Research Paper

Real estate as an inflation hedge in a normalised monetary environment and changing occupier markets

- Ongoing changes to occupier markets, heightened inflation uncertainty and a reversion to normalised monetary policy may increase return dispersion, enhance the importance of unexpected inflation and increase income as a proportion of total returns
- A greater focus on unexpected inflation is likely to complicate pricing and erode real estate's inflation hedging attributes at the market level
- On the other hand, a much greater role for income should be positive for real estate's inflation hedging role. Growing complexity in occupier markets suggests that stock selection will play an elevated role in securing an effective inflation hedge

Introduction

Real estate has long been considered by investors as an effective hedge against inflation, offering protection through both income and capital value returns. However, as highlighted by an extensive literature, the strength of this claim depends on the time horizon, market conditions and whether the inflation is expected or unexpected.

Over the long term, supply tends to adjust to demand, leading to minimal real growth in rents and capital values. In shorter timeframes, factors such as lease structures, supply-demand imbalances, and shifts in occupier and capital markets play a crucial role in determining how effectively real estate can counter inflationary pressures.

Building on earlier analysis in the ''Does European real estate offer inflation protection?" paper, this paper explores how evolving economic conditions may impact real estate's future capacity to act as an inflation hedge. With shifting monetary policies and changing occupier market dynamics, it is essential to reassess the long-standing assumption of real estate as a reliable inflation hedge in today's environment.

INREV would like to thank the Research Committee for its work in producing this paper.

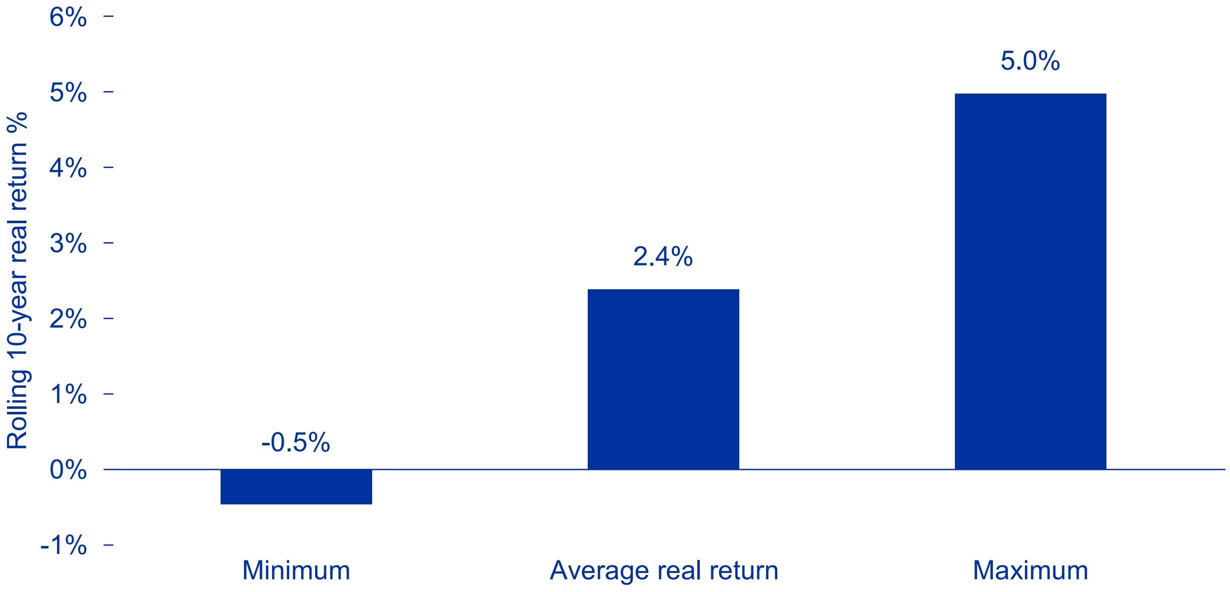
Investors' experiences of real estate's inflation hedging attributes

Long-term investors seeking to exploit real estate's ability to provide a long-term store of value have not been disappointed. Over a range of time periods, delivered returns have more than offset changes in the price level. This has led some commentators to suggest that European real estate has provided an effective inflation hedge. However, long-term returns over the prevailing rate of inflation are a necessary but not sufficient condition for an asset class to lay claim to providing an effective hedge, this is a distinction that we return to later in the paper.

> **"Long-term investors seeking to exploit real estate's attributes as a store of value have not been disappointed. However, relying on this experience as a projection going forward ignores the potential for prospective economic, capital market and occupier conditions to differ in the future and needs to be carefully assessed"**

A closer look at the data is a good starting point to explore investors' recent experience. The range of rolling 10-year returns from pan-European real estate funds over the period 2010-2023 (the longest period for which 10-year returns are available) is shown in Figure 1. At the INREV Annual Fund Index level, the average 10-year real return was 2.4% per annum (p.a.) while the maximum return was 5.0% p.a. The lowest 10-year real return was -0.5% p.a. As a result, for most periods European real estate has provided a generous real risk premium.

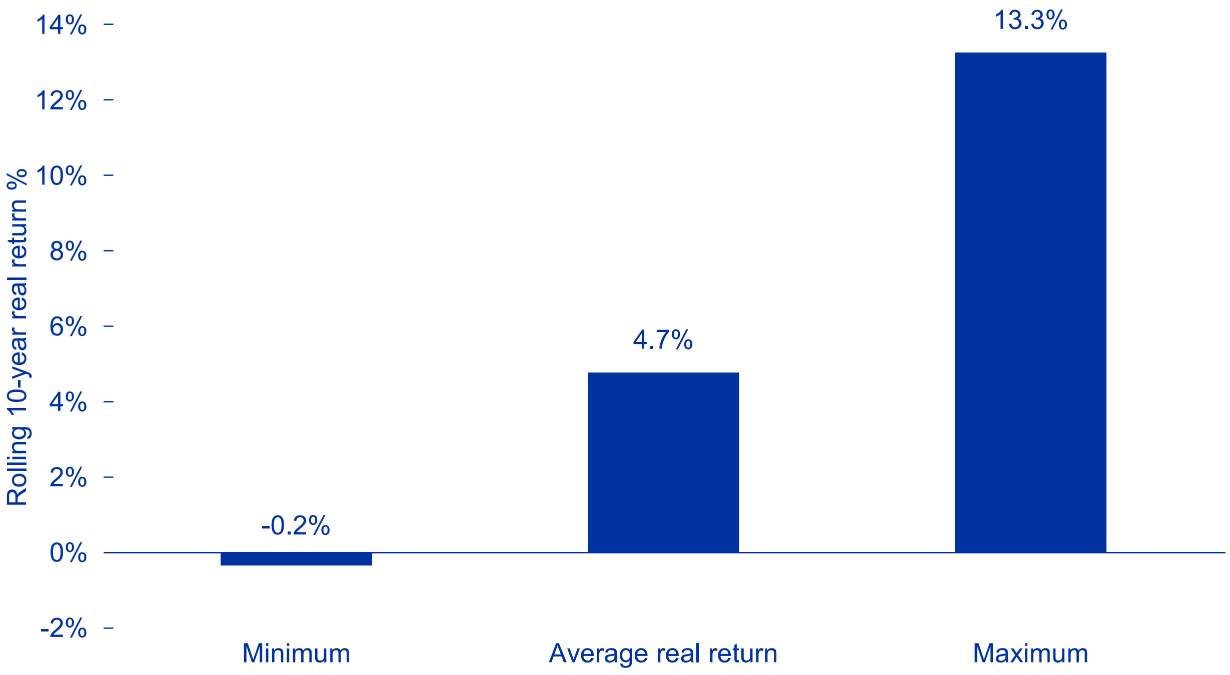
Figure 1: Europe - real return (10 year rolling average, 2010-2023)



Source: INREV Annual Fund Index to 2023

Comparable data for the UK covering a longer period (1990-2023) follows a similar pattern (see Figure 2). The range of real returns is wider with a maximum MSCI UK Index level 10-year real return of 13.3% and a minimum of -0.2%, however, the overall trend is in line with European data. The average real return was slightly higher than the pan-European one at 4.7% p.a. The data shows that even in the worst case (1982-1991) on average a UK real estate fund still delivered a return that was broadly in line with changes to the price level with most periods providing a generous real risk premium.

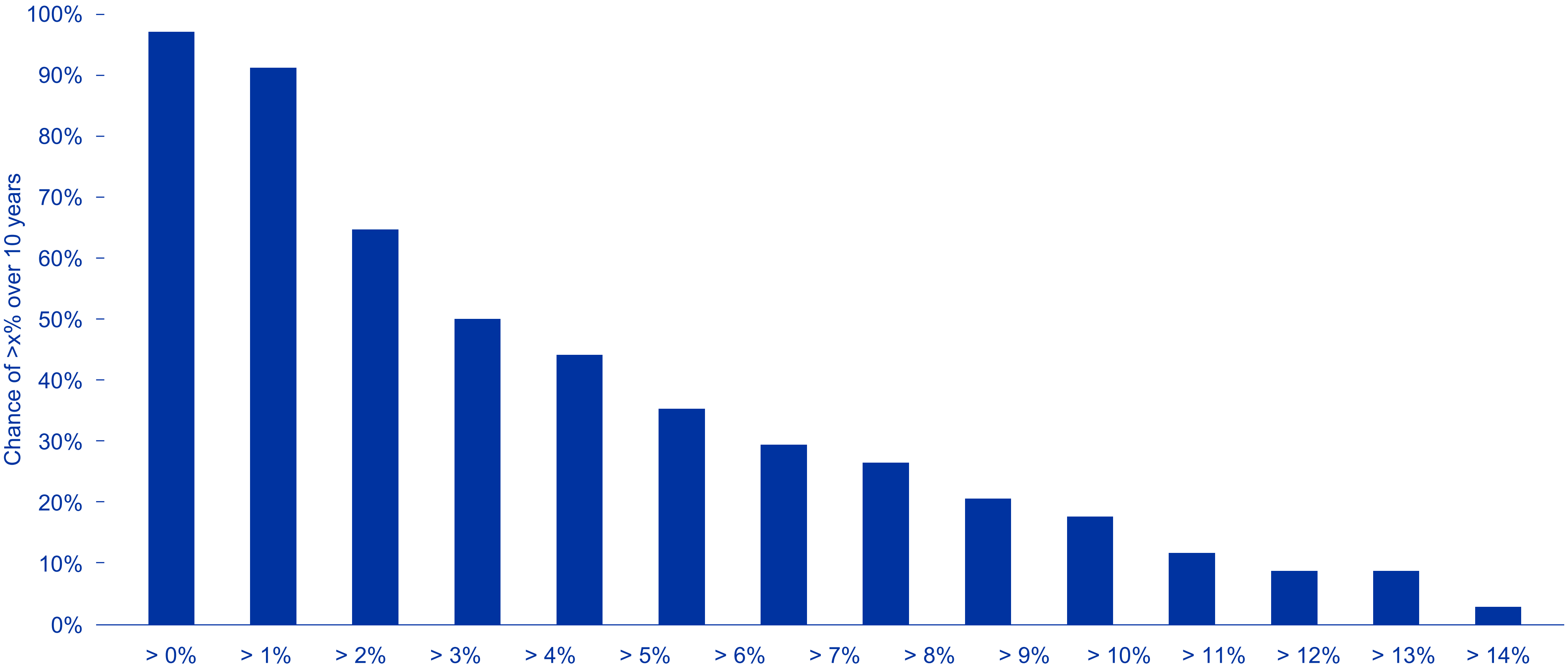
Figure 2: UK - real return (10 year rolling average, 1990-2023)



Source: MSCI, to Q4 2023

Figure 3 presents the information in Figure 2 in a different way. It shows the % probability of 10-year real returns greater than a gradually increasing threshold, starting at 0% p.a. The key conclusion is that UK real estate has provided long-term investors with an almost 100% chance of a real return more than 0%, a 50% chance of a real return above 3% p.a. and a 10% chance of a real return more than 10% p.a. While this only covers one country, the key factors underlying strong real returns from UK real estate have been replicated elsewhere. While compelling, this analysis has two key limitations. First, it implies that just because returns have been consistently above inflation the asset class will have provided investors with an effective hedge against inflation. Yet, as suggested above, a material and consistent real risk premium is a necessary, but not sufficient, condition for an asset class to qualify as an effective inflation hedge. Second, it focuses on the past and ignores the potential for prospective economic, capital market and occupier conditions to differ going forward.

Figure 3: UK - real return (chance of >x% over 10 years)



Source: MSCI, to Q4 2023

A brief look at the literature

There is an extensive literature suggesting that real estate has offered a variable and partial inflation hedge. While results differ depending on models used, sectors analysed, and time periods chosen, all studies suggest that real estate is not a perfect hedge against inflation.

Importantly, while more than 50% of studies show that the asset class has strong inflation hedging attributes when it comes to expected inflation, tests performed on unexpected inflation (i.e., shocks) suggest a weaker relationship. As a result, any increase in inflation volatility should be expected to be associated with an erosion of the asset classes' hedging attributes.

Further, studies show that while income from real estate offers strong inflation hedging attributes, the case for hedged capital growth is weaker. This means that any period benefiting from a strong capital appreciation will be associated with more limited inflation hedging attributes than periods where income returns dominate. Interestingly, academic work suggest that residential property provides a better hedge than the main commercial property sectors.

Brown, G. R., & Matysiak, G. A. (2000). Real estate investment: A capital market approach.
Fama, E. F., & Schwert, G. W. (1977). "Asset returns and inflation. " Journal of financial economics, 5(2), 115-146.
Hoesli, M., & Lizieri, C. (2007). "Real estate in the investment portfolio." Journal of Property Investment & Finance, 25(2), 119-135.

What underlies real estate's ability to hedge inflation?

Before assessing the scope for real estate to continue to deliver a long-term inflation hedge it is important to review how inflation impacts real estate pricing, income and returns.

Rents and inflation

Real estate's ability to command rent is a function of the utility of a building and the scarcity of both the land, the associated buildings and the consents required to use the asset for a designated purpose. Inflation affects rent in various ways, including through revenues generated by a tenant's business and the building's replacement cost.

However, just because a tenant can afford higher rent doesn't mean they will pay it. Inflation will only pass through to rents if required by a lease contract, or via competition for space. Similarly, just because the cost of replacing a building has increased doesn't mean that rents will automatically rise. The transmission mechanism is indirect, with higher construction costs impacting the feasibility of development and refurbishment expenditure, thereby limiting supply, and impacting rental levels.[1]

[1] INREV. (2023). Does European real estate offer inflation protection?

Over the last few years, there has been a meaningful change in real estate occupier markets. In the office sector, the increased importance of hybrid working combined with an enhanced focus on sustainability has concentrated occupier demand on a relatively narrow subset of the overall market, suggesting enhanced prospective rental dispersion versus the recent past.

Similar trends are impacting the retail sector, with the ongoing growth of e-commerce focusing demand for physical retail on a subset of the overall stock, leading to enhanced stock selection risks. In the logistics and residential sectors while an enhanced focus on sustainability has narrowed the definition of core, resilient occupier demand should continue to support generalised pressure on rental levels.

These trends mean that accessing rental growth, and hence offsetting the impact of inflation on income levels, will increasingly depend on stock selection. This can potentially undermine the scope for real estate to offer a generalised inflation hedge at the market level while enhancing the hedge available from specific investments.

> **“In a nutshell, capturing inflation through rents largely depends on both the contractual lease structure and the underlying market competition for space. Ongoing changes to occupier market drivers suggest an enhanced focus on stock selection to secure an effective income hedge from European real estate.”**

Capital values and inflation

The capital value of any asset is a function of the expected net rental income and the prevailing nominal cost of capital or discount rate. While both elements of this calculation have clear links to inflation (e.g., discount rates include an allowance for inflation) other factors can offset or amplify the impact of changes in inflation on capital values. For example, shifts in monetary policy to reflect economic weakness or elevated inflation might alter capital appreciation associated with rental growth.

Of course, any assessment of capital value is based around expected cash flows, including the impact of inflation. This means that while expected inflation will be reflected in pricing, any deviations will lead to returns that are either above or below the required performance. It is for this reason that real estate offers a more effective hedge against expected than unexpected inflation.

Global capital markets have recently emerged from a multi-decade period of declining bond yields that contributed to meaningful and sustained compression in real estate yields as well as the amplification of returns through accretive leverage. This trend reached an abrupt conclusion with the post-COVID inflation spike and the associated shift to restrictive monetary policy. While this shift looks likely to be at least

partially reversed over coming quarters, a return to an extended period of real estate yield compression amplified by cheap debt is unlikely.

This could be positive for real estate's claims to provide a prospective inflation hedge. The shift from a period of capital value driven real estate returns to one where income returns are likely to play a larger role suggests a higher level of return predictability and, as a result, a more effective inflation hedge than reflected in the literature (see A brief look at the literature section).

> **"Any assessment of capital value is based around expected cash flows, including the impact of inflation. This means that while expected inflation will be reflected in pricing, any deviations will lead to returns that are either above or below the required performance. It is for this reason that real estate offers a more effective hedge against expected than unexpected inflation."**

More negatively, the next few years are likely to be associated with a period of elevated inflation volatility associated with both geopolitical and economic uncertainty. This should lead to an enhanced level of unexpected inflation which, in turn, should complicate real estate investors' pricing decisions and undermine the asset class's inflation hedging attributes. These uncertainties should impact both the income and capital transmission routes for inflation.

Leverage and inflation

Real estate is a levered asset class. Leverage amplifies returns in both directions, enhancing strong performance and amplifying weakness. Furthermore, choices regarding debt structuring – for example, the choice of fixed or variable rents - also impact returns, in both directions. Debt rates are linked to the rate of inflation with lenders requiring a minimum real rate of interest over the expected rate of inflation.

There are two implications of this. First, levered real estate provides scope for enhanced real returns after allowing for expected inflation. Second, while positive structuring decisions (e.g., fixing, or capping interest rates at opportune points in the market cycle) can enhance delivered returns, the reverse is also true. Of course, scope for incremental returns from leverage is associated with enhanced levels of risk, part of which is associated with differences between expected, or priced, and actual inflation.

The additional returns provided by leverage are associated with a shift from income returns to capital (i.e., as income returns are reduced to finance interest payments and capital appreciation is focused on a reduced equity commitment). This shift reduces income returns and adds to the prospective volatility of returns, both changes will limit real estate's ability to provide an effective hedge against inflation.

> **"Scope for incremental returns from leverage is associated with enhanced levels of risk, part of which is associated with differences between expected, or priced, and actual inflation."**

Conclusions

- When comparing actual real estate returns to historic inflation, the data show that the asset class has provided an effective store of value, delivering returns that have been consistently positive in real terms over extended time periods.
- However, the standard for an effective hedge is higher – requiring that real returns are positive and co-move with changes in inflation. On this basis, studies show that real estate has provided a partial hedge and has been more effective against expected than unexpected inflation.
- Looking forward, ongoing changes to occupier markets, enhanced inflation uncertainty and a reversion to normalised monetary policy may increase return dispersion, elevate the importance of unexpected inflation and increase income as a proportion of total returns.
- These changes are likely to alter real estate's inflation hedging attributes in multiple, and conflicting, ways. A greater focus on unexpected inflation is likely to complicate pricing and erode real estate's inflation hedging attributes at the market level.
- In contrast, a much greater role for income should be positive for real estate's inflation hedging role while enhanced occupier market conplexity should increase the role of stock selection in securing an effective inflation hedge.

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