Distribution of Equity Returns: Investing after Market Falls

In the first article of this series we looked at the returns produced by the UK market over the past 25 years and investigated the likelihood of an investor achieving a positive return over 1 – 10 year holding periods. We found evidence that holding shares in UK companies for longer periods increases the probability of an investor receiving a positive real return. Over the longer term increasing the holding period from 5 to 7 years increased the likelihood of producing a positive real return from 75% to 95% and reduced the probability of incurring a loss from 15% to 1-2%.

As we have been reminded over the past 12 months equity markets are inherently volatile and over the short term the value of your investments can fall sharply. From its peak in April 2015 (7,122) to the recent low of February 2016 (5,499) the FTSE 100 index fell by over 20%. These falls are unusual but not uncommon. From January 2000 to March 2003 the FTSE 100 fell by over 50% in capital terms and from June 2007 to March 2009 it fell by 45%.

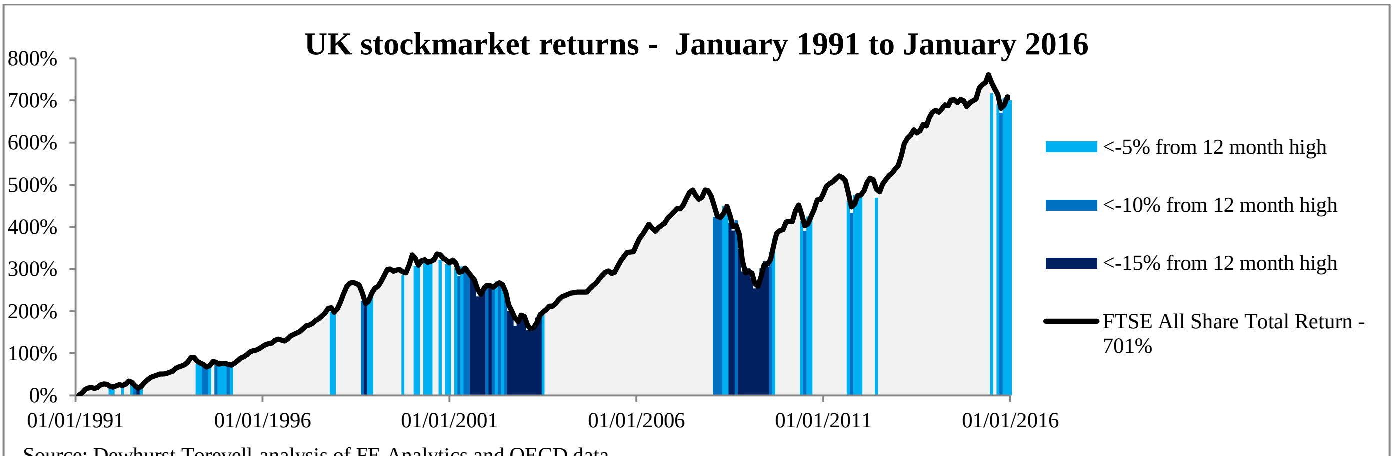
This article investigates the returns achieved if investors choose to invest or sell after a market fall. We have used data for the FTSE All Share UK market index together with UK CPI inflation data as our measure of real stock market returns, drawn at monthly intervals in the 25 year period between January 1991 and January 2016. Concentrating on five year holding periods we discovered the following key facts:

- Investors buying into the market after 5-15% falls achieved a significantly higher average return than the average investor
- These investors also significantly reduced the chance of their investments falling in value after a five year holding period
- Investors who sold investments after market falls significantly increased their chances of crystallising a loss on an investment.

Stock market returns over the past 25 years

Figure 1 below details the total returns (including dividends) produced by the UK market (represented by the FTSE All Share index) over the past 25 years. The coloured columns show periods when the market was 5% or more below its recent (12 month) high.

Figure 1



Source: Dewhurst Torevell analysis of FE Analytics and OECD data

Investing into the market on the 1st January 1991 and reinvesting the dividend income over the following 25 year period would have resulted in a return of over 700%, or approximately 8% per annum before inflation. Whilst this is clearly an attractive long term return compared to the returns achieved by other asset classes such as cash and fixed interest, there are a significant number of periods where the price of the market has fallen from the previous 12 month high by over 5-15%. On a monthly basis there have been 100 months over the past 25 years (or one third of the data points collected) where the market was over 5% lower than its peak of the previous 12 months.

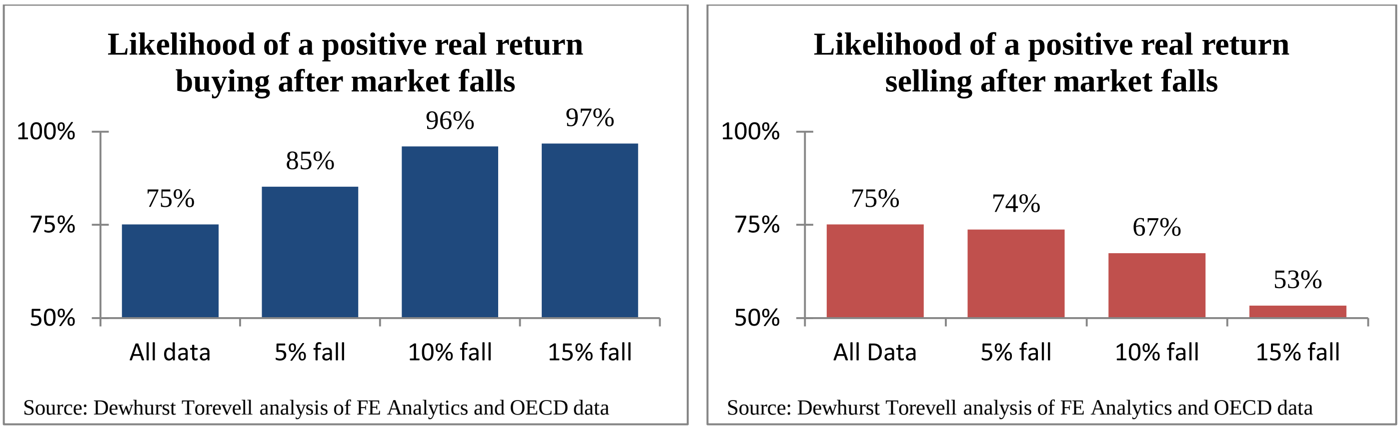
There are no guarantees that the market will immediately rise following falls of this nature, as shown most clearly after the falls of over 15% in 2001 and 2008, which were followed by further significant falls in 2002 and 2009. This article investigates the impact of buying or selling the market once it has fallen by 5%, 10% or 15% and the impact this has on the distribution of returns an investor could have received over a five year holding period.

How do short term market falls affect the returns an investor could receive?

In our initial study[1] we found that over any 5 year holding period in the past 25 years the probability of an investor making a positive real return above inflation was approximately 75%.

The charts in Figure 2 below detail how this result changes due to short term market movements. Should an investor have bought into the market following a 5% fall, their probability of achieving a positive real return after a 5 year holding period significantly increased to 85%, and after larger falls of 10 – 15% this probability increased further to 96-7%.

Figure 2



Source: Dewhurst Torevell analysis of FE Analytics and OECD data

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Conversely, whilst selling investments after a fall of 5% or over from a market high did not materially change the probability of achieving a positive real return, investors who sold after a fall of 10% reduced their chances of a positive real return to around 67%, and after a fall of 15% this reduced to just over half.

The data shows quite clearly the value of continuing to hold investments through periods of market volatility and avoiding the temptation to sell when prices are subdued. We advise all our clients to hold sufficient personal cash balances to cover any known or unforeseen short term expenditure to enable

[1] Distribution of Equity Returns: Holding shares for 1 to 10 years, February 2016

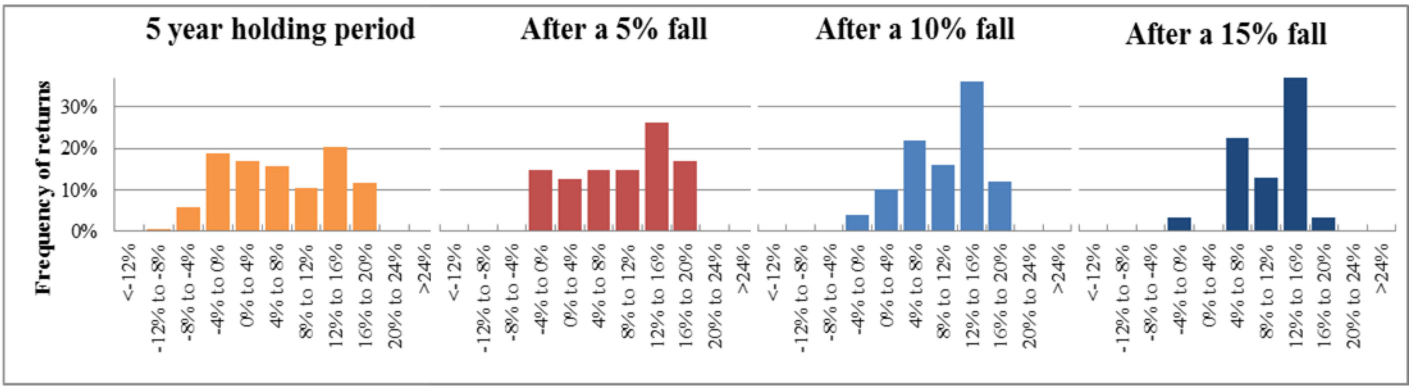
them to endure short term periods of market volatility and allow the value of their investments time to recover.

Where investors have funds available to take advantage of market falls they have historically been able to increase their chances of achieving a positive real return over a five year holding period.

How is the distribution of returns affected by investing after market falls?

Figure 3 below outlines the annualised returns achieved by investors if they had invested into the UK market for a 5 year holding period over the past 25 years, together with the returns they would have achieved if they had invested after falls of 5% to 15% from the previous 12 month high.

Figure 3



Source: Dewhurst Torevell analysis of FE Analytics and OECD data

There is a clear, positive shift in the distribution of the annualised returns generated as the level at which you enter the market falls. Investing while markets were down by just 5% increased the average real return above inflation from 6% to 9% per annum, representing an additional 17% return over a five year holding period.

Observations

Over the years we have consistently advised our clients to hold sufficient personal cash balances to cover any known or unforeseen expenditure that may arise in the short term, to allow their investments to be held for the longer term (5 years or more). Over periods of market uncertainty and volatility this has given our clients the confidence to retain their investments and avoid crystallising losses by selling after a market fall, in the belief that the high quality underlying companies they hold will continue to exist and be profitable through the market cycle.

The data from the past 25 years supports our belief that over the longer term equity investment is able to provide significant real returns in excess of inflation. Over this time frame investors with the available funds have been able to increase their potential return over a five year holding period by investing when markets have fallen below their previous 12 month highs by 5%-15%.

5 year Holding Period **January 1991 – January 2016**	**Full dataset**	**After 5% fall**	**After 10% fall**	**After 15% fall**
Number of data points	241	88	50	31
Mean real return	43%	60%	66%	72%
Mean real return (Annualised)	6%	9%	10%	11%
Maximum real loss (Annualised)	-8%	-3%	-1%	0%
Likelihood of a positive real return	75%	85%	96%	97%
Likelihood of a negative return	15%	13%	2%	<1%

When taken at monthly intervals we have found that over the past 25 years there have been just 50 opportunities to access the market at prices more than 10% below their 12 month highs. Investors with the funds available to invest for the longer term have been able to take advantage of this short term volatility and increase their chances of achieving a positive return above inflation over a five year holding period from 75% to around 96%, with their average annualised real return increasing from 6% to 10%.

Alex Dean-Austin and Martyn Torevell

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Assumptions and basis of analysis:
The 25 year period under review was chosen to allow a fair comparison of data across numerous different market conditions. The period is sufficiently long to include periods of extraordinary stock market volatility (including the technology bubble of the early 2000s and the global financial crisis of 2007/08) and we believe that the conclusions drawn from this study provide a reasonable representation of the potential returns for an equity investor over a meaningful timeframe.

The data used is supplied by Financial Express Analytics and the OECD. The FTSE All-Share index (total return) was used as a measure of UK stock market returns with real returns calculated against the growth of the UK Consumer Prices Index over the corresponding periods. Information provided in this document is obtained from sources that we consider to be reasonable and trustworthy but accuracy cannot be guaranteed. The data used was drawn at monthly intervals between 1 January 1991 and 1 January 2016.

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