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Talking Point

Investing in Australian smaller companies and the importance of understanding human behaviour

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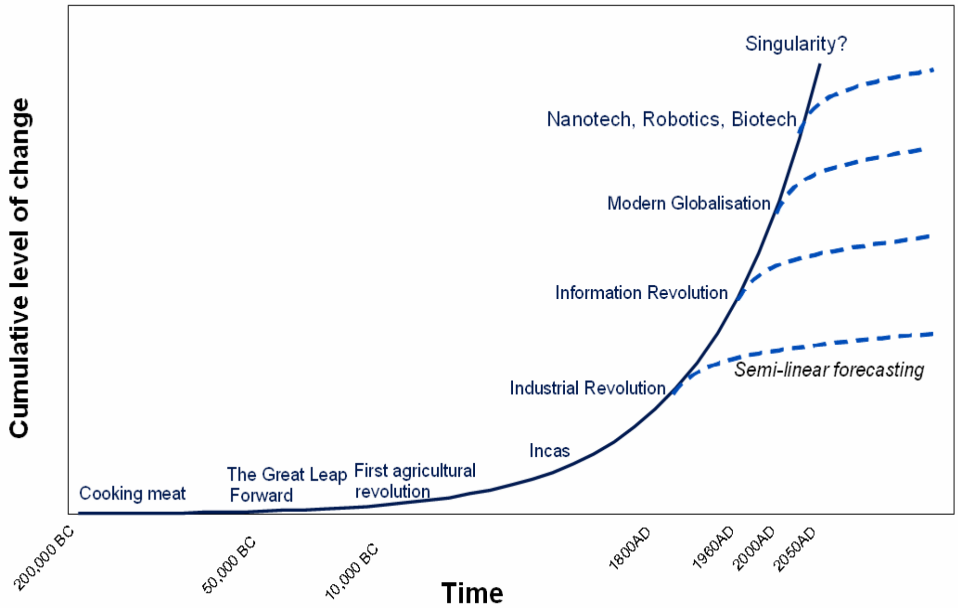
We all know that human behaviour is important to how businesses and investors make money for one very simple reason. We are all humans.

We are all subject to the same biological behaviours as the theoretical actors like the "rational man" we commonly use to project into our investment futures. However, this is not a business of theoretical actors but rather a business of real people and real people often do not behave like a projection of forecasts on an Excel spreadsheet. This article delves into why it is so important to understand an investor in small companies.

Change is constant and exponential

Change in our world is constant and has been for over 200,000 years. As technology increasingly influences change, we are witnessing the rate of change accelerating. In other words, we live in an exponentially changing world, not a linear one.

Chart 1: Change is constant and exponential
Beware of overconfidence in forecasting the future



For illustrative purposes only. Source: Schroders.

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Linear, or even semi linear forecasts, of the world tend to be an extrapolation of the current rate of progress (as depicted on by the dotted lines in Chart 1). This is the view encapsulated by the phrase from the futurist and author Ray Kurtzweil[1] "the future is like today only more so".

This type of forecasting error becomes increasingly large over time. If reality were as forecast then in accordance with examples cited by Ray Kurtzweil, it would mean the entire 20th century of innovation would happen in 20 years at today's rate of progress, and the next 100 years would be the equivalent of 20,000 years of progress at the current rate.

Any company for whom the status quo provides a bounty of returns had better be prepared for this to be a temporary phenomenon**!**

Change creates great opportunity and great risk

The continuous and exponential change that is a given in the world exposes investors to both great opportunity and great risk. A management structure that is bureaucratic, centralised, rigid and seemingly captive to its own history is not likely to deliver a great outcome for shareholders when faced with dramatic change.

> *"We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction"*
>
> **Bill Gates, CEO, Microsoft**

Dramatic change over the medium to long term is likely to be the norm (as it has been historically) and as such the onus remains on management to respond effectively and in the interests of shareholders.

The development of the internet is an excellent example. The internet has provided a massive change in the way information is distributed, providing a significantly better way for both job advertisers and job seekers to find each other. For Fairfax Holdings Limited (FXJ), it presented a considerable risk to their business, as they were extracting monopoly rents on the job classified ads in their newspapers, leveraging off the traditional newspaper economic model. For Seek Limited (SEK) however, the opportunity was significant, as they had no legacy business to protect and could fully capitalise on the new market opportunity by positioning themselves as the leader in online space through network economics (more job seekers = more advertisers = more job seekers).

This story is well known and what happened next really demonstrates the power of management response to change. Once SEK had moved into the online world, a range of adjacent opportunities became possible, although perhaps not immediately obvious in the early days of internet job advertising. This opportunity was education. What became apparent as SEK built a two sided market (with both advertisers and job seekers) that was not obvious to FXJ was that for job seekers, particularly those who are currently unemployed there are two options they assess. The first, and most obvious, is to look for another job. The second however, is to pursue further education and training before returning to the search for new work.

As this new market opportunity opened up, SEK quickly broadened their business to not only help its users find education and training courses, but also moved into the provision of education directly through the running of college campuses and international student recruitment. This reaction by SEK management to the opportunities presented by the changing market has been of great value to SEK shareholders, with the education business now accounting for one third of our estimate of the value of the entire SEK business.

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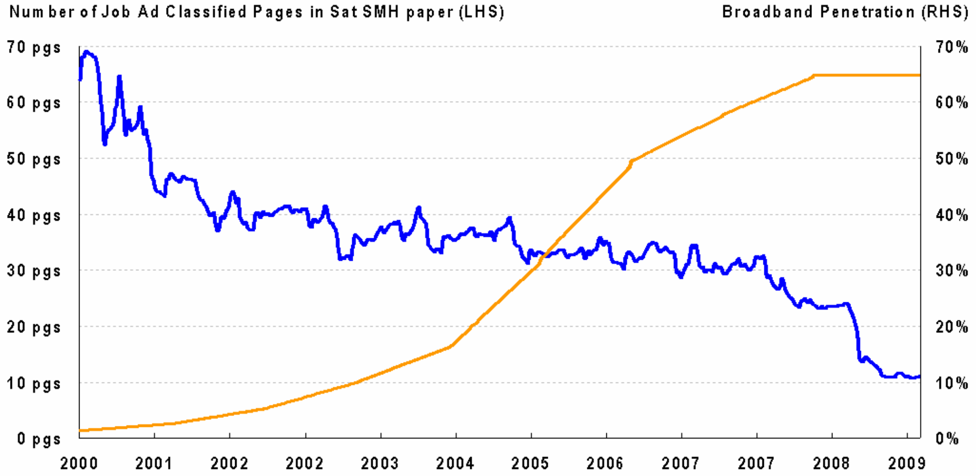
[1] Ray Kurtzweil, Futurist and author of The Singularity Is Near: When Humans Transcend Biology, 2003

Chart 2: Change creates great opportunity and great risk

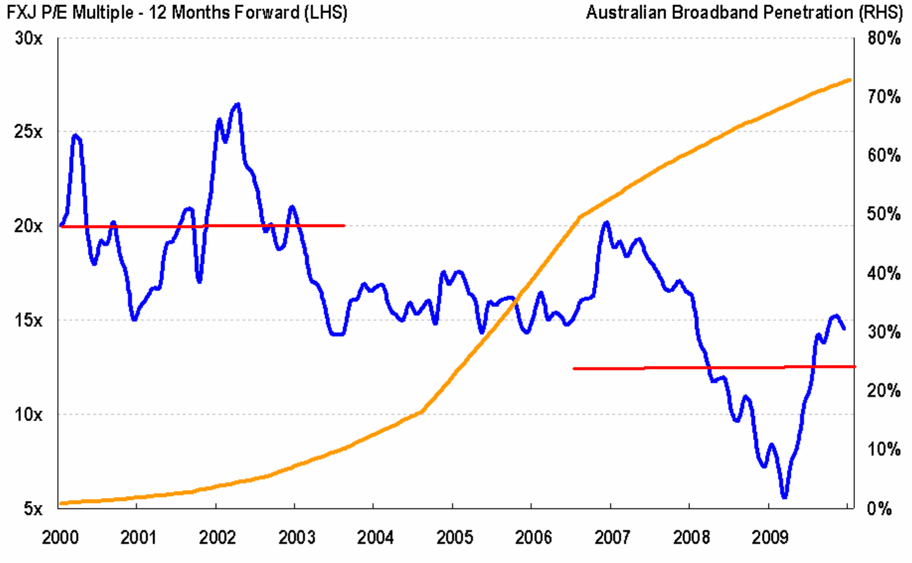
Management response to change is important



Source: Morgan Stanley

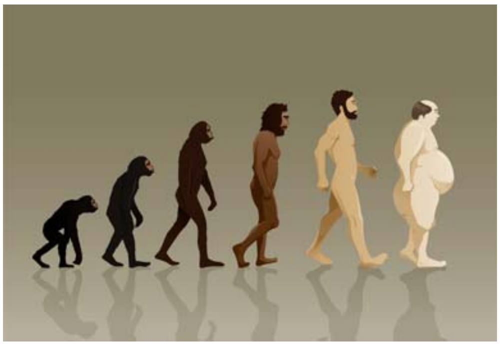
Chart 3: Change creates great opportunity and great risk

Management response to change is important



Source: Morgan Stanley

Human evolution does not move at exponential speed!



So that describes the world in which we invest, but what about the people who are buying from the companies we invest in? What about the people who manage these businesses and what about the investors who make decisions around capital allocation?

Unfortunately, we humans do not evolve at anywhere near the pace of the world around us. As homo sapiens we have spent 95% of our existence in a pre- first agricultural revolution world so is it any surprise that evolution has happened at such a relatively glacial pace?

The problem is that our brains that have evolved to make us the most successful species this world has ever seen, are still largely wired for the savannah!

I doubt that more than 5% of the factors we face on a daily basis are common to this environment, but that is the legacy we carry, and with that comes lots of wiring that still greatly influences human behaviour, often subconsciously, which can lead to unusual, but often predictable, outcomes.

There are two areas where our brains tend to default to behaviour that may lead to unusual outcome: Cognitive Biases and Influence. Cognitive biases are shortcuts the brain uses to interpret the world, or at least the world in which we used to live, many of which were useful or critical in our survival in the past, but today can lead to distortions in behaviour relative to reality. Many of these have been established by numerous psychological experiments, and are well understood models for how people consistently behave in certain situations.

> "*The brain appears to be designed to solve problems related to surviving in an unstable outdoor environment and to do so in nearly constant motion… Though we have been stuffing them into classrooms and cubicles for decades,* ***our brains actually were built to survive in jungles and grasslands****."*
>
> **Dr John J. Medina**
> **Director of the Brain Center for Applied Learning Research, Seattle Pacific University, USA**

Influence is driven by the social nature and community based bonds that still drive us all. Reciprocity, commitment and consistency, social proof, authority, liking and scarcity are all factors that influence our behaviour. Being aware of these influences, and how they can be used, helps us understand how customers, management and investors are likely to respond in a given situation. And like cognitive biases, these traits of what makes us human are relatively consistent over time.

What we take out of this is the fact that human evolution is substantially outpaced by the change in the world around us, and the remnants of our primitive minds still greatly influence how we behave – and in a relatively consistent and predictable way. These behavioural factors are difficult to directly quantify, but this in no way detracts from how important they are in the investment consideration.

Taking advantage of human behaviour

Here are a number of examples where these biases and influences have be taken advantage of by businesses, by management and by investors.

Laziness plus hunger equals the foundation of the home delivery pizza industry, of which Domino's Pizza (DMP.AX) is the most successful in this country.

Turns out that home delivery pizza plus the internet equal much bigger profits – with online order sizes seen to be 25-33% higher than telephone orders.

The importance of visual cues have also been capitalised upon by Dominos, particularly in their online ordering system where they have greatly increased the size of the average customer order.

A wine wine-tasting study conducted at the University of Bordeaux (Morrot *et al.*, 2001) highlights how visual cues can influence human behaviour. In this study 54 oenology students provided a series of odour descriptions for red wines (e.g., chicory, prune, cherry) and white wines (e.g., honey, grapefruit, lemon). Following this part of the study, one white wine was surreptitiously coloured with odourless, tasteless red dye, without the subjects' knowledge. When asked to taste and review this wine, the students consistently described the "red" white wine using language typically reserved for red wine and avoided the use of white wine terms. Thus, in the absence of appropriate visual information, wine odour had minimal impact on olfactory discrimination, and despite "expertise" among the wine students, the visual contextual cue dominated.

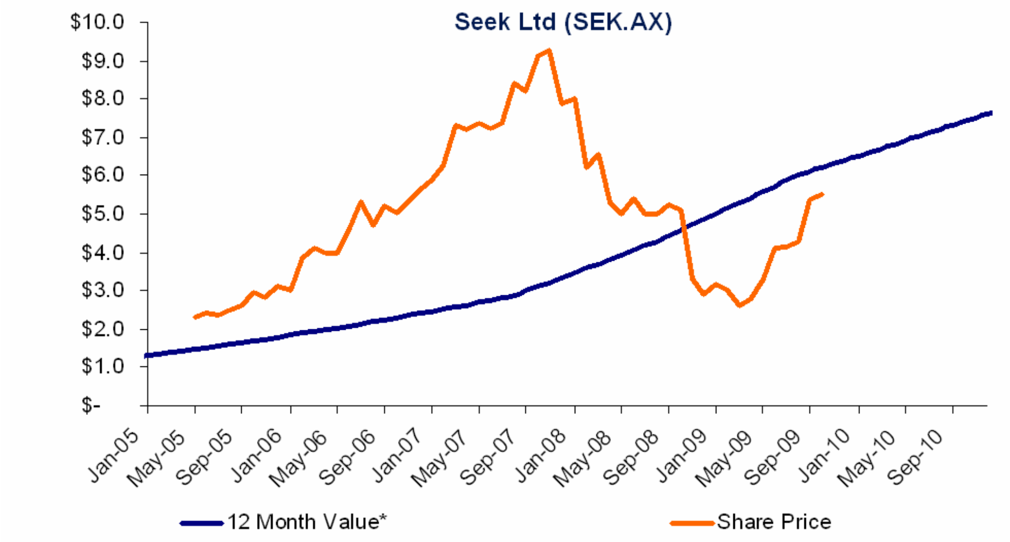
How about influence? You may have seen or even experienced the Fitprint method of shoe fitting at an Athletes Foot store. This selling method leverages two very powerful influences on the shopper. The first is Authority. The use of "technology" to assess your running shoe needs lends a higher level of credibility to the process and authority to the salesman. The second is reciprocity. Having done you the service of telling you your individual shoe needs, most customers feel obligated to purchase in response. Over 80% of people going through the Fitprint process are converted to a sale and sales per m^2 have increased by some 40% over the past 2 years.

The final example I'll give relates to the behavioural impact of investor sentiment on share prices and uses Seek Limited again. We have used a rough proxy for the value of the SEK business through time based on a 40% sustainable ROE and 50% payout ratio and the share price to highlight how price moves around much more than value.

No-one when paying $9/share for SEK would have dared suggest that unemployment (a key driver of their business) was not cyclical, after all that is the industry they are in. However when a cycle was observed, the share price dropped 70% and at $2.50/share, people did not want to buy SEK because of the cycle (refer chart 4). Logically this makes no sense. The share price of SEK should represent the NPV of all cashflows expected to be received by shareholders into perpetuity, and the very short term profit actually has very little impact on what a business is worth.

This is the foundation of investing…the very 101 of our industry. Yet human emotion, and biases to overweighting more recent experiences, amongst others, results in real world share prices that look nothing like rational analysis would suggest.

Chart 4: Taking advantage of human behaviour
Sequencing event impacts on stock prices



* Value estimate assumes a 40% sustainable ROE and 50% payout ratio. For illustrative purposes only, not Schroders actual estimate of SEK shares value.

Source: IRESS, Schroders

A final word

A final word on putting this into practice. Discipline as investors is like discipline in other areas of our lives. Knowing what to do and doing it are two very different things. One of the areas we try and influence in our portfolio outcomes is to do what is difficult, but that we know in the long run is the right thing. It is often difficult because of the short term time frames the market often measures us on, but we endeavour to do what is right rather than what is popular or feels good in the short term.

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