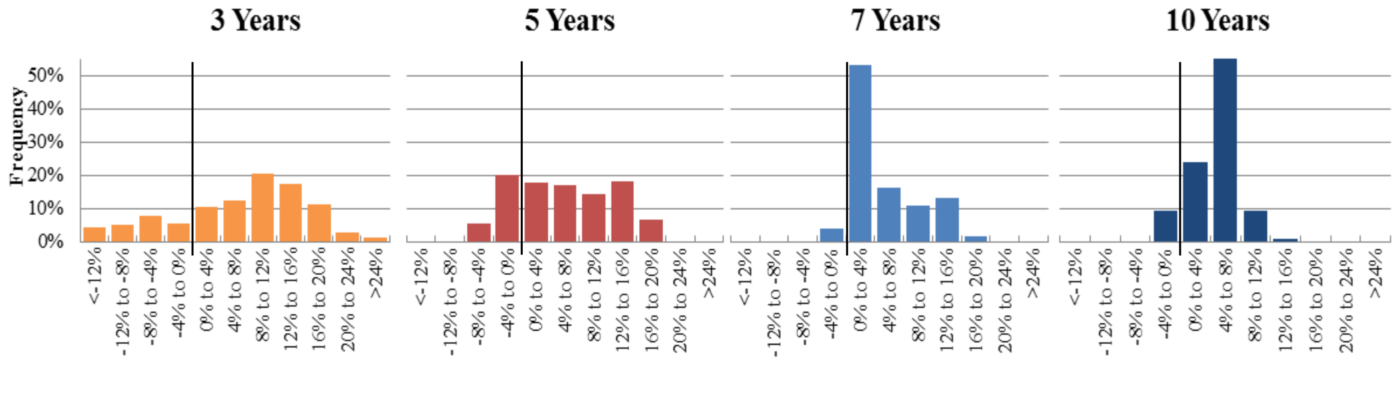
DT Research

Distribution of Equity Returns: How global markets compare

In previous articles[1] we have looked at the returns produced by the UK market over the past 25 years and investigated the likelihood of an investor achieving a positive or negative return after holding shares for 1 to 10 years. We found that holding shares in UK companies for a period longer than five years reduced the likelihood of losing money (in real terms after inflation) from around 25% over 5 years to 5-10% after 7 or 10 years. We also found that holding shares over the longer term narrowed the distribution of possible returns, as outlined in figure 1 below. The most likely outcome for a UK investor holding shares for a ten year period over the past 25 years was a return of between 4-8% per annum above inflation.

Figure 1 – Average Annual Returns Above Inflation of the UK Market – 1990 to 2015



Source: Dewhurst Torevell analysis of FE Analytics and OECD data

Do different developed world stock markets carry a similar degree of risk?

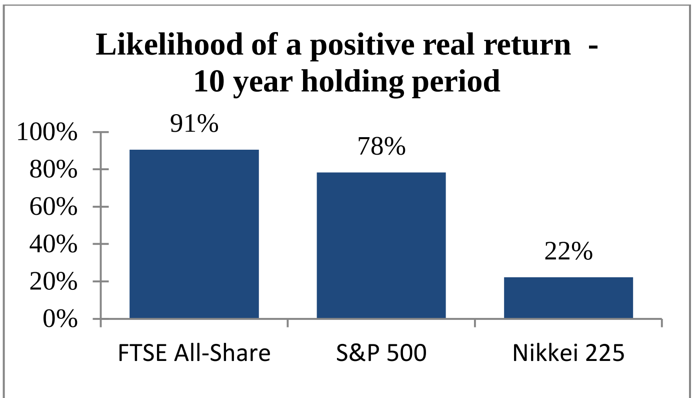
We live in an increasingly interconnected and globalised world. Around ¾ of the revenues of the FTSE 100 UK market index is derived from overseas operations[2] and investment in the UK market now represents considerable exposure to overseas markets. In this article we investigate whether the distribution of returns delivered by the UK market has differed significantly to two of the largest developed world stock markets (the US and Japan) over the past 25 years.

Our dataset compares the UK (FTSE All Share), US (S&P 500), and Japanese (Nikkei 225) markets over the 25 years to January 2016 at monthly intervals. In a bid to compare like with like the figures used in this analysis are based on local currency returns and local inflation data for each market, but a parallel analysis of the returns for a UK investor in the US and Japanese markets found that these were not materially different from those found in this article.

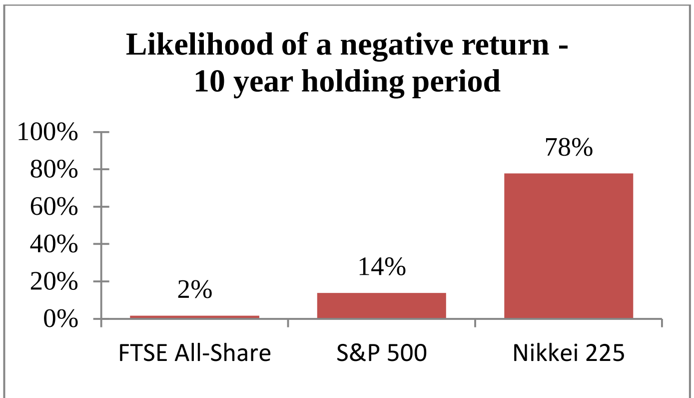
The left hand chart in figure 2 overleaf details the likelihood of an investor achieving a positive real return from an investment into each global market over a 10 year holding period. Over the past 25 years the UK market was the most likely to achieve a positive return above inflation, with the US market only delivering a positive return in 78% of holding periods. In stark contrast the Japanese market has not been a comfortable place for investors and even in an environment of low inflation investors have only achieved a positive real return above inflation (even accounting for deflationary periods) in 22% of the 10 year holding periods under review.

[1] Distribution of equity returns Pt.1 - Holding shares for 1 to 10 years & Distribution of equity returns Pt.2 - Investing after Market falls
[2] Capital Group - The New Geography of Investing, November 2013

Figure 2



Source: Dewhurst Torevell analysis of FE Analytics and OECD data



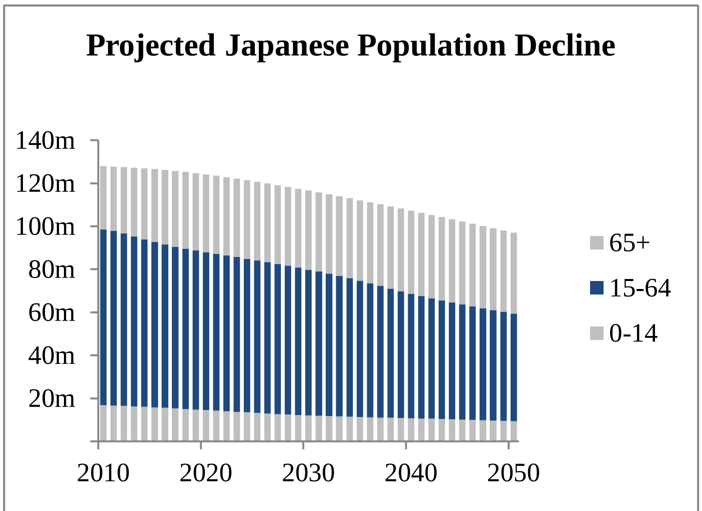
Source: Dewhurst Torevell analysis of FE Analytics and OECD data

Our in-house view of Japan has been negative for many years due to the challenging demographics of an aging population, high levels of personal debt and stubbornly low inflation (averaging 0.3% per annum over the past 25 years against a generally accepted developed world target of 2% per annum). These factors have combined to create an unattractive environment for investors over the past 25 years with the probability of an investor receiving a negative return over a ten year period as high as 78%.

The policies of Shinzō Abe (collectively dubbed 'Abenomics' by the financial press) initially resulted in some success after his election in 2012. The Japanese equity market posted strong gains in 2012 and 2013 and the Yen weakened against the Dollar, rising from 77 to 120 yen per dollar from 2012 to the end of 2015.

However much of the equity market gains over this period can be traced back to the Bank of Japan's asset purchase programme (Quantitative Easing, or QE), which pushed private investors out of the bond market and into the equity markets. Since Abe's election in December 2012 to December 2015 the Bank's ownership of the Japanese Government Bond market rose from 12% to over 33%, and is expected to reach 50% by 2018[3]. Furthermore, the Yen has strengthened over the first half of 2016 and the central bank has been forced to offer negative interest rates on a section of its deposits. More worryingly over this period real wage growth and export volume growth has remained negligible and the Japanese government appears to be running out of firepower to boost inflation.

Figure 3



Source: National Institute of Population and Social Security Research

We remain negative on Japan and where our clients do have exposure this will represent targeted individual holdings within their global investment funds, with a focus on carefully selected, multi-national companies whose revenues are not dependent on the Japanese domestic market. The working age population of Japan is set to fall 29% by 2050[4] and barring any significant increases in productivity from technologies such as robotics this will result in a reduction in GDP for the country. We do not see conditions for investing in the Japanese market as a whole improving for a number of years.

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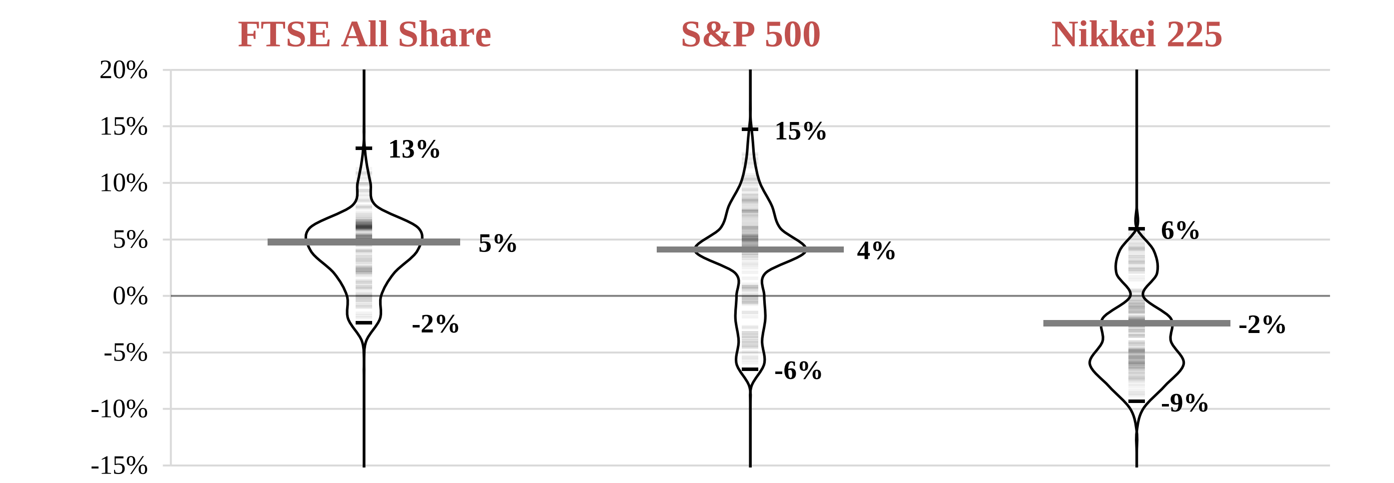
[3] *Japan Macro Advisors, June 2016,*

[4] *United Nations World Population Prospects, 2015 revision*

Does the distribution of global stock market returns differ?

As we highlighted in the first article in this series, alongside the likelihood of positive returns it is useful to look at the distribution (or volatility) of these returns. Figure 4 below depicts the distribution of real returns (above inflation) produced by each market over a ten year holding period between 1990 and 2015, on an annualised basis.

Figure 4 – The distribution of annualised returns over 10 year holding periods between 1990 and 2015



Source: Dewhurst Torevell analysis of FE Analytics and OECD data

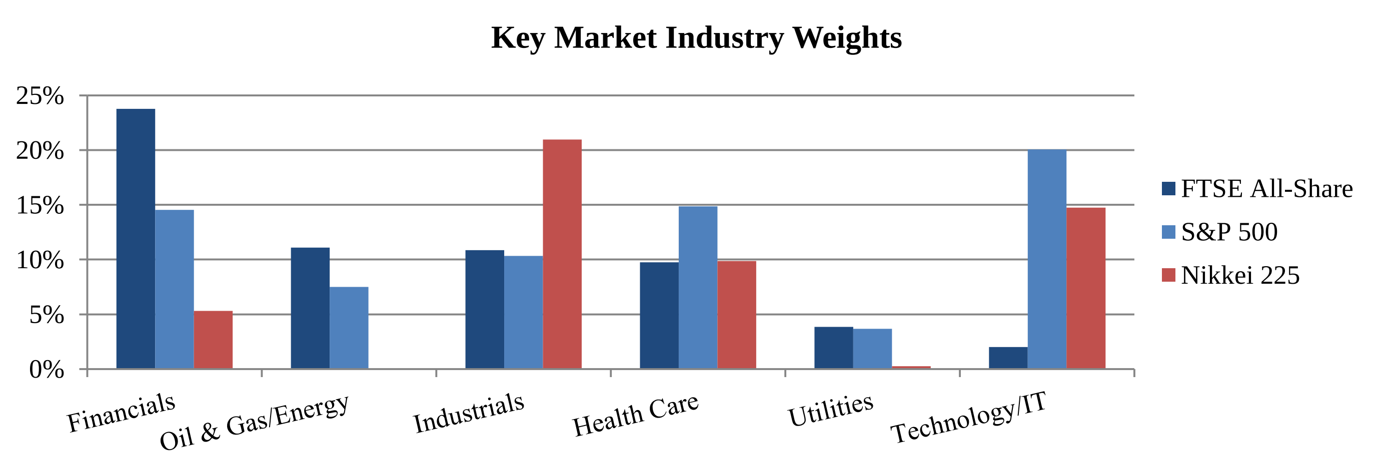
The greater concentration of positive returns in the UK market over the past 25 years has resulted in an average return over a ten year holding period of 78% above inflation, a real return of 5% per annum. This is greater than the average real returns from the US (4% per annum) and Japan (-2% per annum).

Whilst the UK market has the narrowest distribution of returns over a ten year holding period (from a minimum of -2% to a maximum of 13% per annum) The US market has had periods of greater returns, with a maximum of 15% per annum, but also more significant falls, a minimum of -6% per annum or -62% over a 10 year period.

Sector concentration of global stock markets

There are significant differences in the underlying composition of the three stock market indices used in this study as outlined in figure 5 below.

Figure 5



Source: ICB & GICS Industry data

Historically many multinational companies have chosen to list on the London Stock Exchange and The UK stock market contains a number of the world's largest Financial and Energy companies. These sectors tend to have a higher concentration of mature companies, with more stable revenue streams. Historically these types of companies have produced less volatile returns than more entrepreneurial companies within the Technology and Healthcare sectors, although as we have seen during the global financial crisis and the more recent oil price falls any investment in these sectors is not without risk.

The Japanese market has the greatest weighting to the Industrials sector, which includes companies involved in construction and manufacturing. The changing demographics of the Japanese market is likely to put pressure on this sector and the underlying companies may need to look to international markets if they are to continue to grow.

The higher weighting to the technology and healthcare sectors in the US market could explain the markets propensity to boom and bust cycles, experiencing periods of high growth followed by relatively large stock market falls. In 2015 the internet based 'FANGs' (Facebook, Amazon, Netflix and Google (now trading as Alphabet)) produced very positive share price returns and increased in value by approximately $440 billion. Without these tech companies the S&P 500 would have delivered a negative total return for the year. These companies have benefitted from a market with very low barriers to entry and have extremely high valuations; Amazon has traded at up to 900 times current earnings in the past year. Should sentiment in the market change, or a new challenger appears to test their hegemony (as these companies themselves have done in the past), it is possible that these same companies could act as a major weight on US market returns.

Observations

The key results from our study into the UK, US and Japanese markets are outlined in the table below. Whilst the mean real return (above inflation) in the past 25 years is remarkably similar between the UK and US markets, focusing on this headline figure can hide the significant differences in the distribution of these returns.

10 year Holding Period January 1991 – January 2016	**UK Market**	**US Market**	**Japanese Market**
Mean real return	78%	77%	-16%
Mean real return (Annualised)	5%	4%	-2%
Maximum real loss (Annualised)	-2%	-6%	-9%
Likelihood of a positive real return	91%	78%	23%
Likelihood of a negative return	2%	14%	77%

We aim to pick investments that will produce better returns than cash or inflation over a five year period. Where we invest in stock markets or similar assets we try to identify funds that perform better than their benchmarks over time. We recognise that we can't achieve this every year but are proud of our long term track record in picking funds that produce attractive long term returns.

We believe the most attractive method of beating a benchmark is to outperform during short term periods of market weakness whilst broadly keeping pace as markets recover. Over time this should result in significantly greater returns whilst following a less volatile path of return. Our portfolios are therefore weighted towards actively managed investment funds that invest into established, stable companies with a long term track record of creating profits and distributing these to their investors in the form of dividends.

We are attracted to the less volatile UK market, which produced a positive real return (above inflation) in over 90% of the 10 year holding periods under review. The multi-national companies that make up the UK market retain exposure to global growth opportunities through their own subsidiaries and local operations, whilst retaining the high levels of corporate governance and accountability that we benefit from in this country.

Where appropriate for our clients we have added exposure to the US market (and wider global markets) through both our global and sector specific equity funds in order to benefit from the potential for greater returns over the longer term. As we have found in this study these are higher risk areas, with the likelihood of a positive real return from the US market 78% over a ten year holding period, falling to 23% for the Japanese market.

At Dewhurst Torevell we continue to construct our portfolios with a core of multinational companies with strong balance sheets and the ability to produce a significant and growing dividend income. For long term investors that are comfortable with equity investment our portfolios are based around a core of high quality UK equity income funds supplemented by targeted global exposure.

Alex Dean-Austin and Martyn Torevell

October 2016

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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