Diversification in a bond portfolio

Insight Investment

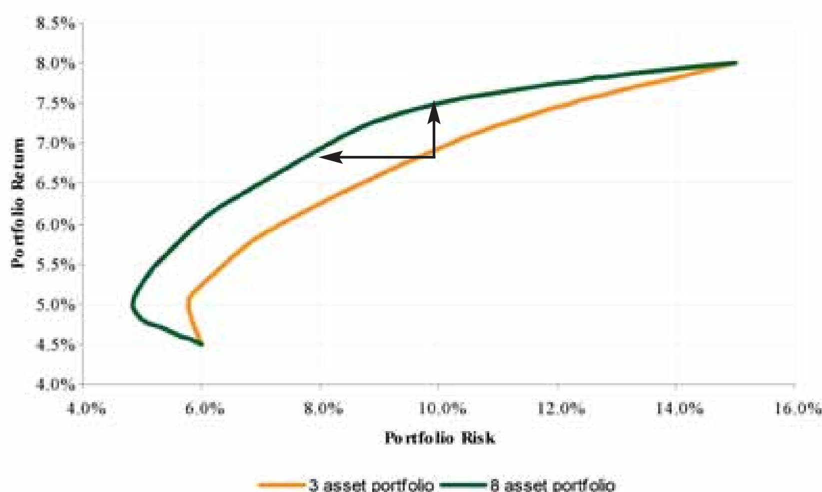
Diversification has long been recognised as an effective portfolio management technique. It is based on the idea that spreading investment risk across a mix of diverse assets (i.e. whose returns are not correlated with one another) produces better risk-adjusted returns over the long term. This improvement in risk-adjusted returns is by virtue of negative returns from some of the assets being offset by positive returns elsewhere. Basic diversification may apply to a portfolio comprising equities, bonds, property, private equity and commodities. On a more developed level, it may apply to investing in an actively managed portfolio of 30 or more UK stocks, as opposed to simply investing a handful of selected shares.

The key aspect of diversification is that the investor is not wholly exposed to the risk in one particular asset, sector, market, or asset class. It therefore follows that the amount of correlation between the constituent parts of a portfolio dictates the efficacy of the diversification.

At the portfolio level, increasing the number of asset classes held can reduce overall risk as well as improving the return potential. The chart below shows the risk-return characteristics of two possible portfolios. The two curved lines, known as efficient frontiers, show the highest expected return from each portfolio for any given level of risk. The less correlated the assets, the greater the diversification benefits.

As the chart shows, for almost any chosen level of risk (bottom axis), the eight asset portfolio offers a more attractive return. Alternatively, one could say that for any target level of return (on the vertical axis), the eight asset portfolio provides a less risky option than the three asset portfolio.

CHART 1: Risk and return - the benefits of diversification



Source: Insight Investment. Based on the following asset allocation: 3-asset portfolio: Equities 65%, Govt bonds 30% Corporate bonds 5%; 8-asset portfolio: Equities 35%, Private equity 10%, Hedge funds 15%, Commodities 5%, Structured credit 3%, Govt bonds 15%, Property 12%, Corporate bonds 5%

Diversification within bonds

The diversification benefits at the portfolio level are clear, and this same idea can be applied within the asset classes themselves. Many investors will be familiar with the potential to diversify within equities, through investment in regional markets and across the different industry sectors. Bonds also offer considerable opportunities for a diversified approach.

The correlation between global government bond markets has increased over the past decade, due in part to the creation of a single euro-denominated bond market, and to the growing convergence in the major central banks' monetary policies. However, markets continue to be influenced by regional and country-specific economic developments. Studies have shown that investing globally can still lead to higher rewards than simply holding domestic bonds but, more importantly, a diversified approach reduces the volatility of returns.

Investors are also increasingly looking beyond government bond markets to high yield and emerging market debt for additional sources of return. High yield – or non-investment-grade – bonds normally offer higher interest rates than investment-grade bonds to compensate for the higher risk of issuer default. The added attraction is that they tend to have a low correlation to other areas of the bond market as they are often heavily influenced by developments in the corporate environment. Emerging market debt, meanwhile, can also offer potential for higher returns with a similarly low level of correlation to other bond assets. The higher risk can be minimised by investing across a range of countries, in both corporate and government bonds, or in local currency bonds. The quality and access to investor information on emerging market debt has improved significantly in recent years, allowing for greater visibility on the sector.

Allocating to higher-yielding bonds does, to some extent, mean assuming a slightly higher level of risk. However, the increase in risk is not necessarily proportionate to the increase in potential returns. Key to this is asset allocation. By investing in a combination of assets whose correlations are low, it is possible to achieve significantly higher returns while limiting the extent of the increase in risk. For example, a portfolio that invests in investment-grade government and corporate bonds, high yield and emerging market bonds is well positioned to benefit from the relative safety and stability of the investment-grade bonds as well as the higher income provided by the riskier asset classes. The fund manager has the flexibility to switch focus between the asset classes depending on market conditions and is protected to an extent by the uncorrelated nature of their returns.

In addition to market allocation, bond fund managers can draw on a wide range of other uncorrelated sources of return to improve their portfolios' risk profile and potentially boost overall returns. These include:

Duration management: duration can be actively managed to make a bond portfolio more or less sensitive to the effects of interest rate changes on bond prices. When interest rates are expected to rise and bond prices thus likely to fall, a

fund manager is likely to reduce the duration of the bond portfolio. When interest rates are expected to fall and bond prices likely to rise, a fund manager is likely to extend the duration of the bond portfolio.

Yield curve positioning: the difference in yields across bonds of different maturities is reflected in the yield curve. Yields on bonds of different maturities rarely move in unison and these differences can be exploited, by favouring one or more areas of the curve over others.

Credit strategy: corporate bonds also offer opportunities to diversify risk across different sectors, by rating and by maturity. Fundamental research can be used not only to identify potential sources of value, but also to reduce the chance of exposure to a credit event. In order to reduce this risk further, a portfolio can be subject to diversification targets across issuer ratings to ensure it is not concentrated on single names.

Security selection: selecting bonds with covenants, such as options to sell back the bond in the event of a takeover, or where the coupon increases in the event of a ratings downgrade, may offer a more attractive risk/return profile than those without.

Currency selection: bond fund managers may choose to actively manage currency exposure – rather than simply hedging it back to the benchmark currency – with the aim of adding additional returns.

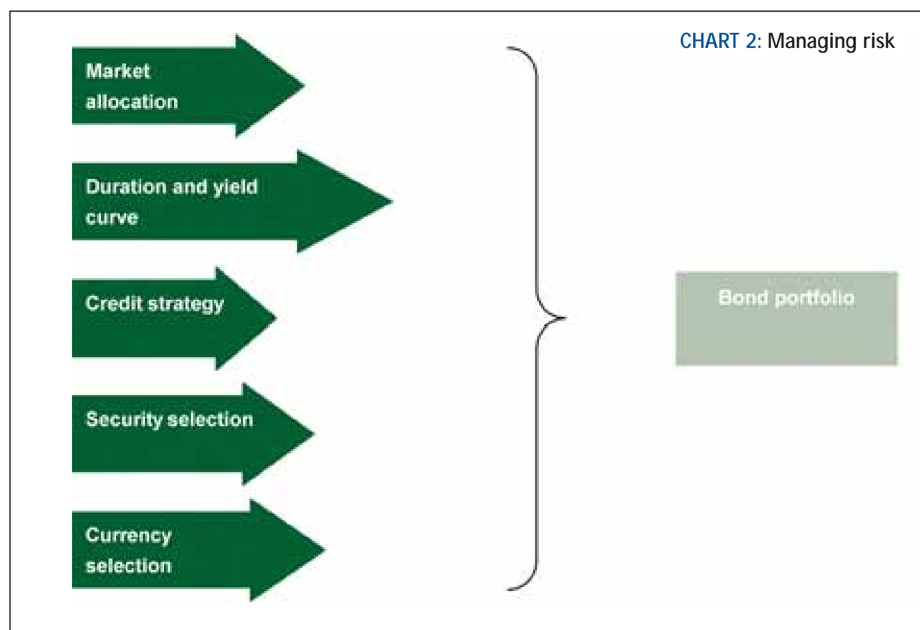


CHART 2: Managing risk

Managing risk

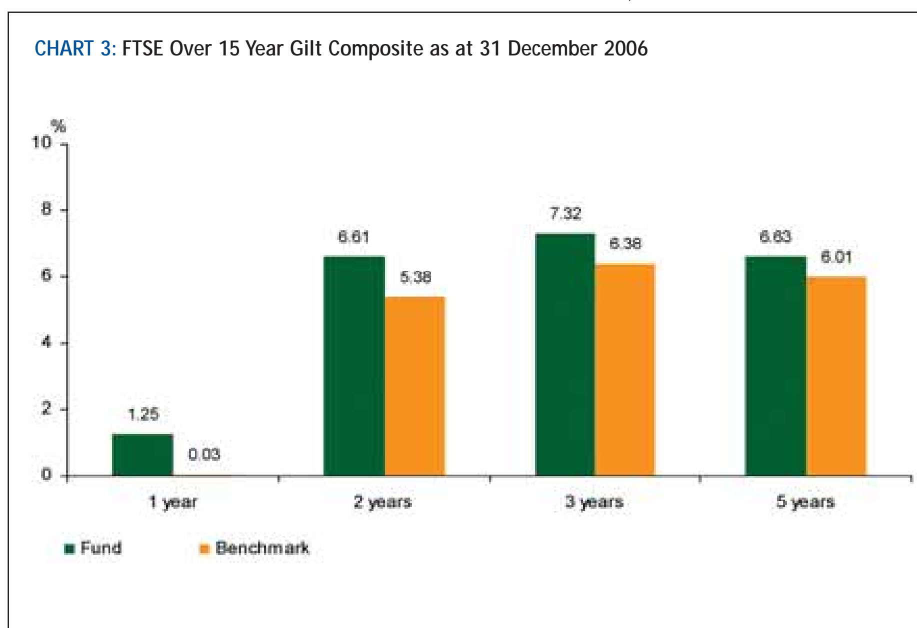
Using a wide range of return sources avoids a concentration of risk and has potential to generate higher and more consistent returns. Nonetheless, a rigorous risk management framework is still required to maximise the benefits.

Within such a framework, total portfolio risk can be broken down into units, with each of those due to one of the above sources. Thus, a diversified risk portfolio can be constructed, with the amount of risk apportioned to each source reflecting a manager's conviction in the possible return offered by the underlying position. (see Chart 2 above)

Does a diversified approach work?

The principle of diversification lies at the heart of the fixed income process at Insight and the strength of our long-term performance record is testimony to the benefits of such an approach. For example, our long-maturity gilt portfolios have delivered very strong relative returns over the past five years and, importantly, with a very low level of volatility – the information ratio of 1.5 is among the best in the industry. (Information ratio is a measure of investment efficiency. It measures the number of units of excess return generated for each unit of risk taken.) We firmly believe that a diversified approach is the most effective route to achieving consistently high levels of outperformance. (see Chart 3 on the left).

CHART 3: FTSE Over 15 Year Gilt Composite as at 31 December 2006



Important notes: Past performance is not a guide to future performance. The investment's value and any income deriving from it may fall as well as rise, as a result of market and currency fluctuations. You may not get back the amount originally invested. Unless otherwise stated, all data has been sourced from Insight Investment. All features described in this article are those current at the time of publication and may be changed in the future. This article is aimed at professional investors only. It is not designed for, and should not be used or relied upon by private investors.

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