# Volatile Markets and Uncertainty:
# Is buy-and-hold still a prudent investment strategy?

**By Daniel R Wessels**

**February 2010**

*Dear Mr Investment Advisor*

*Hope you are doing well. Over the years I've always received good investment advice from you and appreciate your efforts looking after my financial affairs.*

*I must, however, raise some concerns about my current investment plan we've put together. Basically, is it still suitable for the turbulent times we're experiencing today?*

*You would agree that the global and local economic prospects look bleak. I'm worried that equities, or any other risky asset class for that matter, will not give the desired returns – I know you've explained to me that my expectation of 20% plus returns forever was unrealistic and that we should rather aim for 4-5% real returns over time.*

*My friends at the club are saying cash and gold will be the only investments that will yield positive returns for the foreseeable future. Should we not move out of the risky assets for now and return only once there are clear signs the economy will recover on a sustainable basis? What do you think?*

*Please, Mr Investment Advisor, let's do something about my portfolio, I'm having sleepless nights that I will lose my hard-earned savings.*

*Regards*

*Joe, the Investor*

*1. Please, do something!*

We pride ourselves in our individuality, yet the majority of us behave surprisingly similar when confronted with decision-making and challenges about the future. Psychologists who studied human behaviour extensively and focussed on those aspects that make people happy or unhappy found that people often regret those things they have not done more than those things that they did (*regret of omission* outweighs *regret of commission* in the long run). Therefore, it is not surprising that people will be inclined to do something – even if it is not appropriate – rather than to sit it out and regret later not having done something about it.

In many walks of life being proactive may be a career or relationship enhancing event indeed, but it is less certain whether such action contributes to investment success. In reality human beings are not really "hardwired" to be successful investors. We all know the basic tenet of investing: *Buy low and sell high*, but by far the majority of investors (amateurs and professionals) will do exactly the opposite. Why? When markets fall, investors tend to sell because it alleviates their fears of losing more. They buy at the market top because they believe recent gains will continue and they do not want to feel foolish for missing out on a great opportunity.

In 2008 and 2009 we witnessed a period of extreme market volatility as emotions of fear gripped investors' sentiment; i.e. investors sold off their equity positions to avoid further losses amidst the global financial crisis that soon erupted into a global economic recession.

Chart 1 depicts the percentage of trading days (typically about 250 trading days per year) in 2008 and 2009 in which the market moved more than 3%, 2% and 1% positive or negative on a daily basis respectively. Those two years are compared with the longer term daily movement percentages measured since 1995. Notably, in 2008 more than 15% of trading days experienced market price movements of more than 3%, while the long-term average is only 3.5% of trading days! In 2009 the rapid price movements were less accentuated, but still well above the longer term percentages.

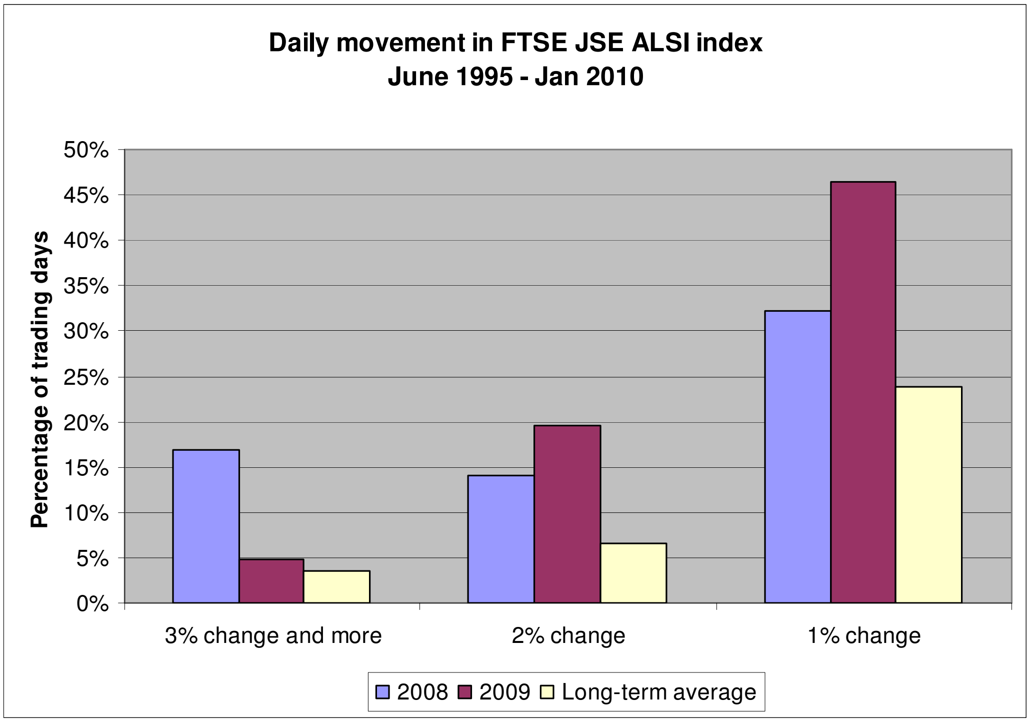


Chart 1: Market volatility during 2008-2009 compared with the long-term daily movement trends

*Source: DRW Investment Research*

Undoubtedly, investors experienced in 2008 and 2009 the most testing episode in recent market history. Market optimism, or maybe exuberance, was abruptly displaced by despondency as it became clear the global financial crisis would have dire consequences for the real economy and the prospects of real (job-creating) economic recovery.

Not surprisingly, many investors will question the appropriateness of conventional investment strategies such as buy-and-hold. Rather, they would demand a dynamic strategy for "dynamic" market conditions; for example, market timing, active trading and the expanded use of derivatives to manage downside risk. While each alternative strategy may have its merits, one needs to understand their limitations and probabilities of succeeding relative to buy-and-hold over time. Therefore, let us review some major attributes of market returns and why alternative strategies may or may not yield better results.

*2. Are we good market timers?*

Contrary to what many investors believe, even professionals are not very good at market timing, i.e. anticipating how market returns will pan out in the future. We constantly underestimate future returns when the prospects look dim or overestimate returns when we are optimistic about the future.[1]

For example, consider the average return an investor in general equity funds would have received compared with the reported average fund return and benchmark return (ALSI) for the period 1998 to the end of 2009 (Chart 2).

The average investor's return, also known as the *money-weighted return*, takes into account the actual investment flows (sales and repurchases of investments) during this period compared with the *time-weighted return*, which excludes the actual flows of investments and is similar to a lump sum investment with no further contributions and withdrawals over time. If investors on the aggregate were good market timers we would expect the money-weighted return to be better or at least very similar to the time-weighted return, but it is not. Neither is it anywhere close the actual benchmark (index) return over this period.

Yet, investors in the general equity funds did not do "too badly". For example, consider Chart 3 that depicts the average investor's return in the Prudential Asset Allocation Low Equity category – a very popular investment destination of late – relative to the average reported fund returns. Investors on average received less than half of the reported fund returns!

Clearly, investors on average do not have the ability to predict future returns. It could probably be explained by many investors chasing the latest short-term performers and trends. Market timing for the greatest majority of us will remain nothing but a pipe dream.

[1] For centuries wise men have realised we are not really good at predicting the future. The Chinese philosopher, Lao Tzu (600 BC–531BC) said: **"Those who have knowledge, don't predict. Those who predict, don't have knowledge."** In more recent times Abraham Lincoln (1809-1865) remarked the following about the interchangeability of fortunes and mishaps in our daily walks of life: **"It is said a monarch in the East once charged his wisest men to invent him a phrase which should be true and appropriate in all times and situations. They came up with these words: '*And this, too, shall pass away.*' How chastening in the hour of pride! How consoling in the depths of affliction!"**

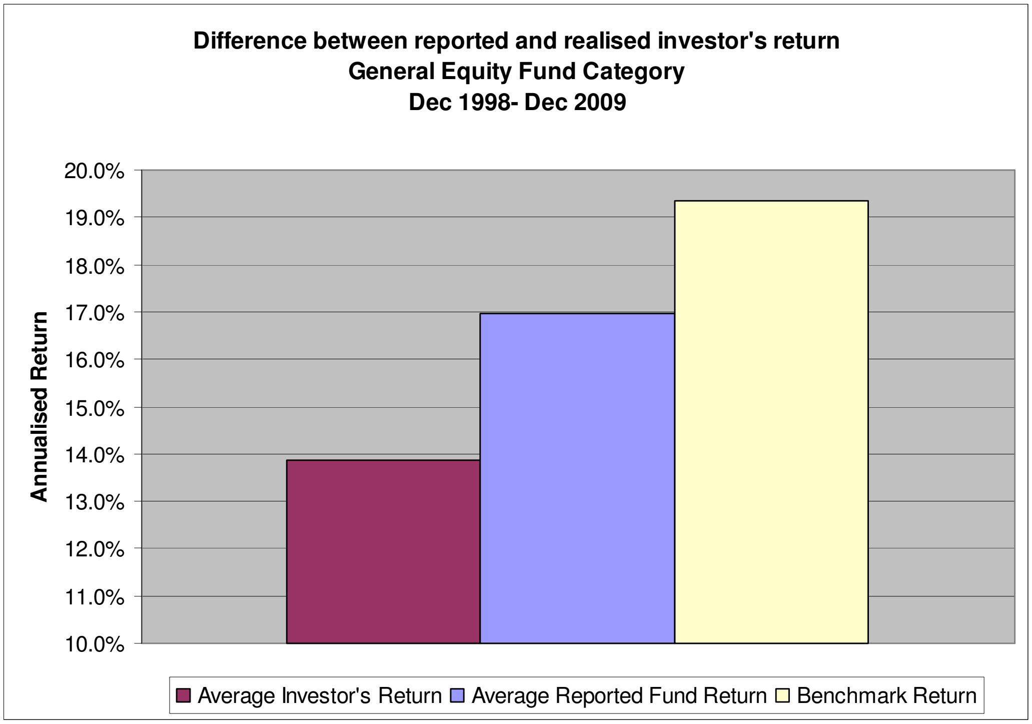


Chart 2: Money-weighted versus time-weighted returns

*Source: DRW Investment Research, ASISA Database*

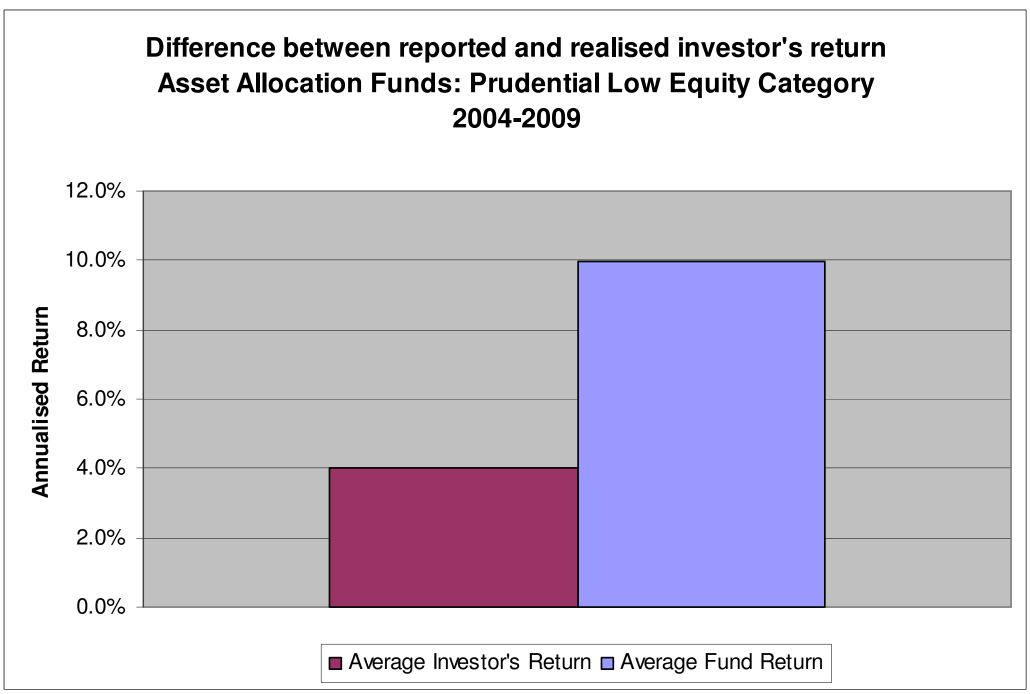


Chart 3: Money-weighted versus time-weighted returns

*Source: DRW Investment Research, ASISA Database*

*3. Lies, Damned Lies … Statistics!*

Chart 4 displays the actual monthly return distribution of the FTSE JSE All Share Index from 1960 to 2009 – an average monthly return of 1.2% with a standard deviation of 6.2% – plotted against the expected returns if monthly market returns would have exhibited a normal distribution pattern.

Note the notorious "fat tail" phenomenon, i.e. there are many more extreme market returns – positive and negative – that would have been implied from a normal distribution function. Moreover, these extreme monthly returns ("outliers") are responsible for the bulk of the total market return and movements. For example, monthly returns below -9% or above 9% occurred only 10% of the time, but were responsible for about 25% of all monthly market movements since 1960.

These "fat tails" have profound implications for the validity of investment risk management models and metrics. Risk models are based typically on the assumption of a normal distribution and while it may seem to work for most of the time it will lose its credibility (e.g. the protection of asset values all the time) once the outliers occur.

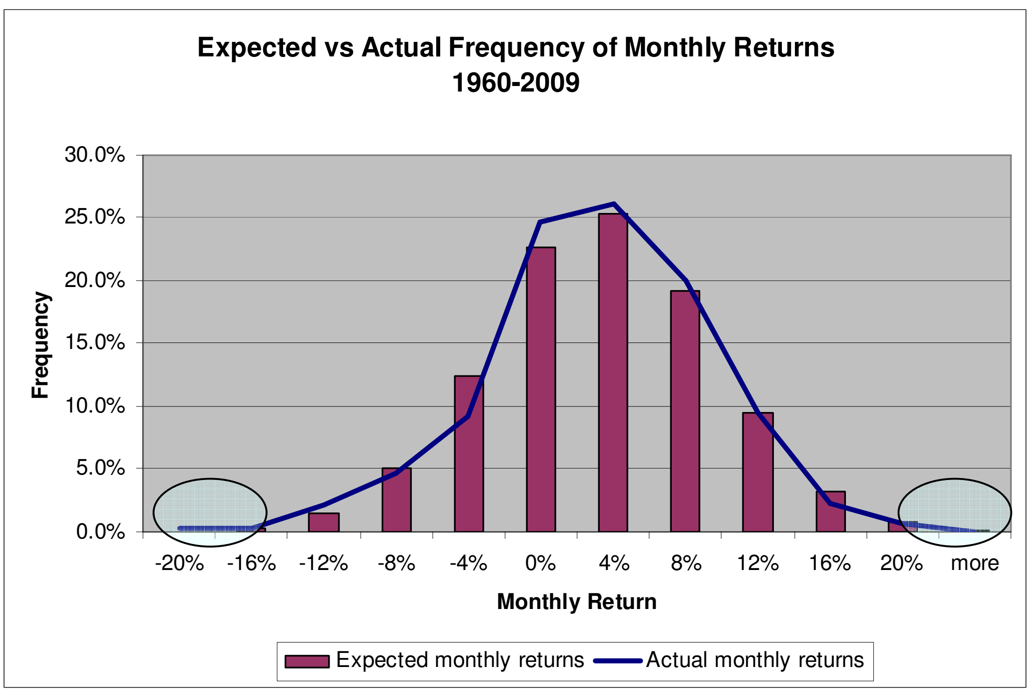


Chart 4: Actual versus expected monthly return distribution of the FTSE JSE All Share Index

*Source: DRW Investment Research*

However, if one ignores the monthly price movements and focus rather on longer term performances, one will identify a totally different type of return distribution. For example, in Chart 5 the actual distribution of rolling 5-year investment periods (1 January 1960 to 31 December 1965, 1 January 1961 to 31 December 1966, etcetera) is shown against the expected normal distribution return with a mean return of 13.5% per annum and a standard deviation of 7.6%. *Firstly*, we observe that "fat tails" are absent in the actual return distribution; in fact, fewer returns at the outer edges are found than would be expected with a normal distribution. *Secondly*, there is more concentration of returns around the mean than otherwise predicted by the normal distribution function.

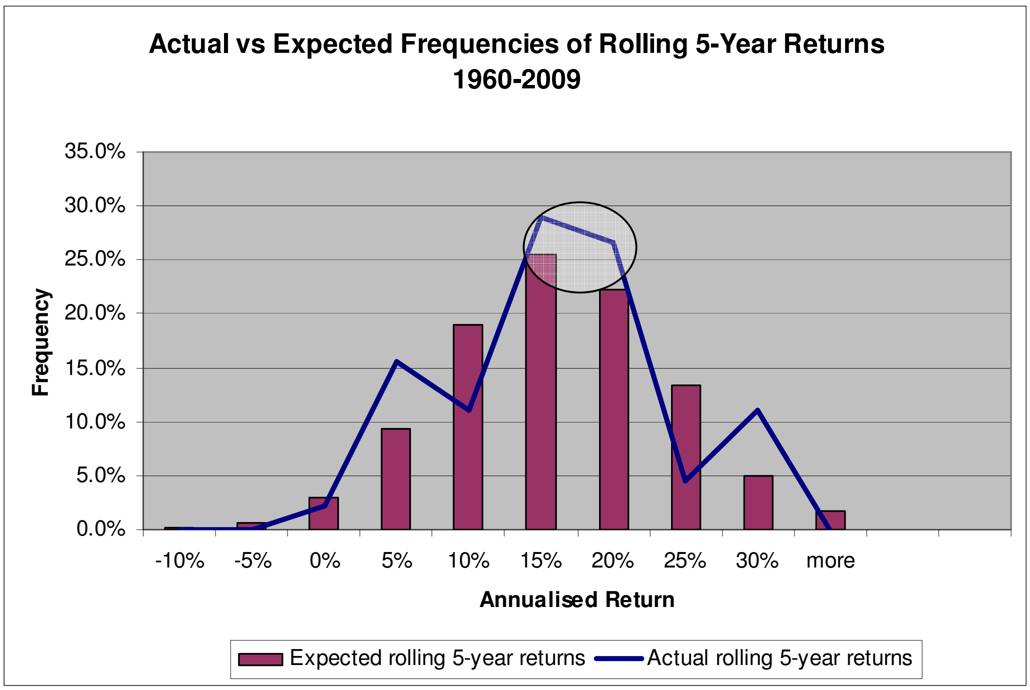


Chart 5: Actual versus expected rolling 5-year return distributions

*Source: DRW Investment Research*

Simply put, volatility risk is effectively neutralised by shifting the review period to a longer term focus. Also, the likelihood of very disappointing market returns over such a time frame is much more remote.

Why do we have such different return distributions between longer term and short-term periods? A logical explanation is that the "ultimate equalizer", namely *mean reversion*, is at play over longer holding periods, i.e. fantastic or subdued market performances over one, two or three years are most likely to be followed by disappointing or rejuvenated returns in a next period.

*4. The Empirical Evidence*

While volatile markets are certainly not pleasant for most investors, does it automatically mean that investors should avoid such periods, i.e. withdraw from the market until "normality" returns? The snapshot response would be "yes", but the overweight of historical evidence points to the contrary.

Historically, the average stock market volatility has been around 20% (using the standard deviation of rolling 36-month market returns as a proxy) but volatility levels varied considerably over time. Chart 6 shows the cyclical nature of market volatility (mood swings). A period of stability and "calmness" were followed by a period of extreme volatility, typically caused by some financial or economic crisis at the time. The "storm" abated as certainty and confidence among investors were restored that the crisis had been successfully resolved.

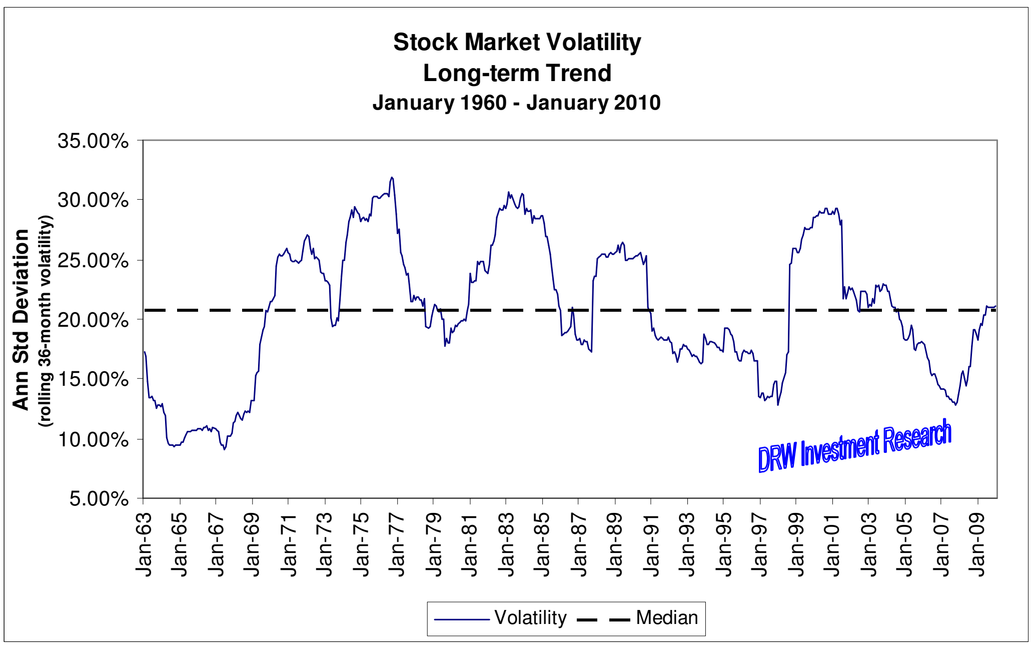


Chart 6: Stock market volatility 1960-2010

*Source: DRW Investment Research*

When one identifies all past periods of high market volatility and measures the subsequent 5-year returns and compares them with periods when market volatility was benign, the difference in return between the respective periods is startling. For example, the average 5-year return on investments made in above-average volatility periods was 16.5% per annum, compared with an average 10.6% annualised return for investments made in below-average volatility periods.

These results are depicted in Chart 7 which clearly illustrates that the overhang of superior performances occurred when investments were made during above-average volatility periods. Obviously, there have been disappointing return periods as well, but these applied to both sides of the market volatility spectrum.

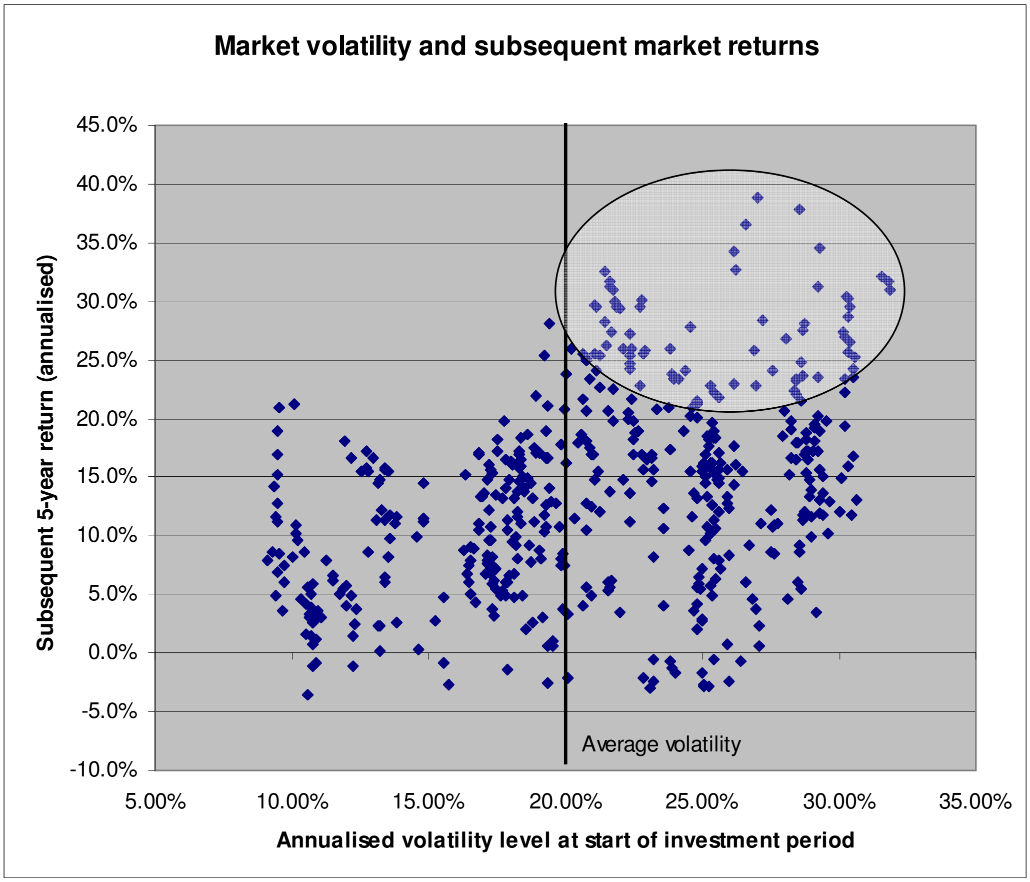


Chart 7: Market volatility and subsequent 5-year returns

*Source: DRW Investment Research*

Why should there be such a difference in returns? Possibly, it is the tendency of investors on the aggregate to extrapolate future expectations firmly based on current experience (representativeness bias). Thus during pessimistic periods we are unlikely to envisage a next period of booming growth and prosperity and *vice versa* for periods when no apparent problems or crises are looming on the horizon. Invariably, we underestimate or overestimate future market returns depending where we are at a particular point in time.

*Dear Joe, the Investor*

*Thank you for your vote of confidence in me. Let me assure you I've been doing "something", namely to learn more about one's investment strategy during these turbulent times. More specifically, I researched past periods of similar market volatilities and uncertainties. I came to the following conclusion: The best thing to do now is to do nothing or as little as possible! Thus not changing the investment plan and keeping your asset allocation structure as is. I know it sounds irrational, given where we are today, but I base my advice on the following key findings:*

- *One must always evaluate one's investment plan over its appropriate investment horizon, i.e. one's long-term savings plan over a long-term horizon. Short-term evaluation periods (one month, one year, even three years) creates a lot of "noise" and invariably leads us to incorrect conclusions about which investment plan or strategy to follow. For example, when evaluating investment performance over a 5-year period or longer, one will notice volatility risk is no longer a real threat and that returns over successive 5-year periods are much less dispersed than when considering shorter term periods. This is because the market's equivalent of gravitational force – mean reversion – is coming into the mix and invariably leads to a moderation of returns.*

- *Historical evidence points to the poor ability of investors on the aggregate to anticipate future returns. Despite the availability of modern technology and information sources we simply don't have the skill to know exactly when to move in or out of specific investment classes. We are more than likely to get it totally wrong and effectively ruin the portfolio returns we should've received if we simply left the investment strategy intact.*

- *If anything, volatile markets often present fantastic opportunities to receive subsequently above-average returns. For example, the average 5-year returns that investors received when investing during volatile market periods are significantly higher than those made during "calm" or optimistic market periods.*

*Yes, Joe, predicting investment returns are very different and vastly more difficult than predicting sports results, which your friends at the club may be good at. Even if you happen to be spot on with your expectations of mediocre performances of the economy, it does not automatically mean your investment returns would be mediocre. Quite often a different outcome of what we expected at a particular point in time will materialise. Indeed, as many famed investors came to realise, successful investing is more about having the stomach than the brain, especially to steer your investment through the "rough seas".*

*I wish you no more sleepless nights!*

*With kind regards*
*Your trusted investment advisor*

Acknowledgement:

Some of the research findings and ideas presented in this article were based on a paper published by *Brandes Investment Partners*, a Californian Asset Management Company, titled: "Does Buy and Hold Still Work?", November 2009.

Available at: www.brandes.com

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