



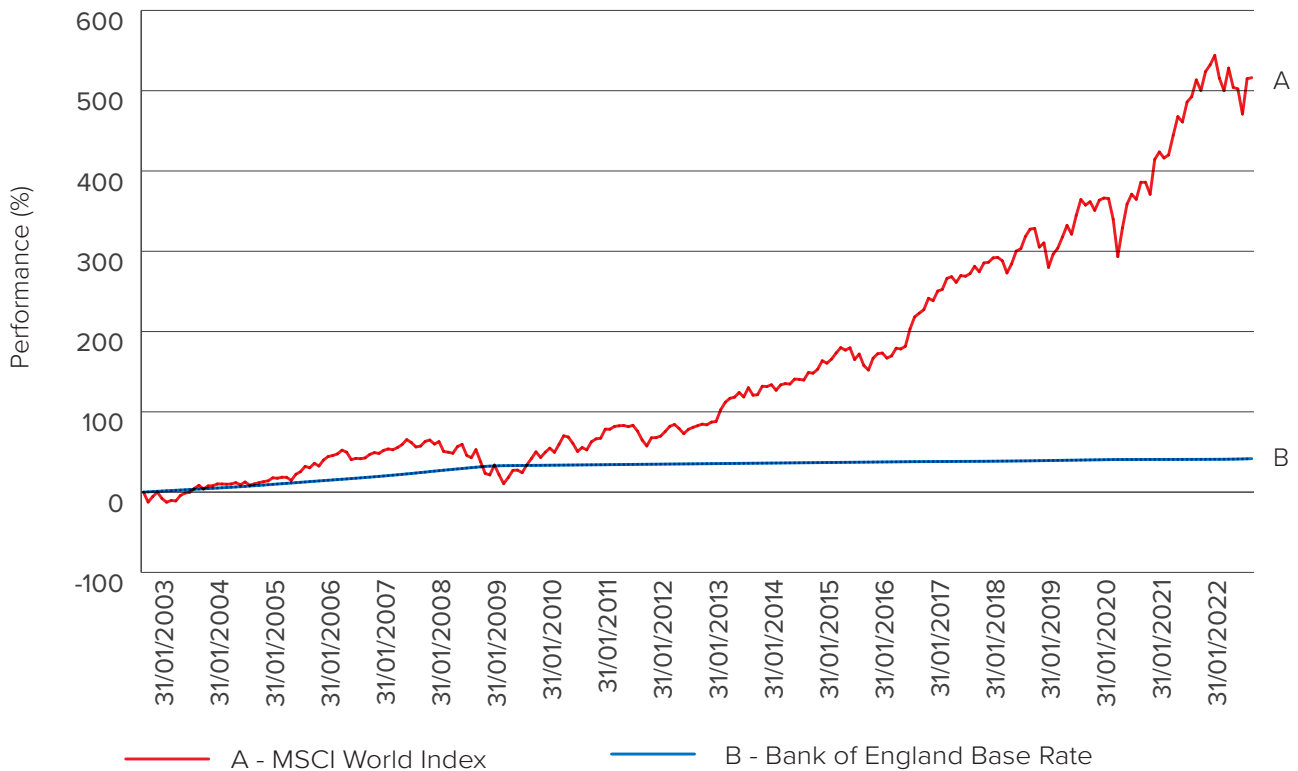
**STOCK MARKET
VALUATION AND
MARKET EFFICIENCY**

STOCK MARKET VALUATIONS AND MARKET EFFICIENCY

Stock valuations compete with the ‘risk-free-rate’ of return: the percentage return an investor will receive for taking no risk – e.g. keeping money as cash in a bank account . This is usually the Bank of England Base Rate. In any investment made outside of this there will be a risk of some description, so investments are known as ‘risk assets’. Risk assets demand a

greater return than the Bank of England Base Rate in exchange for the risk being undertaken. This is known as the ‘risk premium’. The risk-free-rate will therefore generally be lower than the returns on stocks in the long run. This can be seen in the graph below, which shows performance of the global stock market vs the Bank of England Base Rate.

Graph of the MSCI World Index (representing global stock markets) vs the Bank of England Base Rate (the risk-free-rate)



Stocks in different industries of market segments often exhibit different characteristics to each other. For instance, utilities that have a predictable income stream are less volatile but often produce a lower return. However, a cutting-edge technology stock may exhibit a high level of volatility but provide higher returns in the long run.

Stock prices are determined by market forces that ascertain an appropriate future value from a multitude of factors affecting a company. These are almost infinite in number and can be very esoteric, but

some of the main factors include politics, geopolitics, innovation, societal change, geography, climate and economic strength. The primary factor for a company’s valuation is earnings, as these represent the unequivocal results of the company’s business. Analysts project a company’s future earnings to try to gauge how much they will earn in the future and hence calculate a projected share price. This takes account of the risk premium and is then discounted by the risk-free-rate, so if the risk-free-rate increases, the future earnings are worth less.

This example shows how a stock may be priced differently in different interest rate environments:

Projected Share Price in 1 Year	Risk-Free-Rate	Market Valuation
200	1%	199
200	5%	195

GROWTH STOCKS

Stocks that have a high level of earnings growth are often referred to as 'Growth Stocks'. These tend to be in industries where there is a degree of secular growth such as technology, consumer discretionary (non-essential) goods, and biotechnology.

These stocks usually have low or no dividend payment to shareholders as excess capital is re-invested into research and development.

As they increase their earnings each year they are anticipated to grow faster than the average market rate and as such command a higher price, or valuation. One example of this is Amazon, which until relatively recently was not profitable, but did grow and re-invest at a very high rate. Investors were therefore willing to pay more to participate in the future success of the company.

A company that is perceived to have more risk inherent within it will usually demand a higher risk premium: a larger return, or higher margin, above the risk-free-rate.

These assumed future earnings (that account for the risk premium) are discounted by the aforementioned risk-free-rate. Therefore, if the risk-free-rate rises, it is assumed that the future earnings are worth less than they were at the lower risk-free-rate.

As interest rates increase, earnings are discounted by the higher rate and the company's share price will usually fall as a result, and vice versa.

INCOME STOCKS

Stocks that pay out a dividend to investors are often termed 'Income Stocks'. This is a distribution of excess profit from the company to shareholders and can be a determinant of the share price as investors can factor in the return they will receive from dividends.

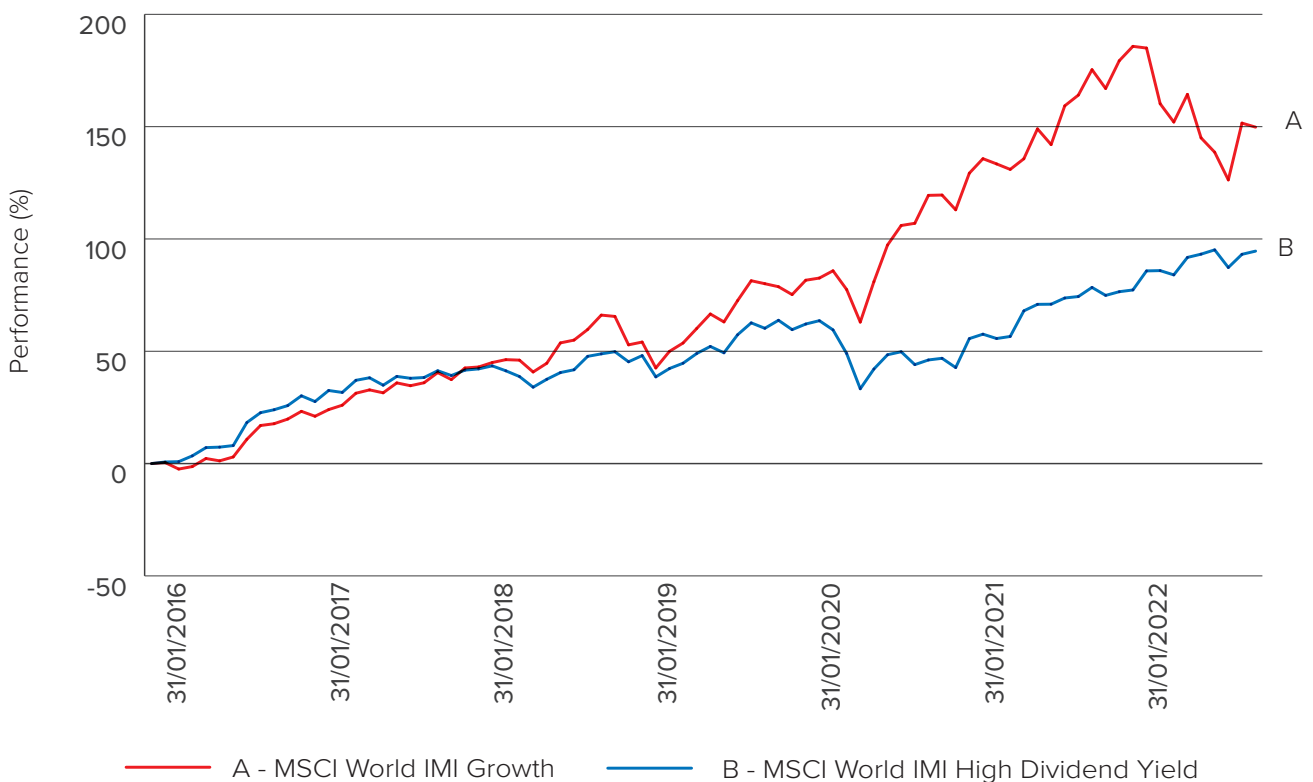
The 'yield' (the amount of the dividend payment) is expressed as a percentage of the share price, so this moves whenever the price moves. For example, if a stock is priced at 100p and its dividend is 10p, the yield is 10%, but if the price moves to 110p the yield is 9.09%.

These movements are required to maintain the margin over the risk-free-rate.

These stocks are attractive when their yield is superior to the risk-free-rate by a wide margin, but as this contracts the stock may be less attractive as the additional risk undertaken in holding the stock versus cash is taken into account.

Income stocks tend to be more predictable and less volatile than their growth-centric peers, but may produce a lower return.

Graph showing an index of Growth Stocks (MSCI World IMI Growth) against an index of Income Stocks (MSCI World IMI High Dividend Yield)



FIXED INCOME OR BONDS

Bonds, often known as 'Fixed Income', are debt instruments issued by governments or companies as a funding tool. This is similar to a bank loan but the money comes from the issuing of debt to investors instead of a financial institution.

Bonds carry a fixed income payment, or 'coupon', that is paid throughout the life of the bond and at the end of the period the investor's cash is returned in full.

The yield on a bond must be superior to the risk-free-rate to be attractive to investors, as they are taking on additional risk and this amount moves just like the dividend does, as the bond's price fluctuates. For example, a bond may be issued for £100 for ten years with a yield of 5% - the investor pays £100, receives 5% per year in coupons (from coupon payments that are paid two, four, or even twelve times per year to a total value of 5%). At the end of the ten-year period the £100 is returned to the investor.

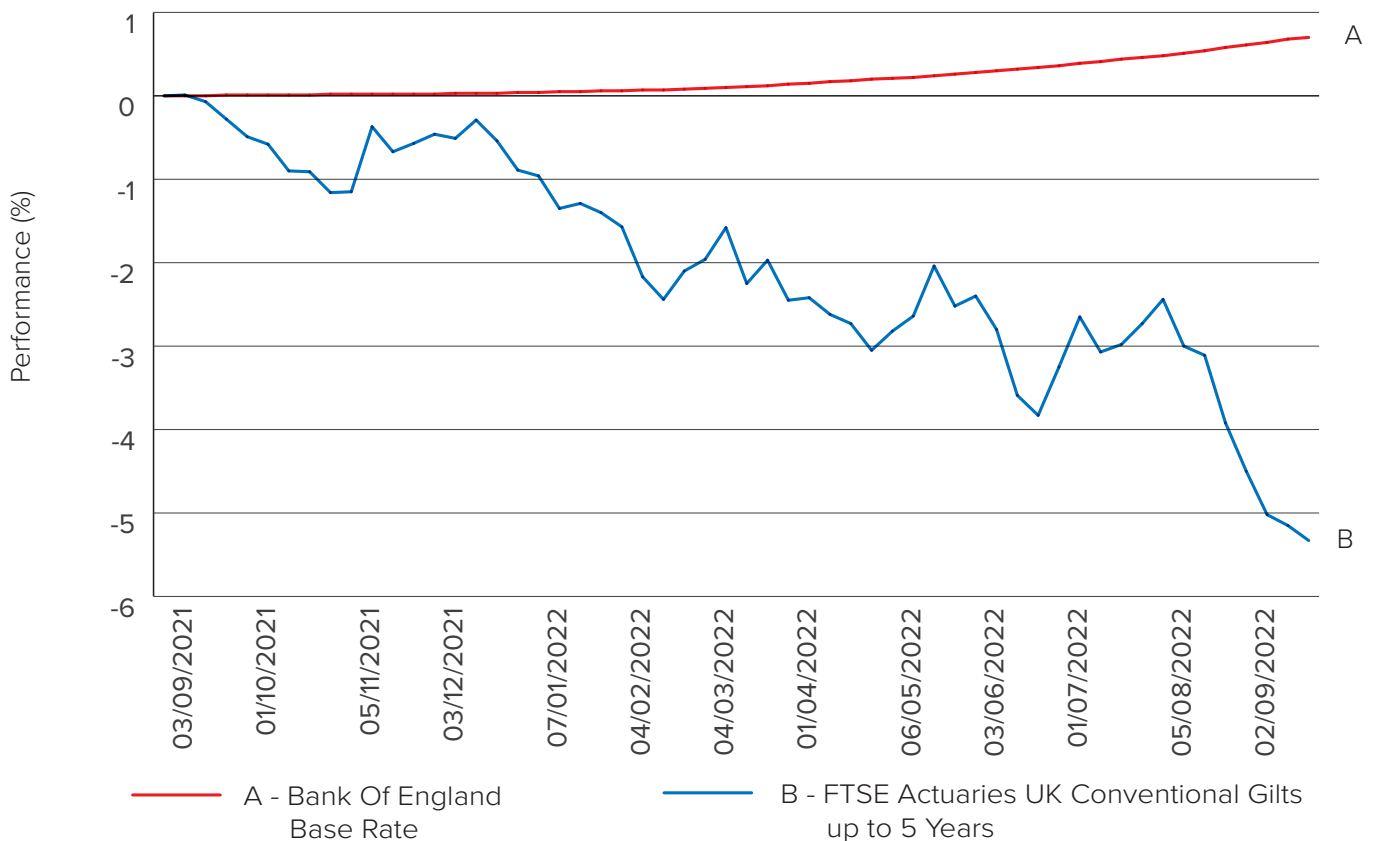
If a bond is purchased above its 'par value' (the initial price), the investor knows they will receive back less than they paid when it redeems, at £100. This works in reverse if the bond is purchased below par.

Investors know the price they are paying, and the extent of all of the coupons that will be paid, so the returns are highly predictable. The amount of income paid over the period from acquisition to maturity plus the annualised capital profit or loss is known as the 'Gross Redemption Yield' (GRY) and allows the investor to make an informed decision about whether the investment is worthwhile; i.e. 'does the GRY represent a suitable risk premium above the risk-free-rate?' If not, the bond value will have to fall in order to increase the GRY.

If the risk-free-rate increases the GRY on a bond it becomes comparatively less attractive, so the price will fall and the yield will increase.



Graph showing a recent increase in the Bank of England Base Rate and the subsequent fall in government bond prices, using the FTSE Actuaries UK Conventional Gilts up to 5 years index



DIVERSIFICATION AND RISK MITIGATION

We will always retain an element of all of these types of investment in our Investment Model Portfolios and they are actively managed to ensure a risk profile that remains appropriate and optimal for the ever-changing investment backdrop.

We believe that it is essential to be well diversified and to mitigate risk wherever possible.

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