FAIR VALUE

Q3 2022



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ABOUT THE EUROPEAN FAIR VALUE INDEX

The index was launched in August 2010 and covers 120 markets across Europe.

Fair value is the value at which an investor is indifferent between a risk-free return and the forecast return from holding property, taking into account the extra risk of investing in the property asset class.

When a property price is at fair value, an investor is being adequately compensated for the risk taken in choosing to purchase real estate; similarly, when the property price is below the fair value price, an investor is being more than compensated for the risk taken in choosing to purchase real estate. When buying at or below fair value, an investor does not necessarily buy at the bottom of the market.

Our fair value analysis focuses on prime assets and a five-year investment horizon and hold for the market overall; individual transactions may provide opportunities and risks beyond the average market view. In the report, we compare results for the current quarter with the previous quarter, which may differ from those published in the previous quarter's report; this is due to the forward-looking methodology. As such, when our forecasts change so too does the Fair Value Index.

SUMMARY

Overall, the fair total return was significantly lower in Q3 for the 120 markets covered in our analysis compared to our previous forecast (April 2022).

Over the past six months, government bond yields have risen across all countries within our coverage (with the exception of Turkey), mainly due to concerns over high inflation and monetary tightening.

There has been a noticeable slowdown in transactional activity with the third quarter volumes down by 37% in comparison to the levels seen a year ago. This slowdown has been felt across all sectors. According to RCA, the number of active buyers and sellers has fallen to a nine-year low. With a lack of transactional evidence, and the uncertainty surrounding the outlook, buyers and sellers are anticipating the market to adjust.

Our latest forecasts paint a mixed picture for 2022, with a handful of office and logistics markets seeing positive capital growth, reflecting upgrades to rental growth. For 2023, capital growth expectations for retail and offices have been downgraded.

As a result, the majority of the 120 markets covered in the analysis are classified as fully-priced (99%). As we continue to see the cost of debt rising it is no surprise that the majority of the markets are fully-priced at this stage.

The most fully-priced European markets in Q3 are Budapest offices, retail and logistics, Milan and Warsaw offices. All of these are experiencing significant increases in the 5-year bond yield and yield decompression. Conversely, the retail markets of Dublin, Birmingham, and Bristol are currently only 51bps below the fair value yield.

ECONOMIC ASSUMPTIONS

Euro area GDP surprised to the upside in the third quarter, with the flash estimate of 0.2% growth Q/Q.

Across the key European countries, German growth was better than expected with GDP rising 0.3% Q/Q, France was in line with expectations (0.2%), and Italy delivered the biggest surprise with GDP rising 0.5% Q/Q. As a result, the euro area avoided a contraction in GDP mainly held up by domestic demand, despite growth slowing significantly since the first half of the year. Nonetheless, growth has been downgraded, Moody's Analytics expects euro area GDP growth of 2.9% by the end of 2022 (downgraded from 3.4%) and 0.5% in 2023 (downgraded from 2.6%).

Euro area inflation continues to surprise on the upside (inflation reached 10.6% Y/Y in October from 9.9% in September). The expectation is that inflation is likely to have peaked in October for the euro area, however, the latest ECB survey of businesses showed the majority of businesses expect wage increases of 4% or higher in 2023. As a result, inflation is expected to remain high.

The inflation outlook for 2022 and 2023 has been upgraded, with inflation averaging 8.2% (from 6.5%) in 2022 and 4.7% (from 1.5%) in 2023, according to Moody's Analytics. We, therefore, anticipate a 50-75bp rate rise in December, with the view that the ECB may stop raising rates after February as the euro area enters a recession. The ECB will base the future policy rate path on the evolving outlook for inflation and the economy, following its meeting-by-meeting approach.

Euro area	2021	2022	2023	2024
Real GDP (Y/Y % chg)	5.27	3.21	0.48	2.43
Employment Growth (Y/Y % chg)	1.40	2.01	0.21	0.14
Unemployment Rate (%)	7.73	6.75	7.05	7.08
Inflation (Y/Y % chg)	2.56	8.31	5.59	2.24
5-year Govt Bond Yield* (% Annual average)	-0.37	1.48	2.98	2.48

^{*} Central government bond yield curve – Euro area average - Spot rate - 5-year maturity

Source: Moody's Analytics Q3 2022 forecasts

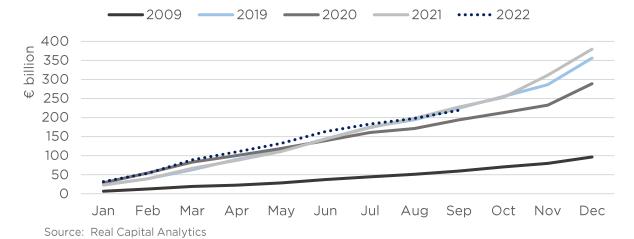
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CAPITAL MARKET OVERVIEW

European Investment volumes totalled €53bn in the third quarter of 2022, down by 37% compared to the same period a year ago.

This quarter was the first time investment volumes fell behind 2021 numbers, having been well ahead earlier in the year. The number of active buyers and sellers also fell to a nine-year low, clearly reflective of the elevated levels of uncertainty surrounding the economic outlook, particularly the outlook on interest rates. This quarter is indicative of the market entering a phase of realisation as buyers and sellers adopt a wait-and-see approach to understand where the new equilibrium is.

Cumulative investment volumes by month for each year



Investment volumes slowed across Europe's biggest real estate markets. Germany has felt the brunt of its exposure and dependency on Russia. Economic growth has slowed much sooner than its counterparts. This has filtered through to the investment market with volumes declining by 24% in the third quarter compared to a year ago. Noticeably the slowdown occurred in the office market with transactions across core German office markets down by 50% Y/Y. This was also the case for the UK and France where office investment slowed. The UK, although the top investment market, recorded a fall in investment volumes of 33% Y/Y. French investment volumes were down by 34% compared to a year ago.

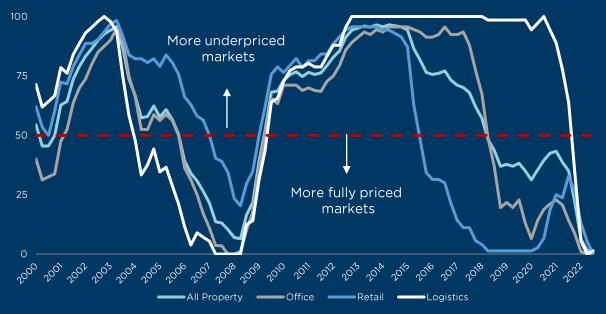
Spain, Switzerland, Belgium, and Portugal all reported an increase in the volumes compared to a year ago. The Spanish transaction volumes were helped by the sale of a particular student housing portfolio equating to €900m. As a sector, investment in student housing was up by 50% Y/Y in the first nine months of 2022.

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FAIR VALUE INDEX RESULTS

The all-sector European Fair Value Index score fell to 0 in Q3 from 36 in Q1, a stark deterioration from the previous quarter, (see below), indicating that commercial property valuations in Q3 were significantly over-priced.

The fair value index score encompasses the annualised nominal returns a property investor could expect over a five-year investment horizon in their chosen market with the estimated risk-adjusted nominal required (fair) return for that market. As an example, the results for this quarter compare the annualised returns an investor could expect from property investment over the five-year period from Q3 2022 to Q2 2027, with the fair return for investment over that period. As a result of the significant revisions in our latest property outlook recent history of the index has also been revised.



Source: Bloomberg; Moody's Analytics, Cushman & Wakefield Research

Overall, the fair total return was downgraded across all 120 markets covered in our analysis in this quarter. After the end of the sustained period of low five-year bond yields combined with historically low property yields across Europe, we have significantly revised our outlook. Five-year government bond yields across Europe on average have increased by 195bp since Q1 2022 with a further 135bp uplift anticipated by Q3 2023. As a result, our illiquidity and risk premium has also increased.

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FAIR VALUE INDEX RESULTS

The change in the premium is reflective of the shift in the market sentiment and buyers' degree of risk aversion. For instance, the German 5-year bond yield rose from a negative redemption yield of -0.43% at the beginning of this year to 1.84% (last seen in July 2011). Government bond yields are seen as the risk-free rate as governments have the ability to print money to pay investors and therefore there is no risk of not receiving a return. As a result of the increase in yields, buyers are demanding a higher risk premium on most asset classes including commercial property.

Our latest forecasts paint a mixed picture for 2022, with a handful of office and logistics markets seeing positive capital growth, reflecting upgrades to rental growth. For 2023, capital growth expectations for retail and offices have been downgraded, as the European economy enters a mild recession. Key European logistics markets are still expected to witness positive capital growth in 2023, as rental growth remains positive albeit slowed from the acceleration witnessed in 2022.

As a result, the majority of the 120 markets covered in the analysis are classified as fully-priced (99%). As we continue to see the cost of debt rising it is no surprise that the majority of the markets are fully-priced at this stage. Sector-level data revealed the offices and retail sectors across the markets we cover are fully-priced, with the exception of logistics where one market is fairly-priced and the remainder are fully-priced.

ТО	P 5	TOP 5 FULLY-		
MOVERS*		PRICED MARKETS		
1	Rome offices	1	1 Budapest offices	
2	Budapest logistics	2	Budapest retail	
3	Budapest retail	3	Budapest logistics	
4	Zurich offices	4	Milan offices	
5	Bratislava offices	5	Warsaw offices	

*Underpriced to fully-priced

The most fully-priced European markets in Q3 are Budapest offices, retail and logistics, Milan and Warsaw offices. All of these are experiencing significant increases in the 5-year bond yield and yield decompression. Conversely, the retail markets of Dublin, Birmingham, and Bristol are currently 51bps below the fair value yield.



DISCLAIMER

In using this data, the following should be noted:

- The data series has been prepared based on information which has been collected through our own research as well as information supplied by the client and material available to us from public and other external sources. In respect of all external information, the sources are believed to be reliable (unless stated) and have been used in good faith.
 - However, Cushman & Wakefield has not verified such information and cannot accept responsibility for their accuracy and completeness, nor for any undisclosed matters that would affect the conclusions we have drawn. Nonetheless, in interpreting the information used, we have had to rely on the validity and accuracy of the data and information sources available to us.
- We have taken every possible care in the collation of this data series. The data is believed to be correct at the time of reporting but may be subject to change during the life of the project and beyond and as new information becomes available. We reserve the right to change data without prior notice in the light of revised market opinion and evidence.

- In respect of any formal forecasting used in this project or any used in the background research supporting the opinions and material presented in this project, the following points should be noted and understood:
 - i. One is assuming that the historic data input to the forecasting process is accurate;
 - ii. The judgment of the forecaster(s) will influence the validity of the results;
 - iii. Unless stated, one is assuming that the market will continue to operate in future as it has in the past, and that its stability will not be disrupted;
 - iv. The forecasting is representative of only one moment in time;
 - The reliability of forecasts for the property market are dependent on the accuracy of the input forecasts for the economy as a whole; and
 - vi. The forecasts relate only to the type and quality of property indicated.
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