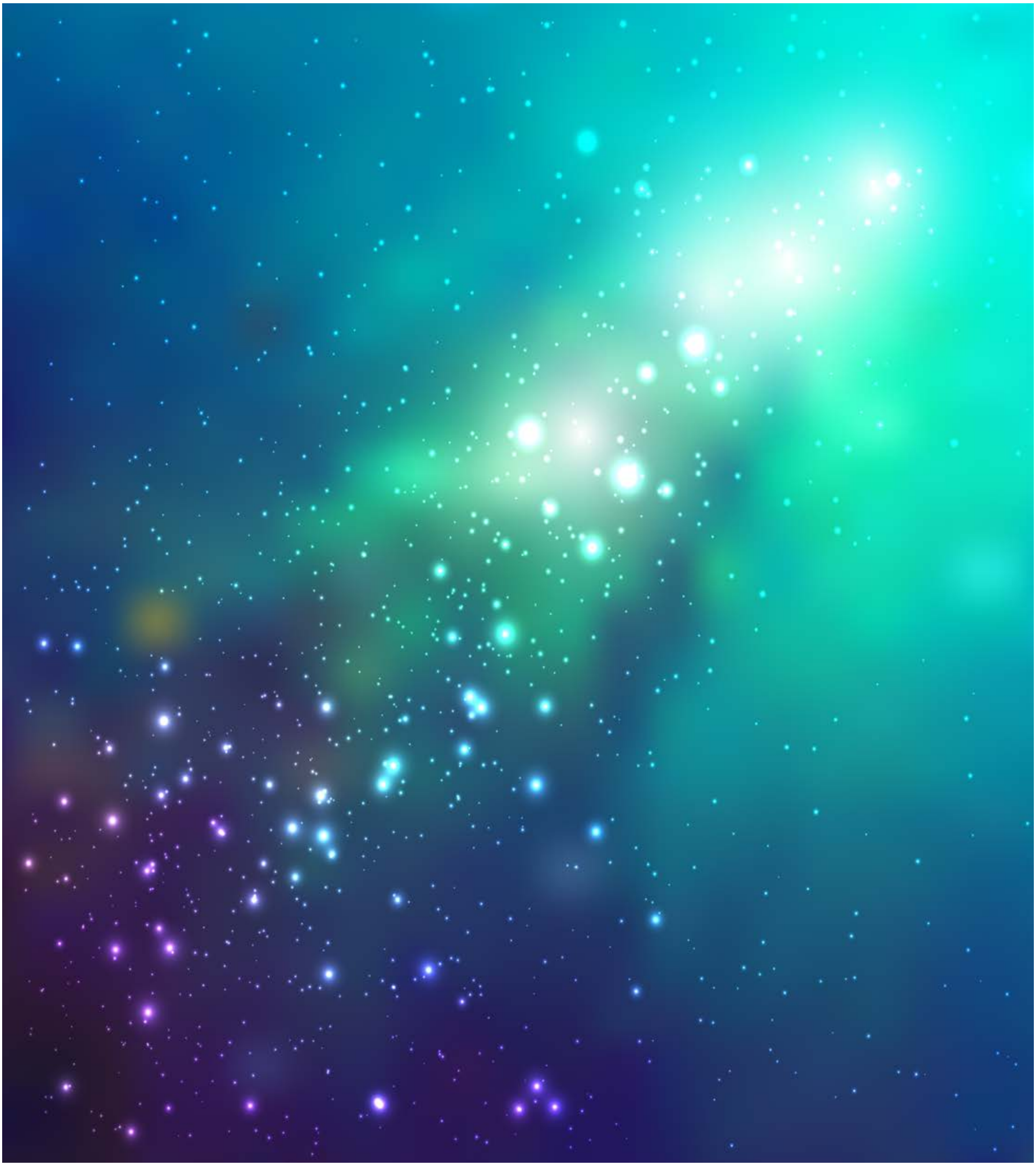
FOR QUALIFIED INSTITUTIONAL INVESTORS ONLY

JULY 2015

nikko am
Nikko Asset Management

WHY ACTIVE INVESTING NEEDS STAR TEAMS

Nikko AM Global Equity Team



This paper, part of a series that looks at issues in investment management, examines how company and economic analysis is used and implemented efficiently within fund management teams, and how decisions feed into portfolio construction.

Introduction

Fundamental analysis, or the process of estimating the 'real' or intrinsic value of a stock, involves uncertainty and subjectivity. Transforming qualitative data into a quantitative outcome – which culminates in the client's portfolio – is a complex and time-consuming task.

Success is obviously a function of the quality of research and flow of ideas. But repeatable success is also dependant on the team's stock selection process and the constant monitoring and reappraisal of portfolios, views and convictions. Active investing is far from black and white. Investment conclusions are based on a subjective view of the future and require interpretation and debate if they are to be fully understood.

However, the deflationary wave caused by increased processing speeds and the internet have ironically made finding alpha in a data rich world more difficult. Many fund managers are pressured into quick answers with inadequate support to help them make sensible long term decisions. Obviously the client wants what is best and yet much of the asset management industry is not set up to achieve this.

The concept of the all-important target price is an example of how some in the industry attempt to shoehorn a complex and vast array of data into a simple single point that's too blunt to be of any use on its own. Similarly, the reliance on a single 'star' fund manager can also exaggerate these inefficient tendencies as his or her theses are often left unchallenged by peers.

We believe the best way to distil and ultimately exploit the vast amount of information that surrounds stock market investing is to use teams. To harness the skill and experience of that team there has to be a common goal, appropriate incentivisation and effective communication of ideas. Mutual respect, accountability and transparency are central principles for providing what should be a more powerful outcome for clients.

The right system of thinking

We live in the information age where it appears our attention spans are shortening, and our desire for instant gratification grows stronger every day. The quantum of data and information available has exploded and yet it is becoming harder to find the truth.

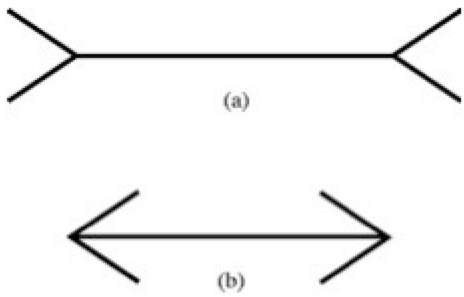
This is important for active investors, whose process is centred on *forecasting* profits and cashflows. Telling the difference between what is noise and what is a signal is key. The former provides opportunity because it misleads the rest of the market into ill-advised action. The latter is the bedrock of successful active management.

One theory about the limits of our reasoning is contained in the views of Nobel Laureate, Daniel Kahneman. He splits the workings of the mind into two systems: the first uses experience and emotion to jump quickly to conclusions, which we then try to justify; the second system is slower, more analytical and takes great effort.

Brand management is a good example of how companies can try to engage consumers in the first system to great effect. Just think of the old Mars slogan from the 1980s, "work, rest and play". Consumers didn't think twice about whether confectionary packed with sugar would in fact help us "work, rest or play"; their quick-fire system accepted the slogan. As we face a deluge of more and more information in the Internet age, it's interesting that it has become nearly impossible to do anything but revert to this way of thinking rather than the second, more thoughtful process – perhaps because the volume of information is so large we cannot think of where to start with our more measured reasoning system.

Don't rely on Kahneman's System 1!

This well-known test, which asks people to identify the longer line, shows how our minds are almost hard-wired to make snap judgements (answer at end of paper).



How information is presented is important and answers are not always clear. Often, as is the case with branding, information will be presented or manipulated in a certain way so that the desired answers will ring true in the brains of those who are targeted. Fund managers are not immune to this activity. Significant resources are put to use to try to persuade us to invest in particular companies. Stories are told where the fund manager has to dissect and determine what is fact and what is myth. There is no shortage of information to interpret: annual reports, marketing material, management meetings, presentations, third party verification. As important as the information that is provided by the company is the information that isn't provided. What are they not telling us?

For fund managers therefore, jumping to a conclusion is not an appropriate strategy, and instead they need to use Kahneman's second system of thinking. When analysing a company, they need to cast the net wide in order to gather in as much information as will be useful, and carefully sift through this to find the answers to their investment questions.

Hedgehogs and foxes

We are not new in trying to understand the differences in the way people interpret information and reach conclusions. The Greeks told the parable of the fox and the hedgehog[1], which has been developed in recent times by philosopher Isaiah Berlin and more recently by psychologist Philip E. Tetlock.

Tetlock's analysis found that some cognitive styles are better than others at forecasting, and placed analysts and experts along the hedgehog-and-fox spectrum. A hedgehog likes the 'big idea' and will follow that idea to the end. A current day example would be the theory that high debt levels have unleashed a torrent of deflation across the globe, which will eventually lead to one outcome – global depression.

Foxes, on the other hand, get influenced by many smaller ideas and view the world as more complex and more uncertain. They may view depression as one possible outcome of our current economic environment but will apply a more pragmatic approach to understanding the wider range of possibilities. A depression could happen, but is just one of many outcomes; rampant inflation from quantitative easing is another. What is important to fund managers is that Tetlocks's over-riding conclusion was that foxes are better at forecasting.

Nate Silver, in his book *The Signal and the Noise*, develops the idea that the cognitive processes of foxes differ markedly from hedgehogs; hedgehogs may view the opinions of others sceptically and are reluctant to change views despite evidence. Hooked on the one outcome, they find it difficult to move on. In contrast, foxes incorporate ideas from different disciplines regardless of their origin and will pursue multiple approaches if the original method isn't working. Their way of thinking and how this is applied to active investing can be summed up in three principles:

1. **Think probabilistically**
   Not all of the information that goes into making a decision is of equal importance. In fact some may be worthless noise, while other information might be crucial. If your portfolio is to reflect your convictions then your investment conclusions must reflect the right assumptions.

2. **Predictions and conclusions change**
   The investing world is in constant flux. The assumptions that we made for a decision a week ago may have changed in the meantime.

3. **Understand consensus**
   The proxy for consensus is the market. It's our job to understand how the market is coming to the view that it holds on a particular stock if we are to find alpha and take advantage of market inefficiencies.

Calculating company values

It is generally accepted that James Burr Williams' 1930s thesis, *The Theory of Investment Value,* was the first to suggest that fair value should reflect the discounted total of all future cashflows. This simple and intuitive theory is very compelling and is a core part of much of the fundamental analysis carried out by asset managers around the world. In essence, for a long-only investor, if the fundamental value for a company exceeds the market price, the potential alpha is that difference.

However the simplicity in the theory masks significant complexity in practice, a complexity which is ripe for the analysis of thought that we are addressing here. Yes, a company's current value is a function of future cashflows. But the future brings risks and uncertainties. Fundamental research is about forecasting, and hence is based on probabilities. Assumptions about future business will be subjective and as a result will contain error and uncertainty. The analyst's role is to minimise error and increase the accuracy of the forecast and hence the understanding of what is fair value and what might determine a good investment.

Analysis of any discounted cashflow formula will quickly blow open just how difficult it is to calculate a company's fair value and how subjective the final conclusion can be. Many who calculate values using the discounted cashflow method will be well aware that a significant portion of a company's estimated value will be derived from cash generated beyond an initial short-term forecast period. For example, Nikko's global equity team uses a five-year forecasting period for all of its analysis. However, about 70% of a company's value is derived from its 'terminal cashlows' – that is, the cashflows beyond year five. Obviously the assumptions used become increasingly uncertain as the timeframe is pushed out further.

A useful approach in how to generate conclusions from fragments of information with varying reliability was developed by Thomas Bayes, the founder of probability theory and Bayes Inference. The graduate of the University of Edinburgh (our hometown) suggested that we can get closer to the truth as we gather more evidence. His method of forecasting was to adapt our conclusions through what we are learning on a daily basis. Applying this to fund managers, if we forecast a company's value and have a set level of conviction for a set level of return, we need to adapt this thinking as new information is made available. As we adapt our views our forecasts will become more accurate, or as Nate Silver says, we move along a "path of less wrongness".

Target price as a means of communication

As is becoming clear, investment analysis is an ongoing and fluid process with a wide variety of inputs, and anything that stifles this and forces us into premature and incomplete conclusions should be avoided. One such example of this in fund management is the reliance on a target price as a means of determining suitability for a portfolio. This 12-month forecast for shares is used by many to indicate the potential return an analyst can expect to receive after calculating a company's intrinsic value. Despite our quest for 'headline' answers, we should be wary of a target price as a sole means of communicating alpha as it hides numerous issues:

- A target price is set at a point in time. However, given that today's value is based on tomorrow's estimates, it is inevitable that the target price has a ***short shelf life***.
- Given values are based on probabilistic weighted factors, the value of a company and investment conclusion is better understood as a ***range of probable outcomes*** and not one single figure.
- Fundamental analysis also means that analysts will have different views of how risks and uncertainty impact fair value and will have ***different levels of conviction*** about their conclusions.
- As analysts feel the need to have 'skin in the game', target prices can be used to persuade a portfolio manager to buy a specific stock even though it may not reflect what is best for the client. ***All interests need to be aligned.***

In summary, an investment conclusion is more than just the projected upside. It includes many other factors which need to be understood if portfolio construction is to be effective. We shouldn't simply satiate our need for a quick-fix understanding (Kahneman's System 1) by using target-price upside as the foundation for portfolio construction. A more holistic approach is required.

The team approach

It's evident that there are many elements of information that can go into making a decision, and those different elements may have different weightings in terms of usefulness or reliability. We believe that a flat team structure is by far and away the best approach to overcome the human tendency to veer towards simple one-dimensional answers to complex investment questions, and to differentiate the signal from the noise:

- Having decision-making power placed in one individual increases the risk of personal biases finding their way into what should be objective analysis and introduces, by definition, key-man risk.
- In a team structure, analysis should be initiated on an individual basis, independently of other team members, protecting cognitive diversity and helping limit groupthink. Once individuals have finalised their individual assessment, each thesis should face the rigors of challenge from other members, and a conclusion reached on the basis of equality on the part of all members,
- In a flat team structure, every member is rewarded on the performance of the fund, not on their own individual performance as analysts. In a star manager setting, the only person incentivised to serve the client is the fund manager. All others are incentivised to attract the fund manager's attention, often preferring to see their own stock take the place of the superior stock of another analyst as this will often bolster their remuneration.
- While larger teams can have efficiencies in the higher number of people with access to information, they lose out on reduced motivation and higher costs for coordination. Research shows the optimal size for a team is between four and six individuals.

Conclusion

- Fundamental analysis in investment involves uncertain and subjective information being transferred into certain outcomes in the form of a portfolio.
- Fund managers should aim to think through issues clearly and slowly, as in the second system of thought outlined by Kahneman.
- Likewise, they should mimic the fox – simple solutions can't answer complex questions.
- Bayesian inference points us in the right direction when assessing the continuous flow of new data regarding an investment.
- A price target on its own is a blunt and imprecise way of presenting the investment case for a stock.
- The best way to weigh and distil the vast amount of information that surrounds stock market investing is to use a team of equals. To harness the skill and experience of that team there has to be a common goal, proper incentivisation and effective communication of ideas and conviction.

Nikko AM's 'STAR' fund manager

We value each piece of research undertaken by our team and each investment conclusion reached. They are the result of many hours of hard work and in the right forum can be discussed and challenged to ensure that only the best ideas make it into client portfolios.

To allow for this we have developed 'STAR', our proprietary Stock Target Alpha Ranking tool. On STAR, our global equity team scores the scale, conviction and uniqueness of potential alpha. As the process is transparent, our experienced team can discuss and challenge its findings.

Although our research is largely done by individuals, our portfolio construction decisions are based on consensus. Along with a client focus and flat team structure, STAR helps us make sure that our clients get portfolios with only our top ranked ideas.

We believe in maximising the skill and experience of each individual and each investment conclusion. STAR helps us achieve this goal. Ultimately STAR points to what portfolio changes are required, thereby minimising biases and key-man risk, which are all too prevalent in the star fund manager culture of today.

Answers to puzzles

1. **Two lines:** This is the famous Muller-Lyer illusion. If you haven't seen this before you will immediately conclude that the top line is longer. However, both are of equal length.

Notes

1. The reference to hedgehogs and foxes goes back to the Greek poet Archilochus, "The fox knows many little things, but the hedgehog knows one big thing."

2. Even the starting point can have a level of uncertainty, given that accounting has a degree of judgement to it.

References

Kahneman, D andTversky, A. (1973) On the Psychology of Prediction. *Psychological Review*, Vol 80, No 4.

Bertsch McGrayne, S. (2012).*The Theory that Would not Die; How Bayes'Rule Cracked the Enigma Code, Hunted Down Russian Submarines and Emerged Triumphant From Two Centuries of Controversy.* Yale.

Kahneman, D. (2012) *Thinking Fast and Slow.* Penguin.

Silver, N. (2013) *The Signal and the Noise*. Penguin

Mauboussin, M.(2007)The Wisdom and Whims of the collective. *CFA Institute Conference Proceedings Quarterly*

Mauboussin, M. (2014) Building an Effective Team.*Credit Suisse Global Financial Strategies*.

Payne and Wood. (2012).*Reflections on Investment Committee Governance*. Pavilion Advisory Group.

Burr Williams, J.(1938).*The Theory of Investment Value*. Harvard.

Picture

Shutterstock.com

Important information

This document is prepared by Nikko Asset Management Co., Ltd. (Nikko AM) and is for distribution only under such circumstances as may be permitted by applicable laws. This document does not constitute investment advice or a personal recommendation and it does not consider in any way the suitability or appropriateness of the subject matter for the individual circumstances of any recipient.

This document is for information purposes only and is not intended to be an offer, or a solicitation of an offer, to buy or sell any investments or participate in any trading strategy. Moreover, the information in this material will not effect Nikko AM's fund investment in any way. The information and opinions in this document have been derived from or reached from sources believed in good faith to be reliable but have not been independently verified. Nikko AM makes no guarantee, representation or warranty, express or implied, and accepts no responsibility or liability for the accuracy or completeness, of this document. No reliance should be placed on any assumptions, forecasts, projections, estimates or prospects contained within this document. This document should not be regarded by recipients as a substitute for the exercise of their own judgment. Opinions stated in this document may change without notice.

In any investment, past performance is neither an indication nor guarantee of future performance and a loss of capital may occur. Estimates of future performance are based on assumptions that may not be realised. Investors should be able to withstand the loss of any principal investment. The mention of individual issues within this document does not imply a recommendation to buy such issues.

Nikko AM accepts no liability whatsoever for any loss or damage of any kind arising out of the use of all or any part of this document, provided that nothing herein excludes or restricts any liability of Nikko AM under applicable regulatory rules or requirements.

All information contained in this document is solely for the attention and use of the intended recipients. Any use beyond that intended by Nikko AM is strictly prohibited.

Nikko Asset Management Co., Ltd
Registration Number: Directory of the Kanto Local Finance Bureau (Financial Instruments firms) No. 368
Members Associations:
The Investment Trust Association, Japan
Japan Investment Advisers Association
Japan Securities Dealers Association

Nikko AM Limited
Level 31, 420 George Street, Sydney NSW 2000, Australia
Phone: + 61 (0) 2 8072 6300
Fax: + 61 (0) 2 8072 6304
Email: enquiries.au@nikkoam.com

Nikko Asset Management Europe Ltd
1 London Wall, London, EC2Y 5AD Tel: +44 (0)20 7796 9866
Fax: + 44 (0)20 7796 9816
Email: Emarketing@nikkoam.com