MARKET RESEARCH

European Listed Real Estate

Special Report

Interest rates and inflation: What are the challenges for listed real estate?

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Table of content

lable	of content	2
Key ta	keaways	3
1.	Introduction	4
2.	An academic note on inflation, interest rates and loan-to-value ratios	4
2.1.	What about real interest rates in this nominal-interest-rate-environment?	6
3.	Monetary Policy of the Central Banks	9
3.1.	Key interest rates, yield curves and cost of debt for property companies	9
3.2. the E	The monetary roadmap of the federal reserve bank, the bank of England a uropean central bank	a n d 11
3.2.1.	The Federal Reserve System (Fed): a more pronounced stance	11
3.2.2.	The Bank of England (BoE): a more cautious stance	12
3.2.3.	The European Central Bank (ECB): a very prudent stance	12
3.2.4.	And what about the Swedish Riksbank?	13
3.3.	Final word on monetary policies	14
4.	Strengths and weaknesses of listed real estate in the current market environment	14
4.1.	What is the source of volatility for REITs?	14
4.2.	A closer look at the implied discount interest rates and monetary policy	15
4.3.	Any difference between capital values and cash flows in times of inflation?	17
4.4.	Discounts / Premiums-to-NAVs	17
5.	Return expectation for REITs in the coming years	18
5.1.	Single-digit total annual equity returns?	18
6.	Main conclusions	18
7.	Bibliography	20



Key takeaways

- Challenging times for (real estate) investors
 - Today, we face great uncertainty, i.e., risk. Not least the perceived risk of higher nominal longterm interest rates due to soaring inflation. Furthermore, inflation pressures are exacerbated by the war in Ukraine.
- Volatility in the capital markets affecting listed real estate, though with limited impact so far (on a global basis)
 - Higher risk has led to volatility in the bond and equity markets in recent months, with investors reassessing risk premiums. Higher risk premiums result in higher discount rates, implying lower valuations. While real estate has not completely escaped the volatility of the financial markets, its impact remains fairly limited at this point.
- Limited spreads between property bond yields and government bond yields
 In Europe, spreads between long-term real estate bond yields and sovereign bond yields have
 increased only slightly, reflecting the rather conservative financing policy of listed real estate
 companies (on average). Indeed, the spread increased 45 bps during the last year in three of
 the main European markets as of April/May 2022.
- Very negative real interest rates, still
 Real long-term interest rates after deducting inflation rates remain in deeply red territory in Europe (and many other economically mature regions of the world), and this downward trend is even intensifying. As a matter of fact, real rates carried by ten-year government bonds hover around minus 6.75% for Germany and minus 4.6% for the UK. Consequently, investors may continue to focus on more 'tangible' assets such as real estate and commodities.
- Inflation-hedge characteristics also available for listed real estate

 Rental flows are usually index-linked, which can lead to partial protection against rising inflation
 (for direct and indirect real estate). As real estate debt issued by European listed property
 companies is currently contracted at fixed interest rates for about 85% of total outstanding
 debt, this should allow real estate owners/managers to weather rising nominal interest rates in
 the short to mid-term.
- Real estate is different

It is clear that the current market environment is changing, and this also impacts investors (including property investors). But it is not all doom and gloom. Listed real estate can make a difference to other asset classes, even with temporary volatility on the cards. As said, income is usually indexed to rising inflation, at least in part. The financing policy of most listed real estate companies is rather defensive at this point, which could be seen as a positive. And even though some property segments have been witnessing high valuation parameters in recent years (e.g., logistics), by no means all listed real estate companies have an expensive valuation today. But it is reasonable to assume that the annual return expectations of investors must remain realistic in the future, probably single digit rather than double-digit.

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Introduction 1.

These are interesting times for real estate investors. Nominal interest rates remained relatively low (or outright negative) in many countries of the world in the past years. But global monetary policy is set to change, and permanently higher nominal interest rates are sparking jitters in the capital markets.

The United States is in the lead, with the Federal Reserve Bank gradually raising policy rates, as expected. But other central banks are progressively shifting towards a tighter, less expansionist monetary policy as well, such as the Bank of England (BoE) and the European Central Bank (ECB). Moreover, it has become clear in recent months that investors should 'demand' an adequate risk premium to compensate for specific property and market risks.

Indeed, investors, having benefitted from zero-interest rates, may not be paying enough attention to investment risk. Much ink has been spilled about the impact of higher nominal long-term interest rates on property returns. A modest rise in rates might not be necessarily bad news for real estate investors in the longer term, especially if the rally proves to be the result of higher 'core inflation', and thus better economic growth prospects in the longer run. In other words, the real interest rate - adjusted for inflation - could remain outright negative.

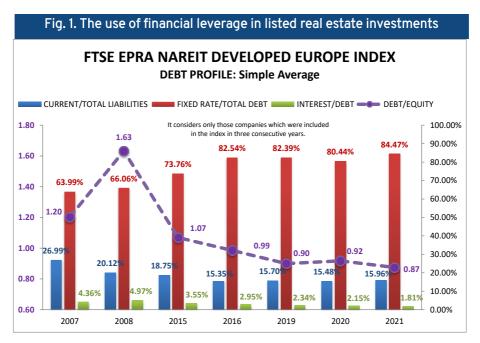
2. An academic note on inflation, interest rates and loan-to-value ratios

A forward-looking view can be adopted, by considering the three components of expected return: the real return, the compensation for future inflation and the reward for risk. As a rule of thumb, most asset classes are not inflation protected.

Future inflation does not necessarily imply an increased risk for property investors. In the short term, rising inflation may lead to higher volatility because nominal interest rates will also rise. Investors may decide to invest in other asset classes – such as investment-grade bonds – because their rate of return is becoming more 'attractive' (at least above zero percent). Moreover, the financing costs of real estate companies may also grow (even sharply) if debt is contracted at floating rates. However, no comparison should be made with the Global Financial Crisis (GFC) of 2008. Today, the vast number of European REITs have less outstanding debt on their balance sheet, with an average loan-to-value (LTV) of 36.4% in Europe as of 29 April 2022. Additionally, debt is largely fixed-rate while the average-maturity of this debt is quite long, as indicated in Fig.1.

Even though leverage will increase the risk in the real estate equity investment, investors will not automatically require disproportional equity risk premiums in the current circumstances. As a matter of fact, today, roughly 85% of total outstanding debt issued by listed real estate is contracted at a fixedinterest rate of about 1.8% on average. And approximately 84% of total liabilities have long maturity (over 1 year)1. As a consequence of this, the sensitivity of debt issued by listed property companies might be less sensitive to changes in nominal interest rates than initially thought (more details on the spreads between government bond yields and bond yields carried by property companies in the Section 3.1).





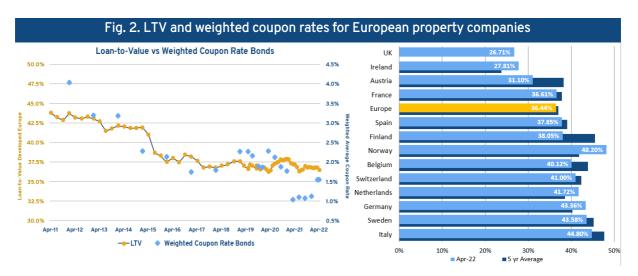
Source: EPRA Research (as of 31/12/2021).

Some investors have criticized the relatively modest LTVs in recent years for not fully exploring the return opportunities arising from positive leverage. As a reminder, cheap long-term debt can have a positive effect on return on equity (ROE) as long as borrowing costs remain well below net rental income levels throughout the holding period of the property(s). If the latter condition were not to be met, positive leverage would turn negative. Surprisingly, real estate investors repeatedly assume that positive leverage will exist or even be guaranteed for the entire holding period of the asset(s). In fact, such positive leverage is not guaranteed for multiple reasons, depending on the acquisition price of the property(s), the specifics of the outstanding loans (maturity of debt, fixed or floating rates), the state of the capital markets and the macroeconomy in general.

As a reminder, LTVs became seriously under pressure during the GFC of 2008, initiating a 'deleveraging' process. In fact, the GFC was more a 'debt' crisis rather than a property crisis. As the future is pretty unclear (Ukrainian war, gradual change in monetary policy, prospects of lower economic growth in the near term, extended lockdowns in China due to the pandemic, etc.), current debt levels will be closely watched by investors, again! So reasonable LTVs could soon be viewed as a strength by and for prudent real estate investors.

Fig.2 presents the different LTVs for a number of European countries in relation to the average-weighted coupon rate offered by European real estate bonds. Somewhat strikingly, the UK has adopted a relatively conservative stance over the past years, with a 'British' LTV of a mere 27% as at end-April 2022. The debt ratios have edged lower in recent years, from above 42% in 2012 to 36% today.





Source: EPRA Research (As of 29/04/2022).

As a reminder, it is important to highlight the inflation-hedging quality of real estate equity, which can be magnified by the use of fixed-rated debt. Obviously, real estate is not a perfect hedge against inflation as explained in Section 2.1., though real estate total returns (rents and capital values) tend to be correlated with inflation in the longer run, at least partially. Since most of the outstanding debt does not have to be renewed today, this will allow listed real estate companies to collect higher cash income (through a gradual indexation of rents) before the debt is renewed at a higher interest rate once the maturity date is reached. It remains to be seen, however, whether any lower market rents would not 'neutralize' the rise in upcoming inflation (e.g., in the retail sector).

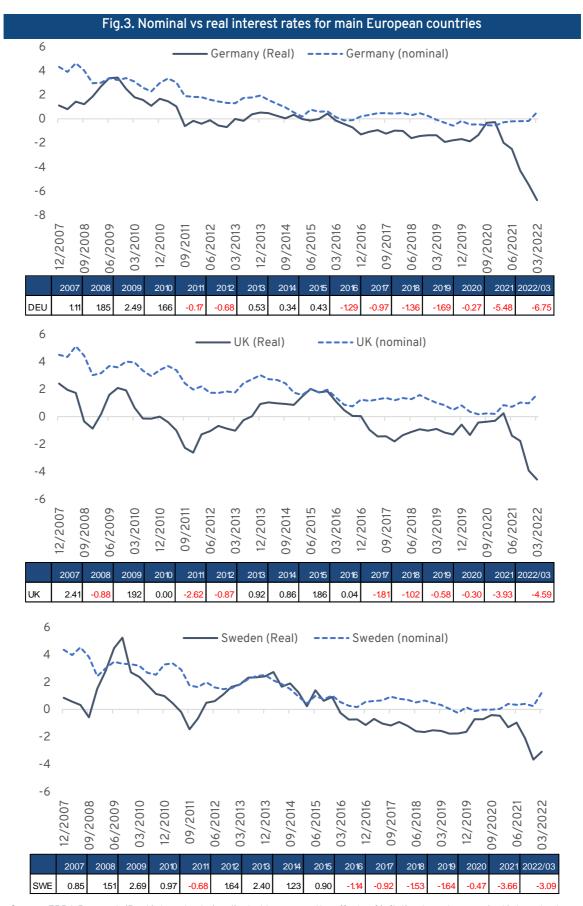
2.1. What about real interest rates in this nominal-interest-rate-environment?

Coming back to interest rates, an important factor for property investors is that real interest rates remain stable at any cost (currently utterly negative) but, as said before, this is not necessarily the case for nominal rates! If interest rates rise, escalating from unanticipated headline and core inflation, this may be positive for both listed and non-listed real estate. In the event of higher inflation, property owners would be entitled to growing rents in many parts of the world (indexation/rent reviews). Higher rents would eventually lift values, considering the usual 6 to 18-month time lag. EPRA's latest inflation report mentioned the following: "property companies see changes in both revenues and expenses when inflation rises. In the case of European listed real estate companies, there is evidence of a strong and positive correlation between corporate profits and inflation as well as shareholders' returns and inflation" (EPRA, 2022)².

Fig.3. quantifies the real interest rates for a number of European countries. Moreover, the phenomenon of negative real interest rates is not limited to Europe alone. It is observed also in the United States and in certain parts of Asia, for example Japan. At this point, real rates are even moving into deeper negative territory!

² Source: Inflation and Short-Term Impact on Listed Real Estate (EPRA, 2022).



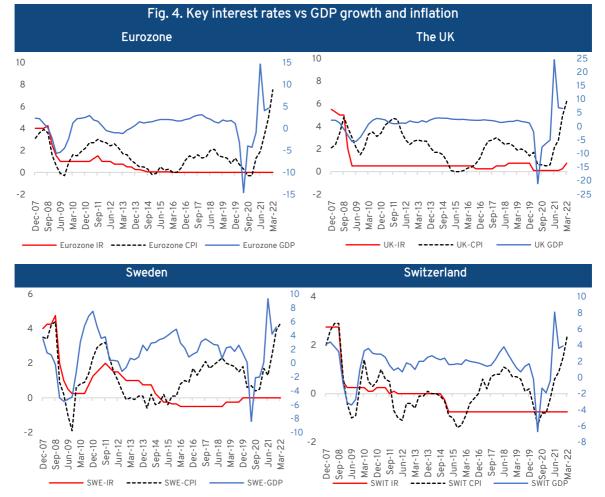


Source: EPRA Research (Real interest rate is adjusted to remove the effects of inflation based on nominal interest rates reflecting 10-year government bonds YTM, as of 31/03/2022).



Again, it is important to emphasize that nominal interest rates are rising due to higher inflation (which 'forces' central banks to tighten monetary policy). Consequently, negative real interest rates are good news for investors in tangible assets. Even though listed real estate has a fairly high correlation with general equity (especially in the short term, with a correlation coefficient of roughly 85%; somewhat lower in the longer run, around 75% over a five-year period (EPRA)³, Listed real estate is also considered to be held for a long period as a tangible asset class. Therefore, from an investor's point of view, property can be more attractive than 'paper' asset classes that offer little or no protection against higher prices. From a property manager's perspective, the financing costs obviously need to be closely monitored, since a higher cost of borrowing could make it more difficult to purchase new buildings. Especially if rents are not yet sufficiently indexed. Fortunately, as mentioned at the beginning of Section 2, the various financing parameters look very reasonable for European REITs.

Fig.4. clearly shows how investors have suddenly been confronted with an upward price shock in recent months, while the benchmark interest rates of diverse central banks (IR) are still very low at the moment. The dangerous cocktail of the pandemic and the Ukraine war has proven 'explosive' indeed, and these extreme shocks have not always been anticipated by the investment world. Interestingly, the significant GDP growth, observed in the aftermath of the pandemic, levelled off in Q1-22.



Source: EPRA Research (As of 31/03/2022).

³ EPRA Monthly Market Review (https://www.epra.com/indexes/monthly-reports).



It is also important to highlight that there is a clear difference between 'headline' inflation and 'core' inflation. The so-called headline inflation is the raw inflation figure reported through the Consumer Price Index (CPI) that is released monthly (source: TradingEconomics). The CPI calculates the cost to purchase a fixed basket of goods, as a way of determining how much inflation is occurring in the broad economy. The CPIs are very high at the moment because of ever-increasing energy prices and other market disruptions. This is not automatically good news for real estate investors, as it is not certain that, for example, rents (and thus capital values) will rise because of headline inflation. Much will depend on the inflation indices used (for instance residential leases vs. commercial leases) in each single country of Europe. Furthermore, the UK for example, has a tradition of upwards-only' rent reviews.

3. Monetary Policy of the Central Banks

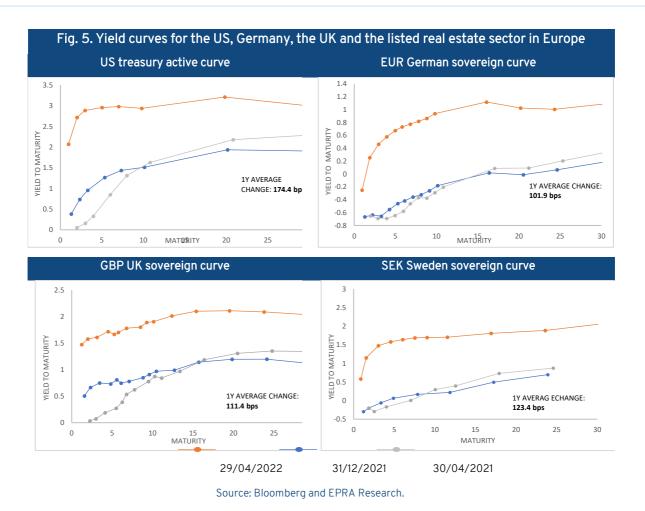
3.1. Key interest rates, yield curves and cost of debt for property companies

Central banks use several tools to modify their monetary policy with the main objective of controlling inflation, smoothing the economic cycle and achieving a sustainable long-term economic growth. Most of these tools use the financial system as the main mechanism of transmission and include restricting money supply (bank deposits), liquidity injection (quantitative easing), currency support (FX operations) and management of market expectations (forecast and guidance); but perhaps the most important and representative tool traditionally used in modern monetary policy is interest rates (QE programs are also important but became relevant only after the GFC in 2008-2009).

Central banks modify their key interest rate, which is the target rate at which they provide short-term loans to commercial banks, in order to modify the entire interest rate structure of the economy with the purpose of boosting or controlling the aggregate demand. This interest rate structure covers all the interest rates in the economy, including borrowing rates for the government, interests on commercial loans, mortgages, discount rates and fixed income quotations. In the case of the government, the most important borrowing source is a public bond issue. Government bonds are used several times a year under different maturities. The structure that combines all the maturities and discount interest rates for government bonds is called *Yield Curve*. This structure is considered the risk-free rate in local terms and so main is the main reference point for corporate loans and bonds.

In the US, the yield curve was slightly inverted in March 2022 after having experienced a strong bear flattening movement, with long-term interest rates being somewhat lower than short-term interest rates. As a matter of fact, short-term yields have edged up over the past year. For example, the yield carried by two-year Treasury bonds rose by over 255 bps in the 12 months to 29 April 2022, reaching 2.88%. This is marginally lower than what the 10-year government bonds observed in the same date (2.94%). The yield curve is turning back to its normal shape after a short inversion in March 2022. The prime driver of short-term interest rates is inflation, while lower long-term interest rates may reflect weakening economic growth perspectives (not to mention any risk of recession).





Europe is a somewhat different story. This year, most of the yield curves have evidenced an upward parallel shift mainly associated with an increasing risk premium for governments, given the expected fiscal pressure and geographical exposure to Ukraine. As a result, the German yield curve (main reference in the eurozone), the British yield curve and the Swedish yield curve experienced average upward movements of 102 bps, 111 bps and 123 bps respectively during the last 12-months, with the UK showing a more evident flattening movement given the expectations of additional interest rate hikes by the Bank of England for this year.

In Germany, the yield curve between short-term and long-term government bonds has not (yet) been inverted. Short-term interest rates have also risen, albeit to a lesser extent than in the US. Ten-year government bonds are still trading at a rate some 70 bps higher than the two-year. Undeniably, the European Central Bank is taking a less 'hawkish stance than the Fed.

The Bank of England is maneuvering its monetary policy between the Fed and the ECB. Therefore, the yield curve for maturities ranging from 1 to 20 years has not (yet) been inverted. But short-term yields have also risen over the past year: 2-year yields rose by over 151 bps in the 12 months to 29 April 2022. As referred to in Section 3.2, for further information on the monetary policy of central banks. What is even more interesting are the yields carried by real estate bonds (issued by listed property companies in Europe). The spreads between the yields of investment-grade real estate bonds and government bonds are particularly examined. In other words, what is the risk premium that investors currently 'demand' for real estate bonds. Not only to compensate for the corporate risk, but also the interest rate risk (higher nominal interest rates).



The good news is that this premium is currently quite low. The government bond yields increased 112 bps in average, while the corporate bonds of property companies increased 157 bps, therefore, investors who buy investment-grade bonds from listed property companies required an extra return of 45 bps (in function of maturity). This is very reasonable and, in our view, reflects the conservative debt management of many real estate companies. Additionally, the yield curve of the listed real estate sector is not inverted at this point.



Source: EPRA Research (As of 29/04/2022).

3.2. The monetary roadmap of the federal reserve bank, the bank of England and the European central bank

3.2.1. The Federal Reserve System (Fed): a more pronounced stance

Fed policymakers will take the necessary steps to curb US inflation, with interest rate hikes of 25 to 50 bps at each of the five remaining so-called Federal Open Market Committee (FOMC) meetings this year (as from June 2022, Source: TradingEconomics). The federal funds rate - the interest rate at which banks and other depository institutions lend money to each other, usually on an overnight basis – currently stands at 0.75-1.00%. Indeed, the Fed raised the target for the federal funds rate by a half a-point to 0.50-0.75% during its meeting of 4 May for the second time in three years, signaling ongoing rate hikes ahead.

As a result of the Fed's tighter monetary policy, the Fed's federal rate could reach 2.75% by year-end, assuming that another 50-bps increase might be seen in the benchmark rate at both of the meetings of June and July, followed by 25 bps hikes at each of the 3 remaining FOMCs. Indeed, 50 bps increases in the fed funds rate are on the table during the next two policy meetings in June and July while some Federal Reserve officials may be considering even bigger hikes going forward, reaching 3.25% in Q1-2023 (Source: TradingEconomics). As a reminder, the federal funds rate is used to control the supply of available funds and hence, inflation and short-term interest rates. Annual CPI rate in the US accelerated to 8.5% in March of 2022, the highest since December of 1981, before marginally slowing to 8.3% in April (Source: TradingEconomics).



3.2.2. The Bank of England (BoE): a more cautious stance

At its meeting ending on 5 May 2022, the Monetary Policy Committee MPC voted to increase the Bank Rate by a mere 0.25 percentage points, to 1% (source: The BoE). The view of the BoE is as follows: "Global inflationary pressures have intensified sharply following Russia's invasion of Ukraine. This has led to a material deterioration in the outlook for world and UK growth. These developments have exacerbated greatly the combination of adverse supply shocks that the United Kingdom and other countries continue to face. Concerns about further supply chain disruption have also risen, both due to Russia's invasion of Ukraine and to Covid-19 developments in China." (Source: BoE, MPC summary of 5 May 2022). Based on its current assessment of the economic situation, the MPC judges that "some further modest tightening in monetary policy may be appropriate in the coming months, but there are risks on both sides of that judgement depending on how medium-term prospects for inflation evolve." In other words, the BoE seems to be adopting a less outspoken stance than the Fed, sticking to a CPI target of "a little above the 2% target *in two years' time*" (9% as at the end of April). Nonetheless, the British central bank also warned in May that "inflation in the UK is likely to keep rising to around 10% this year and go down next year".

3.2.3. The European Central Bank (ECB): a very prudent stance

The ECB is currently in a difficult position: the headline inflation is at 7.4% per annum (as of end-April 2022 and it is expected to be 8.1% in May), while ECB President Christine Lagarde has been hesitating to actually raise the Bank's key interest rates (the interest rate on the main refinancing operations, the interest rates on the marginal lending facility and the deposit facility). According to the ECB, inflation will remain high *for longer than expected* but eventually come down to its 2% target (in line with the BoE's target).

The interest rate on the main refinancing operations remained unchanged at 0.00% (ECB, 14 April 2022). The main refinancing rate or minimum bid rate is the interest rate which banks do have to pay when they borrow money from the ECB. There is a strong response of short-term interbank interest rates (like the Euribor) to changes in the ECB refinancing rate.

"Any adjustments to the key ECB interest rates will take place sometime after the end of the Governing Council's net purchases under the APP and will be gradual. The path for the key ECB interest rates will continue to be determined by the Governing Council's forward guidance and by its strategic commitment to stabilize inflation at 2% over the medium term. Accordingly, the Governing Council expects the key ECB interest rates to remain at their present levels until it sees inflation reaching 2% well ahead of the end of its projection horizon and durably for the rest of the projection horizon, and it judges that realized progress in underlying inflation is sufficiently advanced to be consistent with inflation stabilizing at 2% over the medium term." (Source: The ECB's monetary policy decisions of 14 April 2022).

As mentioned above, the annual inflation rate in the Euro Area remained unchanged at an all-time high of 7.4% in April of 2022 (compared to a similar 7.4% in March and 5.9% in February). The inflation broke a new record high for the 5th straight month, as the war in Ukraine and sanctions on Russia pushed fuel and natural gas prices to record high levels, preliminary estimates showed. The inflation is now more than three times above the ECB target of 2%. (Source: TradingEconomics). The question is how long the ECB's Governing Council can keep this up, especially with a more aggressive stance from the Fed (and to a lesser extent the BoE) in the background. Obviously, there is a balance to be struck between higher interest rates and a slowdown in economic growth. Not to mention the word 'stagflation', a deadly combination of high inflation and low economic growth due to exogenous factors, such as the war in Ukraine.



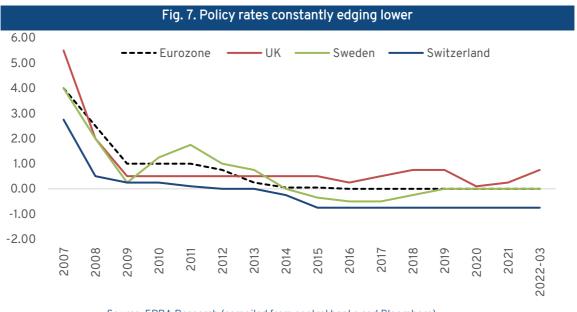
Nevertheless, "momentum is building for the ECB to raise interest rates in July to fight soaring inflation, after dovish policymakers indicated they are ready to accept an end to almost eight years of negative borrowing costs. ECB chief economist Philip Lane and executive board member Fabio Panetta have signaled they are now more open to raising rates in the coming months, following calls from the governing council's hawks to make the first rise in more than a decade sooner rather than later (source: Financial Times, 6 May 2022). Furthermore, Christine Lagarde herself 'cemented' market expectations that the ECB will raise its policy rate in a bid to tame record-high eurozone inflation at a conference in Slovenia on 11 May 2022. And she reiterated her stance on higher interest rates in a blog post of 23 May 2022, signaling 'in advance' two interest rate hikes – one in July and one in September –for the Bank's deposit rate. As a reminder, the ECB's deposit rate is currently minus 0.5%, meaning banks are charged to deposit cash at the central bank. Should this scenario materialize, it means that the deposit rate would move out of negative territory by the end of September. "Based on the current outlook, we are likely to be in a position to exit negative interest rates by the end of the third quarter." (Source: ECB website, ECB Blog of 23 May 2022).

3.2.4. And what about the Swedish Riksbank?

The Riksbank's main policy rate (the repo-rate) remained positive until February 2015 when the Swedish central bank then lowered it to -0.10%. The repo rate has been the Riksbank's policy rate since 1994. The repo rate is the rate of interest at which banks can borrow or deposit funds at the Riksbank for a period of seven days (source: The Riksbank). It was further reduced to -0.50% in 2016, a level maintained until January 2019. The negative repo-rate was finally abolished in December 2020.

"Inflation has risen to the highest level since the 1990s and will be high for some time. To counteract the high inflation from becoming entrenched in price and wage-setting, the Executive Board has decided to raise the repo rate from zero to 0.25%. The Board's forecast is that the repo rate will be raised gradually going forward and that it will be somewhat below 2 per cent in three years' time." (Source: The Riksbank, 28 April 2022). The move of the Swedish central bank came somewhat as a surprise.





Source: EPRA Research (compiled from central banks and Bloomberg).



3.3. Final word on monetary policies

It looks like central banks have been considering the current high inflation rates to be temporary. But their stance seems to be evolving on the subject. Especially the ECB had to admit it underestimated the inflation issue, that inflation may last much longer than initially expected, and that the Bank's econometric models couldn't sufficiently cope with extreme shocks. In the Financial Times of 28 April 2022, the following statement is: "ECB issues mea culpa for poor inflation forecasts". The central bank says it was blindsided by 'exceptional' energy prices while German inflation hits fresh 40-year high. The ECB said it had tried to learn from its mistakes by improving its models but warned inflation would 'remain very challenging to forecast in the near term (source: The Financial Times, 28 April 2022).

It is obviously difficult to determine how temporary inflation will be, and this is an important element for investors, in particular real estate investors Who are believed to increasingly focus on inflation-protection. The following table gives a brief overview of the current benchmark interest and inflation rates together with the expectations of both indicators by Q1-2023.

Region/country	Central Bank	Benchmark rate	Current rate (%)	date	Future rate expectation (%)	Date	Current CPI (%)	Date	CPI forecast (%)	Date
US	Fed	Federal funds rate	0.75-1.00	4/05/22	3.25	1Q23	8.3	April 2022	2.9	1Q23
Eurozone	ECB	Main refinancing rate	0.00	14/04/2022	0.50	1Q23	7.4	April 2022	3.4	1Q23
UK	BoE	Bank rate	0.75	5/05/2022	2.50	1Q23	9.0	April 2022	5.4	1Q23
Sweden	Riksbank	Repo rate	0.25	28/04/2022	0.25	1Q23	6.4	April 2022	2.2	1Q23

Source: Various websites of central banks, TradingEconomics for the forecasts

4. Strengths and weaknesses of listed real estate in the current market environment

The key question is how listed property will perform in the coming months. Every investor should assume that nominal interest rates will rise in a calm manner as inflation picks up. This will undoubtedly lead to higher volatility on the stock markets, also for REITs and other real estate shares.

4.1. What is the source of volatility for REITs?

A rise in nominal interest rates can increase the yields carried by other asset classes (with similar risk as real estate), such as investment-grade bonds. This is the case for new investors buying bonds when interest rates rise. However, existing investors in bonds will have to take into account the interest rate risk, as the nominal value of their securities will fall (unless the bonds are held to maturity).

REITs are relatively liquid investments because they are listed on a stock exchange. Institutional investors in particular can easily sell if they believe that the financing costs of the underlying property may rise, or if they are of the opinion that they or any other investor could 'demand a higher risk premium for property in general. Risk premia are incorporated into property yields, and a higher yield for a given rent leads to a lower value.

Another way of saying the same thing is that a higher discount rate (used to value property by discounting future cash flows today) can lead to lower valuations. Because the risk premium that is part of the discount rate increases.



4.2. A closer look at the implied discount interest rates and monetary policy

An interesting angle to explore is the one provided by the implied discount rates used to value the share prices of REITs (not the underlying physical assets!).

Traditionally, when analyzing listed real estate, most of the analysts and investors use the 10-year government bonds as the main interest rate plus a reasonable spread (risk premium) to discount all the cashflows generated by the companies' property portfolio (rents, CAPEX, disposals) and/or by the companies' shares (dividends) with the purpose of determining the 'fair' value of the company. Therefore, assuming that equity markets are pricing properly the shares of the listed property companies, it is possible to compute the implied discount rates from market quotations and compare such rates against the current government bonds and central banks' interest rates to better understand the effects of monetary policy on REITs and other real estate companies. Using the regional and country-level indices in the FTSE EPRA Nareit total return series (dividends + share price evolution) on a quarterly basis as the main reference for market quotations, and in spite of the significant movements observed in the implied discount rates due to the strong share price fluctuations during periods of stress in the markets, this analysis provides some interesting results for the three main currencies in the European landscape.

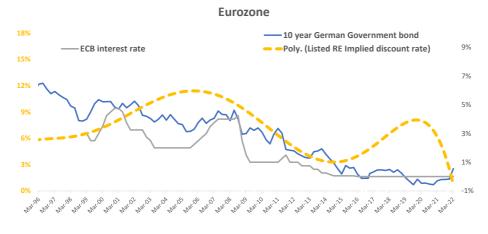
First of all, it is clear the enormous influence that central banks' rates have on government bonds, acting as a minimum floor most of the time and influencing the slope of the yield curve. At the same time, government bonds have a strong influence on market quotations for listed real estate as evidenced by the positive correlation between the implied discount rates and the yields of the 10-years government bonds. However, such correlation is dynamic and has evolved in the last years.

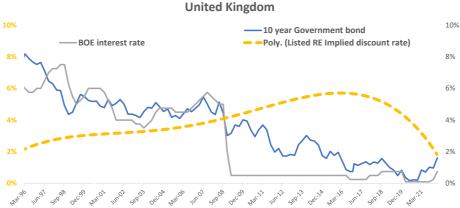
During the last 20 years until March-2022, the correlation between the implied discount rates in listed real estate and the government bonds was 0.24 in the Eurozone, 0.32 in the UK and 0.60 in Sweden. Nevertheless, during the last 5 years the correlation decreased significantly and even turned negative in the Eurozone (-0.65) and Sweden (-0.77). This can be associated with the long period of low interest rate observed after the Eurozone debt crisis, which might have reduced the relevance of the central banks' interest rates and increased the importance of the quantitative easing programs and some other external factors not associated with the monetary policy.

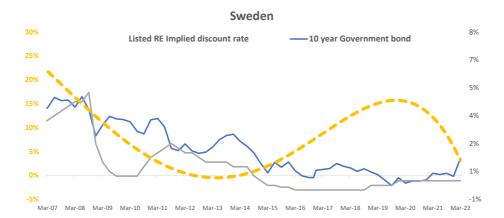
Finally, it is also worth to highlight the strong correction observed in the discount rates during the last 12 months after the massive hike observed in 2020 as a result of the global pandemic. Therefore, it is possible to infer that market quotations somehow overreacted to the pandemic effects and now are still in process of normalization given the imminent changes in the monetary policy and economic growth (this effect is likely to be seen in the coming 2 or 3 quarters when the implied discount rates start reflecting current market corrections). Thus, recent market movements observed in the first four months of the year are already reflecting some of the new market conditions, aligning short-term correlations to their long-term traditional figures, reminding us the importance of the monetary policy and guiding investors into a more comprehensive analysis of expected returns. However, such relevance should not be overestimated, since this healthy correction also provides new opportunities, especially for patient investors willing to see property companies adjusting to this new environment of higher inflation and higher interest rates in a more sustainable way and looking forward to taking advantage of these changes in the medium and long-term.



Fig. 8. Implied discount rates, government bonds and central banks key rates







Correlation (1995-2022): LRE vs 10y Govt. Bonds				
Eurozone	0.2333			
UK	-0.0760			
Sweden	0.1982			

Correlation (2002-2022): LRE vs 10y Govt. Bonds			
Eurozone	0.2406		
UK	0.3170		
Sweden	0.6045		

Correlation (2017-2022): LRE vs 10	Oy Govt. Bonds
Eurozone	-0.6499
UK	0.3598
Sweden	-0.7737

Source: EPRA Research (as of 31/03/2022).



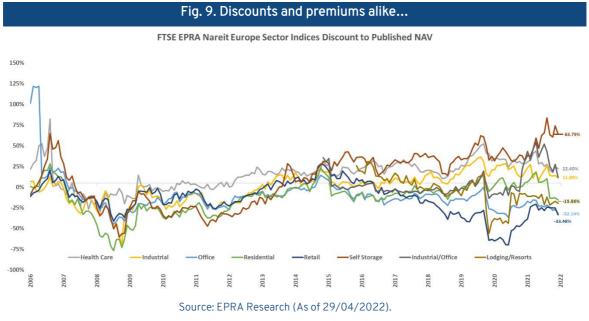
4.3. Any difference between capital values and cash flows in times of inflation?

It can be considered - at least temporarily - that the valuation of underlying real estate may drop somewhat, but not the cash flows, on the contrary. In many European countries - with the exception of the UK - rents are indexed to inflation. It is true that this indexation is not immediate, and the adjustment can also be partial (it depends on the inflation index in question). However, compared to other asset classes, rental flows do offer some protection against monetary depreciation.

It may well be that the value of the bricks will temporarily fall a little in the case of higher inflation, while the rental streams themselves will be revalued. In this case, the real estate value will increase again in time, albeit with a lag effect. In this sense, prime, core and core+ real estate - including listed real estate - can certainly be regarded as an index- linked bond.

4.4. Discounts / Premiums-to-NAVs

Here an overview of premiums and discounts per property segment is given. It should interest rates rise permanently not all REIT types will be equally affected. REITs trading at deep discounts-to-NAV (because of industry trends) will not severely be impacted (unless they are overleveraged). But REITs quoting at huge discounts (100%+) all the more as their gross dividend yields are already meagre today.



A lot has been said and written about discounts and premiums REITs are trading at.

It is clear that the valuation of the net market value of the underlying property portfolios is a snapshot, a static phenomenon, whereas share prices are much more anticipatory of the future. Of course, the future is not always easy to predict. For example, what is the future of the various office and retail markets given the impact of the pandemic or e-commerce or working from home trend? So, there is a lot of uncertainty, and investors sometimes tend to overreact. This is purely human.

That is why the property segments that have been hit hard by various factors in recent years will not automatically be subject to falling share prices when interest rates rise. The retail sector is a good example. The chart above shows that the huge discounts have been diminishing over the past 2 years, partly because share prices are gradually picking up.



5. Return expectation for REITs in the coming years

5.1. Single-digit total annual equity returns?

The key question is what kind of real estate returns – carried by REITs –could be expected in the coming years. At the level of the properties and at the level of equity (incorporating LTVs). It is reasonable to assume that double-digit equity returns could be very difficult to reach in times of higher nominal interest rates. At least at short notice.

The capital appreciation component of the levered equity return could be somewhat weak, if not negative. Higher interest rates create more investment opportunities for new investors (while existing investors would suffer losses). In general, the volatility of the capital markets could further 'undermine' investors' sentiment. In other words, their behavior could turn out to be 'irrational'. Moreover, as rental flows cannot be indexed immediately, it would take some time before rising inflation seeps into rents.

In the longer term, however, rents would normally rise, and this would therefore benefit both the cash and the capital component of the overall equity return.

Investors should focus on net rental income – the dividend – for the time being. According to Oxford Economics, total average annual returns carried by European listed real estate companies came in at 8.4% for the 20-year period to May 2019 (Oxford Economics and EPRA)⁴

6. Main conclusions

-Fascinating times for (real estate) investors

These are fascinating times for investors. What a (defensive) investor usually does not like is dealing with uncertainty. That uncertainty - or risk - can cause major fluctuations in the return on an investment. And today, we are faced with great uncertainty.

There is the health crisis, which the authorities in certain parts of the world believe is still not under control. Just think of the extended lockdowns in China.

There are the geopolitical tensions, with the focus on the Russian-Ukrainian conflict and the rising tensions between 'the West' and Russia (and China) in general.

There are the rising interest rates, especially in the United States. Which is the result of a shift in monetary policy by the Fed and, to a lesser extent, by the other central banks in the Western sphere of influence. In other words, investors who enjoyed zero-interest rates may or may not have an abrupt wake-up call.

-Volatility in the capital markets affecting listed real estate?

The above uncertainty has led to volatility in the bond and equity markets. This is somewhat normal as investors reassess the risk premiums, they apply to different asset classes. Higher risk premiums lead to higher discount rates, implying lower valuations. What is 'new' for the market is that different asset classes are subject to volatility at the same time, both stocks and bonds for example.

⁴ Source: Oxford Economics and EPRA (2019), Listed Real Estate in a Multi-asset Portfolio: A European Perspective.



However, the question now is how real estate - and more specifically listed real estate - will react to the increased uncertainty. This is not an easy question: some segments, such as logistics, have done fantastically well in recent years while other segments, such as retail and offices, have been facing major challenges. It is therefore impossible for all real estate shares (REITs and non-REITs alike) to react in the same way to future developments, as their valuation may be very different. Obviously, so are their loan-to-value ratios and financing costs.

So far, listed real estate has - on average - reacted relatively calmly to the many challenges (even though expensive REITs came under pressure). It is not that risk premiums for listed real estate have skyrocketed. A good example is the investment-grade real estate debt in Europe. According to our calculations, the risk premium has increased by roughly 45 bps (April data) on average, which is more than acceptable.

-Conservative financing policy of European listed real estate

The re-rating of risk will not be too bad in the future, given the rather conservative financing policy of the listed investment universe (on a global basis). The fact is that a property share is not the same as an investment-grade corporate bond. Rental flows are usually index-linked, which can lead to partial protection against rising inflation. However, it is true that the inflation-hedge characteristic of real estate - and thus of listed real estate - is far from a simple discussion.

-Negative real interest rates, still

Real estate investors should mainly take into account the real interest rates (after inflation) prior to any investment decision. And real interest rates remain negative in Europe (and other mature markets) for the time being. That is why investors focus on so-called 'tangible' assets, whereby listed property held for several years has the same tangible features as the underlying property assets.

-Real estate is different

Listed real estate can differentiate itself from other asset classes, even in the current market climate. Rental flows are (partially) indexed, which could drive up valuation levels eventually. Furthermore, not all listed real estate companies are very expensive at the moment (given the changing trends in the occupier markets, such as retail and offices, having put pressure on valuation parameters). And their financing policies are nowadays rather conservative, which could be considered as a strength by the investor universe.



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List of Abbreviations

BoE (Bank of England)

CPI (Consumer Price Index)

ECB (European Central Bank)

Fed (Federal Reserve Board)

FOMC (Federal Open Market Committee)

GDP (Gross Domestic Product)

GFC (Global Financial Crisis)

LTV (Loan-to-Value)

NAV (Net Asset Value)

QE (Quantitative Easing)

REITs (Real Estate Investment Trusts)

ROE (Return on Equity)