Diversified Thinking.

Diversification helps, but it's not quite a free lunch

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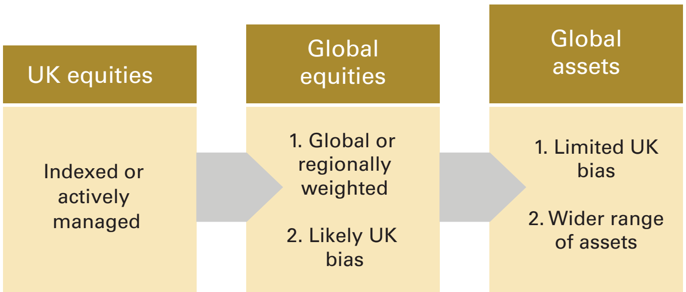
By understanding that diversification can mean missing out on the chance of very high, unexpected returns, investors can hopefully enjoy the benefits more, without a bitter aftertaste.

Investors generally dislike risk, so it's no surprise that so many have embraced diversification. It spreads out investment exposures and can reduce the chance of really bad outcomes. As such, it's often called one of the few 'free lunches' in investments; an opportunity to reduce risk without impacting the expected return. But as investors have found out over the last few years, it can feel quite painful to miss out on the returns that, with the benefit of hindsight, a more concentrated portfolio would have given.

The basics of diversification

Diversification is nothing new; there has been a gradual journey for many pension schemes from UK equities to global assets, as shown in **figure 1.** This is increasingly being replicated by retail investors.

Figure 1: Progressive diversification by UK pension schemes



Even where exposure is UK-centric, it's usually split across a number of companies. The following provides a simple example as to why all investors should seek diversification to some degree. If an investor only owned one equity, the upside could be almost limitless but the downside risk may be considered too high. One example that illustrates this is Legal & General Group Plc. Its share price increased by over 1000% from mid-March 2009 until end 2014 but, in the three years previous to this period, the share price had fallen over 70%.

By owning a range of equities, investors can target long-term returns with less downside risk and less potential upside. If investors were reckless gamblers, their decisions might be different, deliberately seeking out concentrated risks in the hope of winning big on the next Legal & General. Almost everyone is risk adverse to some extent and so looks to remove avoidable risks.

The idea with a diversified multi-asset portfolio is similar. An investor owns a wide spread of assets, so it's unlikely that returns will be stellar, as that would require everything to perform at the same time. As an example, it's worth looking at what contributed to returns for a real multi-asset portfolio in 2014, as shown in **figure 2**, using the example of the LGIM Diversified Fund, which is an institutional offering designed for pension funds.

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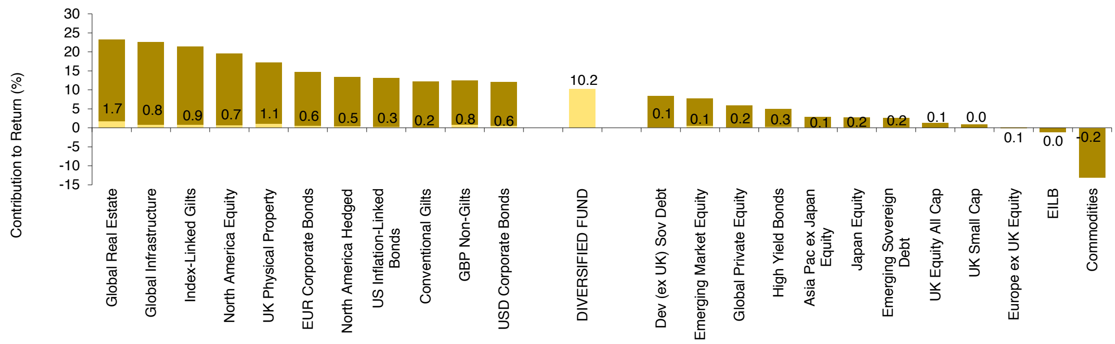
Figure 2. LGIM Diversified Fund – contributors to performance 2014



Source: LGIM

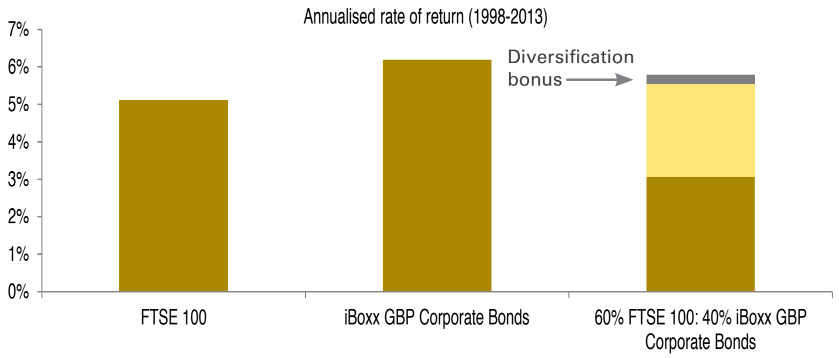
Identifying in advance that commodities would be such a poor performer, while equities continued to perform well, would have been difficult. After all, commodity crashes are normally driven by a big fall in demand – during a recession for example. However, the move lower in 2014 was mainly down to oil price falls, and much of the price suppression was driven by strong supply growth, particularly in US shale oil.

Equally, infrastructure is generally considered lower risk than UK equities, but the former outperformed strongly over the year. Just like choosing individual equities, it is difficult to choose outperforming asset classes without significantly altering the overall portfolio risk and a high proportion of the benefits of diversification are best achieved by maintaining exposures to a broad range of investments.

Diversification as a source of return

The risk management properties of diversification are well understood. What's less well known is that diversification can actually increase the rate of return investors achieve. This is best explained through a simple example, as outlined in **figure 3.**

Figure 3. Total returns for equities (FTSE 100) and bonds (sterling corporate bonds) from 1998-2013

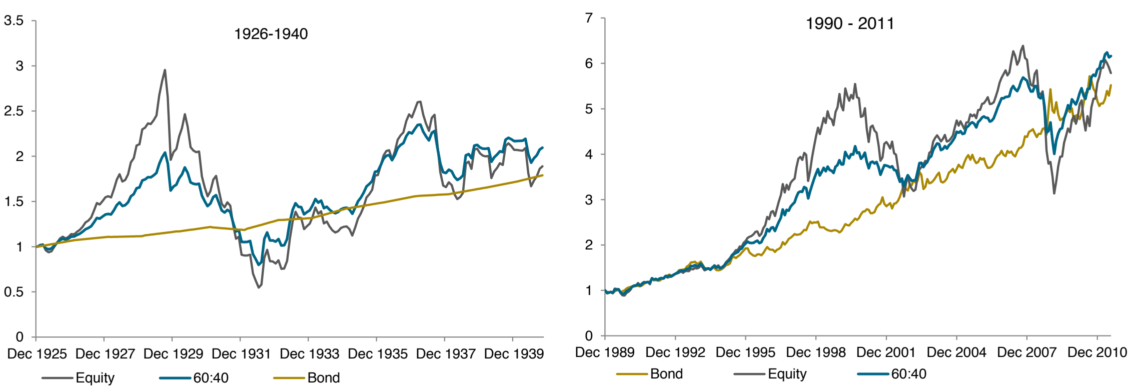


Source: LGIM

The return on a portfolio of 60% equities and 40% bonds from 1998 to 2013 was significantly higher than the weighted sum of the total return on the two asset classes. This is sometimes known as the 'diversification bonus'. Performance volatility can affect the overall rate of return as large drawdowns can have a serious and detrimental impact on returns. For example, a portfolio that suffers a -50% return followed by a 50% return (or vice versa) is only worth 75% of its original value. Diversification reduces the size of the worst events, or volatility, and so this detrimental effect can be reduced.

So when thinking about the expected rate of return on a diversified portfolio, particularly in comparison to a more concentrated portfolio, it is important to allow for this additional source of long-term return. As large swings in returns are reduced by diversification, this may result in a systematically higher rate of return than the weighted average returns on the underlying investment would suggest. This point is frequently missed when assessing the return potential of strategies.

Figure 4: Long-term performance of US equities, bonds and a regularly rebalanced 60% equity 40% bond fund



Source: Dynamic Portfolio Choice, 15 July 2012, Andrew Ang, Columbia University

Earning the diversification bonus

For the diversification bonus to work, it is important that the portfolio rebalances periodically; if not, the rate of return achieved must be the same as the weighted average of the underlying investments. Otherwise, it is simply the same as holding several segregated portfolios of different assets.

Systematically reducing exposure to the best performing assets and reinvesting the proceeds into those that have performed least well, in order to get back to the target portfolio weights, is rebalancing in the same way as the old saying, 'buy low and sell high'.

Even more importantly, this effect compounds over time, as shown in **figure 4**, which demonstrates the historical analysis of a rebalancing portfolio of equities and bonds.

Hindsight is the mental curse of diversification

Just as there will always be an individual equity that outperforms all the others, there will always be an asset class that outperforms within a diversified portfolio. In 2014, that asset class was global real estate in the LGIM Diversified Fund (see Figure 2). The temptation is to believe, with hindsight, that this outperformance was inevitable and the winning strategy was obvious; that in this instance, putting all the eggs in one basket was a good strategy.

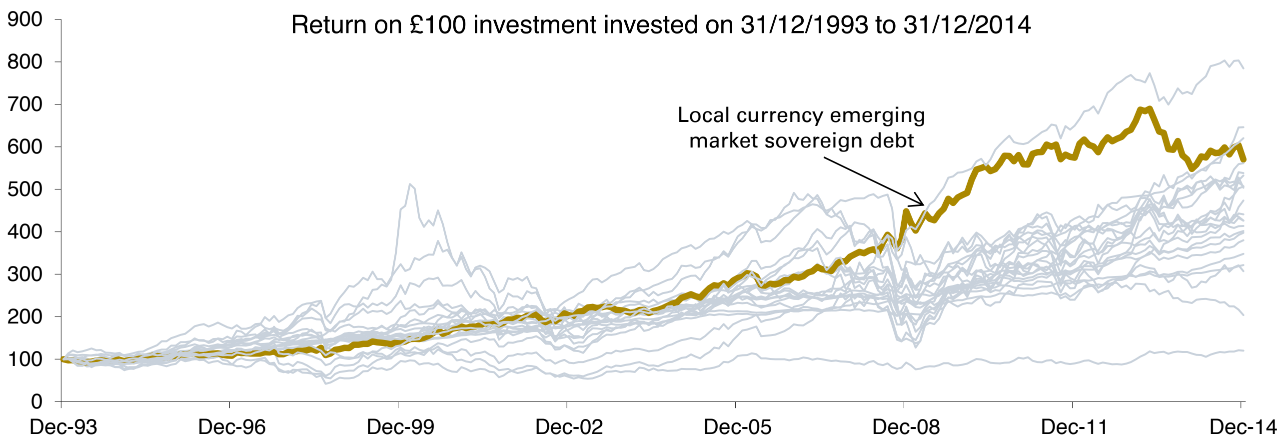
The same can of course be true over the longer term too. For example, from 1994 to 2012, US dollar denominated emerging market government bonds (sterling hedged) gave a return of over 500%, as shown in Figure 5. However, just because an asset class demonstrates strong performance over an extended period, it doesn't mean that this performance will continue into the future, evidenced by its performance since 2012. This highlights the potential dangers of assuming history repeats itself or that asset class movements are accurately predictable in advance. The grey lines represent return series for other asset classes over the same period.

Always bet on the house

Some view investing as making a series of bets. In reality, being a diversified investor is a bit more like owning a casino, rather than being a gambler at one of the tables. There will always be individual investors who through a combination of luck and skill leave with a better return on their investment than the casino owners. But there will also be those who do worse, far worse. And much like a casino, accepting lots of small investment bets can provide a source of sustained and systematic income that concentrated gamblers can't benefit from.

The complexities of diversification go to show that there are no simple investment decisions. However, even where an investor has high conviction views on particular markets, the arguments that favour diversification are persuasive and it is likely to still play a role. In cases where an investor has few strong market views, it can form the cornerstone of a strategy that offers more than the sum of its parts.

Figure 5: Performance of a range of asset classes (in grey) and a local currency emerging market sovereign debt exposure (gold).



Source: LGIM

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