



Commercial Real Estate Prices in Europe After COVID-19

Journal:	<i>Journal of European Real Estate Research</i>
Manuscript ID	JERER-09-2023-0031
Manuscript Type:	European Market Briefing Showcase
Keywords:	Commercial real estate prices, Europe, COVID-19, Industrial, Residential

SCHOLARONE™
Manuscripts

Commercial Real Estate Prices in Europe After COVID-19

Structured Abstract

Purpose

The article analyzes the behavior of commercial real estate prices in Europe with a focus on the post COVID-19 pandemic period. We use national and city-level data for the various commercial real estate sectors in 10 countries, as well as listed real estate data, to assess any differences across property type and space.

Design/Methodology/Approach

We analyze the behavior of commercial real estate prices after the COVID-19 pandemic, emphasizing differences across property types. For that purpose, we use national and city-level direct real estate data for the 10 largest countries in terms of market capitalization, as well as listed real estate data. The article then turns to discussing the likely trajectory of commercial real estate prices in the future.

Findings

The recent rise in interest rates and geopolitical instability have affected prices differently across sectors. Industrial properties benefited from the pandemic although prices declined significantly in 2022. Residential properties continued their upward price trend and have been the best-performing property type during the last two decades. Retail real estate continued its downward price trajectory. Thus far, office markets do not appear to be significantly affected by structural changes in the sector. Data for listed real estate markets in Europe suggest that markets bottomed out in early 2023.

Originality/Value

This paper provides for a better understanding of the behavior of commercial real estate prices in Europe since the COVID-19 pandemic. We assess whether the effects found during the COVID-19 crisis were temporary or long-lasting. Also, many economic and political uncertainties have emerged since the beginning of the Ukraine war in February 2022, and it is important to analyze the effects of such uncertainties on commercial real estate prices.

Keywords: Commercial real estate prices; Europe; COVID-19; Industrial; Residential

JEL Codes: R33; G12; G23

Introduction

The COVID-19 pandemic affected some of the major factors influencing commercial real estate pricing. Due to lockdowns, in-store shopping was not possible in many locations, which led to the further increase in online retailing which had been growing fast even prior to the pandemic. This often led to lower rent levels and a higher cost of capital. The work from home policies that were implemented in many regions led to concerns regarding the future of office space demand and hence of rental levels. The hospitality sector was also badly hit. The pandemic accelerated some changes, for instance the trend towards e-commerce, while other effects were largely temporary, for instance much of the reductions in travel demand.

Now that the pandemic is over, it seems important to analyze the behavior of commercial real estate prices. Such analysis is warranted for at least two reasons. During the pandemic, it was often unclear whether the effects were permanent or transitory. A re-examination of those effects considering the evidence for the post COVID-19 period should make it possible to answer this question. Also, the economic and geopolitical environments have changed drastically since the beginning of 2022 and current market pricing reflects such uncertainties as well as behavioral trends and possibly some post COVID-19 effects. Against this background, this article contributes to a better understanding of the dynamics of commercial real estate prices after COVID-19 with a focus on European markets. It also considers the likely trajectory of European markets in the months ahead.

The effects of the pandemic on commercial real estate prices have been the focus of much research (a review of some of the literature is provided by Balemi *et al.*, 2021). Ling *et al.* (2020) examine how U.S. Real Estate Investment Trust (REIT) returns are related to a geographically weighted exposure of their underlying assets to COVID-19 growth. They report

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

that firms focused on retail and residential properties react more negatively among all sectors, while healthcare and technology sectors are positively correlated with exposure to COVID-19 growth. Xie and Milcheva (2020) find negative effects of proximity to COVID-19 cases on the returns of Hong Kong real estate firms. Markets also perceive the risk to be higher in commercial buildings than in residential properties. Milcheva (2021) reports that the effect of COVID-19 is associated with steep declines in international real estate security returns and an increase in risk. Focusing on global real estate capital flows, Newell and Marzuki (2023) show that the industrial sector was the only sector that experienced an increase in activity during the COVID-19 pandemic.

For commercial real estate in Europe, Hoesli and Malle (2022) find that the hospitality and retail sectors were affected the most by the COVID-19 crisis. Although the office market was not affected as badly as retail properties and hotels, price decreases remained significant. Property prices in other sectors, notably the residential and logistics sectors, were less affected by the crisis. The authors also maintain that the future trajectory of real estate prices should vary across sectors and that the type and location of assets should become increasingly important in their valuation.

The likely effects of the increase in teleworking on office values have been examined in recent research. Analyses suggest that firms demand substantially less office space when they adopt hybrid and remote work practices and that those effects will last. Concentrating on the New York City office market, Gupta *et al.* (2023) show that remote work led to large drops in lease revenues, occupancy, lease renewal rates and market rents. They report a 44% decline in long run value when they revalue New York City office buildings considering both the cash flow and discount rate implications of these shocks. For France, Bergeaud *et al.*

(2023) find that the valuation of offices declined more in areas more exposed to teleworking, a pattern that they do not observe for retail assets. Their results suggest that market participants are expecting the shift to teleworking to durably affect the demand for office space. Focusing on the Indian market, Gupta and Bajaj (2023) highlight the many challenges for office markets after the pandemic, including the mainstreaming of hybrid working and flexible office spaces as well as the adoption of ESG and sustainability norms.

In this article, we analyze the behavior of commercial real estate prices in Europe since the COVID-19 pandemic. We use direct real estate data for the 10 largest European countries in terms of the size of the real estate investment universe. For six countries, we also use city-level data to uncover any differences across property types and space. We also use data for listed real estate in Europe. Given the greater efficiency of the listed market, such indices should make it possible to reveal changes in the pricing of commercial real estate assets more rapidly. We focus on differences across property types. We also provide a discussion of the likely path of commercial real estate prices in the future, focusing again on differences across property types.

Our analyses reveal that industrial real estate performed well during and right after the COVID-19 pandemic. Although industrial values declined significantly in 2022, the sector offered a positive return during the 2004-2022 period in all 10 countries investigated. Consistent with evidence for U.S markets, the residential sector also emerges as a dominant property type in many countries. In fact, that sector provided the highest return in most countries during the period under review. The price dynamics for other sectors exhibit more variation across countries. We also show that some cities drive the markets in their countries. This is the case for London, Paris, Amsterdam, Milan and Munich. Importantly, our analysis

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

with listed real estate data suggests that commercial real estate markets bottomed out in early 2023. Europe is thought to be on course for resilient economic growth, higher inflation, and a normalization of key interest rates with the end of quantitative easing. Real estate initial yields may be close to peaking in 2023, so prices could then stabilize, particularly for prime markets. Rental growth plays a supportive role in price trends, limiting and delaying price corrections depending on the quality of the markets.

The remainder of the paper is structured as follows. The next section presents the data that we use. The following section discusses changes in commercial real estate prices since the end of the COVID-19 pandemic. We then turn to providing an outlook for the economy and commercial real estate markets. Some concluding remarks are provided in a final section.

Data

We use MSCI direct real estate data for the 10 largest European countries according to the size of the institutional real estate universe. Given our focus on price dynamics, we use capital returns and not total returns. The U.K. national indices are at the monthly frequency, whereas the indices for the other nine countries (Denmark, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden and Switzerland) are annual. The period considered is February 2001 to March 2023 for the U.K., 2000-2022 for Denmark, 1999-2022 for Finland, 2003-2022 for France and Italy, 1996-2022 for Germany (since 1997 only for residential and 1998 for hotels), 1995-2022 for the Netherlands, 2001-2022 for Spain, 1984-2022 for Sweden (since 1986 only for industrial and 1987 for hotels) and 2002-2022 (since 2004 only for hotels) for Switzerland. We use sector-level indices given our aim of highlighting differences across property types.

For the U.K., France, Italy, Germany, the Netherlands and Spain, we also use city-level data, also disaggregated by property type. All data are also from MSCI. For the U.K., we use quarterly data sourced for eight cities (London, Manchester, Leeds, Edinburgh, Glasgow, Birmingham, Bristol and Reading) from the first quarter of 2001 to the first quarter of 2023. For those cities, we use data for industrial, retail and office properties. For France, we use data for Paris (offices, retail and industrial), Lyon (offices and retail) and Marseille and Toulouse (offices) for 1998-2022 (since 1999 for Toulouse offices). For Italy, we have data for Milan (offices, retail and industrial) and Rome (offices and retail) for 2003-2022 (since 2004 for industrial properties in Milan and retail in Rome). For Germany, we use data pertaining to the residential sector in five cities (Berlin, Dusseldorf, Frankfurt, Hamburg and Munich) for the period 1997-2022 for Frankfurt, 1999-2022 for Hamburg and Munich and 2000-2022 for Berlin and Dusseldorf. For the Netherlands, we have data for Rotterdam (offices, retail, industrial and residential), Amsterdam, The Hague and Utrecht (offices, retail and residential) for the period 1995-2022. For Spain, we have data for 2001-2022 for industrial, office and retail properties in Madrid as well as office and retail properties in Barcelona.

As a result of being calculated on the basis of appraisal-based indices, capital returns suffer from smoothing and hence exhibit high levels of serial correlation. For instance, the serial correlation of U.K. commercial real estate monthly capital returns is in the range from 0.540 (hotels) to 0.869 (offices). Returns are desmoothed using a reverse filter (Geltner, 1993). The aim is to reduce the level of serial correlation to a level that is comparable to that observed for returns calculated by means of transaction-based indices. For U.K. returns, we use a desmoothing parameter of 0.3 for hotels and 0.7 for the other types of properties. This results in desmoothed capital return series with serial correlations between 0.188 (industrial)

and 0.293 (offices). We use an alpha of 0.3 for Denmark, Italy and Switzerland, 0.4 for Finland and France and 0.5 for Germany, the Netherlands, Spain and Sweden. For city-level data in France, Italy, Germany, the Netherlands and Spain, we use the same alpha as for their respective countries. The city-level data for the U.K. are desmoothed with a parameter of 0.5.

For securitized real estate, we use the developed Europe capital return indices for the various sectors as published by the European Public Real Estate Association (EPRA). The period considered is from January 4, 2016 to May 15, 2023 and the frequency of the data daily.

Real Estate Prices Post COVID-19

We first look at the behavior of securitized real estate capital returns across sectors in Europe. Such analysis is useful as research has shown that, given its greater information efficiency, the listed real estate market reacts more quickly to changes in fundamentals than the direct market (Hoesli and Oikarinen, 2012, 2021). Hence, the listed real estate market should uncover any price developments before the direct market. Figure 1 highlights the massive drops at the onset of the COVID-19 pandemic, particularly for lodging/resorts and retail real estate (see also Hoesli and Malle, 2022). The downward cycle of retail started long before COVID-19 and continued after the pandemic, whereas lodging/resorts have made up much of the significant losses that occurred with the much-reduced levels of travel during COVID-19. The other four sectors have been affected by the rises in interest rates that occurred in 2022 and 2023. This is particularly true of the two sectors (residential and industrial) that performed well in the period immediately following COVID-19.

Over the whole period from the beginning of 2016 to mid-May 2023, industrial real estate is the only sector with a gain in value (+56%). On the other hand, retail real estate values lost 75% during the period. Office and healthcare property values have been quite

resilient during the period which features two major shocks (COVID-19 and the sharp increases in interest rates), with losses slightly less than 20%. The data for the most recent periods indicate that the market, in particular the industrial sector, may have hit its bottom.

Turning to the direct market, we first consider the U.K. market for which monthly data are available. This should make it easier to discern any changes in price dynamics. Figure 2 presents capital return indices for four sectors in the U.K. for the period from February 2001 to March 2023. The figure confirms the conclusions drawn from the securitized real estate market. Retail investments fared badly during the period, highlighting the changes in buyers' behavior that were merely accelerated by the pandemic. The hotel sector regained many of the losses suffered during the pandemic, but then was significantly affected by rises in interest rates. A similar pattern emerges for offices. The industrial sector was bullish right after COVID-19, with massive declines starting in July 2022. This hints to the U.K. market having experienced a bubble in that sector. Interestingly, the data for the last month considered for this figure (i.e., March 2023) suggests that the market may have hit its bottom, confirming the evidence based on listed real estate data. Investors are becoming more optimistic as the bulk (if not all) of interest rate rises have occurred. During the entire period, industrial real estate values increased by 74%, whereas retail values decreased by 27%.

Price changes in the French and Italian markets have generally been more muted (Figure 3). Residential real estate is the best performing sector in France during the period and appears strong after the COVID-19 pandemic. Price increases have been sustained from 2014 to 2021 for industrial real estate in both countries. Consistent with the evidence from the listed real estate and U.K. direct markets, sharp price corrections occurred in that sector in 2022. Retail and office property values have been relatively stable in both countries since

the global financial crisis. Nevertheless, the relative stability, particularly in retail, conceals major variations across asset types. In Italy, prices rose almost continuously over the 2009-2022 period for street-level shops (+25%), whereas they have fallen for shopping centers (-26%). In France, prices for street-level properties stayed relatively stable over the 2017-2022 period - before and after Covid - but shopping center prices have fallen by 14%.

It is interesting to analyze Denmark, Finland, Germany, the Netherlands, Sweden and Switzerland as those countries have well-established residential sectors (Figures 4 to 9 show capital return indices for each of those countries). The figures indicate that the residential sector has performed very well during the period, confirming evidence of the strength of that sector in the U.S. The other sectors generally did not perform that well over the entire period, particularly in Finland. However, focusing on the last few years since the beginning of the COVID-19 crisis, industrial real estate values rose significantly in all countries. In fact, the industrial sector in Germany and the Netherlands performed well for a sustained period, from 2013 to 2021. As in many countries, a severe price correction occurred in 2022 in the industrial sector. In Switzerland, the hotel sector does not seem to have fully recovered from the COVID-19 crisis yet.

Focusing now on the period from 2004 to 2022 for which data are available across the 10 countries, Table 1 contains the average desmoothed capital returns and standard deviations across sectors. The table shows that the residential sector has been the strongest sector during this period, often with low levels of risk too. The industrial sector performed well in Spain, Sweden and the U.K. In Sweden, the office sector did almost as well as the residential sector with also a slightly lower level of risk. The retail sector had a negative average return in four countries (Finland, Italy, the Netherlands and the U.K.), whereas the

average office return was negative in three countries (Finland, Italy and the Netherlands). By and large, the results for the 19-year period confirm the strength of the residential and industrial sectors which did well during the pandemic and are doing well in the post COVID-19 period, except for the price corrections for industrial properties in 2022.

To dig deeper into the current dynamics of commercial real estate prices in Europe, we now turn to analyzing city-level data for the U.K., France, Italy, Germany, the Netherlands and Spain. This enables us to examine both sectoral and locational effects. For the U.K., we consider the evolution of price returns in eight cities for office, retail and industrial properties (Figure 10, Panels A-C). For France, we consider price returns for three sectors (offices, retail and residential) in Paris, two sectors in Lyon (offices and residential) and the office sector in Marseille and Toulouse (Figure 11). For Germany, we consider differences across five cities for the fast-growing residential sector (Figure 12). For Italy, we look at three sectors in Milan (offices, retail and industrial) and two sectors (offices and retail) in Rome (Figure 13). For the Netherlands, we consider returns for four sectors (offices, retail, industrial and residential) in Rotterdam and three sectors (offices, retail and residential) in Amsterdam, The Hague and Utrecht (Figure 14). Finally, for Spain, we look at three sectors (industrial, office and retail) in Madrid and two sectors (office and retail) in Barcelona (Figure 15).

All three panels of Figure 10 are indicative of the strong influence of the London market. For instance, the decline in U.K. retail capital values would have been much more pronounced without the resilience of the London market. For industrial properties (Figure 10, Panel C), price increases have been phenomenal in London (almost 300% for the 10-year period finishing in the first quarter of 2022).

Figure 11 shows the strength of the residential sector in France, highlighted by the surge in the indices for Paris and Lyon. The retail market in Paris remains strong. Office markets in Paris and Lyon show substantially more resilience than their counterparts in Marseille and Toulouse. Figure 12 suggests that the increase in residential values in Germany is by no small means influenced by the sharp increase in residential values in Munich. This provides further evidence of the overheating of the Munich residential market. According to UBS (2022), the housing market in Munich has been experiencing a bubble for about five years. In Italy, price changes in Milan are greater than in Rome (Figure 13). As in other locations, industrial properties in Milan performed well after COVID-19, but price corrections occurred in 2022. In the Netherlands, Figure 14 shows that the residential market did well in all cities. The office market is driven by that of Amsterdam, while the retail market suffered the most in The Hague. Office values in The Hague have been declining for many years. As in many locations, the industrial market in Rotterdam did well immediately after the COVID-19 crisis but corrected in 2022. Finally, Figure 15 shows that the price of industrial properties in Madrid doubled from 2014 to 2022, confirming the strength of the sector in other countries. The figure also shows that the Barcelona market has performed well relative to that of Madrid, which suffered heavily during the global financial crisis.

Economic and Property Outlook

In this section, we look at some of the major economic and financial factors that affect the profitability of investment real estate, especially gross domestic product, inflation, and short-term and long-term interest rates. First, we shall outline how these variables have developed for Europe as a whole. We then identify the mechanisms that have caused or exacerbated the changes in property prices since 2022, and analyze their speed and intensity. Lastly, we

propose medium-term price trajectories, based on yield gap and risk premium approaches, using assumptions about the economic situation and according to asset types.

Figure 16 shows quarterly data from Q1 2000 to Q2 2023 for gross domestic product, the consumer price index and 10-year government bond yields for the Eurozone as a whole (sources: Macrobond and Eurostat). Of the ten European countries covered in this study, six are part of the Eurozone (Finland, France, Germany, Italy, the Netherlands and Spain), while four have kept their local currencies (Denmark, Sweden, Switzerland and the U.K.). In 2021, Eurozone GDP recovered strongly (+5.6%), thanks to the lifting of health restrictions and gradual containment of the pandemic, making up much of the value added that was lost during the Covid crisis in 2020 (-6.2%). Economic growth was still buoyant in 2022 (+3.4%), well above its historical level (+1% annual average from 2000 to 2020). In particular, the post-Covid momentum helped to buffer three major shocks in 2022: the war in Ukraine, high inflation and rising interest rates. In 2023, these different shocks are having a greater economic impact, with growth seemingly close to zero, in technical recession (according to the latest available data), but still relatively limited compared with the crises of 2020 and 2009. For the other countries outside the Eurozone, the general trend is fairly similar (for example, see IMF, 2023 for more details). Consensus Economics (2023) expects economic growth in Europe between 2024 and 2033 to be similar to the average annual growth figure posted between 2010 and 2022 (1.3% for the Eurozone).

As in most European countries, inflation in the Eurozone began to gather momentum in late 2021 (+4.6%), as post-Covid demand caught up with supply bottlenecks. It intensified from 2022 (8.4%) due to the crisis in energy and food commodities caused by the Russia-Ukraine conflict (Stiglitz and Regmi, 2023). After relatively low inflation between 2010 and

2021 (1.3%), it is expected to rise in the Eurozone over 2024-2033 (2.1% according to Consensus Economics, 2023), in keeping with the rest of Europe. In this context, the era of very low interest rates that began in 2015, due to the European Central Bank's quantitative easing policies, came to an end in 2022. This meant that the average yield on 10-year government bonds in Eurozone countries had risen from 0.2% at the end of 2021 to 3.0% by the beginning of 2023. Over the next 10 years, bond yields in Europe are expected to be relatively stable or even slightly lower than at present (Consensus Economics, 2023).

Figure 17 shows prime initial yields for the three main commercial real estate asset categories (offices, warehouses and retail). These are calculated as a quarterly average from Q4 2020 to Q2 2023 for 16 European cities (Amsterdam, Berlin, Brussels, London, Paris, Dublin, Frankfurt, Hamburg, Lisbon, Luxembourg, Madrid, Milan, Munich, Prague, Vienna and Warsaw) based on BNP Paribas Real Estate data. First, we can see that prime yields have generally trended downwards since the early 2000s, with just two upswing periods: the 2008-2009 financial crisis and the current bond crisis that began in 2022. Yet retail yields began to climb again in 2020, as prices for these assets fell earlier than for other asset classes. Between end-2014 and end-2021, prime yields for offices fell from 5.4% to 3.2%, for warehouses from 6.8% to 3.5% and for retail premises from 4.5% to 3.4%. Meanwhile, prime rents for these assets rose by 25%, 20% and decreased by 3%, respectively (source: BNP Paribas Real Estate).

Based on a simple valuation using the capitalization method, calculating the ratio between changes in rents and changes in initial yields, prime prices rose by 81% for offices, 103% for warehouses and 14% for retail premises over the 2014-2021 period, with changes in yields accounting for most of the increase in prices. In the wake of the bond crisis, prime yields for offices, warehouses and retail premises expanded by 110, 90 and 50 basis points,

respectively, between the end of 2021 and mid-2023. The slower rise in yields for this last asset category stems partly from its earlier start on the upward cycle, as retail was hit harder and earlier by Covid-19 (lower physical demand and footfall, falling sales and bankruptcies among retailers of all sizes).

The yield gap, calculated as the difference between the real estate initial yield and the risk-free rate, helps to better understand yield trends. Our benchmark is the 2000-2014 period, i.e., before quantitative easing was introduced, so that the calculations strip out the 2015-2021 period, during which bond yields were abnormally low compared with real estate yields. It can be assumed that investors kept a high yield gap during this period. This was not to compensate for the intrinsic risk of property, but to protect themselves against expected interest rate hikes, which were constantly being forecast and then postponed by the economic consensus. Indeed, it may be the high level of risk remuneration that accounted for the stability or even rises in property prices during the 2020 Covid-19 crisis (Hoesli and Malle, 2022). The yield gaps between the prime yields of the three asset classes (offices, warehouses and retail premises) appear relatively high over the 2000-2014 period (170, 328 and 103 basis points, respectively) compared with mid-2023 (124, 134 and 84 basis points).

Assuming a return to the average yield gap between 2000 and 2014, property yield expansion would still have some way to go as of mid-2023, so further price falls may be expected. These residual corrections should be relatively moderate for offices, significant for warehouses and minor for retail assets. We have already given explanations for retail, which may be close to bottoming out in terms of price compared with other assets. Conversely, warehouses prices have shown signs of stabilizing, running counter to the yield gap approach that we are trying to develop. However, warehouses have already been transformed in the

property investment landscape, suggesting that a return to the historic yield gap is unnecessary. First, warehouses have become more prominent in the European property portfolios of institutional investors in 2023. They now represent 17% of assets vs. 40% for offices and 16% for retail, whereas in 2013 the figures were 7% for logistics, 43% for offices and 30% for retail. Moreover, demand for warehouses is much stronger today in most major European cities, with relatively short supply and prospects of significant rent rises in the short and medium term (BNP Paribas Real Estate, 2023a). For offices, reduced corporate demand due to new working practices (particularly flexoffice and teleworking) warrants a higher risk premium when investing in the asset category. However, since Covid, demand has tended to be for well-located, recent or new buildings, resulting in very low vacancy rates and rising rents in Europe's main business districts, and therefore lower risk when investing in prime assets (BNP Paribas Real Estate, 2023b). Given that economic growth should stay resilient over the medium term, and inflation high, demand for office space should remain robust, underpinning strong rental growth prospects, particularly in prime markets.

The risk premium approach should be used in conjunction with the yield gap. By transposing the Gordon and Shapiro (1956) formula for property investment, assuming constant rental growth and risk-free rates over the asset's holding period, the property risk premium is equal to the yield gap plus the expected rental growth rate. In other words, all other things being equal, rental inflation exerts downward pressure on initial rates of return and therefore on real estate prices. This means that capital value corrections should be more limited in sectors with robust rental growth prospects, particularly in prime markets. Conversely, office demand is currently less buoyant, particularly in outlying areas, with structurally high levels of supply and a less optimistic outlook for rental growth (BNP Paribas

Real Estate, 2023c). As a result, these non-prime market segments may not benefit from the positive impact of the real estate risk premium on capital values. Price corrections for these asset classes could therefore be steeper and last longer. Valuation experts will also be required to value rented properties at a time when market rents are falling, yet rental income is rising through indexation, which is often linked to inflation. This could delay and therefore smooth the price correction cycle across the overall market, which is showing increasing disparities in terms of valuation prospects.

Conclusions

An investigation of commercial real estate prices in Europe is warranted to examine the dynamics across sectors after the COVID-19 crisis and to assess the impacts of rising interest rates and inflation on real estate values. Our analyses for various countries, using both securitized and direct real estate return data, suggest that the industrial sector has benefited from the COVID-19 crisis. The large surge in industrial values after the COVID-19 pandemic was followed, however, by large price corrections in 2022. For some markets, e.g., London, the data point to a bubble in that sector.

Our analysis also shows that the residential sector has performed well. Residential properties continued their upward price trend and have been the best-performing property type during the 2004-2022 period. Retail real estate continued its downward price trajectory. Thus far, office markets do not appear to be significantly affected by structural changes in the sector. City-level data reveal that the real estate markets of London, Paris, Amsterdam, Milan and Munich often drive returns in their respective countries. Our data, in particular pertaining to the listed real estate market, suggests that markets bottomed out in early 2023. Given that the listed market should lead price changes in direct markets, it will be interesting to see

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

whether such dynamics uphold as data for direct markets become available for the next periods.

In the medium term, resilient economic growth in Europe would enable rental demand for real estate to remain solid. However, there is greater selectivity in terms of geography and asset quality in the post-Covid environment. Inflation is expected to be controlled and sustained; this should enable rents to rise appreciably, particularly for prime assets. The inflationary shock helps to mitigate the bond shock of 2022, by limiting the rise in real estate yields to that of the risk-free rate. Against this backdrop, prime asset prices could stabilize over 2023-2024, before beginning a cycle of rises thanks to rents. The situation is likely to be more mixed in peripheral markets, with in some cases greater value correction phases and longer durations to be expected. We have also highlighted the usefulness and limitations of the yield gap and risk premium approaches in calculating real estate initial yields. These issues account for much of investors' wait-and-see attitude and are therefore disrupting price formation.

References

- Balemi, N., Füss, R. and Weigand, A. (2021), "COVID-19's impact on real estate markets: review and outlook", *Financial Markets and Portfolio Management*, Vol. 35 No. 3, pp. 495-513.
- Bergeaud, A., Eyméoud, J.-B., Garcia, T. and Henricot, D. (2023), "Working from home and corporate real estate", *Regional Science and Urban Economics*, Vol. 99, 103878.
- BNP Paribas Real Estate (2023a), "European Logistics Market", *Property Report*, February, Paris.
- BNP Paribas Real Estate (2023b), "Main Office Markets in Europe", *At a Glance*, February, Paris.
- BNP Paribas Real Estate (2023c), "European Property Market – After the Reset: Now Repositioning", *Outlook*, February, Paris.
- Consensus Economics Inc. (2023), "Consensus Forecasts: Surveys of International Economic Forecasts", April, London.
- Geltner, D. (1993), "Estimating market values from appraised values without assuming an efficient market", *Journal of Real Estate Research*, Vol. 8 No. 3, pp. 325-345.
- Gordon, M. J. and Shapiro, E. (1956), "Capital equipment analysis: the required rate of profit", *Management Science*, Vol. 3 No. 1, pp. 102-110.
- Gupta, A. and Bajaj, D. (2023), "Commercial office portfolio risks during the COVID pandemic and the future beyond – a survey of stakeholders in India", *Journal of Property Investment and Finance*, Vol. 41 No. 5, pp. 523-537.
- Gupta, A., Mittal, V. and Van Nieuwerburgh, S. (2023), "Work from home and the office real estate apocalypse", working paper, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4124698.
- Hoesli, M. and Malle, R. (2022), "Commercial real estate prices and COVID-19", *Journal of European Real Estate Research*, Vol. 15 No. 2, pp. 295-306.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Hoesli, M. and Oikarinen, E. (2012), “Are REITs real estate: Evidence from international sector level data”, *Journal of International Money and Finance*, Vol. 31 No. 7, pp. 1823-1850.

Hoesli, M. and Oikarinen, E. (2021), “Does listed real estate behave like direct real estate? Updated and broader evidence”, *Applied Economics*, Vol. 53 No. 26, pp. 3023-3042.

International Monetary Fund (2023), “World Economic Outlook Update: Near-Term Resilience, Persistent Challenges”, July, Washington, DC.

Ling, D. C., Wang, C. and Zhou, T. (2020), “A first look at the impact of COVID-19 on commercial real estate prices: Asset-level evidence”, *Review of Asset Pricing Studies*, Vol. 10 No. 4, pp. 669-704.

Milcheva, S. (2022), “Volatility and the cross-section of real estate equity returns during COVID-19”, *Journal of Real Estate Finance and Economics*, Vol. 65, pp. 293-320.

Newell, G. and Marzuki, M.J. (2023), “The impact of the COVID-19 crisis on global real estate capital flows”, *Journal of Property Investment and Finance*, forthcoming.

Stiglitz, J.E. and Regmi I. (2023), “The causes of and responses to today’s inflation”, *Industrial and Corporate Change*, Vol. 32 No. 2, pp. 336–385.

UBS (2022), *UBS Global Real Estate Bubble Index 2022*.

Xie, L. and Milcheva, S. (2020), “Proximity to COVID-19 cases and real estate equity returns”, working paper, SSRN, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3641268.

Table 1: Average Capital Return and Risk Across Sectors, 2004-2022

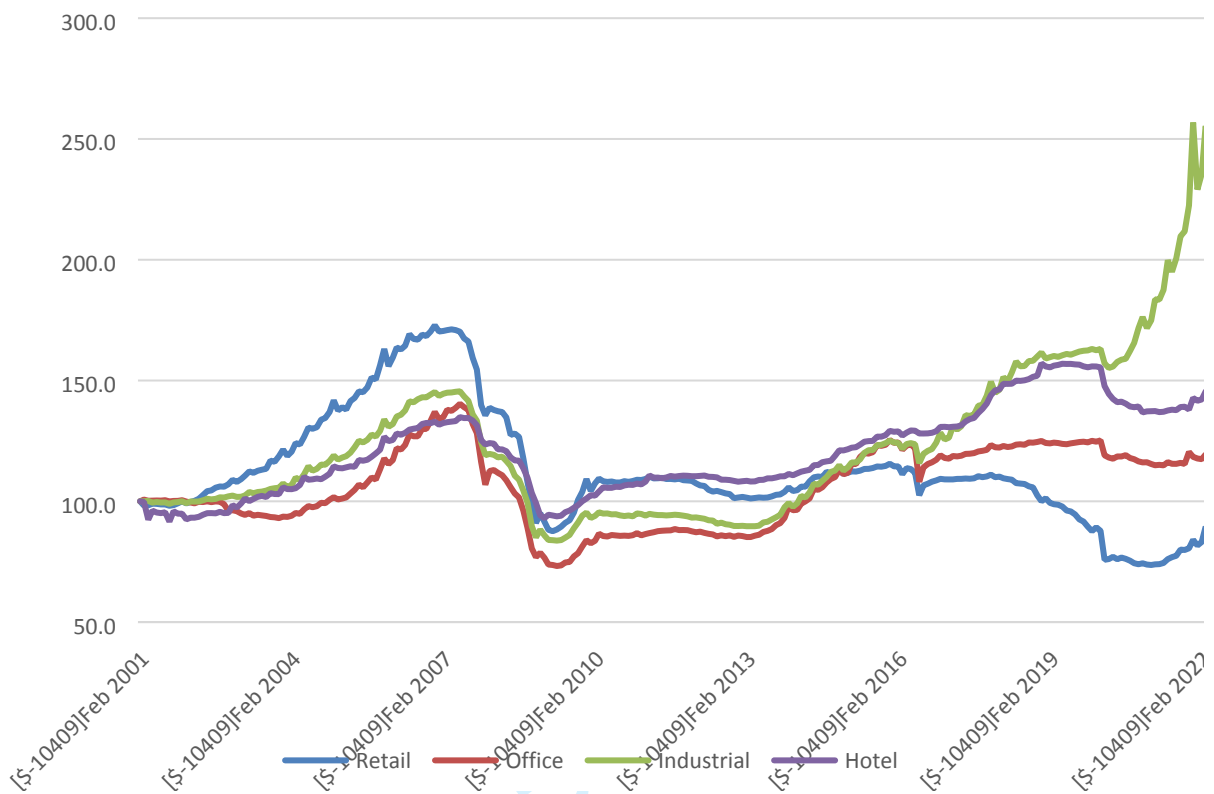
	Office	Retail	Industrial	Residential	Hotel
Denmark	1.9 (4.8)	N/A	0.7 (6.7)	4.9 (11.9)	N/A
Finland	-0.6 (3.2)	-0.7 (6.2)	0.0 (4.7)	3.0 (6.1)	1.1 (5.0)
France	0.6 (5.4)	0.9 (5.8)	0.7 (7.1)	1.4 (4.2)	N/A
Germany	0.8 (6.0)	0.2 (3.4)	1.2 (12.8)	3.9 (5.7)	0.3 (4.7)
Italy	-0.1 (1.7)	-0.2 (2.2)	0.6 (6.8)	N/A	N/A
Netherlands	-0.6 (9.7)	-0.5 (6.5)	1.0 (12.7)	3.5 (9.1)	N/A
Spain	1.5 (11.3)	0.6 (12.5)	1.6 (15.4)	N/A	N/A
Sweden	4.9 (10.4)	2.5 (11.3)	2.8 (12.3)	5.2 (11.9)	3.9 (13.0)
Switzerland	1.3 (1.4)	1.5 (1.7)	0.1 (1.8)	2.4 (1.5)	N/A
U.K.	0.3 (8.0)	-2.7 (8.8)	2.5 (10.2)	N/A	0.9 (4.8)

Note: The first figure in each cell is the average desmoothed capital return, while the figure in parentheses is the standard deviation of desmoothed capital returns.

Figure 1: Listed Real Estate Price Indices (Developed Europe)

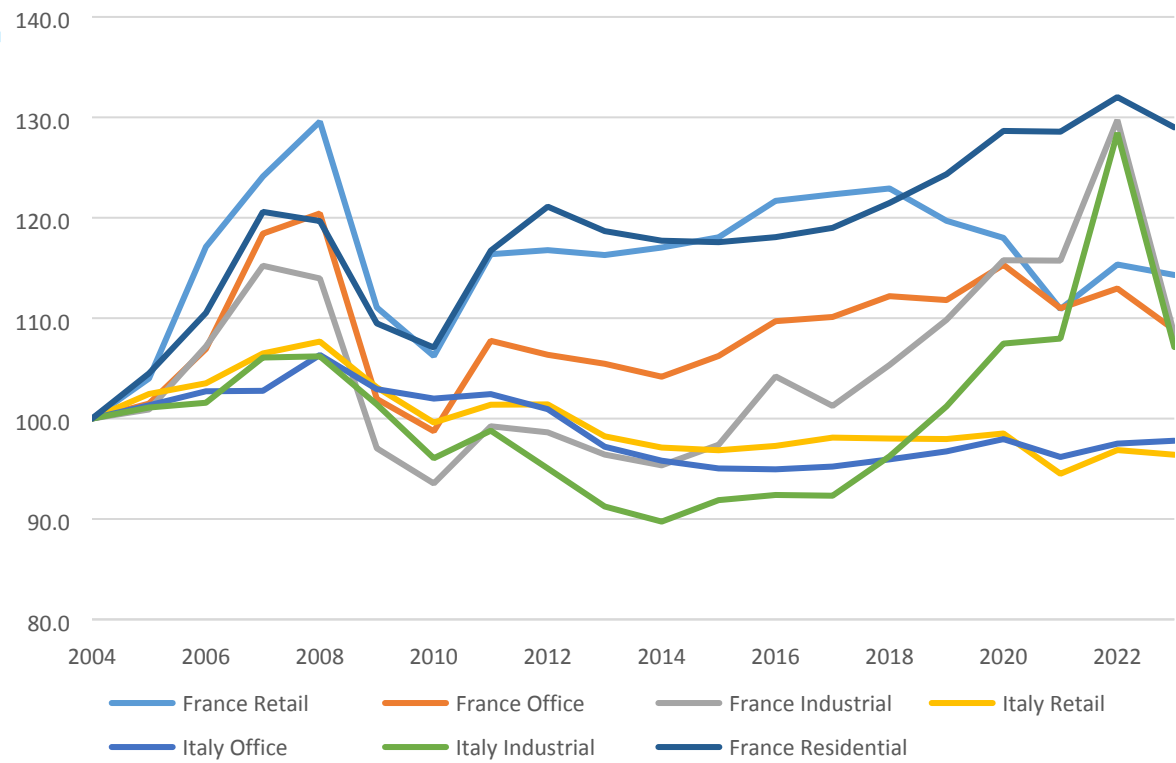


Sources: EPRA and authors' calculations.

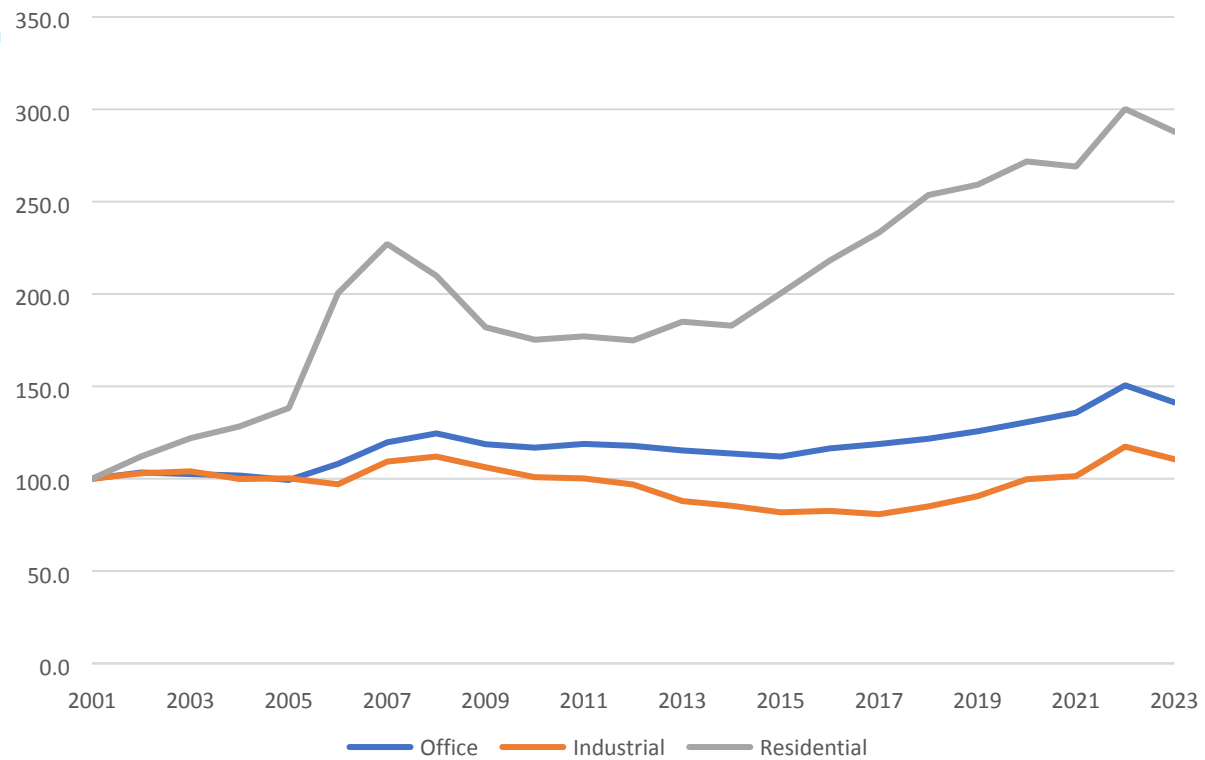
Figure 2: Commercial Real Estate Prices in the U.K. (Desmoothed)

Sources: MSCI and authors' calculations.

Figure 3: Commercial Real Estate Prices in France and Italy (Desmoothed)

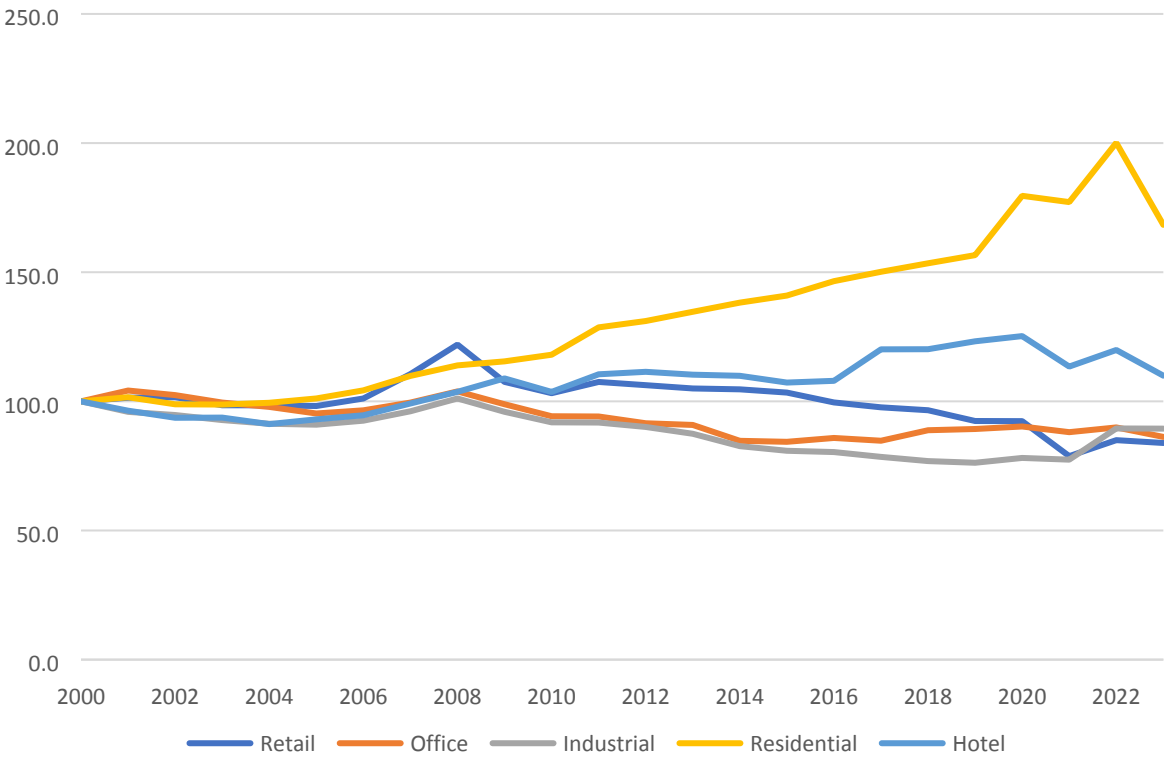


Sources: MSCI and authors' calculations.

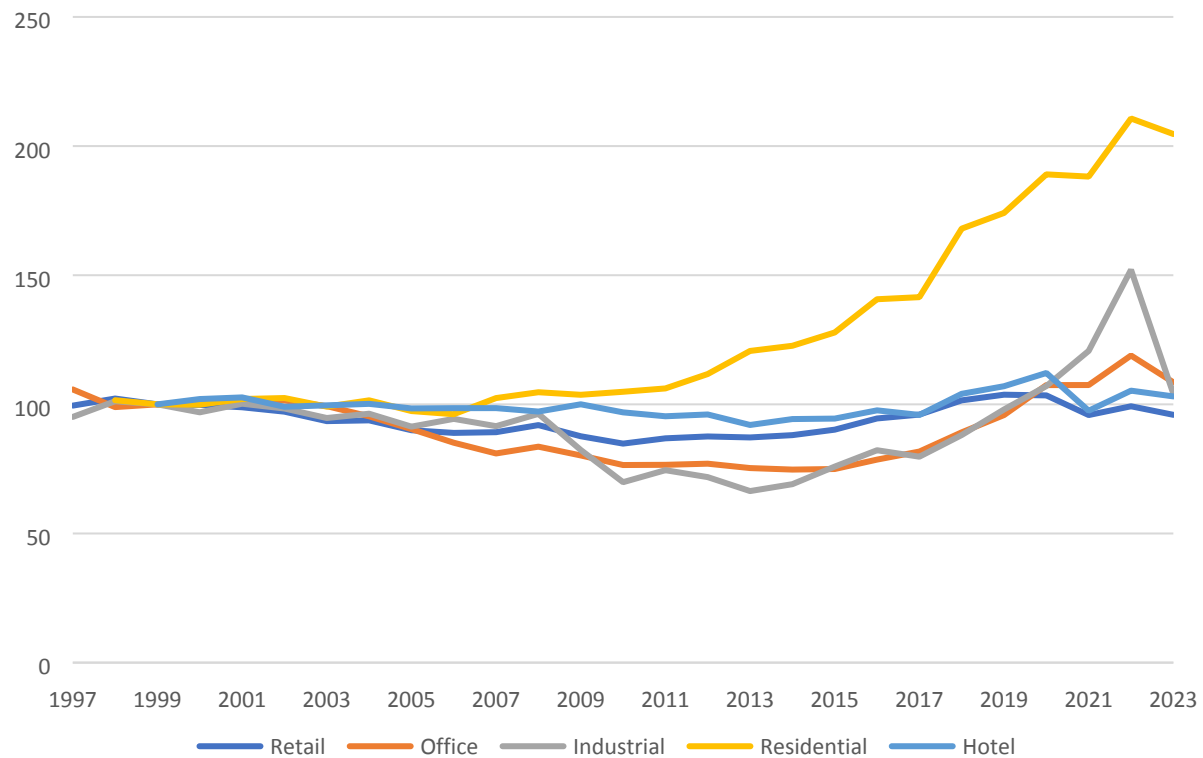
Figure 4: Commercial Real Estate Prices in Denmark (Desmoothed)

Sources: MSCI and authors' calculations.

Figure 5: Commercial Real Estate Prices in Finland (Desmoothed)

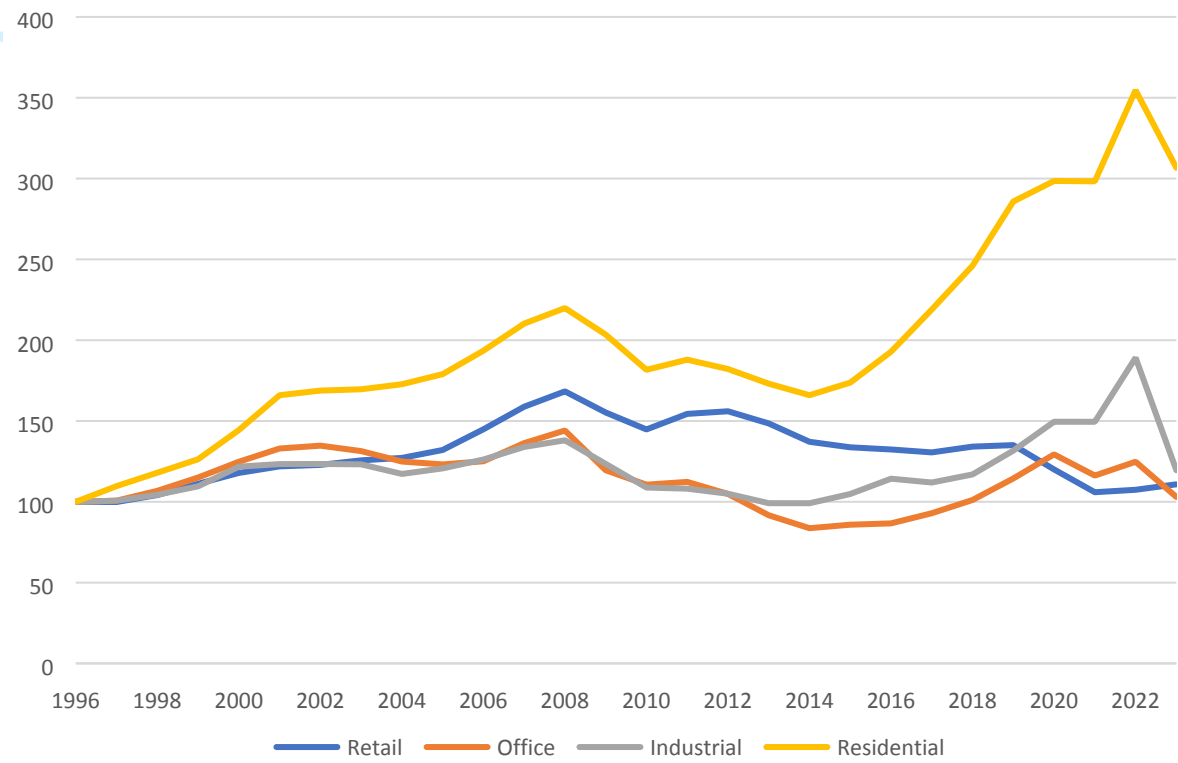


Sources: MSCI and authors' calculations.

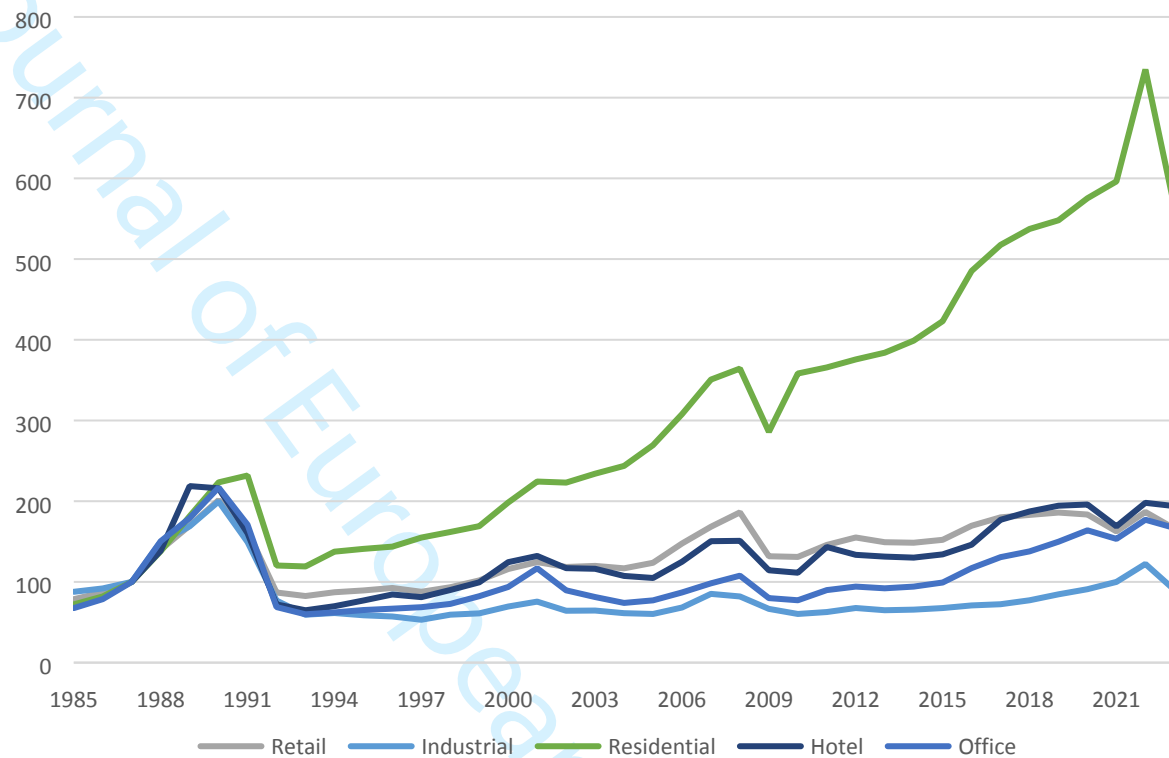
Figure 6: Commercial Real Estate Prices in Germany (Desmoothed)

Sources: MSCI and authors' calculations.

Figure 7: Commercial Real Estate Prices in the Netherlands (Desmoothed)

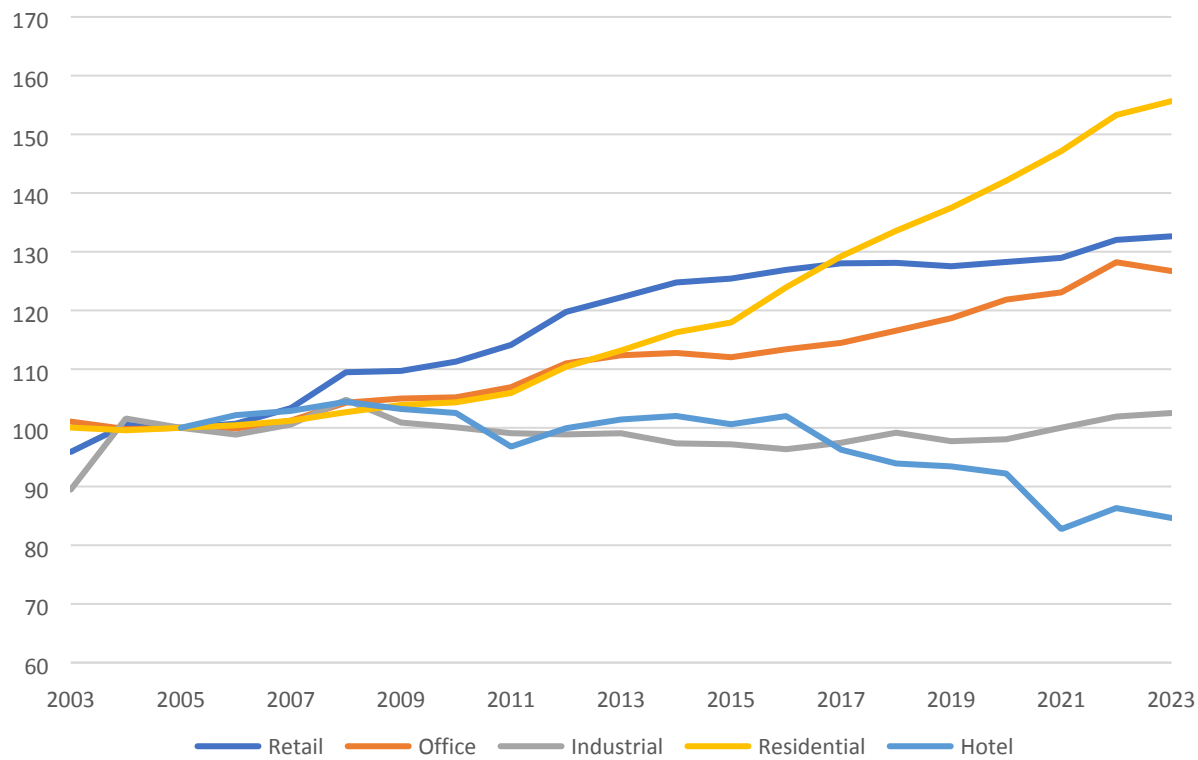


Sources: MSCI and authors' calculations.

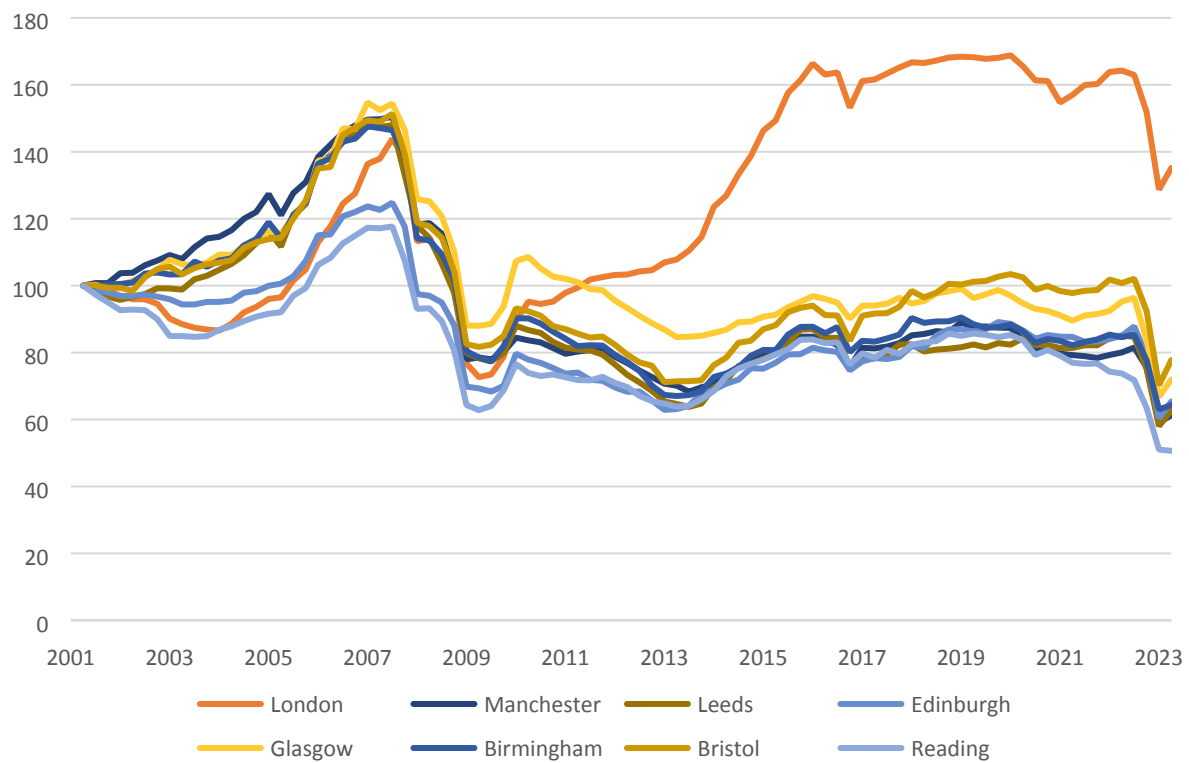
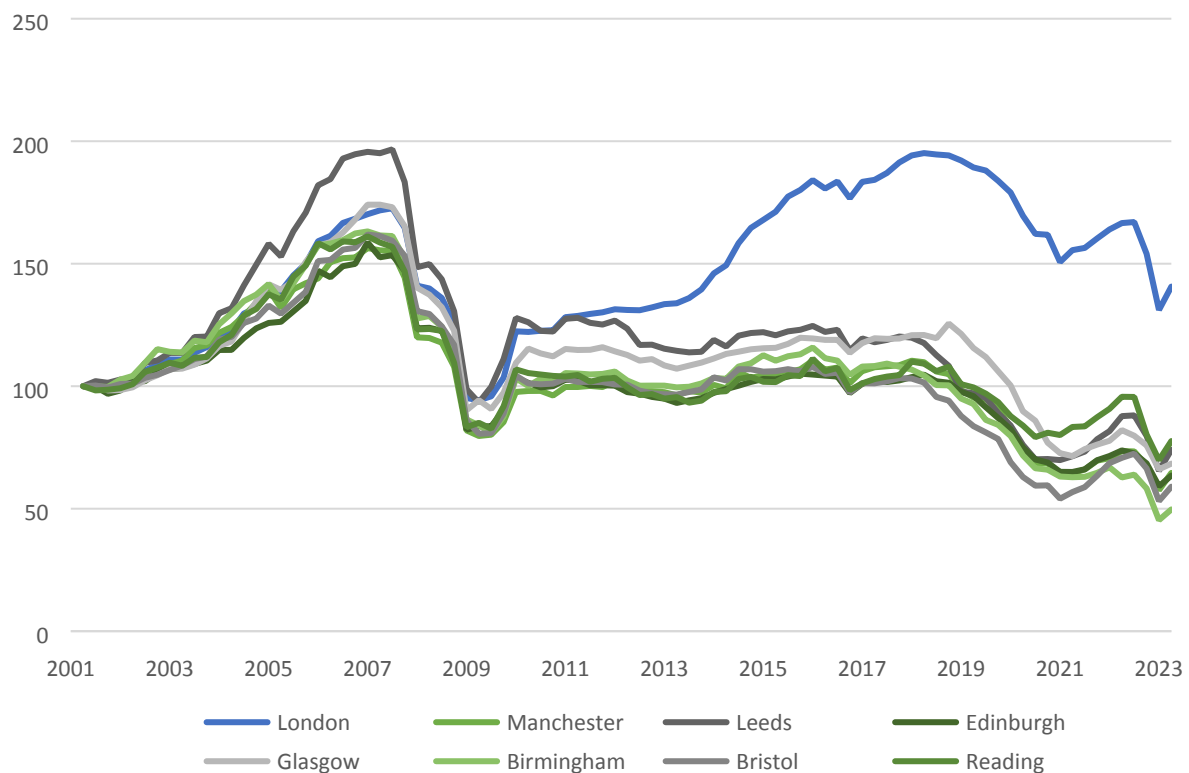
Figure 8: Commercial Real Estate Prices in Sweden (Desmoothed)

Sources: MSCI and authors' calculations.

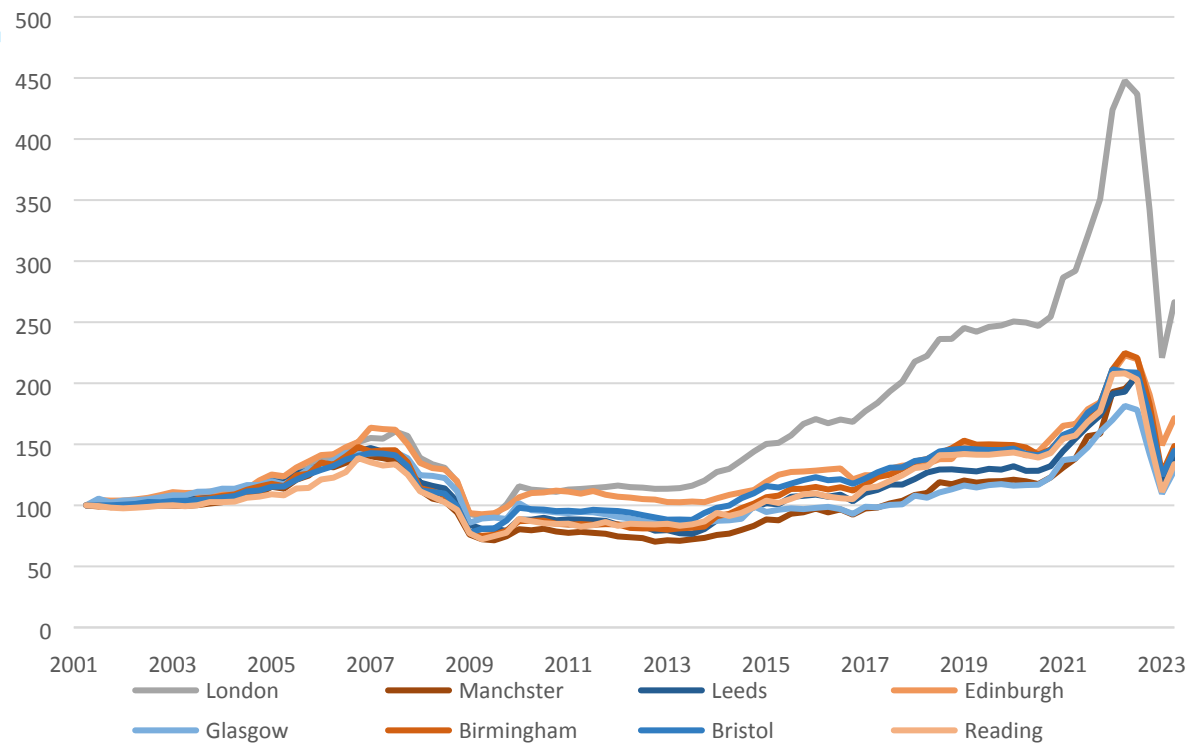
Figure 9: Commercial Real Estate Prices in Switzerland (Desmoothed)



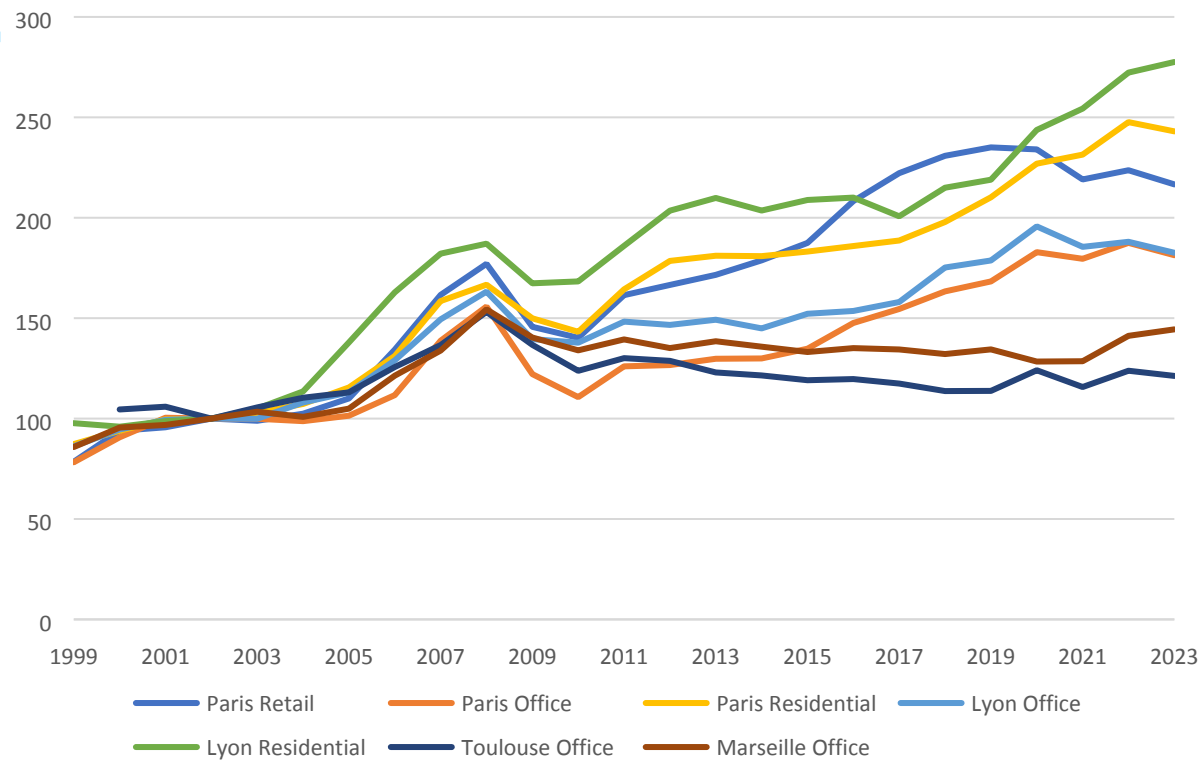
Sources: MSCI and authors' calculations.

Figure 10: City-Level Commercial Real Estate Prices in the U.K. (Desmoothed)**Panel A. Office****Panel B. Retail**

Panel C. Industrial

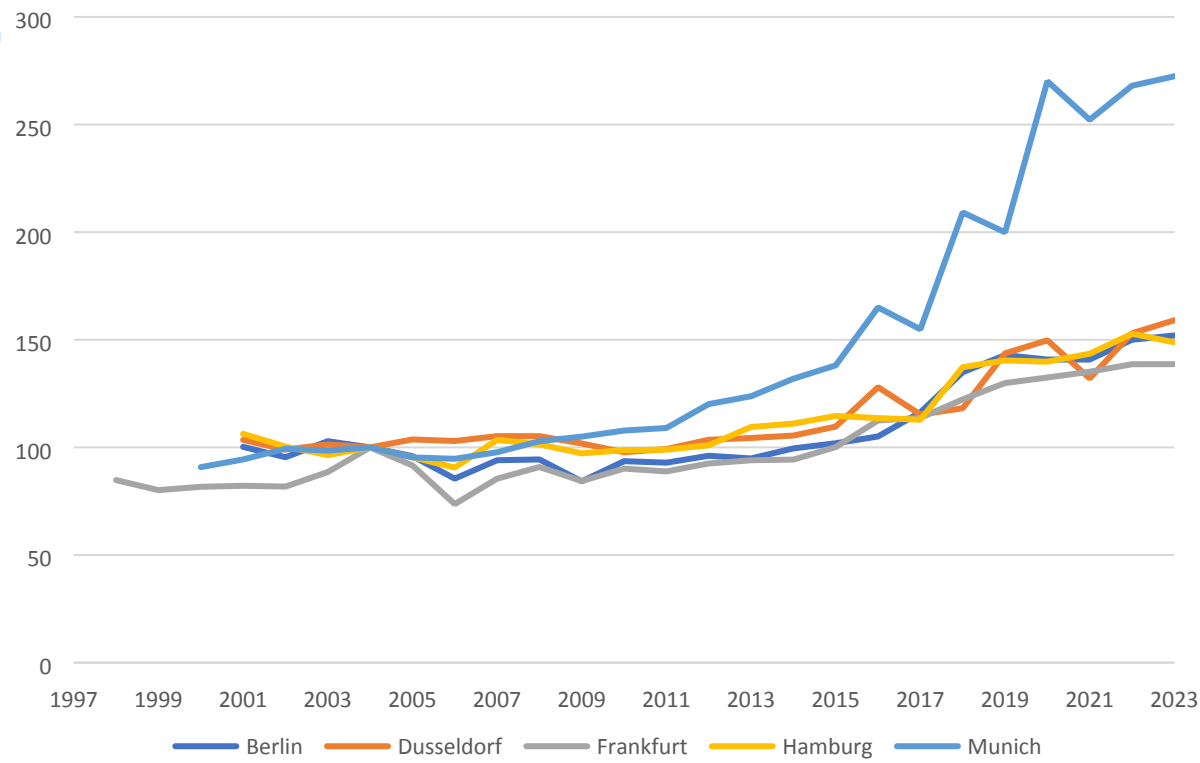


Sources: MSCI and authors' calculations.

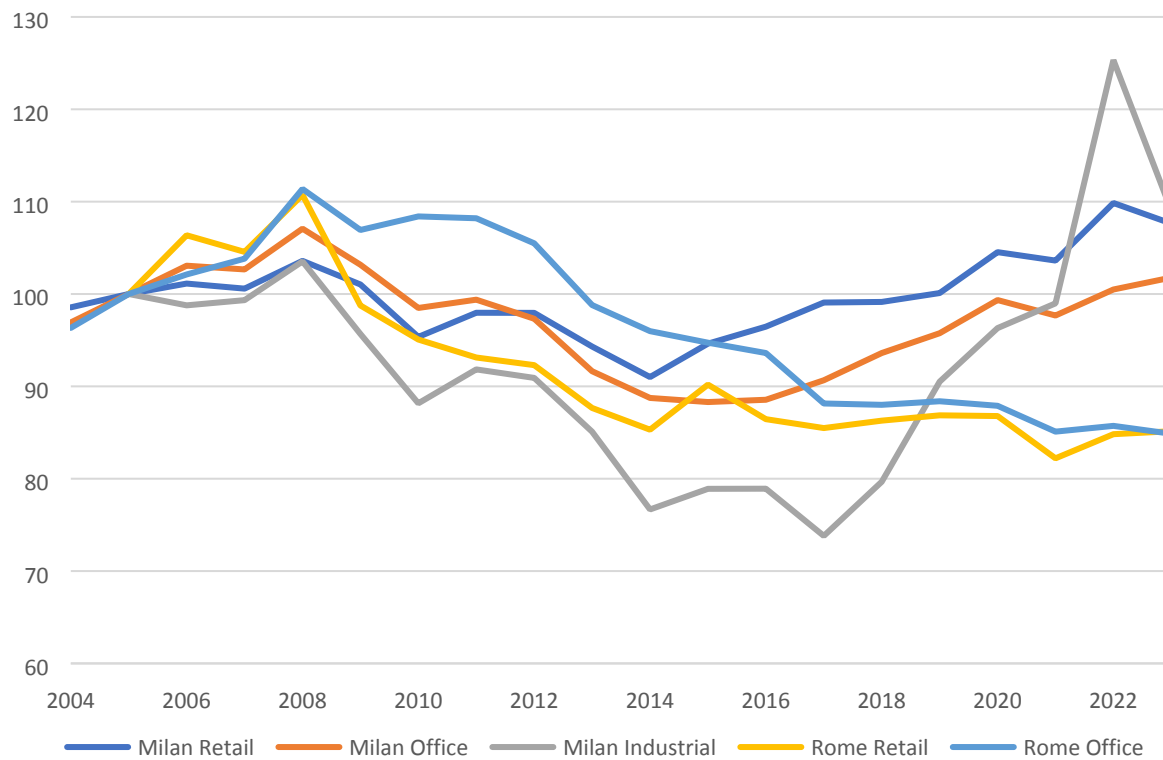
Figure 11: City-Level Real Estate Prices in France (Desmoothed)

Sources: MSCI and authors' calculations.

Figure 12: City-Level Residential Real Estate Prices in Germany (Desmoothed)

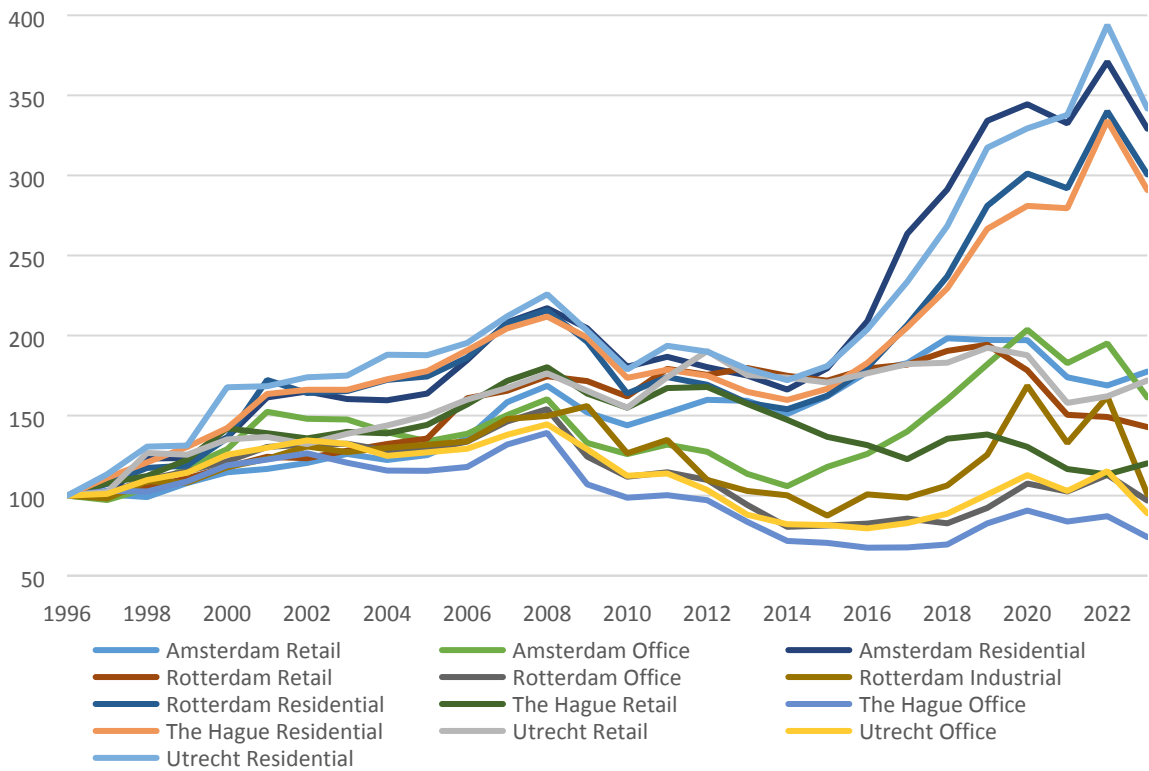


Sources: MSCI and authors' calculations.

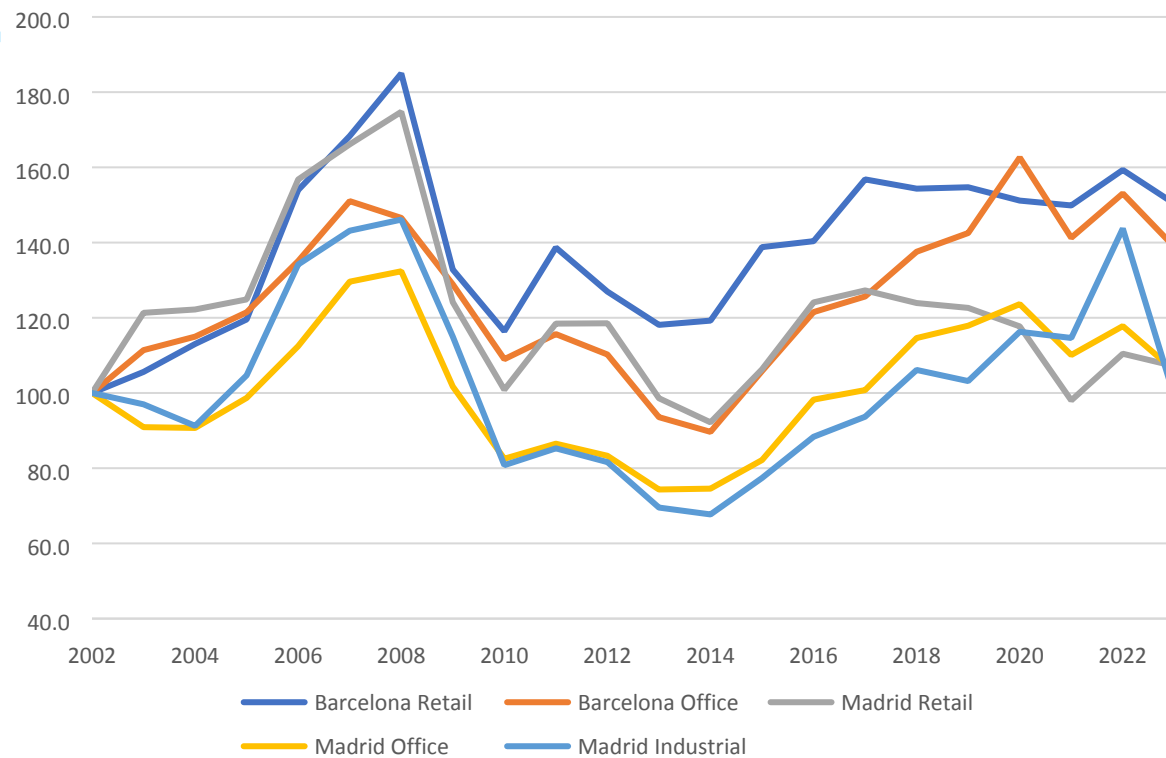
Figure 13: City-Level Real Estate Prices in Italy (Desmoothed)

Sources: MSCI and authors' calculations.

Figure 14: City-Level Real Estate Prices in the Netherlands (Desmoothed)

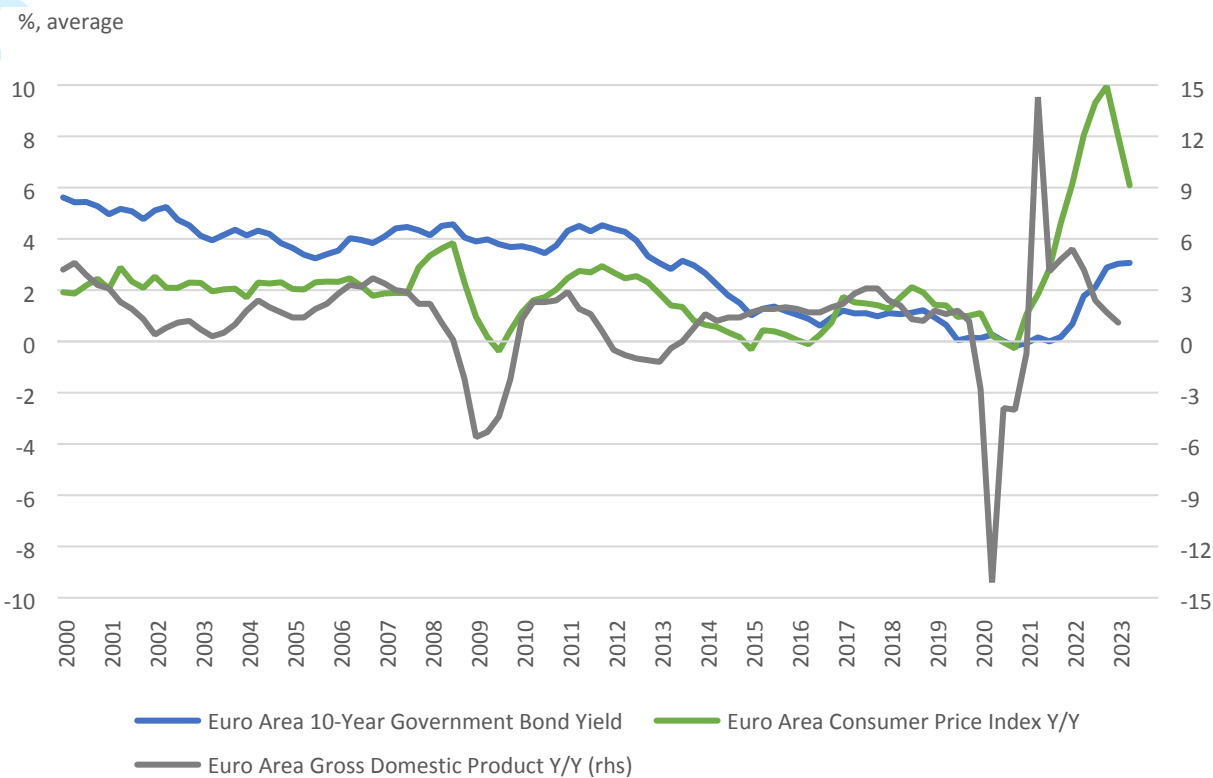


Sources: MSCI and authors' calculations.

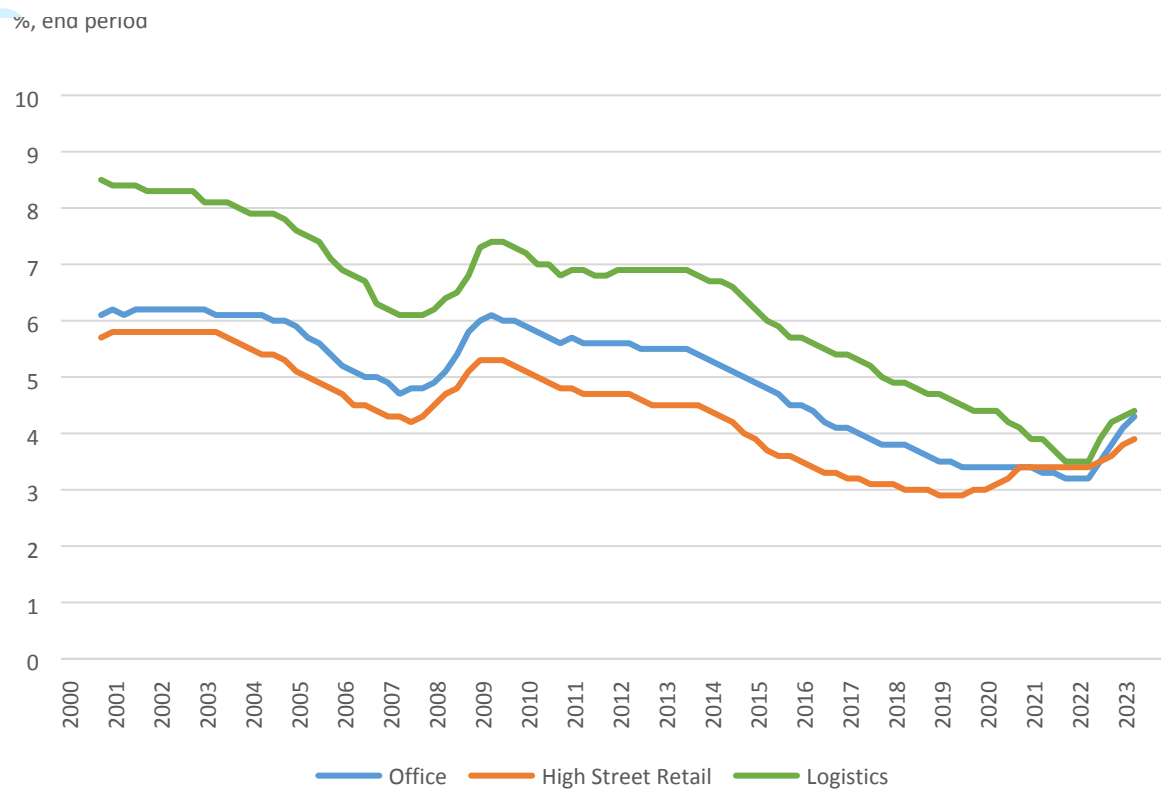
Figure 15: City-Level Real Estate Prices in Spain (Desmoothed)

Sources: MSCI and authors' calculations.

Figure 16: Bond Yields, CPI and GDP in the Euro Area



Sources: Macrobond and Eurostat.

Figure 17: Prime Initial Yields in Europe

Source: BNP Paribas Real Estate.