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OPAQUE LINK:
THE RELATIONSHIP BETWEEN INTEREST RATES AND REAL ESTATE YIELDS

The relationship between interest rates and real estate yields is important for investors to understand, given the perceived impact of the former on the latter. Our research indicates that interest rate movements do not necessarily cause directly comparable real estate yield changes. This is because real estate behaves like a hybrid between fixed income and equity.

The volatility in the yield gap between real estate yields and 10-year government bonds, which are a proxy for the risk-free rate, suggests the influence of other factors play a substantial role in affecting pricing.

This paper explores the relationship between interest rates, real estate yields and performance. This has implications for the extent of yield compression investors can expect during periods of falling interest rates and decompression when interest rates rise.

WHAT ARE INTEREST RATES?

Interest rates are the amount a lender charges a borrower to receive capital as debt, comprising a percentage of the principal or the amount loaned. Interest rates are typically noted on an annual basis known as the annual percentage rate (APR). They are essentially a charge to the borrower for the use of an asset. Assets borrowed can include cash, consumer goods, vehicles, or commercial real estate. Because of this, an interest rate can be considered the 'cost of money'. Higher interest rates make borrowing capital more expensive.

THE TAKE-AWAYS

There is a strong relationship between interest rates and real estate yields

Real estate yield shifts are far less volatile than government bonds

The volatility in the real estate-bond yield spread suggests other factors influence real estate yields

Interest rates or 'leverage' apply to all lending or borrowing transactions. Individuals borrow capital to purchase homes, fund projects or businesses. Businesses take out loans to fund investment and expand their operations by purchasing fixed and long-term assets such as land, buildings or funding new hires. This is relevant to commercial real estate as investors borrow capital to boost returns, fund development/refurbishment projects, and increase their deployable cash.

INFLATION AND INTEREST RATES: WHY DO INTEREST RATES CHANGE?

Inflation refers to the average rate of price increases over a given period, typically a year. A moderate inflation rate is considered optimal for growth and stability. Too little inflation can indicate economic weakness. It may reflect high unemployment or low consumer or business confidence which discourages spending and investment, reducing economic demand and growth. Too much inflation creates pricing uncertainty and limits expansionary activity. As a result, most central banks seek to maintain moderate inflation and use monetary policy tools such as interest rates influence it.

The European Central Bank (ECB), Bank of England (BoE), the Federal Reserve Bank (the Fed) and Reserve Bank of Australia (RBA) are currently targeting an inflation rate of just under 2%. An inflation rate above 2% is undesirable because it erodes the purchasing power of households, businesses and governments and stifles investment activity.

Interest rates are used by central banks as a tool to influence inflation. If the central bank increases the interest rate, for example, borrowers and business pay more for the capital they borrow and savers earn more for the capital they leave in the bank. This reduces their purchasing power for other products and lowers economic demand as well as encouraging saving rather than spending or investment. When demand falls, the prices of goods and services should fall commensurately. If a country's economic growth is deemed to be too low, central banks can lower interest rates to reduce the cost of debt and decrease the appeal of holding cash or savings. This incentivises households and businesses to spend and to borrow, increasing economic demand and stimulating the economy.

Therefore, in theory, inflation and interest rates are inversely correlated – when one is high the other is low.

HURDLE RATES: THE IMPACT OF INTEREST RATES ON REAL ESTATE PRICING

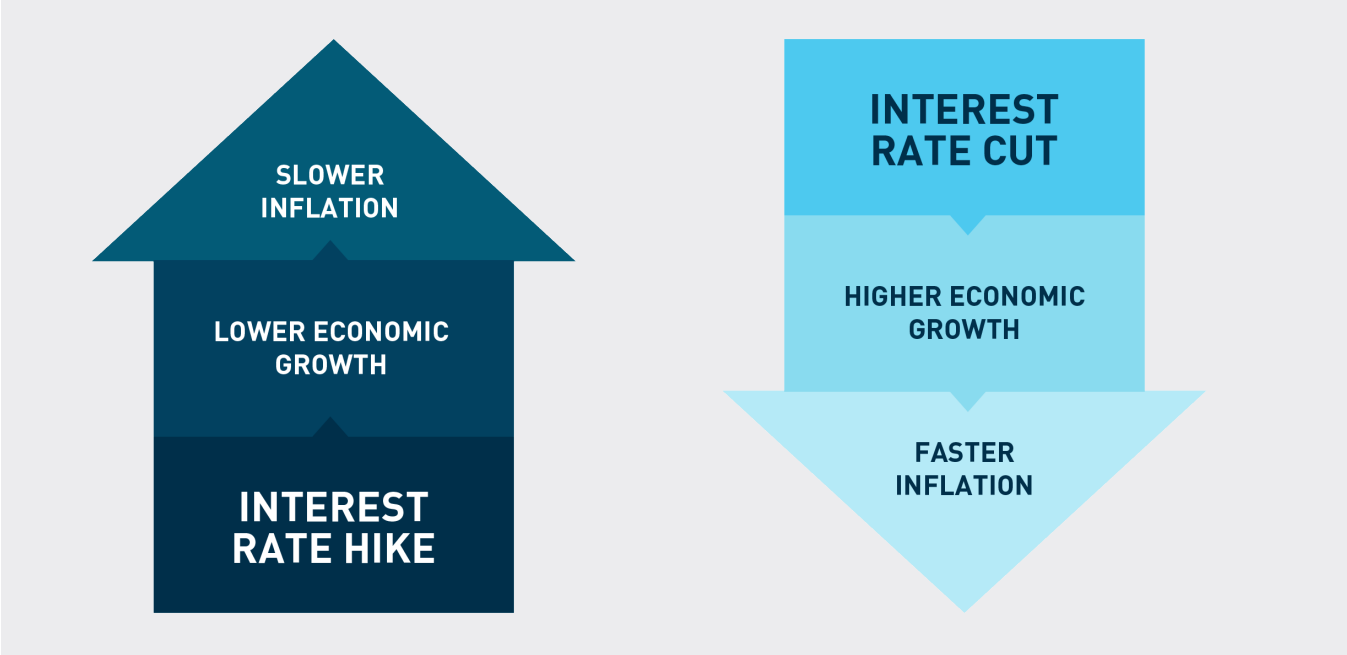
A hurdle rate is the minimum rate of return on a project or investment required by an investor. It allows companies to make decisions on whether to pursue an acquisition, development or project. The hurdle rate describes the appropriate compensation for the level of risk present, with riskier projects having a higher hurdle rate than those with less risk.

In order to determine the hurdle rate, the associated risks, cost of capital, and the returns of other possible investments or projects are considered. This is important as an increase or decrease in interest rates changes the 'risk-free rate', the theoretical rate of return for an investment that has no risk of financial loss. As the risk-free rate is an essential factor in calculating the cost of capital, a change in interest rates causes the hurdle rate to move, altering the yield investors required to justify real estate investment.

REAL ESTATE YIELDS: THE RELATIONSHIP WITH INTEREST RATES

Government bonds are normally perceived as a good proxy for the risk-free rate because there is no risk of default as the bond is a form of government obligation.

Figure 1: Interest rates impact on inflation

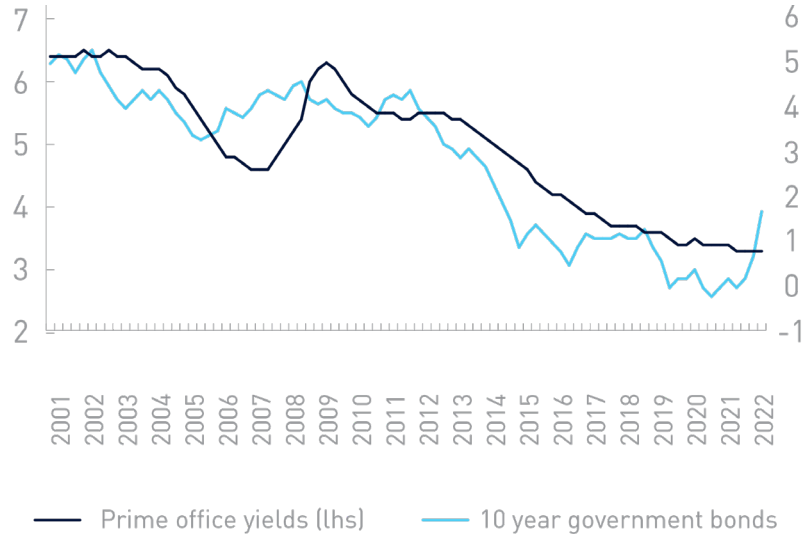


Source: Cromwell Property Group

Statistically, our analysis shows there is a very close relationship between 10-year government bonds and real estate yields. In figure 2, we compare Eurozone government bonds to prime Eurozone office yields. We have chosen to use the office sector as it has been more stable over the last 20 years than logistics and retail, which have both been subject to significant structural changes.

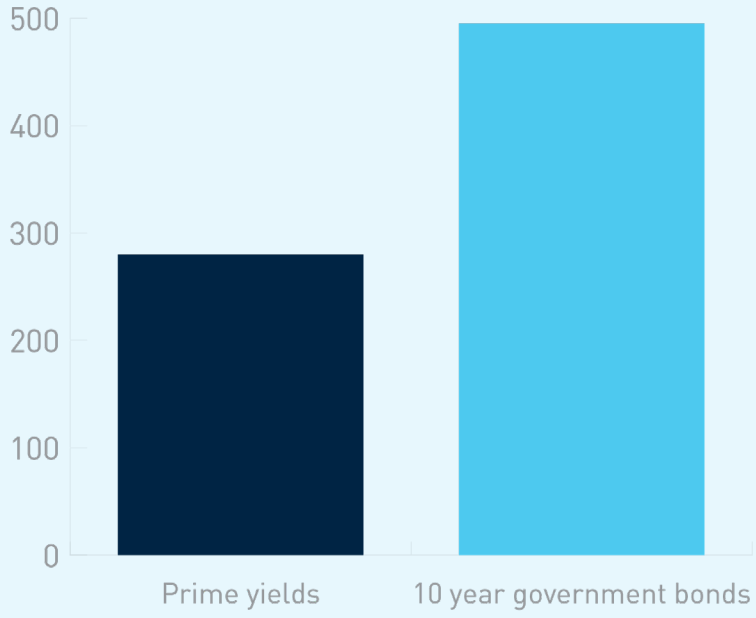
A score of 1 means two variables are perfectly correlated, meaning they move in unison. A correlation of 0 means there is no relationship between them. The correlation between Eurozone government bonds and prime office yields over this period is 0.89. This implies a strong relationship and the long downward trend in real estate yields since 2001 is heavily linked to the fall in interest rates.

Figure 2: Prime office yields vs 10-year government bonds (Eurozone %)



Source: CBRE, Oxford Economics, Q3 2022

Figure 3: Change in prime office yields and 10-year government bonds (2000-2022, bps)



Source: CBRE, Oxford Economics, Q3 2022

Although there is a strong correlation between the two variables, the magnitude of the moves in real estate yields and bond yields has differed significantly over the past years. Figure 3 shows that real estate yields fell by an average of 280bp across major European markets from peak to trough, while bond yields reduced by 495bp over the same period. This suggests that real estate yield movements, although in line with bond yields, are far less volatile and are subject to other drivers.

Figure 4: The spread between UK prime office yields and 10-year government bonds (pps)

Source: CBRE, Oxford Exconomics, Q3 2022

The difference between prime yields and 10-year government bonds, usually called the 'spread', is a useful way to understand whether real estate is correctly priced or not. It can indicate whether the market is exposed to upwards or downwards yield shift.

Figure 4 shows the spread between prime office yields and 10-year government bonds, and we have used data from the UK office market due its stable history. The spread at the end of 2021 was around 476bps, compared to the long-term average of 306bps. Whilst there is no mathematical rule to indicate the spread which can trigger repricing, we believe the bond yield must first rise to reduce the spread to levels comparable with the long-term average before exerting direct pressure on real estate yields.

While there is a close relationship between government bonds, which are determined by interest rates, and real estate yields, the spread between the two varies. Sometimes there is a larger spread and at other times there is a lower spread. This suggests that there are other factors that have an influence on real estate yields.

Figure 4 shows that since 1992, there are two periods where the spread between UK prime office yields and 10-year government bonds significantly reduced: between 1993-7, and 2005-8. In both periods the UK was experiencing inflation above the BoE target of 2%. This suggests that investors are willing to accept a lower spread between real estate yields and government bonds in periods of high inflation due to the perception that real estate is an inflationary hedge.

THE SPREAD: WHAT OTHER FACTORS IMPACT CAPITAL VALUES?

The volatility in the real estate-bond yield spread suggests the complex influence of several factors playing a role in affecting real estate yields. These include capital markets, macroeconomic variables, and real estate fundamentals.

The spread is related to the expectations around rental and capital value growth, which in turn are related to the supply/demand dynamics of a particular market. If demand for real estate from investors and/or occupiers is high relative to supply, then there will be a downward yield pressure. Where supply is high, for example due to a wave of development completions or occupier bankruptcies, this would exert upward yield pressure.

LOCATION	Properties situated in a location with strong occupier demand due to aspects such as transport connectivity, high visibility, accessibility to customers/clients and the presence of an industry cluster attract a higher value than those in an area where these variables are low. Real estate is a real asset and land is finite, creating stronger investor demand and more stable yields in the most sought-after locations like successful cities. As demand consolidates on winning cities in the future, their prime yields will be less exposed to rising interest rates due to finite land supply.
ASSET QUALITY	A brand new, modern building of high quality is worth more than a dated or secondary asset. The environmental performance of a building is also becoming increasingly important with buildings that are more energy efficient, have lower operating costs, and comply with modern ESG criteria sustaining higher values. Occupational demand has changed significantly over the last decade and there is a lack of well-specified buildings capable of meeting modern needs, which will support yields for the best space.
LEASE TERM	Shorter term leases represent a greater risk to income security and negatively impact yields. Long-term leases will attract a lower yield level. Lease lengths have been falling over time as occupiers demand greater flexibility and innovations like co-working/flexible offices proliferate. This makes it harder to value real estate and correctly price yields as shorter leases do not necessarily mean income will be less secure and, for well-specified assets subject to strong occupier demand, they are an opportunity to capture rental growth.
OCCUPIER PROFILE	Occupiers underpin all commercial real estate investment given that performance is purely a feature of the strength of occupier demand for an asset and how much they will pay to lease it. An asset hosting reliable, stable occupiers with a long-track record and a robust balance sheet will command lower yields. For example, large anchor retailers such as food stores operators will usually support higher values than small shopping centres and single-let retailers.
STRUCTURAL DEMAND	Structural economic and societal changes create and destroy real estate demand independent of the economic cycle and impact supply and demand dynamics. The emergence of new investable segments with very low yields such as urban logistics, data centres and self-storage, is an example of this, as is the re-rating of the retail sector following the rise of e-commerce.
DEBT MARKETS	The availability and cost of debt used to increase real estate returns has an impact on yields. When debt is less readily available or more expensive, the amount of capital available for real estate investment falls and can reduce investment competition and soften yields.
WEIGHT OF CAPITAL	An increase in the demand for real estate assets from investors, represented by the amount of capital targeting the asset class, will lead to downward pressure on yields and vice versa.

CONCLUSION: INTEREST RATES ARE IMPORTANT BUT NOT THE ONLY FACTOR

It is generally assumed that changes to the interest rate will spur comparable shifts in real estate yields. This is due to the impact on the financing costs and the hurdle rates used by investors to determine the required rate of return on capital deployment.

Our historic analysis indicates that while there is a strong relationship between government bonds, which are driven by interest rates, and real estate yields, the link between the two is not stable. There are also other factors which impact the spread between real estate and 10-year government bond yields and ultimately the price of real estate. Our findings corroborate with other studies which have shown similar trends.

Rather, supply and demand dynamics of the market within which each asset is located has a greater bearing on its real estate yield. These are influenced by traditional real estate fundamentals such as location, asset quality, tenant strength, debt markets, and the weight of capital targeting real estate as well as structural change and other factors. It is a far more nuanced picture than purely being a feature of the prevailing interest rate.

It is also notable that in periods of higher inflation, our analysis establishes that investors accept a narrower spread between government bonds and real estate yields. This is due to the perceived inflation hedge that real estate provides through counter-cyclical and index-linked income.

All of this suggests that, although some yield softening is likely if interest rates rise, real estate yields are less volatile than government bonds. Particularly in times of higher inflation, rising interest rates are partially absorbed by a narrower spread rather than outwards yield shifts. Ultimately, if investors own well-located, well-specified stock, suitable for modern occupation, this will provide the best guard against adverse yield shift, whatever the interest rate environment, due to the other influencing listed above.

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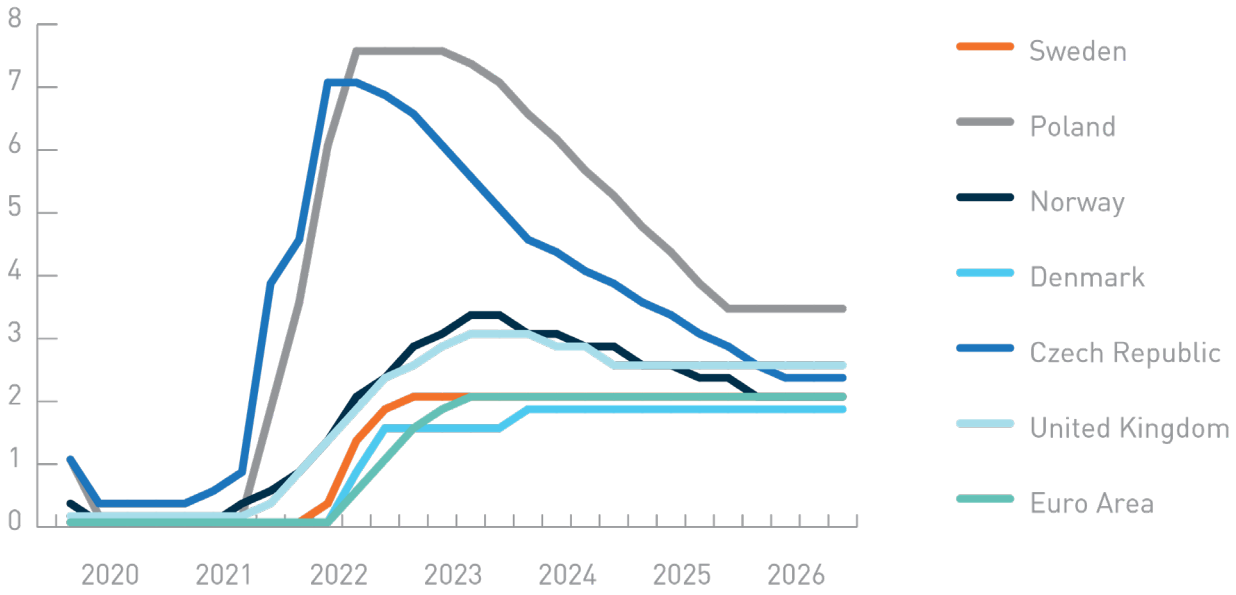
ADDENDUM 1:
RISING INTEREST RATES IN THE SHORT TERM

RISING INTEREST RATES IN THE SHORT TERM

The European Central Bank (ECB) has recently raised interest rates for the first time in more than 11 years as it tries to control rising eurozone inflation. Interest rate rises have also been seen in the UK, CEE, and Nordic countries earlier in the year.

Figure A1 shows the expected movements in interest rates between 2022 and 2025.

Figure A1: Central Bank Policy Rate

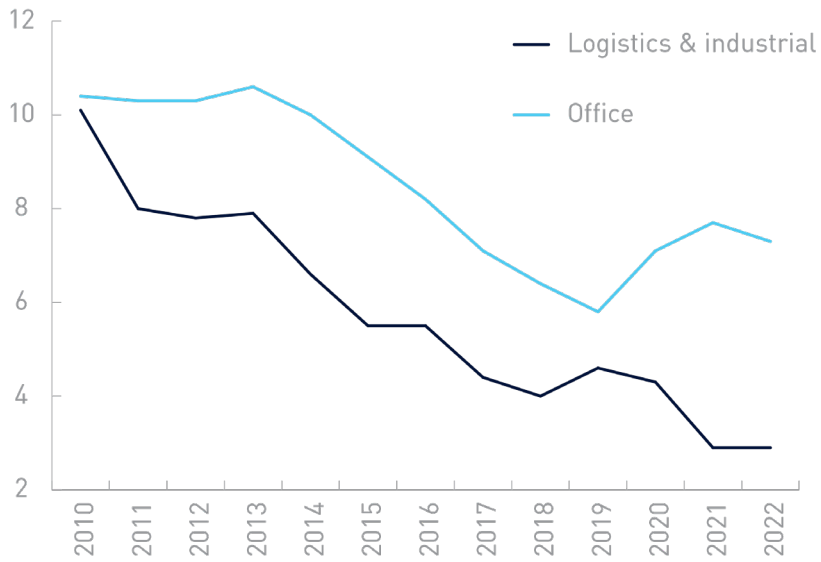


Source: Oxford Economics/Macrobond

While we believe that this movement will lead to a rise in real estate yields, our findings from the paper above would suggest that the other real estate fundamentals will determine the extent of yield softening.

Despite the disruption brought on by the pandemic, many markets in both the office and logistics sector are undersupplied with available space. Figure A2 shows how the vacancy rates across European office and logistics & industrial properties are significantly below the levels witnessed in the aftermath of the GFC.

Figure A2: European office and logistics & industrial vacancy rates (%)

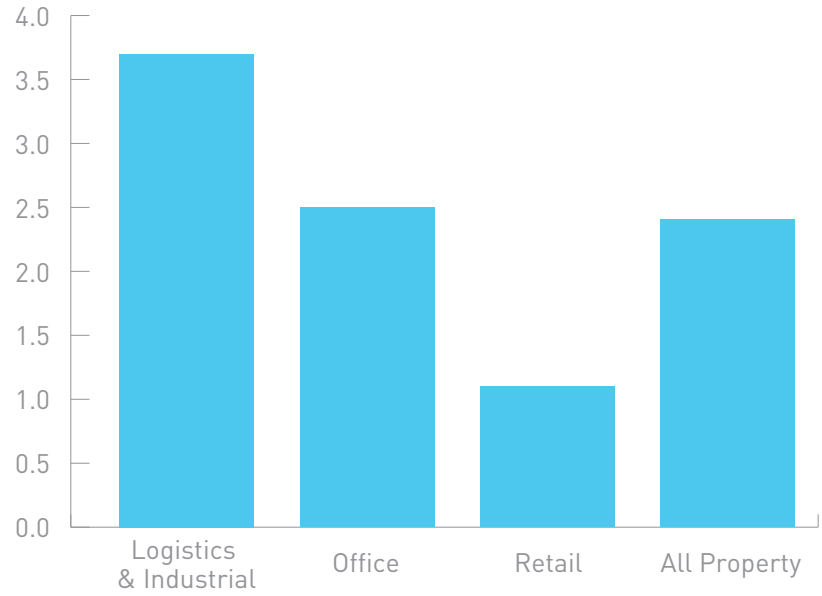


Source: CBRE, Q3 2022

A combination of rising construction costs and economic uncertainty has also impacted the development pipeline for both the office and logistics sector. The lack of new stock being brought to the market will exacerbate the current supply/demand dynamics and put an upwards pressure on prime rents.

Figure A3 shows that the average annual rental growth will be positive over the next five years for each sector.

Figure A3: European rental value growth (2022-26, % per annum)



Source: CBRE, Q3 2022

Debt financing has risen over time due to greater availability of non-bank lenders. This will help maintain yields more than has been done in the past when interest rates rise.

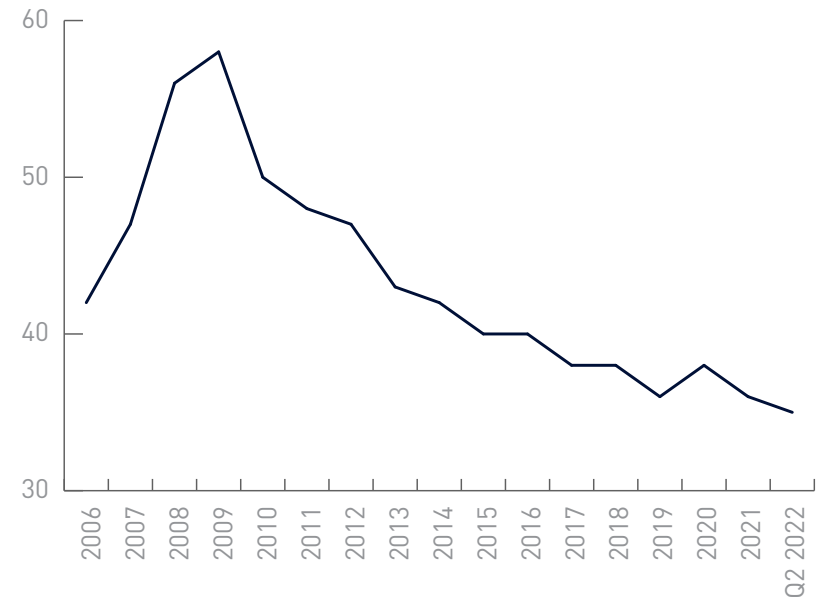
Companies are also in a much healthier position than during the GFC. Figure A4 shows the average loan to value ratio across Europe which has declined from a high of 58% in 2009 to 35% at the end of Q2 2022.

Figure A5 shows that the weight of capital targeting real estate across Europe has risen by 99% over the last 10 years due to both greater desire for real estate exposure amongst historic investors and new entrants to the market such as sovereign wealth funds.

The significant weight of capital was reflected in the investment volume during the first half of 2022 which totalled €143bn according to RCA. This was the largest transaction volume recorded in H1, and also makes Q2 2022 the second highest rolling 12-month period on record, reflecting investors strong desire to put their money into real estate.

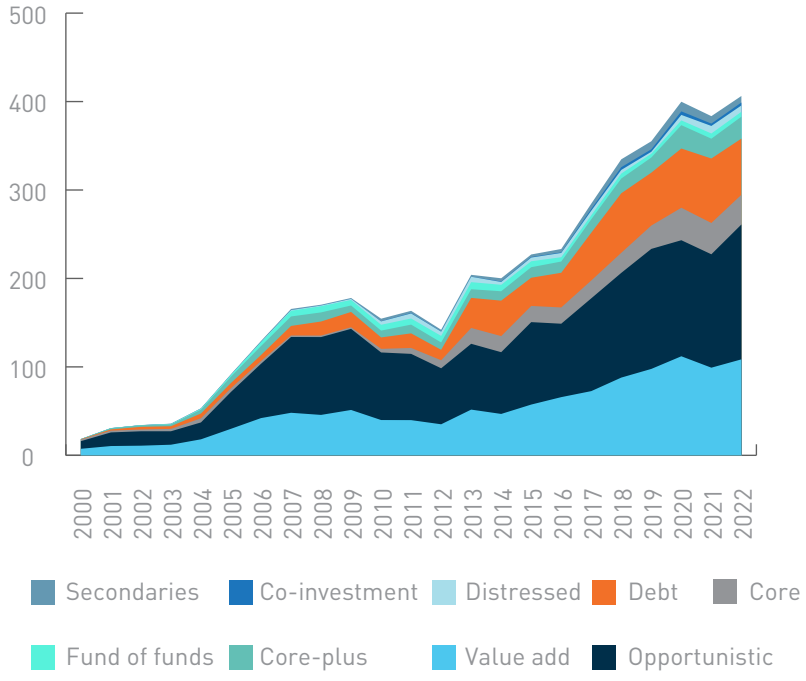
The combination of positive rental growth expectations brought on by encouraging supply/demand dynamics, the versatility in the debt markets, and sheer amount of money allocated towards real estate suggests that the spread between 10-year government bonds and real estate yields will be lower in the future. This would therefore reduce the rate of yield softening brought on by rising interest rates.

Figure A4: Loan to value ratio (%)



Source: Capital Economics, Q3 2022

Figure A5: Real estate allocation (€billion)



Source: Preqin, Q3 2022