# The trouble with patience

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### Our favourite holding period is forever

Warren Buffett

The well-known phrase of "patience is a virtue" is believed to have originated from the poem "Piers Plowman" written in 1360 (or thereabouts) by English poet William Langland.

The idea that patience is a virtue is also captured by the so-called "marshmallow test" for five-year-old children. The test was designed by the psychologist Walter Mischel, and conducted over the period 1967 to 1973 at the Stanford Bing Nursery School in California. In the experiment a group of 5-year-olds was offered the proposition "you can have this one marshmallow now or instead have two when I get back to the room in fifteen minutes". The kids who couldn't hold out that long generally ended up through their teens, 20s and 30s as more frustrated, weaker in academic and social skills, and with more drug use, mental health, and weight issues.

Unsurprisingly the results of the marshmallow test are contested. The obvious basis of challenge was that the children in the initial study came from very similar backgrounds. However, later studies done with more heterogenous groups resulted in much the same conclusion. The fundamental problem with the study is that it assumes that a single factor (i.e. observed self-control at age five) is a strong predictor of subsequent success. More recent studies show that the predictive power of self-control is just one of many factors.

The above paragraph is something of a digression from the main topic of this article, but it highlights the very important principle that many outcomes cannot be predicted accurately by a single measure. Most of the time the system is too complex for a single factor to drive the results. Rather, the system is driven by multiple factors, and it is how these factors interact with each other which delivers the observed result.

#### Why patience is a virtue

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The belief that patience is a virtue has been the verdict of theologians, philosophers, and authors for close to 700 years. Some scholars hold the view that Adam Smith's Theory of Moral Sentiments published in 1759 is a more important work than his more famous Wealth of Nations. In Moral Sentiments, Smith declares that:

"The qualities most useful to ourselves are, first of all, superior reason and understanding, by which we are capable of discerning the remote consequences of all our actions .... and secondly, self-command, by which we are enabled to abstain from present pleasure or to endure present pain in order to obtain a greater pleasure or to avoid a greater pain at some future time."



Subsequent research has shown that patience is particularly a human trait. Our closest relatives in the animal world discount almost entirely outcomes which are more than one minute into the future.

In financial markets, the most compelling evidence that patience is a virtue is the generation of savings by households, which has been used to finance investment by companies and governments. These investments have driven much of the very significant improvements in quality of life and wealth over the past 250 years.

Patience has also been a key factor in the evolution of financial systems. Banks and capital markets developed as a means of matching savings to investment. The deepening of financial markets has been a critical development, being supportive of long-term growth, as more efficient and transparent markets have increased the returns earned on savings, which in turn creates a virtuous cycle of more saving, investment, and growth.

However, for every virtue there is a vice, and the vice associated with patience is, of course, impatience. It is worth pausing to point out that very few people will describe themselves as being impatient, although their behaviour may contradict their belief that they are patient.

The impatient gene is no stranger to economics. The neo-classical economist Pigou described the tendency of humans to under-weight far-away future outcomes as a "defective telescopic faculty". The moniker used to describe this behaviour is hyperbolic discounting – i.e. that events which arise a long way in the future are excessively under-weighted in decision-making. An example of hyperbolic discounting is to offer your employees a bonus of R10 000 now, or R25 000 payable in five years' time, with the R25 000 being paid at the end of the fifth year even if they resign. Most employees would choose the R10 000 even though they would earn a return in excess of 20% p.a. for the next five years on this amount if they were to take the alternative of R25 000.

#### **Application to investment markets**

Almost all investment advisors, including us, counsel their clients to invest for the long term. There is, however, much less consensus on what period constitutes "the long term". Naturally, "long term" must be a long period and we would suggest that it is ideally a period of the order of 20 years. However, that is an uncomfortably long time, and beyond the range of what most investors are prepared to contemplate.

This highlights that there is always a tug-of-war between the patient and impatient gene when it comes to investing; investors like to espouse that they have a long-term horizon, but they cannot help but to be caught-up in the daily market noise. Nevertheless, what is insightful is that the data points to the impatient gene increasingly being the prevalent behaviour - and by a large margin.

#### **Market volatility**

We start with the observed volatility of the stock market. It is natural to argue that the value of a business does not change much on a day by day basis. Nevertheless, an analysis of the US equity market since the 1880's suggests that, up until the 1960s, stock market prices were around twice as volatile as the underlying fundamentals of the businesses that madeup the market. Since the 1990s however prices have been anywhere between six and ten times more volatile than business fundamentals.

Some would use this data to bolster their argument that investors create excessive market noise because they are impatient. We believe the reasons driving this outcome are more complex and include the following:

- As the rate of disruption gets ever faster it will increase market volatility simply because there is greater uncertainty as to who the ultimate winners and losers are (i.e. the underlying fundamentals of companies can change much faster than in the past).
- Investment markets have become much deeper with more liquidity. It is now much easier to give expression to the impatient gene. There is an interesting, but somewhat cynical, question as to whether financial advisors have exploited the behavioural bias of their clients to be impatient to churn investments and earn more commission. In this way, it may be that market behaviour rather than investors' beliefs are, in part, driving higher market volatility.

#### **Holding periods**

The US data here goes back to 1940, at which time the average holding time of US equity investors was 7 years. It remained pretty much at this level for the next 35 years, but from about 1975 onwards it began a steep decline, and by the time of the Wall Street crash of 1987 it had reduced to two years. By the turn of the century, it was down to one year and currently it is estimated to be around six to seven months.

Whilst the above provides some support for the thesis that investors are becoming less patient, the emergence of High Frequency Traders ("HFTs") has had a material impact on holding periods. These HFTs hold that the market is inefficient over very short measurement periods, and their active trading captures this inefficiency (i.e., it can be a valid investment strategy and not just speculation).

#### **Dividends**

Another way of gauging short-termism is to consider the implied preference of investors for dividends as opposed to income tomorrow (i.e., retained earnings). In theory investors should be indifferent between distributed income and retained earnings, provided that the shareholders are comfortable with management's capital allocation of such retained earnings.

However, the data suggest that there has been a trend towards high and sticky dividend payout ratios, almost irrespective of profits. A study of 500 NYSE companies over the period 1825 to 1850 showed that dividends reduced about 50% of the time (i.e., dividends were as likely to increase as to reduce). However, between 1980 and 2010 the world's largest companies only reduced dividends 8% of the time. This was despite dividends being greater than earnings in over 10% of cases and, more curiously, in 5% of the cases dividends were declared notwithstanding that the company had negative earnings.

Another statistic is that over recent years earnings have been more than six times more volatile than dividends. It is noteworthy that Berkshire Hathaway has only paid one dividend in its history, of which Warren Buffett is said to have quipped: "I must have been in the bathroom when the dividend was declared".

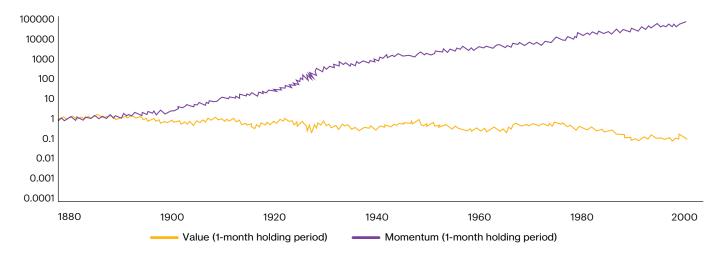
Nevertheless, the observed stickiness of dividends may also be attributed to increased focus on stewardship, with shareholders preferring dividends if they are unconvinced that management will allocate capital well.

## Which gene has delivered the better investment outcome?

One could argue that momentum investing is associated with the impatient gene, whereas value investing is more consistent with the patient gene.

The chart below shows the growth of US\$1 invested in the USA equity market in 1880 by the end of 2009 according to the two strategies, implemented as per the bullet points below:

- The momentum strategy involves investing the full amount (initially \$1) when the return in the previous month was positive, and "selling short" when the return over the previous month was negative.
- The value strategy involves "going long" the full amount when the value of the S&P 500 is below its Shiller Dividend Discount Model (DDM) implied value, and selling short when the S&P 500 value is above the DDM implied value.



Source: www.irrationalexuberance.com

Over this 130-year period the \$1 invested in the momentum strategy would have grown to some US\$50 000 whereas the value strategy would have yielded an ultimate amount of only 11 cents. The sheep (i.e. investors who "follow the crowd") have trounced the goats based on this evidence!

We highlight that the above chart assumes a long/ short strategy for each investment approach, with the value approach going short the market when the S&P 500 trades at a higher valuation than that assessed on a fundamental basis. This means that the strategy delivers a negative return if the S&P 500 then goes up. The chart above would look very different if, during the time when the S&P 500 was assessed as expensive, the value investor held a portfolio of value counters as opposed to shorting the index (i.e., the strategy invested in the long only value index). In this instance the chart would show the long-term out-performance of value investing.

Nevertheless, the line on the chart for the value approach highlights a critical point, namely that trying to time the market by switching into cash (or more damagingly by shorting the market) is a losers' game. It is indeed hazardous to the investor's wealth to assume that they are significantly smarter than the market's collective wisdom.

Based on the above, the conclusion we draw is that, whilst patience has many positive characteristics, its advantage is not absolute, and one needs to consider the troubles with patience, the question to which we now turn.

#### The trouble with patience

A more subtle point one may infer from the above chart is that patience may cause an investor to underestimate the rate of change over time, and their patience eventually trips them up. The proposition seemingly stands out in contrast to the widely quoted words of Sir John Templeton, "This Time it's Different: The Four Most Costly Words Ever Spoken". Templeton's words are wise for at least the following two reasons:

- It is far more intellectually appealing to be amongst the first at predicting change accurately than it is to be in the camp arguing that things stay the same. There is thus a behavioural bias against spending lots of time thinking about why the status quo will remain, and this may result in an under-estimation of the chance of things remaining largely unchanged. In our opinion it is rewarding to spend time considering what investment drivers are likely to be unchanged over long measurement periods. Such factors are likely to have a high chance of delivering meanreverting returns (i.e., returns that tend towards their long-term average).
- The market is efficient, and disruptive changes are likely to be impounded into current prices. One can go further and posit that many investors become over-exuberant about new opportunities and underestimate the extent to which competition will erode the returns arising from new ideas. This behavioural bias results in frothy prices for "new idea" companies.

Nevertheless, like most quotes, Templeton's words do not always apply. Arguably, one of the most difficult elements of investing is to know when to be patient and when to change your mind. Patience may become a convenient excuse for lack of courage and difficult decision-making. "Knowing when to quit" is a significant source of competitive advantage in the investment process.

Most investors find it very difficult to quit for two main reasons:

- Bias as soon as one has an opinion about a matter, bias creeps in. The bias may be limited initially, but as time goes by it tends to become more entrenched as one actively looks for data points that support your view. This behavioural error is referred to as confirmation bias.
- The sunken cost effect: Daniel Kahneman and Amos Tversky showed that investors asymmetrically feel losses greater than that of an equivalent gain. This suggests that many investors who have incurred a paper loss are loathe to lock in the loss by selling the asset; the bias is that it is just a matter of time before the position will pay off.

These errors may better be captured under the broad heading of cognitive dissonance, which is an inability to admit that we may be wrong or more aptly "mistakes were made by others, but not by me". The human mind has a remarkable ability to justify any decision. Smart people are even more prone to cognitive dissonance because they can develop a complex narrative to explain why their view is correct.

Knowing "when to hold and when to fold", is a rare skill, but the following activities may improve the investor's ability:

• One should always be prepared to top-up the allocation of an under-performing strategy to the level that reflects the initial level of conviction. If one is not prepared to do so then, either the investor lacks the courage to do so, or his or her conviction in the idea has reduced. By topping-up the investment one confronts the issue rather than ignoring it.

It is, of course, possible that one's conviction in the idea has increased as the strategy has underperformed. In this case the investor may be prepared to make the brave decision to allocate more capital to the idea. Naturally, one needs to be sure that this decision is fact-based and not one of "doubling down", simply because the investor cannot admit his/her error.

 The investor should attempt to write down their biases, and ideally try to uncover their secret biases. One can quite easily get a sense of one's biases by considering what data points and information resonates most with you. Of course, one's biases may be fully supported by the facts, but by making them explicit, the quality of decision-making should improve. As an aside, we think it is better to refer to one's "biases" as opposed to one's "views" because our natural disposition is to seek out validating information.

#### **Summary and conclusion**

In his book "Thinking, Fast and Slow", Daniel Kahneman draws a distinction between decisions that need to be made quickly and those that require considered reflection.

We believe that investment markets are complex and adaptive and need to be navigated by a process of good decision-making under the conditions of uncertainty. However, investment markets are also noisy and invite investors to "play the game" on a minute by minute basis. There is a small universe of investment professionals that can exploit this volatility by using momentum trading strategies, but in doing so their thinking is still considered as they seek to exploit patterns in the data. They are not caught up in the emotions of the market and, in this way, they do not succumb to the impatient gene.

One of the biggest challenges for long-term investors is to know when to quit rather than doggedly stick to their position under the guise of patience or courage. We think this is one of the most difficult things to do well. The legendary investor Charlie Munger advises that in making decisions one should have regard to the facts and consider how one's biases may affect what facts you have, and the interpretation thereof. It is easier said than done, but better research and less bias should result in better long-term investment outcomes.

One final point is that Trustee Boards should consider the content and frequency of the communication they send to members regarding investment returns. Such communication can inadvertently end-up stimulating members' impatient genes!

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