when applied to the infinitely more complex task of investing.

Quantitative investing has changed the investment landscape and raised the investment bar for fundamental stock pickers. Quant-based investing exploits the limitations and biases of traditional investing, bringing an objective, repeatable and unemotional approach not easily replicated by humans. It works well in steady trending markets, but struggles in volatile periods like the GFC when the rules change. It is in these market 'regime changes' where a lot of money can be made or lost.

Humans have abilities that machines are not close to achieving. There is an 'art' to investing that cannot be programmed. Fundamental-based funds focus on individual company financials as well as external industry and economic factors. They can anticipate change, uncover unprecedented outcomes and retain the ability to react more flexibly to market changes.

A pure fundamental approach and a pure quantitative approach can still work well independently at specific times. However correctly combining the upside of humans and computers, while controlling the limitations, can do even better over time, with materially lower volatility.

At their core, fundamental and quant are at opposite ends of the investment spectrum and historically existed almost in opposition to each other. It is rare for a fundamental manager to concede that their well-researched view could be wrong based purely on quant data. Many fundamental funds claim to include some quant in their process, but often this is more stock screening than helping pick stocks. Conversely, post-GFC, many guant funds coined the term 'Quantamental' where they added some human oversight to their quant output. However, there is not much evidence that slightly blurring either end of the spectrum adds significant value. It is very difficult to take one type of culture and turn it into something else.

You therefore need to have a process that trusts and understands both sides equally, that is focused on performance regardless of source, that knows its benefits and limitations and has the skillset to work in both worlds. It must be in the DNA of the fund from the start. Full integration and trust are critical to get a true partnership between detailed, analyst-driven fundamental research and quantitative research inputs targeted to a specific outcome. Quant needs to be produced in an understandable and pragmatic way with clear implications for fundamental research. Much as 'Style Neutral' managers don't think of themselves as 'Value' or 'Growth', a true 'Centaur' investor must think of themselves as 'Research Neutral'.

Due to cultural and skill challenges, few are doing this well, and indeed many not at all. However, the upside from getting it right is material and likely to produce much more consistent returns over time. As machine learning, AI, and data-science gain in power, the opportunity for the true 'Centaur' investor is vast.