

Investing in Europe: currencies and correlations

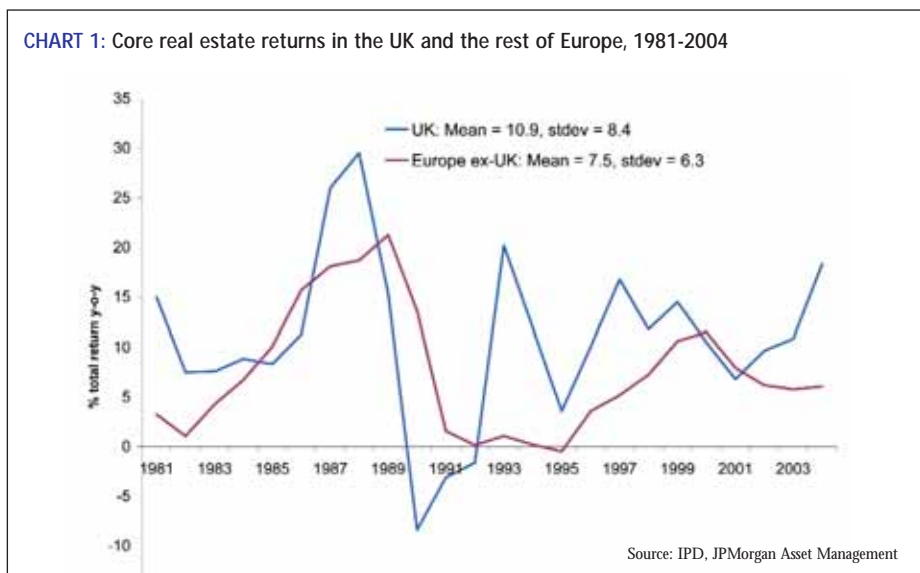
JPMorgan Asset Management

Investment in real estate has been at record levels in Europe over the past few years. At the same time, cross border investment – that is, the direct or indirect purchase of real estate outside the investor's country of origin – has grown as a proportion of the total. According to estimates from Jones Lang LaSalle, 2005 saw European cross-border investments rise to some €92 billion – greater than total investment only two years earlier – and for the first time make up over half (59%) of total investment flows.

There are a number of reasons for this trend. One driving factor has always been the need to broaden the opportunity set. This is especially important for investors from smaller markets; it is no surprise, for example, that the Dutch were among the first to drive cross-border investment in Europe. For investors from larger countries, cross-border deals can hold out the promise of opportunistic returns by taking advantage of perceived mis-pricings in less liquid and transparent markets. This was the major driver, for example, behind the “first wave” of US investment in Europe during the 1990s. Within Europe, another factor that has driven cross-border allocations has been the reduction of currency risk through the introduction of the euro. Even for non-Eurozone investors, the euro has made it easier to manage currency exposure across multiple markets.

More recently, however, many investors have started to see cross-border investment as part of their core real estate strategy. The driving consideration here is not so much increased returns as lower risk, via diversification. Because real estate markets across the globe are not perfectly correlated with each other, investing abroad offers the potential to reduce risks for a given level of return (or increase return for a given level of risk). Of course, this has always been true. However, until recently there was little data on which to base an assessment of just how true it was; and few investment products designed for core, cross-border investors.

UK investors however have been a little slower to pick up on to this trend. Although the largest UK institutions have been developing pan-European and indeed global real estate strategies for several years, smaller and medium-sized pension funds and life companies often remain 100% committed to the UK market. It's not too difficult to see why this is. For a start, mean historical returns to



UK real estate have been significantly above those to continental European real estate, for only a little extra risk (Chart 1). Secondly, UK investors generally have sterling-denominated liabilities. In this respect, the introduction of the euro has not benefited UK investors.

However, continental European real estate returns have historically shown a relatively low correlation with UK real estate. The coefficient of correlation between the two series shown in Chart 1 is less than 0.4. Other things being equal, blending poorly correlated assets in a portfolio results in reduced risk for a given return. This leaves the case for investing in the rest of Europe unclear – do the diversification benefits outweigh the potentially lower returns and the exposure to currency risk?

According to William Sharpe, the Nobel prize-winning economist and inventor of the ‘Sharpe ratio’ measure of risk-adjusted returns, historical data “appear to be quite useful with respect to standard deviations, reasonably useful for correlations and virtually useless for expected returns”. In order to start answering our question, therefore, we started by adjusting returns for the UK and Europe ex-UK to take account of (i) lower expected inflation in the future and (ii) recent falls in yields compared to the historical averages. We reduced expected returns by 2.9% in the UK, to produce an expected future return of 8.0%, and by 1.5% in continental Europe, to produce an expected future return of 6.0%. This reduces the performance gap to 2.0% points, which we consider reasonable given (i) the higher risk-free rate in the UK and (ii) the higher volatility of UK real estate. Correlations and volatilities

were derived from historical evidence. Using these inputs, we computed risks, returns and Sharpe ratios for a range of different combinations of UK and non-UK exposure under a number of different exchange rate assumptions.

We started by looking at a world in which there are no exchange rate movements. In this world, non-UK investment is hardly worthwhile, since the reduction in risk through diversification gains barely outweigh the reduction in returns (chart 4). However, this is clearly unrealistic. Currencies do move – and investors can choose to hedge against this movement. This can be incorporated into the analysis by treating the currency exposure – or alternatively, the cost of the hedge – as a third “asset” in the portfolio. Charts 2 and 3 show the historical behaviour of these two new “assets”.

Historically, both these indicators have been extremely favourable to UK investors. The average depreciation of Sterling vis-à-vis an appropriately weighted basket of European currencies has been 1.4%, while the average cost of hedging against this movement has been minus 3.6%. These would have appeared as an accretion to returns to the unhedged or hedged UK investor in Europe respectively. The exchange rate is rather volatile, while the hedging cost is clearly not. Neither series has a significant positive correlation with the underlying real estate series, and in fact there is a small but significant negative correlation between the exchange rate and the performance of UK property, perhaps because both Sterling and UK property do well when the UK economy is strong. Once again, we adjusted our

CHARTS 2 & 3: UK exchange rates and hedging costs v. continental Europe, 1981-2004

CHART 2

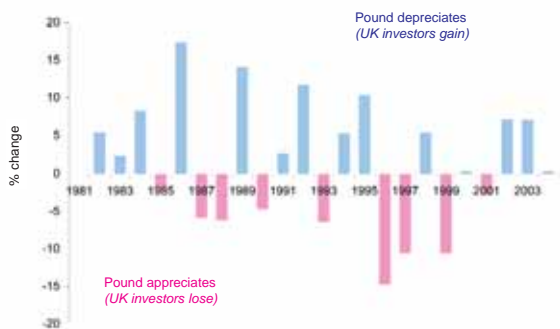


CHART 3

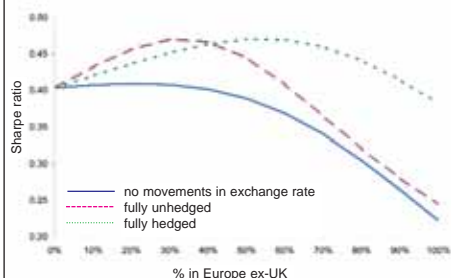


Source: Morgan Markets, JPMorgan Asset Management

returns assumptions in line with expectations, while using historical data for risk and correlations. In our central case, we assumed that the average future depreciation of Sterling against the Euro would be 1.1% per annum, and that the cost of hedging would be minus 1% point per annum; these assumptions are based on current relative swap rates.

In our central case, exchange rates – whether hedged or unhedged – made a significant difference to risk-adjusted returns. As shown in Chart 4, the Sharpe ratio is maximised when non-UK exposure is around 35% for the unhedged investor, and around 55% for the hedged investor. We also looked at a range of

CHART 4: Sharpe ratios for UK investors in continental Europe



Source: Morgan Markets, JPMorgan Asset Management

alternative assumptions for exchange rate movements and hedging costs. According to our analysis, any unhedged UK investor who believes that Sterling is likely to appreciate by 0.8% per annum or less in the future, or any hedged investor who believes that the cost of hedging will be +0.8% points per annum or less – bearing in mind that both these indicators have been consistently negative historically – would benefit from some exposure to continental European property.

In reality, while some investors may choose not to hedge their currency exposure at all, it is unlikely that any investor will be able to place a 100% hedge on their currency exposure to real estate assets. Cash flows – and in particular the terminal value of a building – are not known with certainty; and financial instruments are often designed to provide short-term protection only. Moreover, hedging instruments are usually cash-settled, which sits uncomfortably in a

portfolio of illiquid assets such as real estate. In practice, many investors will choose a partial hedge – for example, they may choose to hedge 50% of their exposure; or they may hedge capital appreciation but not income.

Fortunately, it is possible to extend this analysis to combine different degrees of hedging with different exposures to non-UK European property. The result is the rather flamboyant Chart 5, which shows Sharpe ratios for all possible combinations of hedging and non-UK weights. Under our central assumptions, the highest possible Sharpe ratio occurs when non-UK property has a weight of 50% and that exposure is hedged 60%. The result is, however, far more sensitive to the geographical weights than to the degree of hedging chosen.

These results stem from the fact that, historically, Sterling has depreciated against European currencies, and UK interest rates have been higher than those in continental Europe (with the result that the cost of hedging back to sterling has been negative). Based on not only historical evidence, but also current swap and forward rates and likely paths for inflation, it seems likely that this will persist to at least some extent.

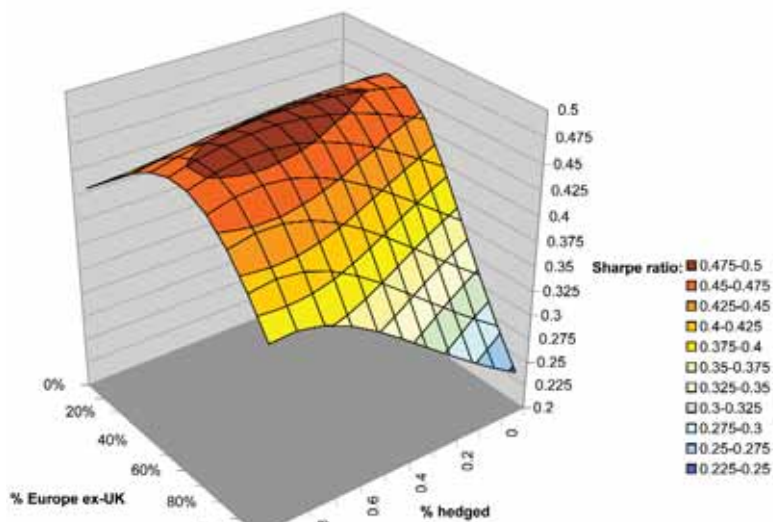
Of course, there is another consideration that has traditionally held UK investors back from

investing in continental Europe – and that has been a lack of familiarity with the markets. In the past few years, however, this has been redressed through the introduction of pan-European commingled vehicles. It is now no more difficult for a UK investor to invest in Europe than it is for him to invest in a UK property unit trust.

In a way, all this would have been a lot simpler if we had looked at the case of the non-UK European property investor taking exposure to the UK – a move which would unequivocally have resulted in higher returns and lower risk. However, what we have shown is something less obvious – that, under a reasonable set of assumptions, a UK investor seeking to maximise risk-adjusted returns should invest in Europe, despite lower historical and expected future returns. Investors who insist on a “yield premium” for investing outside their home market – and there are many – may be asking too much.

The above is a summary of the white paper recently published by JPMorgan Asset Management entitled “Investing in Europe: Diversification and currency issues in cross-border real estate investment for UK investors”. Readers are invited to contact the author at nick.tyrrell@jpmorgan.com for a copy.

CHART 5: Sharpe ratios under different hedging and European weighting assumptions



Source: Morgan Markets, JPMorgan Asset Management