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1. Executive summary

We believe contrarianism done well represents an attractive investment philosophy, particularly in the current environment. Sophisticated investors face continuing challenges in the search for returns. Interest rates remain at or near historic lows, growth is still relatively subdued, and volatility is often high. It is becoming ever more obvious that to beat the market it is necessary to be different to the market; yet many funds, “closet trackers” chief among them, exhibit little - if any - of the ingenuity and conviction that such a strategy demands.

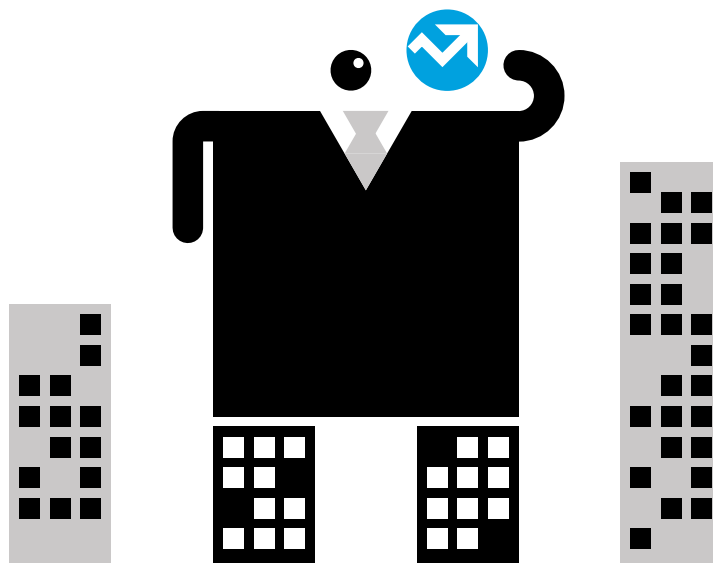
The history of every field of endeavour illustrates how the ability to think independently and imaginatively constitutes humanity’s most basic engine of change and drives progress. We make the case for contrarian investing in the global equities market, outlining a disciplined, rigorous and valuation-led approach to identifying undervalued businesses throughout the whole universe of stocks.

We argue that some of the key cornerstones of such a strategy are as follows:

- A willingness to dispute conventional wisdom
- A capacity to demonstrate creativity
- A determination to reform the consensus
- A high-conviction focus on long-term objectives

Relatedly, we argue that some of the principal benefits of such a strategy can be as follows:

- Enhanced performance
- Reduced volatility
- Less overreaction to market developments
- More focus on genuinely attractive holdings



2. Introduction

“Closet tracker” is one of the most derogatory and unhappily relevant terms in the financial sphere. It describes a fund that merely imitates its benchmark. It implies inability and even downright deceit - an ugly combination of expensive fees and unexceptional performance.

There is an emerging school of thought that such funds constitute mis-selling on a vast scale. Many are innately powerless to add alpha. The use of simple, low-cost index funds has made them all but obsolete. The more recent development of enhanced-index products that are capable of generating returns above those of benchmarked indices has only added to the pressure.

As a result, uncomfortable questions are being asked about the role of many equity funds in portfolios. If closet trackers are an example of fund “management” at its most unthinking then what approaches are to be found towards the other end of the scale?

One answer is contrarianism. A contrarian philosophy seeks to beat the index by delivering not just strong, long-term, risk-adjusted returns but diversification. By definition, contrarian investment managers should embody the diametric opposite of their closet-tracking, herd-following counterparts. What, though, makes a successful contrarian investor?

In this paper we reflect on some of the historic and academic literature from a variety of disciplines to help us better understand the qualities behind creative, contrarian thinking - from Alice in Wonderland to Albert Einstein, from Socrates to Sun Tzu, from samurai to superstring.

We then seek to apply the best of these characteristics to modern portfolio management, highlighting the qualities that can assist institutional investors in identifying managers capable of delivering robust and repeatable performance. We consider the impact of investment discipline and address issues such as the measurement of intrinsic value, the risks of being swayed by so-called “conventional wisdom” and the significance of time arbitrage. In addition, given that a successful contrarian investor will likely have lots of good ideas and will need to sift out the most effective, we discuss the importance of being focused.

We also ask specialist institutional investors what they look for in contrarian managers and the benefits they experience in using them. Finally, we examine statistical evidence to assess how contrarian disciplines work in reality and whether it really does pay - literally and figuratively - to dare to be different.

“A contrarian philosophy seeks to beat the index by delivering not just strong, long-term, risk-adjusted returns but diversification.”



3. Contrarianism in a low-growth world

3.1. Investment through the looking-glass

Alice laughed. "There's no use trying," she said. "One can't believe impossible things."

"I dare say you haven't had much practice," said the Queen. "Why, sometimes I've believed as many as six impossible things before breakfast."

Lewis Carroll, *Alice in Wonderland*

"There is a subtle yet incontrovertible distinction between being confrontational and being counterintuitive, between unthinkingly dismissing orthodoxy and meaningfully challenging it."

Lewis Carroll - better known to his family and friends as Charles Lutwidge Dodgson - was not an advocate of believing the impossible per se. As a professional mathematician and logician and a fellow of Christ Church College, Oxford, he tended to favour watertight arguments over unbridled fantasy.

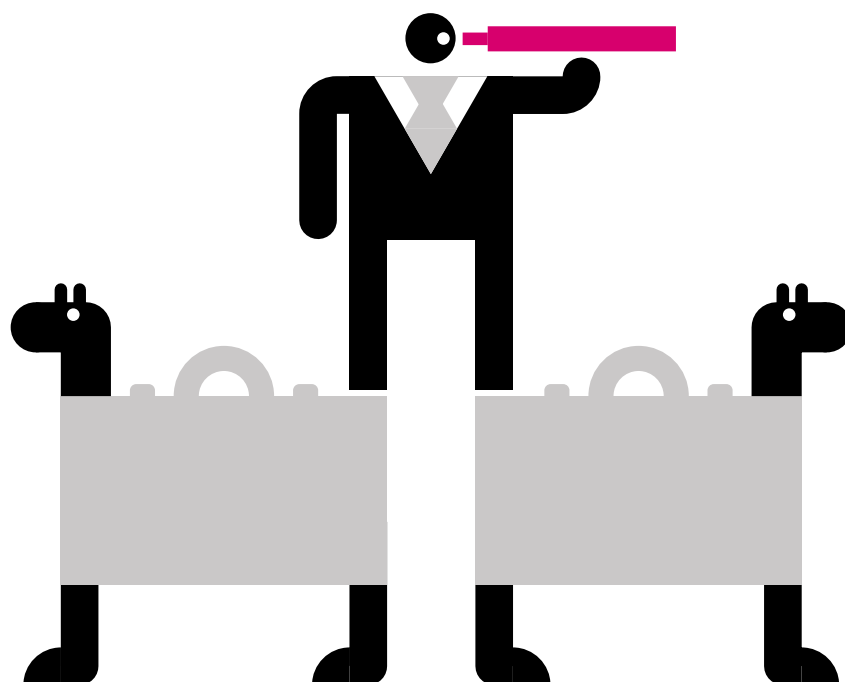
He was, though, very much in the habit of looking beyond convention. He was an inventor and a pioneer. He developed novel ideas in the fields of algebra and probability. He was an unconstrained thinker. He acknowledged the potential of doing things differently. In short, he bore many of the classic hallmarks of a contrarian.

It is essential to establish from the outset what a true contrarian is. A true contrarian is not merely someone who stubbornly disagrees with anything anybody else says. A person who unflinchingly defaults to the discarding of others' points of view and ideas - and, worse still, who does so without volunteering viable alternatives - is less a contrarian and more a pain in the backside. There is a subtle yet incontrovertible distinction between being confrontational and being counterintuitive, between unthinkingly dismissing orthodoxy and meaningfully challenging it.

By way of illustration, consider the story of John Archibald Wheeler, the theoretical physicist who gave us the term "black hole". Wheeler originally studied under Nobel Prize winner Niels Bohr, one of the founding fathers of quantum theory, having stated in his fellowship application that he wanted to learn from the Dane "because he sees further than any man alive".

Suitably enlightened, Wheeler went on to revive America's interest in the theory of general relativity. He subsequently played a pivotal role in convincing the wider world of the existence of black holes and other bizarre phenomena predicted by Einstein's most extraordinary work. It seems fair to say that to achieve this he had to follow the dictum of Carroll's Queen and believe the impossible - or at least what others deemed impossible. Asked how he was able to maintain his convictions, particularly when so many of his peers thought otherwise, he replied simply: "More vividness of imagination."

Wheeler's notions of seeing further and vividness of imagination neatly encapsulate the nature of true contrarianism. It is much more than irksome devil's advocacy: it is a willingness to examine the consensus, recognise it as imperfect and demonstrate that a better answer lies elsewhere. In the sphere of investment, where farsightedness and ingenuity can frequently appear in short supply, such a mindset can be of notable benefit.



3.2.

Contrarianism, the search for returns and being right

Contrarians are scarce in any walk of life – they must be, otherwise they would not be contrarians – and in the investment world they can sometimes seem as elusive as Carroll's precipitous White Rabbit. As an Financial Times article about stock-picking observed in April 2016: "Contrarianism remains as rare as ever."

We could be forgiven for finding this surprising at a time when it appears uncommonly clear that to beat the market you have to be different to the market. It is no secret that investors face mounting challenges in the form of low interest rates, relatively subdued growth and occasionally high volatility. Fixed-income investments, once the, 'safe haven', of choice for the risk-averse, now hold limited appeal. Equities retain a capacity to outperform, but how can this capacity be harnessed to best effect?

We should not forget, too, that a low-growth environment such as the one in which we find ourselves now reduces the margin for investment error. Mistakes are less costly when high returns can help absorb the disappointment. Wrong moves are more keenly felt when there is no cushion to soften the blow.

The reality is that the search for returns nowadays demands ever more imagination, ingenuity, conviction and maybe even courage; and yet a growing number of investors might feel many actively managed funds conspicuously lack these qualities. A portfolio consisting entirely of copycat, one-size-fits-all, index-hugging investments invites mediocrity or worse.

At this point, having begun to filter the issue through the prism of investment, it is imperative to reiterate what contrarianism is not. It is not rejection purely for rejection's sake. This is especially important in an investment context, because a contrarian's opinions must tally with market sentiment at some juncture if a strategy is to succeed.

Remember: contrarianism is about not just going against but disproving the consensus. It is about having good ideas that turn out to be correct. It is about being right and, crucially, being shown to be right. This, as we will examine in more detail in section 4, is in many ways the essence of progress.

"The reality is that the search for returns nowadays demands ever more imagination, ingenuity, conviction and maybe even courage."



Raghavendra Rau
Sir Evelyn de Rothschild
Professor of Finance,
Judge Business School,
University of Cambridge

Interview

What is contrarianism?

The idea of contrarianism is very straightforward. If you want a quick and dirty definition, it means not following the herd. However, if we go deeper, the concept is more subtle. Basically, there are two meanings to contrarianism. The first is a social meaning: contrarians do not behave the same way as part of their social group. This can be difficult: people who want to be part of a group are reluctant to go against the wishes of the group. Ultimately, the group is likely to end up shunning the contrarian. The second aspect is an informational meaning: we know that the wisdom of the crowd is useful in deciding the value of an asset but we also know that crowds sometimes overreact. In investing, it is this second aspect that matters. The social aspect is less important because in anonymous capital markets, you typically don't know who the other investors are. Even following the advice of other members of your social group is not really social when it comes to investing. Members of the group are unlikely to be annoyed with you if you do not invest as they do. Here the idea is more informational - you follow the advice of friends you think are knowledgeable.

What is the rationale for contrarian investing?

The essence of contrarianism was born out of a few seminal academic papers that showed that investors first underreact to information but eventually end up typically overreacting to the prospects of attractive-looking stocks - often referred to as 'glamour' stocks. Proper contrarians take advantage of the overreaction by selling (or not buying) when the market is buying these 'glamour' stocks.

So there are two kinds of investor - those who just buy what is going up ('glamour stocks') and contrarians?

No, there are several groups. I would say there is a group of investors who do thorough analysis and consequently buy stocks on a highly informed basis. There is a second group who don't spend as much time analysing fundamental information but do pay attention to what the first group is doing. Then there is a third group who just follow the first two groups belatedly. They have no idea why a stock is going up. What this means is that the momentum to any trend builds slowly - it can take six months to a year to build. It takes time for the third group to get comfortable that certain stocks are 'winners'. Initially, the first group profits from a first-mover advantage - winners continue to be winners over the short term while losers continue to be losers. But also note that latecomers are buying too high. This is when market overreaction takes hold, and why 'glamour' stocks or 'winners' over six months to a year typically turn out to be losers over the longer term (three to eight years). You can even have contrarian indexes. A small-cap value index is a contrarian strategy.

How would a contrarian manager or style fit into this thesis?

The contrarian manager has to sell or avoid buying when the price momentum of the market suggests a stock or a sector or a style is most attractive. This is extremely hard to do. You have to resist the short term pressures of market pricing, but the problem is that the short-term is not fixed. As Keynes remarked: "The markets can stay irrational longer than you can stay solvent." Just as economic cycles do not last for precise periods, so the six-month indicator I mentioned is no more than a guide. Plenty of celebrated investors, including George Soros and Julian Robertson, have suffered from being contrarian investors who questioned the value of rising bull markets and avoided participation in glamour stocks for years. Robertson actually closed his Tiger fund early in 2000, after consistently avoiding the mania for tech stocks throughout the 1990s, before markets turned in his favour. Being a contrarian requires earning great trust from your clients.

How should clients respond during periods of underperformance?

They should request more information from the contrarian manager. What you want to avoid is style drift - the manager giving up on his or her own thesis, which was the reason you bought into the strategy in the first place. If greater information tells you that the manager has been true to the thesis but unlucky, then I would be minded to keep faith and keep my investment there.

How would a contrarian manager fit into a broader portfolio?

Ideally you want to participate in market rises and have the contrarian strategy as a counter-balance. When markets are rising, you simply need exposure to the beta; there isn't much skill involved and you could arguably do this via an index-tracker. The skill comes in sensing when to pull away. This is a matter of market timing, which is notoriously difficult to do successfully over the long term. My most recent research into hedge funds has investigated if they can do this. We find only a few can.

4. Contrarian creativity: lessons from history and academia

4.1. Science and sieves

“The world we have made as a result of the level of thinking we have done thus far creates problems we cannot solve at the same level of thinking at which we created them.”

Albert Einstein

The ability to think independently, more imaginatively and more creatively represents humanity's most basic engine of change. The history of every field of endeavour underlines this fact. A world without contrarianism would be either a blissful, perfect-in-every-way utopia or an intellectual wasteland characterised by eternal quiescence and cerebral inertia.

Many of the cornerstone texts of the philosophy of science stress the fundamental importance of challenging received wisdom. One of the most celebrated is Karl Popper's *The Logic of Scientific Discovery*, which champions the concept of falsifiability - the idea that no number of experiments can ever conclusively prove a theory but only a single experiment is required to disprove it.

Applying this rule, any theory that cannot be falsified by experiment is not scientific. Lacking evidence and rooted in cosy confirmation rather than refutation, it is nothing more than pseudoscience. To quote Wolfgang Pauli, the irascible “conscience of physics”: “It is not only not right - it is not even wrong.”

True contrarians seek to disprove. Moreover, they grant that no idea, even their own, is likely to survive indefinitely. Even Einstein once said of his theory of relativity: “It will have to yield to another one, for reasons which at present we do not yet surmise.”

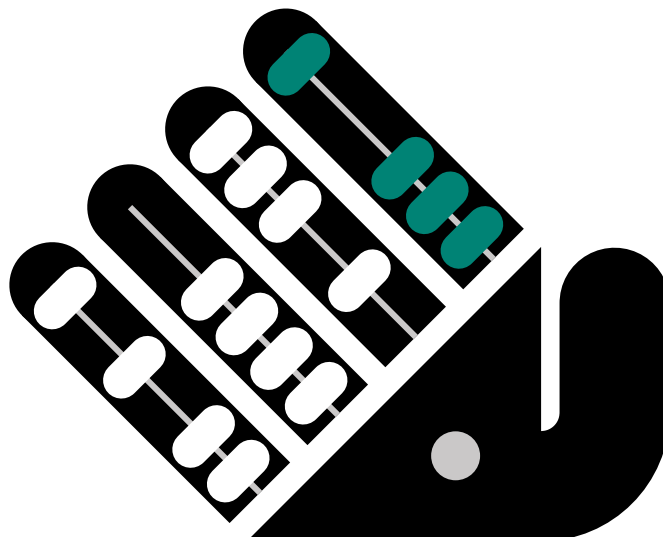
Thomas Kuhn expresses something analogous in *The Structure of Scientific Revolutions*, the tome from which we derive the now massively overused and abused term “paradigm shift”¹. Kuhn argues that even most scientists reinforce and extend the scope of an existing paradigm and that revolutions usually occur only when a sufficient accumulation of anomalies, usually observed by those who view things differently, at last triggers an abandonment of conventional thought.

Perhaps the most availing explanation of all comes from Richard Feynman, the trailblazing maverick who not only transformed but somehow managed to popularise quantum electrodynamics. In *The Meaning of It All*, his essay on the relationship between science and society, Feynman likens progress to a cascade of sieves with ever-shrinking holes: a theory might safely negotiate sieve after sieve before at last getting stuck - at which point, irrespective of all that has gone before, a rethink is in order.

Contrarians believe there can never be too many sieves. By contrast, others are content simply to stick their fingers in the holes.

“True contrarians seek to disprove. Moreover, they grant that no idea, even their own, is likely to survive indefinitely.”

¹ Interviewed in the early 1990s, Kuhn lamented that the use of “paradigm” had grown “out of control”. He admitted he had not defined the term well enough and had long since given up hope of conveying his intended meaning. In later editions of *The Structure of Scientific Revolutions* he recommended replacing “paradigm” with “exemplar”, but his appeal fell on deaf ears: there was to be no paradigm shift in this regard.



The original contrarian?

Was Socrates the first authentic contrarian? It is striking how closely the underpinnings of his method presage the more recent “advances” examined in this section. He sought to disprove commonly held traditions by identifying exceptions and imprecisions (Popper); he chipped away until the cumulative weight of evidence became overwhelming and his opponents had little choice but to relinquish their positions (Kuhn); and he considered the process virtually never-ending (Feynman).

Above all, Socrates saw that the prevailing view and the right view are not invariably one and the same and that consensus should therefore not escape question. To quote Plato’s Theaetetus: “Wisdom begins in wonder.”

The ultimate show of conviction?

Hans Bethe headed the theoretical division of the Manhattan Project during World War Two. When one of his highly respected colleagues hypothesised that the fireball from an atomic blast might ignite the Earth’s atmosphere, sparking a conflagration that would incinerate the whole planet, Bethe argued to the contrary.

Empirical proof could be delivered only by the first A-bomb detonation, carried out at Alamogordo, New Mexico, on July 16 1945. Years later, asked about his feelings in the moments before the explosion, Bethe insisted his sole concern had been that the ignition device might not work: he had done his sums, he said, and his faith in them had been total.

4.2.

Why isn’t contrarianism more widespread?

Lewis Carroll would surely have appreciated the paradox at the heart of this question. After all, it was Through the Looking-Glass’s Tweedledee who remarked: “If it was so it might be; and if it were so it would be; but, as it isn’t, it ain’t.”

The threat of mangled logic aside, however, the issue of why so few people dare to think differently is undoubtedly worthy of attention. What are the factors that dissuade independent thought? Is there actually something to be said for the wisdom of crowds or is the explanation to be found in less sagacious attributes? Studies and insights from psychology, behavioural economics and other disciplines offer some useful clues as to why the herd is so large and, by extension, why contrarians can bring such value.

4.2.1.

The law of least effort

The work of psychologists Daniel Kahneman and Amos Tversky must rank among the most influential to emerge from any academic discipline during the past half-century. It has transformed our understanding of how we make decisions and shown us that what we once assumed to be rational is often nothing of the sort. It is thanks to Kahneman and Tversky that terms such as “cognitive bias” and “heuristics” have entered everyday speech.

At the core of their research is the contention that the human brain is innately lazy. Heuristics, the mental shortcuts we employ to form judgments, are one symptom of this weakness.

Kahneman summarises the problem in *Thinking Fast and Slow*, the popular book based on his studies. “A general ‘law of least effort’ applies to cognitive as well as physical exertion,” he says. “The law asserts that if there are several ways of achieving the same goal people will eventually gravitate to the least demanding course of action. Laziness is built deep into our nature.”

Kahneman posits that the brain has two systems. The first operates quickly, with no sense of conscious endeavour, but is prone to errors. The second is more deliberate, more capable, but is taxing to use. We like to think we favour the second in making decisions, but in truth its contribution is usually confined to rubber-stamping the knee-jerk conclusions of the first.

Those who blindly follow the herd tend to rely on the first system. To be blunt: they take the easy way out. Contrarians are prepared to make the additional effort required to put the second system to good use.

4.2.2.

Weights instead of wings

Taking his lead from an idea first advanced in Bertrand Russell’s *The Problems of Philosophy*, scholar and risk analyst Nassim Nicholas Taleb illustrates the flaws of inductivism – the basing of theories wholly on observations and extrapolations – with a salutary tale about an ill-fated turkey.

One day the bird notes that he is fed when the sun rises. Not wishing to leap to conclusions, he proceeds to gather a series of observations until he infers he has sufficient evidence to know that each and every day, without fail, the sun will rise and, also without fail, he will be fed. On the day before Thanksgiving the sun rises as usual – and he is killed.

Generally speaking, contrarians do not invite such a stuffing. Inductivism is intrinsically constrained, and constrained thinking is anathema to those who dispute the status quo.

Francis Bacon, the philosopher credited with establishing the inductive method of scientific inquiry, felt intellect should somehow be checked to prevent it from flying away. He advocated proceeding “not with wings but with weights to ensure we remain grounded in reason”.

As Taleb’s turkey discovers to his cost, not using your wings can have unfortunate repercussions. Contrarianism means thinking freely and not being bound by what passes for conventional wisdom.

Even contrarianism has its limits

We noted earlier the importance in an investment context of contrarian thinking eventually squaring with market sentiment. This convergence - a deeply satisfying form of mean reversion - is essential to success. Forever ploughing a lone furrow can be an alienating and even detrimental experience.

The story of molecular biologist Peter Duesberg offers a cautionary tale. An arch-contrarian, Duesberg maintains that AIDS, rather than being caused by the HIV virus, is an opportunistic infection that takes advantage of immune systems weakened by conditions such as drug abuse and malnourishment. Although the wider research community is so dismissive of his stance that many journals now refuse to publish his work, Duesberg found a sympathetic audience in then South African president Thabo Mbeki, who took heed of his claims in evaluating the country's response to AIDS - a decision, according to one study, that cost hundreds of thousands of lives.

Peer pressure and the comfort of conformity

The tendency to conform has been the subject of some of the most renowned experiments in the annals of psychology. Arguably the most celebrated of all is Solomon Asch's classic investigation of the extent to which social pressure from a majority group can influence an individual.

Asch, a researcher at Swarthmore College, Pennsylvania, would ask a participant to study three straight lines and state which was the closest in length to a fourth. The answer was blindingly obvious, but what the participant didn't know was that his or her fellow subjects were actually stooges who had been primed to respond incorrectly. A third of unwitting participants gave an answer that was clearly wrong, explaining afterwards that they feared being ridiculed or regarded as "peculiar"².

4.2.3.

Where overconfidence and ignorance meet

Myriad experiments have laid bare humanity's propensity for overconfidence. Kahneman even relates an episode from his own experience to show how this dangerous characteristic can be especially seductive in relation to forecasting.

In the 1970s officials from the Israeli Ministry of Education set about formulating a curriculum for a new subject that would be taught in high schools. Members of the planning team, including Kahneman, estimated the project would reach fruition within 18 to 30 months.

Amid this groundswell of optimism, a distinguished veteran of similar initiatives confessed that around 40% of the schemes he had been involved in had failed entirely and not one had been completed in less than seven years. Undeterred, the team ploughed on. The project staggered to a halt eight years later, and the curriculum was never used.

This is what can happen when inquisitiveness surrenders to misplaced bullishness and the spirit of inquiry submits to the supine. Ignorance may well be bliss, but it can also be counterproductive. It is possible that if a contrarian had been present, if a few difficult questions had been asked, the project would have succeeded - or at least that a lot of wasted effort would have been avoided.

According to a recent Stanford Graduate School of Business study, every team should have a contrarian who is "constructive and careful in communication" and promotes "healthy conflict". A highly likely consequence, suggests Professor Lindred Greer, the research's author, is better decisions.

4.2.4.

Limited horizons

Those who follow the law of least effort, confuse self-confidence with ignorance and rely on modes of thinking that encourage narrow-mindedness are not liable to view a scenario from miscellaneous standpoints. To borrow Wheeler's description of Bohr: it is unlikely they will "see further than any man alive".

The impact of such limited horizons may be felt in various ways. Opportunities go unnoticed. Risks are neither appreciated nor heeded. Alternate strategies are overlooked. Long-term perspectives dwindle to non-existence.

Perhaps what is most damagingly eroded in these circumstances is the capacity - even the readiness - to have ideas. The disinclination towards original thought means only the ideas of others, their viability undisputed, have any currency.

Rollo May, the existential psychologist whose most renowned works include *The Courage to Create*, summed up the intellectual desolation of this mentality when he warned: "If you do not express your own original ideas... you will have betrayed yourself."

May postulated that there are four stages of human development: innocence, rebellion, ordinary and creative. The third and fourth are relevant here. During the "ordinary" stage an individual finds responsibility too onerous and seeks refuge in the traditional. Only in the final stage do we become "self-actualising". To quote May: "The opposite of courage in our society is not cowardice. It is conformity."

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² One of Asch's students, Stanley Milgram, famously built on this finding with an experiment in which participants showed themselves remarkably willing to punish mistakes by unseen fellow subjects by inflicting electric shocks on them. In reality, unbeknown to the "punisher", there were no shocks: the "victim" was a stooge. In some versions of the experiment the shock was ostensibly administered even when the recipient was said to be suffering from a heart condition. Milgram suggested the findings laid bare the degree to which individuals tend to conform with the wishes of authority figures. He later sought to reinforce this argument by asking his students to board crowded subway trains and demand passengers give up their seats - a practice whose wisdom might well be disputed by anyone who has experienced the spirit of non-cooperation that suffuses rush-hour on the London Underground.

5.1. A genuine investment philosophy

“The brain is like a muscle. When it is in use we feel very good. Understanding is joyous.”

Carl Sagan

So how can we derive the benefits of contrarianism, of creativity, of daring to be different, in the context of portfolio management? Before attempting to answer this question we might usefully construct a bullet-point summary of the discussion so far.

The qualities of contrarianism

- A willingness to challenge and, ideally, disprove received wisdom
- A capacity to “see further” and exhibit creativity and ingenuity
- A desire to identify inaccuracies and imprecisions in prevailing paradigms³
- A firmness of conviction in the face of herd mentality

The enemies of contrarianism

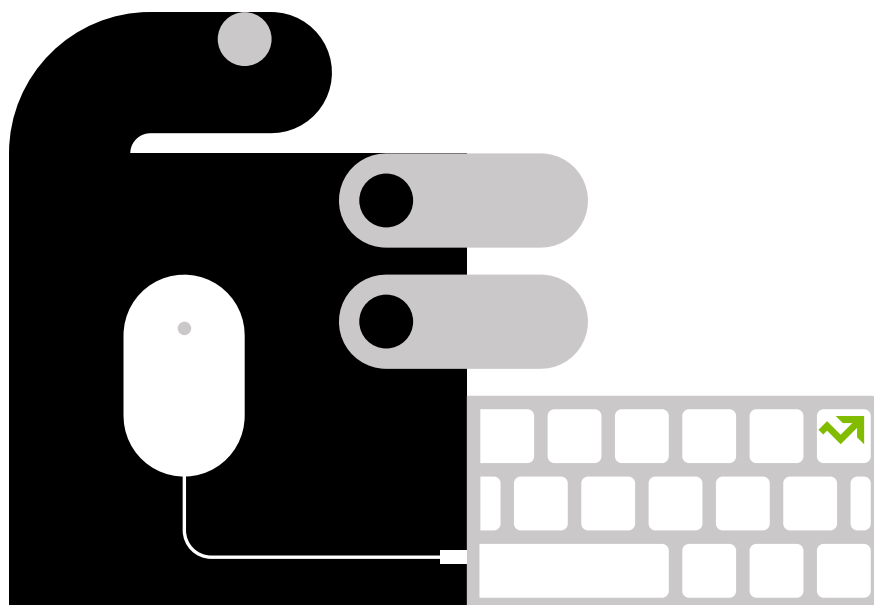
- A predisposition to expend as little effort as possible
- A reluctance to think freely and generate original ideas
- A tendency to wallow in overconfidence and/or ignorance
- A blinkered fondness for conformity

It is uncanny how neatly the enemies of contrarianism correspond to the “management” of some funds. Dissatisfied investors might well agree that closet trackers and other products offer grim testament to the law of least effort; that their workings are substantially constrained and practically bereft of original thought; that they resolutely ignore the opportunities a more imaginative approach might present; and that they are little more than a glorified yet ill-disguised brand of herd-following.

We make no apologies for casting such funds in a disparaging light. It could even be argued that they barely constitute an investment philosophy in the strictest sense of the term, since the literal translation of “philosophy” is “love of wisdom”. The only “wisdom” that some managers love is someone else’s.

If contrarianism is integral to a move towards the more rewarding extreme of the active-management continuum, as we contend, then what should the underlying driver of our journey be? At its most basic, contrarian investment involves buying when others are selling; but remember that true contrarianism is about redefining the consensus rather than unrelentingly opposing it. We want to be proved right, which means our decisions must stem from something disciplined and rigorous rather than from an unfocused desire to contradict for the sheer devilment of it.

Where do we best direct this discipline and rigour? The first target in the model we propose is the issue of valuation.



5.2.

Valuation: challenging received wisdom

There are numerous strategies for fund management. Some investment managers look for historical patterns in the movement of share prices; some react to momentum and buy stocks that are going up; and some, as we have seen, track benchmarks - whether in a passive or allegedly active sense. Although most have their merits, one methodology that particularly lends itself to contrarianism is a valuation-based approach.

As mentioned above, if contrarian investment is to succeed then it is necessary to (a) buy when others are selling and (b) disprove and reform the consensus. By trying to establish the intrinsic value of a business and purchasing shares when their price is well below that value, as we espouse, managers can realise both of these objectives and more besides.

5.2.1.

Process: valuation opportunities versus value traps

How is intrinsic value measured? There can be no one answer, since different companies in different industries require different metrics. It is reasonable only to say that the process must be an exhaustive one if investment managers are to have confidence in their ability to spot attractive and authentic valuation opportunities and evade the perils of value traps.

First and foremost, it is critical that the search is not confined to "cheap" companies. The stock market is littered with businesses that have appeared agreeably cheap yet have only continued to get cheaper. A thorough understanding of a business and the industry dynamics to which it is subject is imperative if the vital distinction between "cheap" and "undervalued" is to be discerned.

In tandem, price/earnings ratio should be treated purely as an end point rather than as a starting point. It is an appealingly straightforward statistic - one we will make some use of later - but it is by no means a definitive guide. At least in isolation, it cannot reveal the indications of quality, whether extant or potential, that might denote a legitimate valuation opportunity.

Instead a range of factors must be taken into account. These might include:

- Cashflow
- Asset backing/balance sheet
- Return on capital versus cost of capital
- Ability to deliver earnings growth
- Management team
- Improvement potential (via self-help or management intervention)

This level of inquiry and assessment is impossible without rigorous research. Of the two brain systems delineated by Kahneman - the first quick yet error-prone, the second more deliberate yet more strenuous to employ - only the second is up to the task. The law of least effort has no place here.

5.2.2.

Risk management: the appeal of positive asymmetry

American hedge fund manager Stanley Druckenmiller, the founder and ex-chairman of Duquesne Capital, once claimed the art of investment management is not about being right or wrong per se. It is, he said, about "how much money you make when you're right and how much you lose when you're wrong"⁴.

This tenet echoes another of Kahneman and Tversky's most celebrated concepts: prospect theory, which posits that we judge losses and gains differently and place more emphasis on the avoidance of the former than on the acquiring of the latter. Also known as loss aversion, this trait has been illustrated over and over again by a raft of studies in the field of behavioural economics.

We can demonstrate the phenomenon within seconds via a thought experiment in which we imagine a gamble that offers a 50% chance of winning €100 and a 50% chance of losing €90. Tempting? Most people would find the positive payoff possibility insufficiently enticing, as our psychological heuristics dictate that the prospect of throwing away €90 outweighs the prospect of pocketing a slightly larger amount. In the words of economist and behavioural scientist Richard Thaler: "Losses hurt roughly twice as much as gains feel good."

Given that the average person rather likes gains but absolutely hates to experience losses, a key aim of the process described in the preceding sub-section is to pinpoint investments that are likely to maximise "upside" potential while limiting exposure to "downside" surprises. The extent of this positive asymmetry - upside versus downside - is fundamental to the management of risk and, in turn, the generating of returns.

Relatedly, it is important to make clear what we mean by "risk". In this context it is not about volatility or tracking error. A valuation-intensive philosophy is not benchmark-relative: instead, in keeping with Druckenmiller's assertion, it lends itself to the judicious consideration of permanent loss of capital.

So far, then, we know we are looking for stocks that are undervalued and which suggest a positive risk-return asymmetry; but where exactly should we look for them? Where should we conduct our search if we want to challenge and overturn received wisdom in equity markets? The answer, quite simply, is everywhere.

³ With apologies to Thomas Kuhn for further overuse.

⁴ Druckenmiller, a disciple of arch-contrarian George Soros, proved himself a man of his word. In August 2010 he announced the closure of his notably successful fund, admitting he felt unable to continue delivering the high returns to which his clients had become accustomed.

5.3. **Global equities: the benefits of “seeing further”**

Markets are always evolving - and seldom more rapidly than now. For more than 2,000 years the integration of economies and societies was at best piecemeal, but the process has accelerated dramatically since the advent of trade liberalisation following World War II.

It seems overwhelmingly likely that this interconnectedness will only intensify. The fall of the Berlin Wall, China's return to the mainstream of international economics and the inexorable march of technological progress are just some of the momentous happenings that have sustained the trend to date. Despite sporadic threats of a retreat to comparative isolationism, we are living in an age of unprecedented globalisation; and one of the most beautiful things about it is that it encourages us to pursue unconstrained thinking on the very grandest scale.

5.3.1. **Diversification and risk reduction: the bigger picture**

To appreciate the attractions of applying a global perspective to equity investing it is crucial to understand the shortcomings of the more parochial alternative. The principal failing of such a strategy is that it may well miss out on the higher returns and diminished risk that geographical diversification can deliver.

The age-old caveat about eggs and baskets is in many ways axiomatic here. Even the most unsophisticated investor would be wary of concentrating solely on a single stock, so why concentrate solely on a single country or region? It is usually instructive to see the bigger picture, and the global picture is the biggest of all.

Surveying the full sweep of the equities universe guards against overexposure to not just specific economies but specific sectors. For example, both the FTSE 100 and the NASDAQ include multinationals, but both are heavily weighted in other ways - the FTSE towards financial and energy companies, the NASDAQ towards technology firms. As the victims of assorted bubbles and crashes can attest, narrow foci are undesirable when events take an unexpected turn.

This much is plain from several studies that have examined investors' die-hard penchant for maintaining a home-country bias in their portfolios. In 2013 research by MSCI concluded that greater global diversification over the course of the preceding two decades would have led to a double-digit reduction in risk, adding: "A global equity allocation framework... represents the natural starting point for any equity allocation."

The fact is that businesses are nowadays able to operate in a marketplace many times the size of any one economy. Competition is not local but genuinely worldwide, and the search for investment opportunities must reflect this reality. With specific countries and regions no longer exerting such a telling sway on stock selection, geographical boundaries can be disregarded. Like Bohr, we can dare to see further.

5.3.2. **Truly unconstrained: the advantage of style-agnosticism**

In *The Art of War*, the ancient Chinese military text intermittently embraced by business leaders as a repository of all-encompassing tactical acumen, Sun Tzu writes of "formlessness". This notion resurfaces throughout the annals of the martial arts, from undefeated samurai Miyamoto Musashi's exhortation to "flow like water" to Bruce Lee's affirmation that his own jeet kune do system "utilises all ways and is bound by none".

The investment manager's equivalent of formlessness is style-agnosticism. It might sound less mystical, less exotic, but it is effective for the very same reason. Resistance to pigeon-holing is an enviable attribute.

At this stage it may be instructive to remind ourselves of some other investment philosophies. We mentioned earlier the preference of certain managers to look for patterns in share-price movements, to buy stocks that are going up or to track benchmarks. Each of these is to some degree hamstrung by either restricted scope or a predominantly reactive ethos - or both. They would be akin to Musashi duelling only on a Monday afternoon and even then drawing his katana only after his opponent has dealt the first blow.

By contrast, a valuation-led global equities strategy should benefit from managers who make investment decisions in a flexible and proactive manner. These decisions should be the corollaries of open-mindedness, clear testimony to creativity and ingenuity, rather than default responses determined by rigidity and a paucity of imagination. Given that it is essentially impossible to forecast when a stock will become undervalued, it is necessary to stay unbiased, unconstrained and ever-alert.

Surely, though, there must be some limits? There are. Focus has a vital part to play in our proposed model of contrarian investment, which is why we now turn to the topic of where diversification ends and dilution begins.

5.4. Back to the sieves: methodology and meritocracy

Linus Pauling won two Nobel Prizes, the first for his groundbreaking research in chemistry and the second for his peace activism. In the 1930s he demonstrated that all chemical reactions could be understood in terms of quantum mechanics, thus solving at a stroke many of the most exasperating puzzles that had dogged the discipline for centuries. In later life he championed the cause of ideas, noting: "If you want to have good ideas you must have many ideas. Most of them will be wrong, and what you have to learn is which ones to throw away."

So it is with global equities. Surveying the whole universe of valuation-led investment opportunities means gauging the pros and cons of many, many stocks. It is not totally accurate to say the majority will be "wrong" as such; yet it is right to say some will be more attractive than others at any given time. The process of deciding which should enter a portfolio is consonant with Popper's zeal for falsifiability, Kuhn's accumulation of anomalies and Feynman's cascade of ever-tighter sieves. Only the best ideas endure. Meritocracy must rule.

5.4.1. Ideas: "exquisite balance" and the quest for the best

The opportunity set offered by the global equities market is vast, but it does not inescapably follow that a portfolio constructed from its constituents should be comparably colossal. Even the virtues of diversification are finite: the penalty for excess is dilution.

Carl Sagan, the American polymath quoted at the start of this section, spoke of the need for an "exquisite balance" when evaluating ideas. "If you are only sceptical then no new ideas make it through to you," he said. "If you are open to the point of gullibility and have not an ounce of sceptical sense in you then you cannot distinguish the useful ideas from the worthless ones."

Such a mindset is apposite here. Ultimately, the goal should be to build a portfolio of maybe fewer than 50 stocks, each of them a best-in-class proposition that has survived the closest and most careful scrutiny.

Using Feynman's sieves analogy, what qualities might the very first rounds of sifting seek to identify? Potentially undervalued businesses tend to fall into one of two categories:

- Compounders - companies that have excellent operating characteristics, high and sustainable returns on capital and strong management yet are for some reason out of favour
- Special situations - companies that face challenges and require change yet deal in products or services that are still relevant

Thereafter, as the holes become smaller and the hunt for exceptions grows ever more rigorous, the filtering and the straining commence in earnest. As investment managers, do we understand the business? What are the main risks? Is the positive asymmetry we described earlier present? Is the business valued attractively on a standalone basis and in relation to its peers? How would inclusion impact the portfolio in terms of correlation and exposure? What might the cost of being wrong be?

Remember: contrarians believe there can never be too many sieves. They like to query, to quiz, to contest, to challenge. Their modus operandi is absolutely grounded in merit. Accordingly, only those stocks that are able to satisfy the most persistent probing should be granted entry to a global equities portfolio.

5.4.2. Confidence versus calamity: a brief note on being wrong

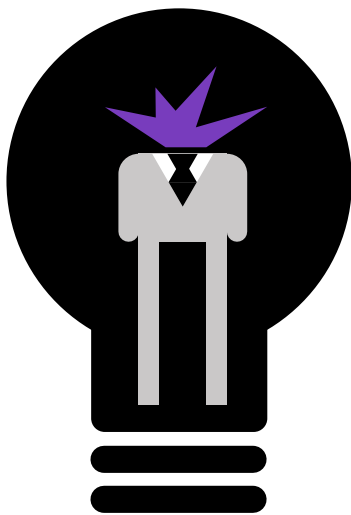
Contrarians are far from infallible. Like anyone else, they can be wrong. Sometimes the herd, for all its blinkeredness, turns out to have been right all along.

Since the 1980s Edward Witten has been one of the chief proponents of superstring theory, an attempt to explain all of nature's particles and fundamental forces in one fell swoop by modelling them as vibrations of tiny supersymmetric strings in 10-dimensional spacetime. A 2004 article in *Time* hailed him as the cleverest theoretical physicist alive. Interviewed in the early 1990s, he defended superstring theory by declaring: "Good wrong ideas are extremely scarce."

This may be so, and gainsaying someone of Witten's towering intellect is an indubitably daunting prospect; and yet his detractors are not being outlandishly provocative when they point out that we will probably never discover if superstring theory is a "good wrong idea". Notwithstanding its mathematical elegance, it requires proof of the existence of half a dozen dimensions that might forever defy detection. Falsification could be a long time coming.

Precious few investment managers are likely to revel in such a convenient and lasting luxury. The market ineluctably exposes and punishes the mistaken, which is why stubbornness, too, must have its limits. A willingness to acknowledge the weight of evidence and react appropriately is another mark of a true contrarian.

But what if there is only a semblance of being wrong? What if events in the short term belie a much more auspicious long-term outcome? This is another matter altogether, and it brings us to the constant tension between conviction and conformity.



5.5. **Withstanding the herd: thinking for the long term**

The agonies of having the courage of one's convictions have been suffered by countless contrarians, among them astronomer and cosmologist Beatrice Tinsley. In the 1960s she published a PhD paper that cast doubt on prevailing theories about the luminosity of galaxies. Although it had major implications for the measurement of redshifts to calculate the rate of the universe's expansion, her work was so far ahead of its time that most of her peers were reluctant to accept it. Others confirmed her findings only years later. In 1974, at last basking in acclaim, she modestly wrote: "It's funny to realise that my thesis, which is now regarded as a useful step forward in astronomy, was generally regarded as impossible at the time."

Such are the vicissitudes of a short-termist world in which the clamour for immediate results and the monotonous drone of the herd combine to produce a din that is customarily deafening. It is a cacophony with which contrarian investment managers - and their clients - are acutely familiar.

"Remember that true contrarianism is about redefining the consensus rather than unrelentingly opposing it. We want to be proved right, which means our decisions must stem from something disciplined and rigorous."

5.5.1. **Speculation versus ownership: playing the long game**

A valuation-led global equities strategy relies on an ability to discern attractive stocks in undervalued businesses. As we have discussed, this is achieved through exhaustive analysis of multiple factors. What such a strategy cannot rely on is the precise prediction of when the market will finally recognise the intrinsic value revealed by this process.

This being the case, conviction is in order. So, too, every so often, is a readiness to absorb pain, since the wait for vindication can sometimes give the impression that the herd's putative wisdom is being reinforced.

Happily, as we will explore in more detail in section 6, short-term pain frequently precedes long-term gain. Contrarian investment managers know this, which is why they do not flinch every time what they perceive to be an undervalued business fails to undergo a swift and near-miraculous recovery. It is valuation sensitivity that leads contrarian managers to adopt positions away from the consensus in the first place; and it is the discipline and rigour underpinning that sensitivity that enables them to hold those positions with warranted confidence rather than in blind faith.

Overall, the attitude should not be one of speculation: it should be one of ownership. The concept of time arbitrage is central to this outlook.

Time arbitrage involves profiting from other people's impatience and overreaction. A fund that is structured for the short term lives in permanent dread of investors withdrawing their money; a fund that is structured for the long term and whose investors share a distaste for narrow horizons can afford to take a less pressured view when the masses are reaching for the panic button. To revisit a recurring theme: contrarians thrive by buying when others are selling.

5.5.2. **Concentration = conviction: a final note on focus**

Critics have occasionally ventured that underperforming fund managers might try harder if they were under the same faintly ludicrous pressure as their counterparts in football, where the slightest slip-up routinely invites the sack. This is a debate for another time, but it is perhaps worth noting here that when the pressure is at its zenith - say, when a trophy is at stake - nearly every football manager with even an ounce of sense will deploy the club's "best XI".

These are the players the manager trusts. They are the players who have given every indication that they can deliver when it really matters. Given a choice between this select group of dependable stalwarts and a bloated roster of stragglers who might or might not get the job done, no title-chasing coach would opt for quantity over quality.

Much the same is true of our ideal global equities portfolio. Here, too, a focus on the best available resources represents the likeliest route to success. Just as a football manager settles on a 'best XI' only after much deliberation, a concentration of stocks should signify a decision-making process defined by intimate knowledge and the application of rigour.

Even a 'best XI' will feature a mixture of stars and "water-carriers"⁵. Portfolio weightings will reflect this sensible amalgam of the mercurial and the ever-reliable. Whatever the blend, a focus on a small number of equities should send an unequivocal message to investors: these are the stocks that comprehensive research and expert insight have distinguished as the cream of the crop - and these are the stocks in which we have the utmost long-term conviction.

When being "right" is not enough

Any school of investment thought has its potential drawbacks, and contrarianism is no exception. One risk that must be understood is the danger of making the "right" call at the wrong time.

We have repeatedly highlighted the importance of contrarian thinking ultimately converging with market sentiment. To generate alpha, contrarians must see things differently while at the same time believing the herd will eventually share their view - otherwise their farsightedness will be for nought. This means moving early - but not too early, because moving too early is really the same as being wrong.

This can explain why even the best contrarian managers have periods of underperformance: they have made the "right" call too early, and the wait for convergence has an opportunity cost. Contrarian conviction may well prove correct over the long term, but other opportunities - perhaps of the more mundane, beta-generating variety - can go begging in the meantime. This also explains the significance, even for contrarians, of holding "water-carriers" in a portfolio.

⁵ This ostensibly derisive term is traditionally credited to renowned French philosopher Eric Cantona, who used it to describe Didier Deschamps, the workhorse-like midfielder at the heart of France's 1998 World Cup triumph.

6. Evidence of the investment benefits of a contrarian approach

6.1. When good is bad and vice versa

"We made too many wrong mistakes."

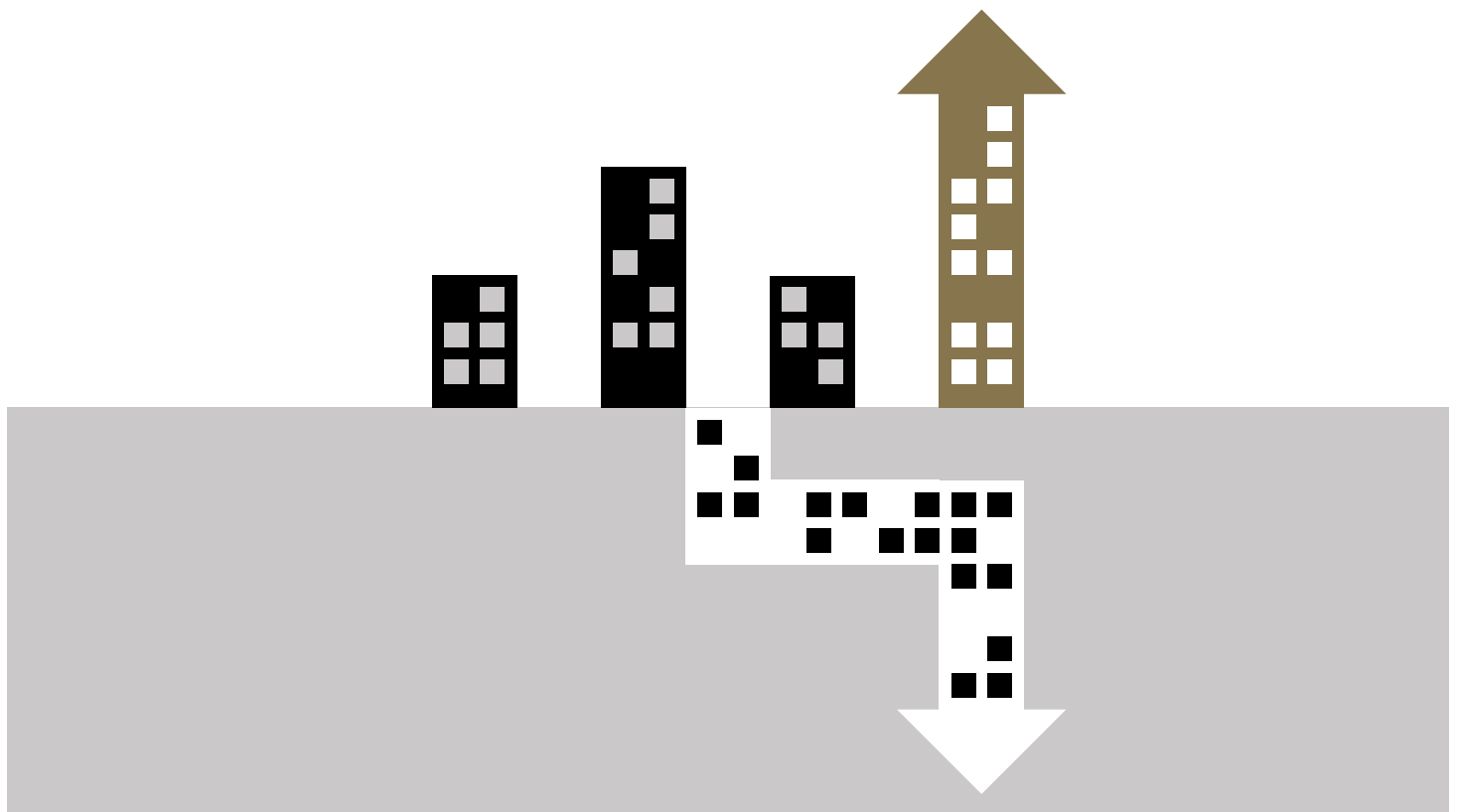
Yogi Berra

The model of contrarian investing outlined in the previous section is founded on a belief in establishing the intrinsic value of a business and purchasing shares when their price is well below that value. This, we say, can help minimise risk and potentially enhance returns.

Conversely, many fund managers invest in "quality" businesses, regardless of price, on the strength of historic performance. They reason that these businesses have delivered in the past and will do so again. We could be forgiven if this decidedly inductive school of thought calls to mind Taleb's turkey and his unswerving faith in the apparent connection between the rising of the sun and the serving of his breakfast.

It is our opinion that the best business on Earth can still be a bad investment if its shares are bought at the wrong price. Equally, a "bad" business can become a good investment if, in keeping with our contrarian philosophy, its shares are bought at a price that is sufficiently low. In this section we present evidence to support this theory.

We drew attention earlier to the distinction between "cheap" and "undervalued". The ability of the latter to outperform with lower volatility is illustrated by the following data, assembled with the assistance of Empirical Research Partners and Barclays.



6.2.

More performance

For the purposes of this exercise we use the relatively simple metric of price/earnings (P/E) ratio to compare businesses. We first investigate the annual performance of the top and bottom quintiles of stocks, as measured on a trailing P/E basis, in Empirical Research Partners' developed markets universe during the period from 1987 through to late May 2016.

As figure 1 shows, the performance of the bottom quintile exhibited positive earnings growth versus the top quintile. More specifically, the bottom quintile outperformed the top quintile in most years. This alone underscores the potential benefits of identifying valuation opportunities to which the herd is oblivious.

6.3.

Less volatility - the upside

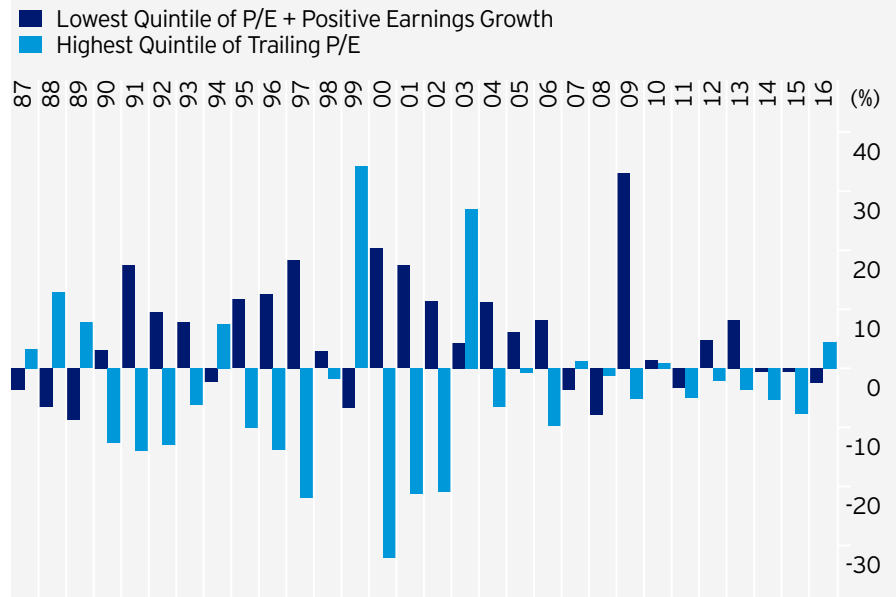
Let us next examine both returns and volatility on an average annualised basis from 1987 through to late May 2016. What is interesting here, as we can see in figure 2, is that the significant outperformance of the bottom quintile was not accompanied by a rise in volatility: in fact, volatility was moderately higher for the top quintile.

One inference we can draw from this finding is that much of the volatility experienced by the bottom quintile was of the "upside" variety. This harks back to our comments about positive asymmetry and Druckenmiller's observation that investment boils down to "how much money you make when you're right and how much you lose when you're wrong".

"A 'bad' business can become a good investment if, in keeping with our contrarian philosophy, its shares are bought at a price that is sufficiently low."

Figure 1

Developed Markets¹
Relative Returns to Trailing P/E Quintiles²
Monthly Returns Compounded to Annual Periods 1987 Through Late May 2016



Source: Empirical Research Partners Analysis.

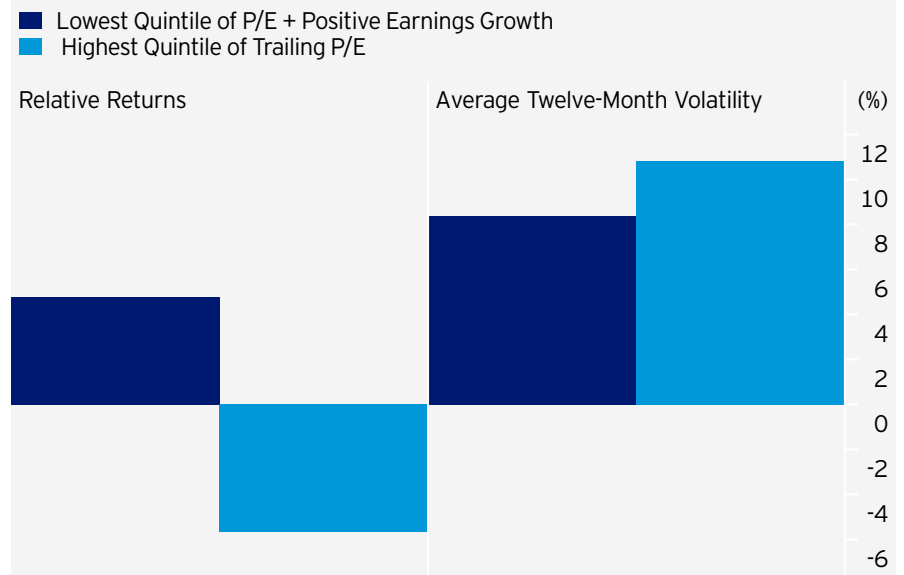
Past performance is not a guide to future returns

¹ Empirical developed market universe, based on largest 100 companies

² Returns are USD-hedged. Equally-weighted data.

Figure 2

Developed Markets¹
Volatility and Relative Returns of Trailing P/E Quintiles²
1987 Through Late May 2016



Source: Empirical Research Partners Analysis.

Past performance is not a guide to future returns

¹ Empirical developed market universe, based on largest 100 companies

² Monthly returns compounded and annualized. Returns are USD-hedged. Equally-weighted data.

6.4. Less volatility - the downside

The above also leads us back to Kahneman and Tversky's concept of prospect theory and loss aversion. Using data for the Eurostoxx 600 index during the period from 2001 to 2012, let us now compare the "downside" volatility of the top and bottom quintiles of stocks, again measured on a trailing P/E basis, bearing in mind that the average investor places more emphasis on the avoidance of losses than on the acquiring of gains.

As is clear figure 3, downside volatility was lower for the bottom quintile of European stocks in every calendar year studied. In some years, particularly 2001, 2002 and 2008, the difference was substantial. How might this be explained?

6.5. Less hype, less overreaction

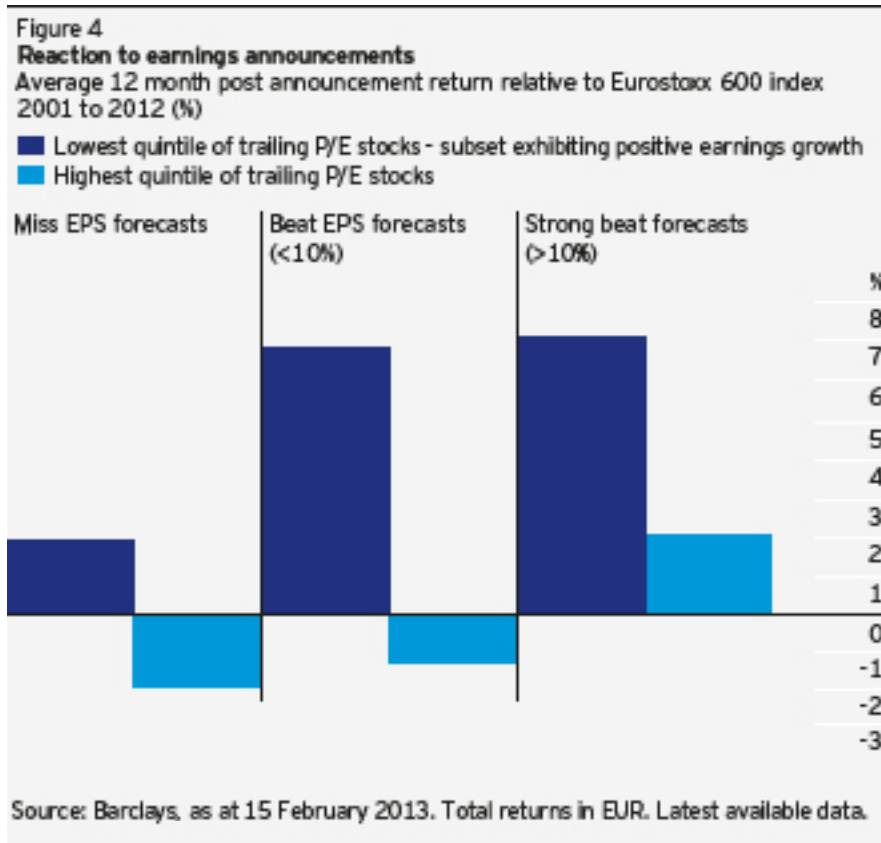
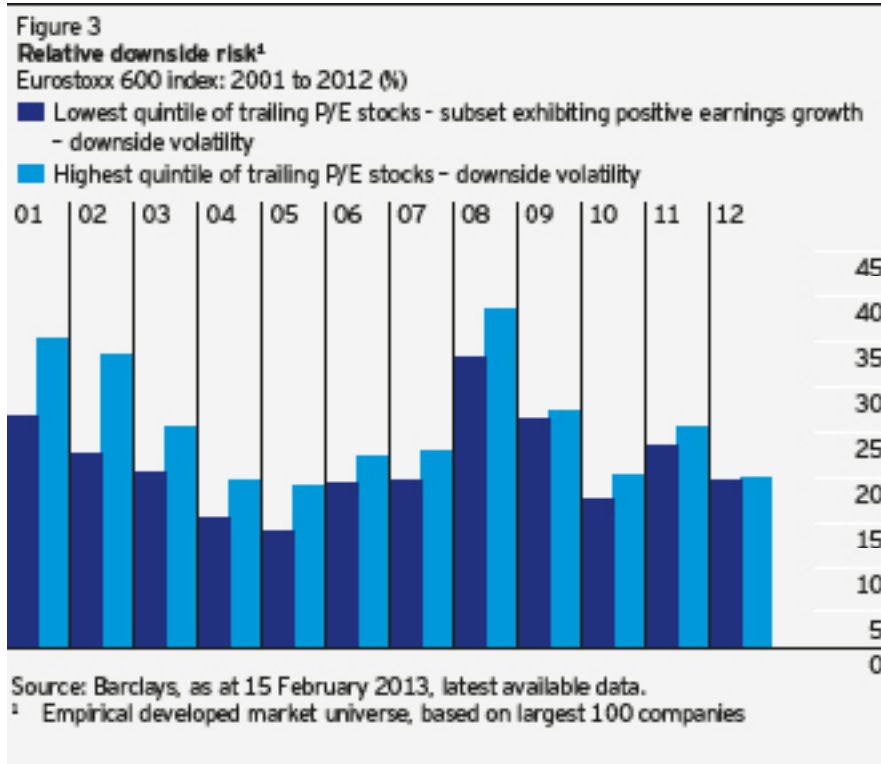
Analysis of reaction to share-price announcements during the same period helps answer the above question. Even in the case of missed earnings, as figure 4 illustrates, the lowest quintile displayed positive performance in the ensuing 12 months - most likely because the bad news had already been priced in.

The lesson here is that contrarianism can benefit from the herd's proclivity for impatience and overreaction. Stocks that are highly rated by the market have been built up by the expectation of ever-consistent returns. The threat posed by earnings disappointments is invariably intensified whenever hype has contributed to a valuation.

6.6. Better concentration, better outlook

In keeping with the type of focus advocated in section 5, imagine a fund that features only 40 or so stocks. Such an approach would permit the managers to understand the businesses involved more thoroughly, to meet with them more regularly and to have genuine conviction in a select array of holdings.

In choosing this small number of stocks the managers would strive to "see further", per Bohr and his boundless imagination, and then refine, per Feynman and his truth-seeking sieves. In light of such an intense dedication to valuation, the fund's portfolio would not only be likely to appear cheaper than the market but could also have a conspicuously better outlook with regard to future earnings over time.



7. Conclusion

“Any finite set of rules is going to be a very incomplete approximation of reality.”

Doug Lenat

In 1981 Doug Lenat, a computer scientist at Stanford University, took part in the Traveller Trillion Credit Squadron tournament, an annual war game, in San Mateo, California. Each contestant was allocated an imaginary budget of a trillion dollars with which to design and build a fleet of warships. Entrants squared off against each other over several knockout rounds until only a final winner remained.

Most combatants went to battle armed with a rough interpretation of a conventional fleet. They used ships of various sizes and ensured every vessel could protect itself from enemy attack. Not so Lenat, who dared to think differently.

Having fed the rules of the competition into an artificial-intelligence program he had developed, Lenat arrived in San Mateo with a unique strategy: a stupendously enormous flotilla of tiny boats, each equipped with a powerful weapon but spectacularly devoid of either defence or mobility. They were sitting ducks, but there were so many of them that Lenat could not lose. To the fury of his opponents and the tournament's organisers, he won with ease. Contrarianism triumphed.

This last vignette captures contrarianism in a nutshell. Lenat challenged perceived wisdom; he exhibited creativity and ingenuity; he laid bare the flaws in the prevailing paradigm; and he stuck to his guns - in this case literally - in the face of the herd's intransigence. Sophisticated investors are nowadays increasingly recognising the potential benefits of bringing such a mindset to the art of portfolio construction and management.

The fortunate truth for active stock-pickers is that markets are not always efficient and humans are not always rational. This is why businesses are mispriced; and this is where contrarianism enters the fray to best effect.

As suggested at the start of this white paper, those investment managers who are prepared to apply the discipline and imagination needed to identify valuation opportunities can help turn the tide of unimpressive returns in a low-growth world. Those who are content simply to follow convention, meanwhile, must continue to tread water - or, like Lenat's outraged adversaries, be left to sink without trace.

“The fortunate truth for active stock-pickers is that markets are not always efficient and humans are not always rational. This is why businesses are mispriced; and this is where contrarianism enters the fray to best effect.”



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