



# EMERALD MANAGEMENTS LUXEMBOURG

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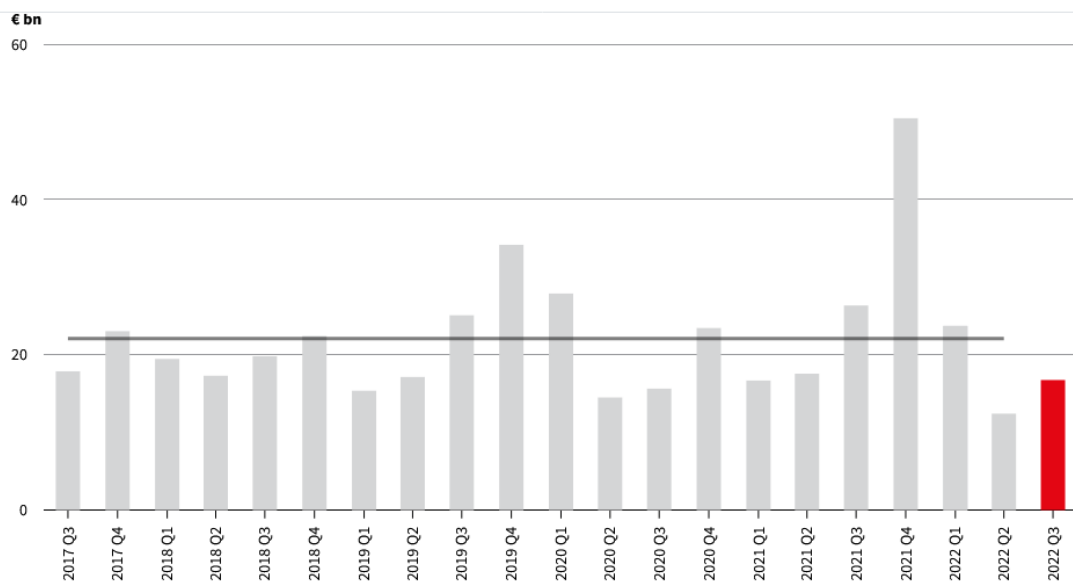
## GERMAN MARKET OVERVIEW FOR THE PERIOD Q1-Q3 2022

CURRENT TIMES ARE OF A UNIQUE NATURE, SINCE MANY OF THE MARKET PARTICIPANTS BELIEVE WE HAVE NEVER BEEN IN AN ENVIRONMENT WHICH IS AFFECTED BY SO MANY DIFFERENT VARIABLES AND WITH SOME OF THEM, WITH AN UNPREDICTABLE SCENARIO FOR THE ECONOMY

We currently are under events of war, conflict, capacity shortages, climate change, increases in costs, increased government debts, central banks trying to reduce their exposure, inflation, rising rates, uncertain economics, social tensions, COVID, reduction of globalisation, just to name a few of such variables, which have a stranglehold on politics, economics and society as a whole, which is also more polarized than ever in the last 40 years.

Winds have also changed in the real estate sector, even if the current situation does not show it at the level that we seem to hear and read about, since **everything we read, points to a catastrophe, and the proper data does not seem to suggest this for Germany as we will see with the data and the conclusion in the last pages:** the total investment in the German real estate market in the first year was 53 billion euros the first nine months of 2022. This is a 13% drop from 2021, but still a satisfactory result given the turbulent and uncertain market conditions. In the third quarter alone, real estate with a total value of almost €17 billion exchanged hands, which is more than in the period from April to June. The number of transactions has increased again, therefore, although there is talk of a general cooling of the market, there is no reason to sound the death bell for the German real estate investment market.

### TOTAL VOLUME OPERATIONS WITH PROPERTIES



Status: October 2022; Source: JLL



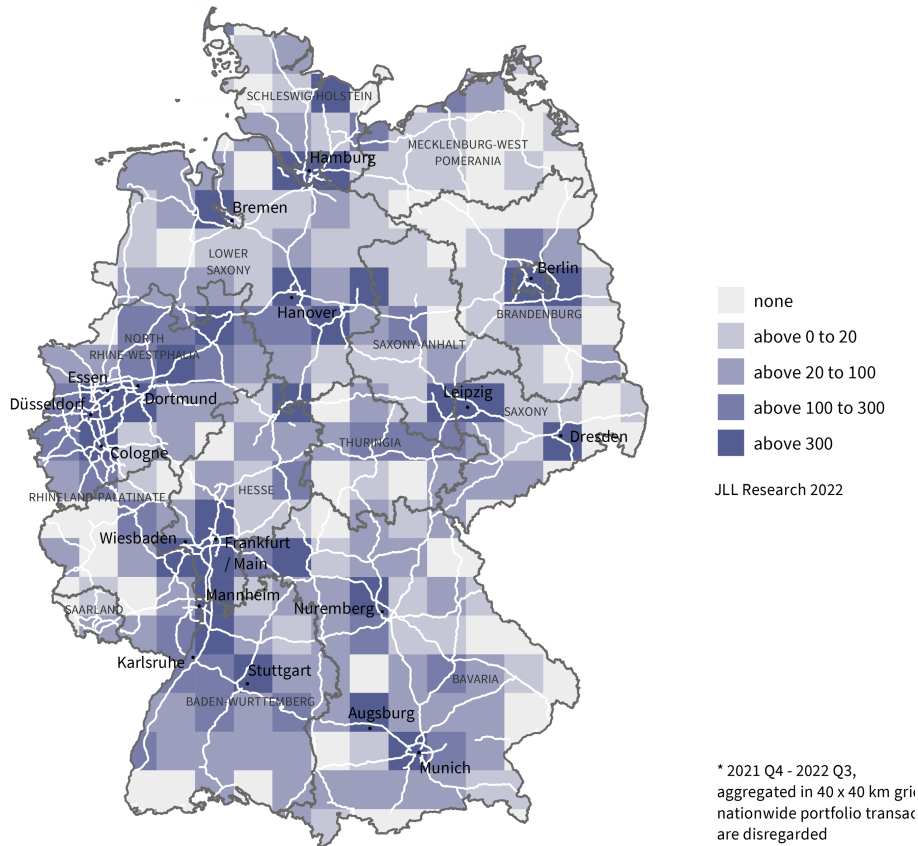
Need to note, that at the moment, the critical issue is less a look back to the third quarter, but rather the overall market trend into the final quarter of the year. There are some positive signs that the market is learning to live with the new framework conditions. At the same time, is quite visible that investors are very careful, more than before the pandemic.

One reason for this, is the high inflation rates and, in particular, their persistence. Market participants are currently uncertain about the effects of rising bond yields, the further development of central bank base rates and the potential impacts of a recession on the supply and demand situation in the real estate economy, and many are adopting a wait-and-see approach. Pricing in the bond market is generally taken as a reference point for pricing in the property sector. The currently unclear reactions of the European Central Bank (ECB) in terms of combating inflation through changes in interest rates indicate that **investors are likely to remain in something of a “price discovery mode” until the end of the year.** There is some clarity offered by the latest rise in interest rates including the announcement of at least two further hikes by the end of the year.

Real estate remains an important building block in terms of portfolio diversification and can provide inflation protection through appropriate contractual structures. Even if, according to Preqin, there is still a significant amount of liquidity in the global market, and capital of more than \$380 billion has not yet been invested in the middle of the year, investment opportunities for investors are narrowing because either sellers are not ready to accept the price discounts or because debt financing is in short supply in the current market. However, all parties are still willing to make deals. Investors and lenders are focusing on deals that offer a long-term focus and promise sustainable growth potential. **The market is currently in transition, new price levels are being processed, and the type of liquidity is changing from debt to equity. The capital market is also moving sideways. Unlike the previous flight into real estate was due to a zero or negative interest rate environment, currently the investment focus is shifting towards inflation hedges being real estate one of such options,** generating real returns and exploiting the exchange rate opportunities offered by the euro.



TRANSACTION VOLUME IN MILL EURO IN GERMANY 1



High purchase prices are still accepted in the prime segment has noted JLL, who is currently observing some sales still being concluded at the same pricing level as early in the year, but that other transactions are now based on new pricing levels. **Purchasers are still prepared to pay high prices, particularly in the prime segment. The decisive factors are the level of rental growth potential, the equity ratio and whether banks are willing to provide financing.** However, for leverage-orientated investors, the investment opportunities are currently very limited in view of the total financing cost of around 4.4%.

JLL is sticking to its forecast of around €70 billion in annual transaction volume in 2022, a 37% drop from the previous year. This means that in the last quarter, a volume of about 17 billion euros is expected. No one is looking forward to the traditional annual rally in 2022. Now there is a period of reorientation, which is likely to last at least three to four months.

At this stage, JLL expects institutional investors to increase their investment in fixed-rate government bonds in particular. The yield on 10-year German government bonds is around 2.0%. In nominal terms, the yield gap between

<sup>1</sup> JLL Transaction volume 2022



them and real estate (based on average home office returns) narrowed to about 1.0% of a point. Once the orientation phase of the real estate market comes to an end, we expect more capital to return to real estate as an asset class. The longer the inflationary environment persists, the sooner this will happen, because while government bond yields are rising, they remain negative in real terms after inflation. For the first time in decades, we have significantly negative real interest rates. However, this liquidity will return to real estate investment as soon as insurance companies, pension funds and private savers realize this loss of purchasing power and wealth.

Going back to numbers, we would like to note, that the cost of buying a house in Germany rose again at breakneck speed in the third quarter of 2022. But there are signs that a housing slowdown could be on the horizon. House prices in Germany rose by 10.2% in the third quarter of 2022. The average selling prices of houses and apartments in Germany increased by 10.2 percent in the second quarter of 2022 compared to the same quarter of the previous year. For the fifth consecutive quarter, growth has remained above 10 percent, according to the Federal Statistical Office (Destatis).

According to Destatis, prices continue to rise fastest in rural areas, where house prices rose by 13.6 percent compared to the same quarter last year. However, this does not mean that prices are not rising in German cities either: housing in the country's seven largest cities (Berlin, Hamburg, Munich, Cologne, Frankfurt, Stuttgart and Düsseldorf) costs an average of 12.2% more in the third quarter of 2022 compared to the previous year.

Price increases were weakest in suburban areas (such as suburban communities around major cities), where home sales prices rose "only" 7.8 percent from the previous year. For the first time since the first quarter of 2021, the rate is expressed in single digits. Growth is slowing, but house prices are unlikely to fall.

However, there are some signs that momentum in the housing market may be slowing down. Destatis reported that price increases in both urban and rural areas were consistently weaker than in previous quarters, a finding supported by a recent report from Immoscout24 which showed that high interest rates are reducing mortgage applications and therefore dampening demand.

A new report from the Gewos Institute for Urban, Regional and Housing Research, recently concluded that after a record-breaking 2021 with €337 billion worth of real estate sales, the German market's turnover will decline in 2022 for the first time since 2009.

Sebastian Wunsch, head of real estate analysis at Gewos, commented that the number of purchases and sales in Germany has been falling since May and that buying property has become increasingly difficult because high inflation reduces purchasing power and also increases financing costs.

However, while Gewos expects demand to fall, it is currently ruling out a significant price drop in the market. Instead, the institute expects residential property price growth to slow to around 3 percent, while a slight decline in prices is possible in the regions.

The housing barometer from the experts of the housing exchange Immoscout24 provides quarterly insights into the purchase and rental sector. The result: prices are rising again and so is the pressure on the market.



It is interesting to note, that Thomas Schroeter, CEO of Immoscout24, in an event in July, he declined to make a prediction on the future market citing "the influencing factors, explained, they are too diverse" but during Q3 2022 he stated "The market has calmed down in the top 7 metropolises in Germany. It is evident that demand is shifting from the purchase to the rental market. For purchase properties, however, it is levelling off above the pre-corona level". We agree with such change of opinion at Emerald Managements Luxembourg, since from where we sit today, we have a better understanding of what was the market in Q2. Still a lot of uncertainties lure upon us and we will have to wait till Q1-Q2 2023 to have a clearer picture.

A slight increase in prices when buying residential real estate can be observed throughout Germany. Existing condominiums are offered 0.9 percent more expensive. Newly built condominiums are also becoming more expensive by an average of 1 percent. In the case of single-family homes, the asking prices for existing buildings will rise by 0.5 percent and for new builds by 1.9 percent. The purchase price dynamic is thus further weakened compared to the past quarters.

Munich is and remains the most expensive metropolis in Germany. The asking prices in metropolises such as Cologne, Düsseldorf, Hamburg and Frankfurt am Main remain below the level of the first quarter of the year at 100 to 200 euros per square meter. With a price increase of 1.2 percent, Munich is and remains by far the most expensive metropolis in the country. The price per square meter is around 9837 euros and thus more than 3000 euros higher than in the other major cities.

Schroeter sees a possible support for the market in the weakened purchase price dynamics, "since the gap between rental prices and the enraptured purchase prices is slowly closing again".

It can also be seen that the purchase market in Germany is functioning and is calming down, especially in the metropolises, Schroeter states. "Demand has reached the pre-corona level. Due to the shift in demand towards the rental market, we expect rental prices to develop much more dynamically than purchase prices in the coming months," he said.

## SITUATION OF THE RENTAL MARKET

On the rental market, on the other hand, the pressure is increasing. The asking prices for rental apartments will rise again throughout Germany in the last quarter of 2022. Existing rental apartments are on average 2.9 percent more expensive than in the previous quarter. For new-build rental apartments, the price trend is up 2.5 percent.

On average, existing rental apartments are offered for new rentals in Germany for EUR 7.88 per square meter. New apartments come to a rental price of 10.85 euros per square meter. And the demand is increasing.

Already in the second quarter of the year demand shifted significantly from buying to renting, the experts report. This trend continued in the third quarter: the demand for rental apartments continued to increase. On the other



hand, the supply in Berlin, Hamburg, Düsseldorf, Cologne, Munich, Frankfurt am Main and Stuttgart fell by 7.3 percent compared to the previous quarter.

Most people want to go to Berlin.

The pressure on the rental market is growing. The continuing increase in demand is clearly outstripping supply. Schroeter summarizes the situation: “The competition, when looking for an apartment is increasing, as are rents, the political credo must be: build, build, build. Politicians must create incentives to stimulate construction activity again, to ensure that housing does not become unaffordable, especially in the metropolis, we need more supply,”.



## CONSISTENCY OF INVESTMENTS DESPITE UNCERTAIN TIMES

A commercial investment volume of €44.2 billion<sup>2</sup>, was registered in the first three quarters. This is higher than in the two previous years, to which the record result of the first quarter made a major contribution. The comparable prior-year figure was exceeded by 12% and the 10-year average by 31%. Around two thirds (€29.1 billion) are accounted for by individual deals. Portfolio sales increase by 75% to €15.1 billion due to company investments. The framework conditions on the investment markets have changed significantly since the second quarter. In particular, the noticeably higher interest rates and the weakening economy, in connection with the sharp rise in energy costs, are having a slowing effect on the dynamics of the investment markets. The environment in which investors are currently operating is therefore significantly different than in previous years, which were characterized by many exceptionally good results. The observed transaction volume in the third quarter, which is almost €14 billion, is all the more remarkable.

Again, we only hear bad news in newspapers, but the reality of the real estate market in Germany does not behave as such news tells us it is: Data does not coincide with the news we receive constantly which predicts a crash in the real estate markets globally, and thus also in Germany: We do not share this opinion and will expand at the end of this paper with some arguments to show 2008 and today, if in any way similar, are very different.

INVESTMENTS IN GERMANY IN REAL-ESTATE Q1-Q3 2022 IN MILL. EURO <sup>3</sup>



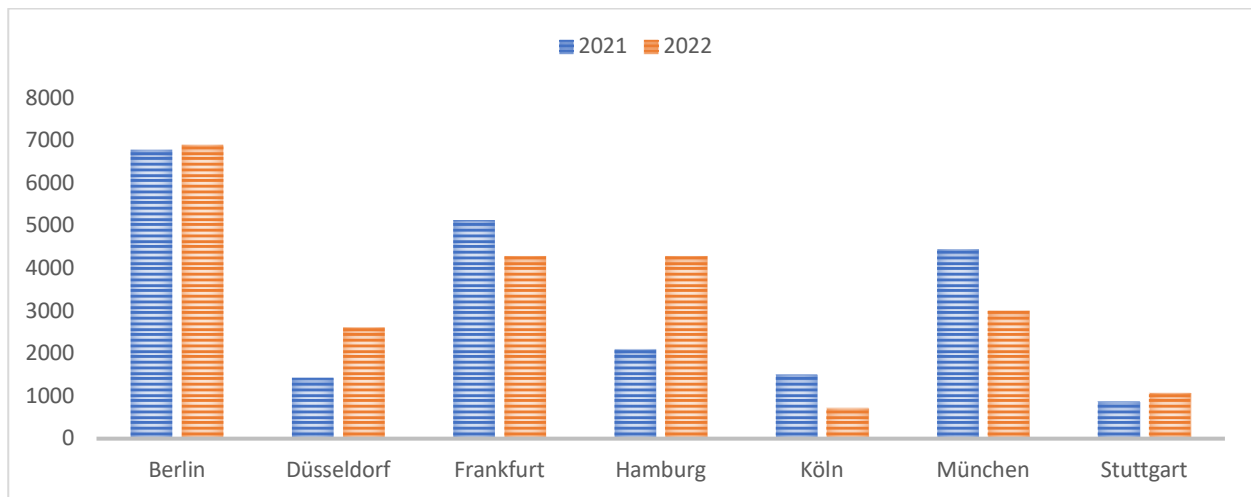
<sup>2</sup> Excluding the residential market

<sup>3</sup> <https://www.realestate.bnpparibas.de/marktberichte/investmentmarkt/deutschland-at-a-glance>



An investment volume of almost €23 billion was registered in the 7 largest cities in Germany (Berlin, Düsseldorf, Frankfurt, Hamburg, Cologne, Munich, Stuttgart). The transaction volume is therefore slightly above the previous year's level and is also above the average of the last ten years. By far the most (€ 6.9 billion) was again invested in Berlin. Frankfurt and Hamburg share second place (€4.3bn). While sales in the banking metropolis fell by 16%, Hamburg achieved the best result in the last 15 years. It is followed by Munich (€3.0 billion), Düsseldorf (€2.6 billion), Stuttgart (€1.1 billion) and Cologne (€0.7 billion). Stuttgart and Düsseldorf increased by 24% and 84% respectively compared to the previous year. Munich's turnover is 32% down on the previous year. Cologne achieves a well below-average result.

**INVESTMENT IN THE 7 BIGGEST CITIES OF GERMANY IN REAL ESTATE Q1-Q3 2022 MILL EUR <sup>4</sup>**

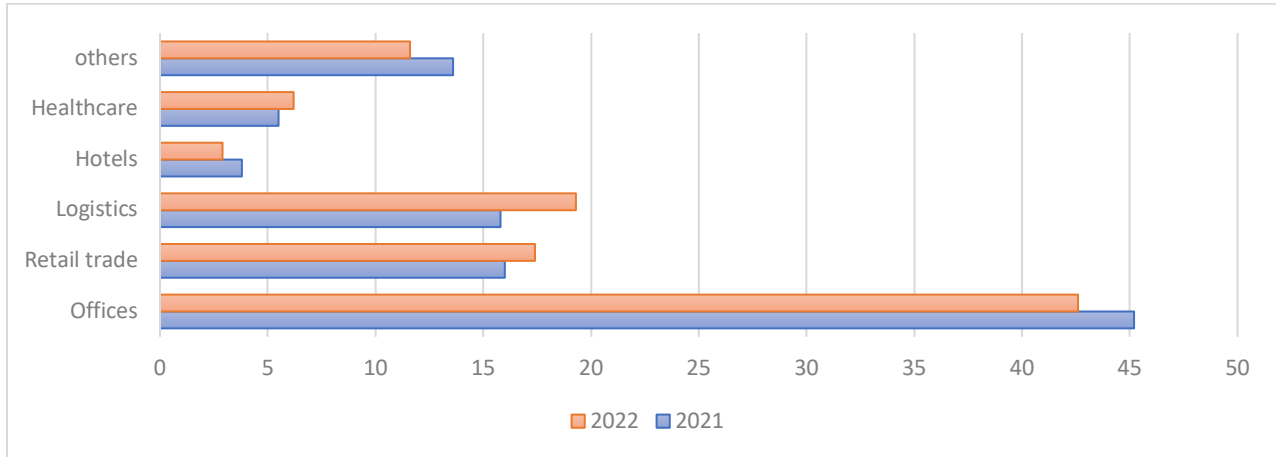


With a volume of around €18.8 billion, office properties are still the strongest asset class. At €8.5 billion, the logistics real estate segment continues to have an above-average share. Retail properties follow in third place, with a slight increase in their share of sales to a good 17%, with the majority takeover of Deutsche EuroShop, which is included in the figures at well over a billion euros, having a significant impact on this result. With a turnover of €1.3 billion (3% share of turnover), hotel investments continue to achieve a below-average result compared to the last few years.

<sup>4</sup> BNP Paribas Real Estate GmbH



INVESTMENTS BY PROPERTY TYPE IN GERMANY IN Q1-Q3 2022 IN % <sup>5</sup>



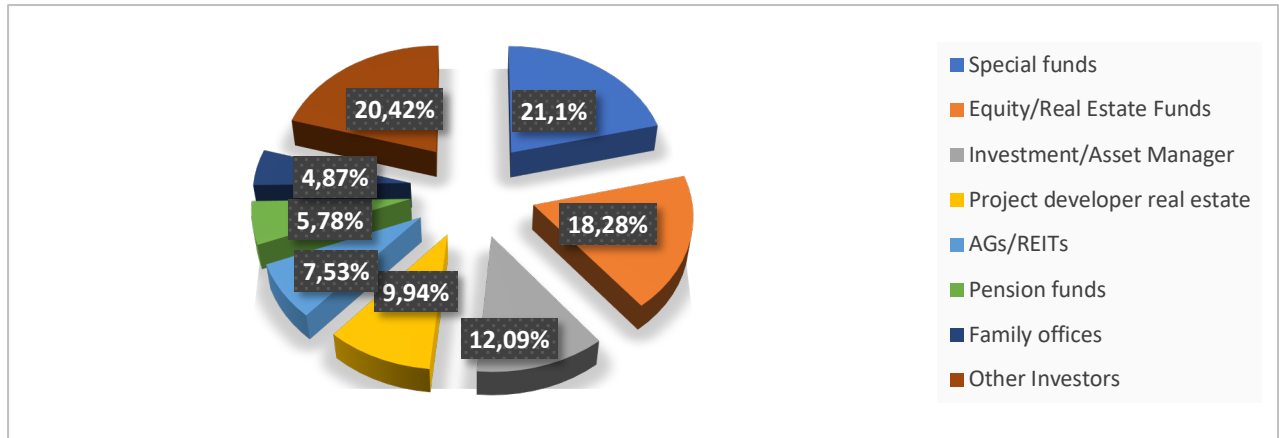
## STRUCTURE OF THE MARKET ON THE TYPE OF BUYERS

Special funds (21%) and equity/real estate funds (18%) dominate the buyer side after 9 months. In addition, however, investment/asset managers (12%) and project developers (10%) also contributed double-digit percentages to the result. Immobilien AGs/REITs follow with a market share of just under 8%, which is below the 10-year average (10%). Pension funds account for a further 6% and family offices contribute 5% and, at 2.1 billion, the highest turnover in recent years. The market share of foreign investors is currently 45%, which is above the long-term average (41%).

<sup>5</sup> BNP Paribas Real Estate GmbH



INVESTMENTS BY BUYING GROUPS IN GERMANY IN Q1-Q3 2022 IN % <sup>6</sup>



Due to the significant rise in financing costs, the upward trend in yields already observed in the second quarter continued as expected in the third quarter. For office properties, net prime yields increased by 20 to 30 basis points in the third quarter. There has been a change at the top, so Munich is the most expensive at 2.80%, just ahead of Berlin at 2.85%. Hamburg is in third place with 2.95%, followed by Cologne with 3.00% and Frankfurt with 3.10%. In Stuttgart the prime yield is currently 3.15% and in Düsseldorf 3.20%. A comparable development can also be observed in the other asset classes. For logistics properties, the top yields nationwide have risen by 25 basis points to 3.35%. Top yields of 3.85% are currently being recorded for retail parks and 4.50% for individual retail parks. There was also a slight upward trend for shopping centres, so that 4.80% can be used here.

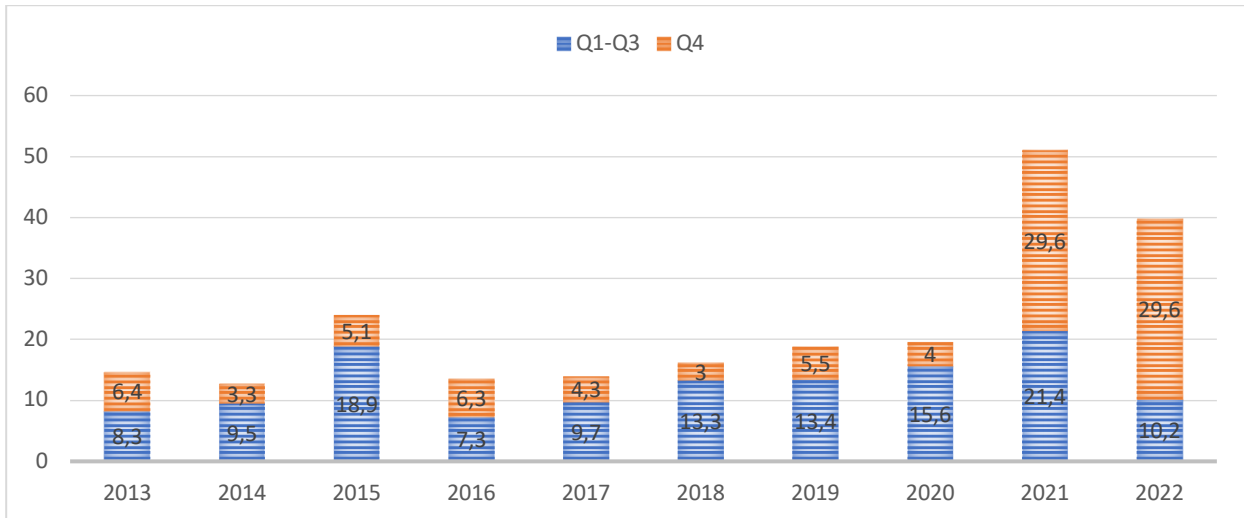
## INVESTMENTS IN RESIDENTIAL REAL ESTATE

The changed financing environment and the ongoing tense economic conditions ensure that the German residential investment market will be much more subdued up to the end of the third quarter of 2022 than in previous years. In the first 9 months of the year, a good €10.2 billion was invested in larger housing stocks (from 30 residential units) nationwide. This missed the long-term average by around a fifth and the record result of 2021 by more than half. At €3.14 billion, the sales volume in the past three months was only slightly above the result for the second quarter (€3.05 billion) and was thus around 50% below the quarterly average for the last five years.

<sup>6</sup> BNP Paribas Real Estate GmbH

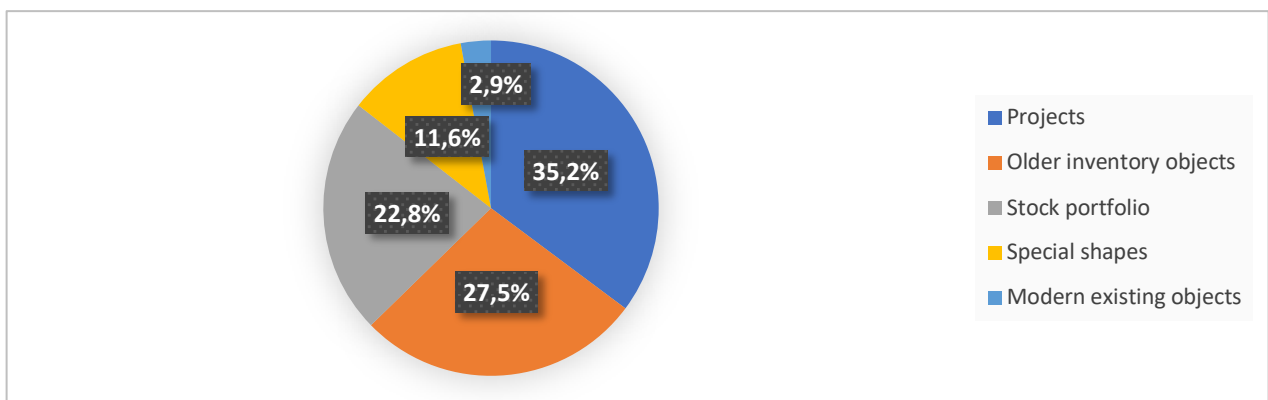


VOLUME INVESTMENTS IN RESIDENTIAL REAL ESTATE IN MILL. EURO <sup>7</sup>



The distribution of the investment volume across the individual asset classes is currently showing an unusual picture. Existing portfolios usually lead the field by a wide margin. In the first three quarters of 2022, on the other hand, they accounted for just under 23% or €2.3 billion of the volume. A lower value was last recorded in 2011. This can be attributed to the absence of large corporate takeovers and the small number of large-volume package sales, which have always been revenue drivers in recent years. Meanwhile, project developments are clearly at the top. In view of the fact that the cost calculation for new construction projects is becoming more and more challenging due to rising financing and construction costs, it can be assumed that they will lose some ground by the end of the year.

INVESTMENTS BY ASSET TYPES Q3 2022 IN % <sup>8</sup>



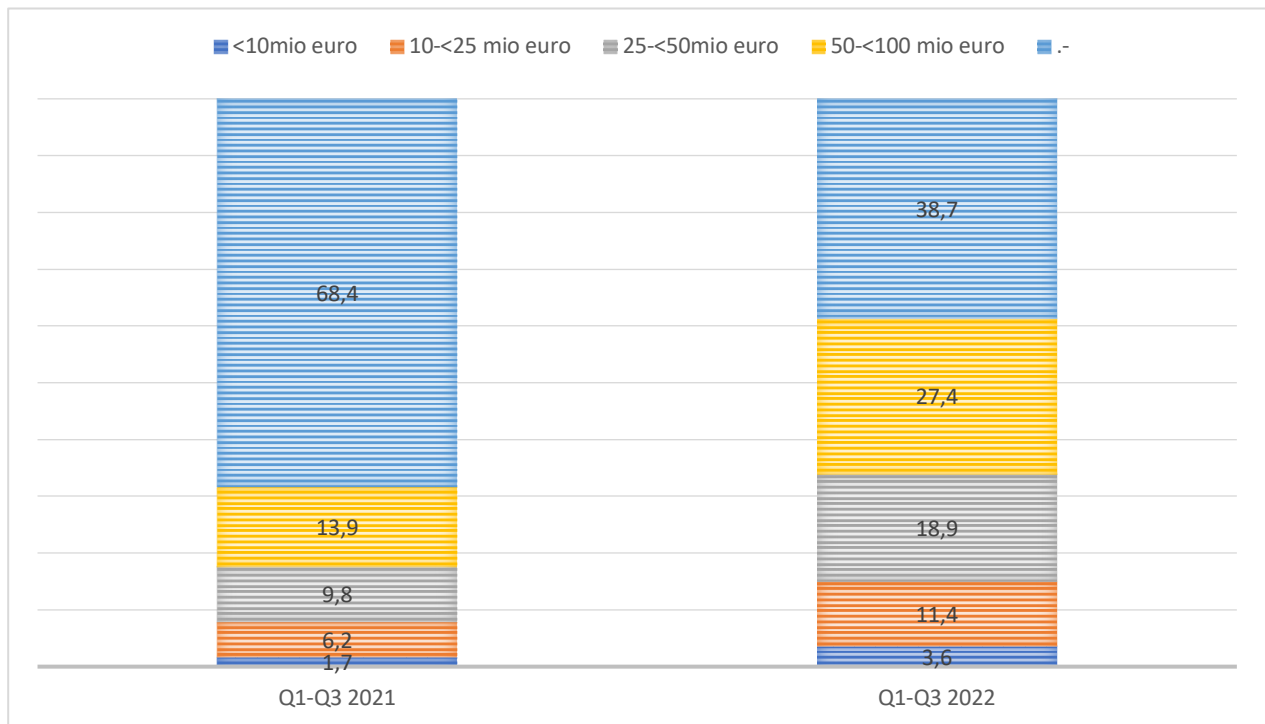
<sup>7</sup> BNP Paribas Real Estate GmbH

<sup>8</sup> BNP Paribas Real Estate GmbH



Although the transaction volume is significantly lower than in previous years, the market as a whole is still dynamic. Around 250 transactions were registered by the end of the third quarter, which is the second highest value in the past 10 years. A closer look at the figures makes it clear that the lack of major transactions is primarily responsible for the below-average investment volume. At €3.9 billion, the segment above the €100 million mark is currently around 50% less than the long-term average. In contrast, transactions of up to €100 million even had the second-best result ever registered. The fact that the market is much more fragmented than in previous years is underlined not least by the fact that the average volume per transaction in the current year is only around €41 million and thus around €15 million below the long-term average.

**INVESTMENTS GROUPS BY VOLUME OF RESIDENTIAL INVESTMENTS IN Q3 2022 IN % 9**



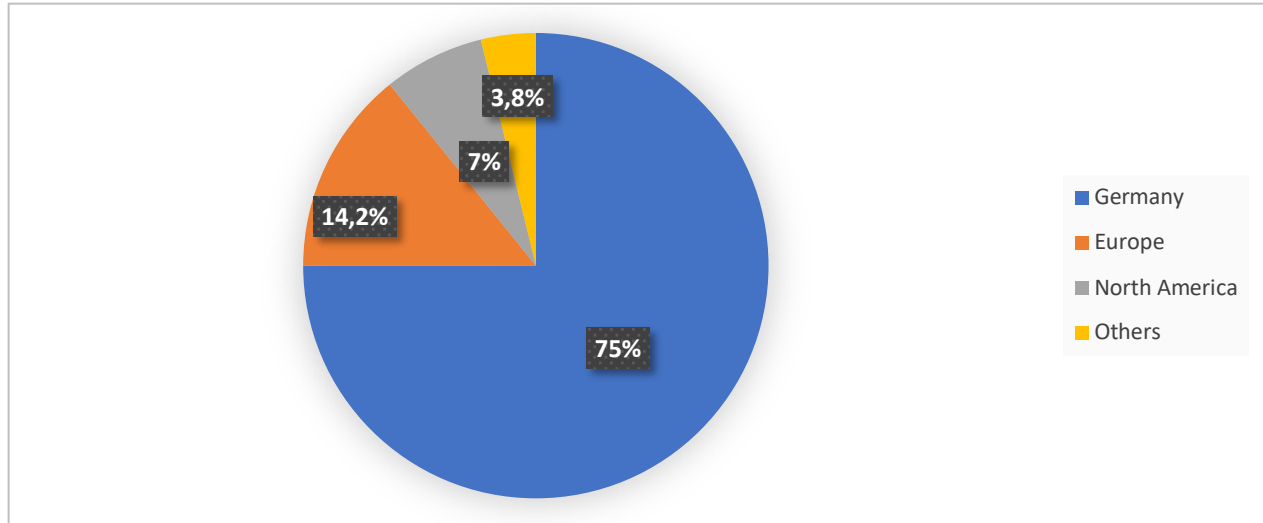
**The general conditions on the residential investment market has changed noticeably as a result of the rise in interest rates and the associated increase in the cost of financing. The room for manoeuvre of some players, who usually have large market shares, is increasingly restricted as a result.** Real estate companies/REITs, for example, whose equity capital availability is significantly lower than in previous years, are currently only responsible for a mere 5% of the transaction

9 BNP Paribas Real Estate GmbH



volume; in a long-term comparison, they are usually around a third. At the top of the buyer group rankings are special funds (31%), followed by investment/asset managers (21%) and open funds (14%).

INVESTMENTS BY SOURCE OF CAPITAL IN Q1-Q3 2022 IN % <sup>10</sup>



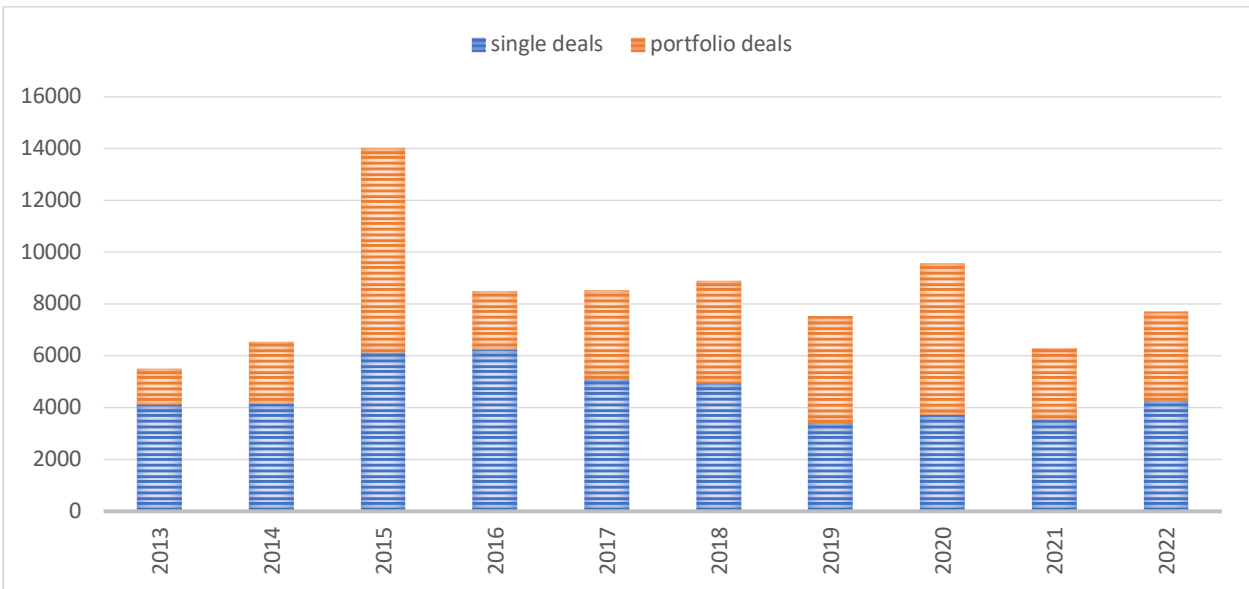
## INVESTMENTS IN THE RETAIL MARKET

With an investment volume of €7.7 billion, after the first three quarters the retail investment market ranks 22% above the previous year's figure and around 7% below the long-term average despite a challenging market environment. The result for the last three months in particular, with a volume of over €3.6 billion (47% of total volume), sounds very good at first glance, although not a real picture if we have a closer look. A look behind the figures reveals that slightly under half of the quarterly result was generated by the takeover of Deutsche EuroShop AG. On a more positive note, the analysis of single investments, with a volume of just under €4.3 billion in the current year, marks the best result since 2018, contributing the most transactions year to date. Particularly noticeable is the brisk market activity for smaller properties, whereby transactions of up to €50 million accounted for a good 52% of the total volume. It is therefore not surprising that the average volume of single deals reached a very low level of €18 million.

<sup>10</sup> BNP Paribas Real Estate GmbH

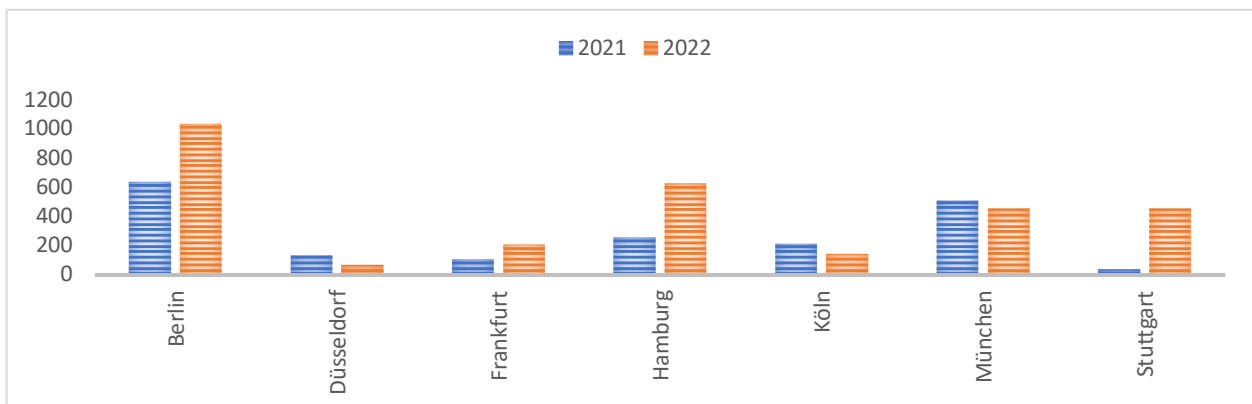


RETAIL INVESTMENTS IN GERMANY Q1-Q3 IN MILL. EURO <sup>11</sup>



With a total of just under €2.6 billion, the investments in the 7 biggest cities from Germany do not achieve an above-average result (€2.8 billion), but managed to exceed the previous year's result by almost 34%. Berlin and Hamburg stand out in the first place, with around one billion euros and a good 628 million euros respectively and above-average sales at the top. Munich (€457 million) also made a significant contribution to the results of the top markets. Frankfurt (€211mill), Cologne (€146mill), Düsseldorf (€72mill) and Stuttgart (€4mio) rank below

RETAIL INVESTMENTS IN THE BIGGEST 7 CITIES IN GERMANY Q1-Q3 IN MILL. EURO <sup>12</sup>



<sup>11</sup> <https://www.realestate.bnpparibas.de/en/market-reports/retail-investment-market/germany-at-a-glance>

<sup>12</sup> <https://www.realestate.bnpparibas.de/en/market-reports/retail-investment-market/germany-at-a-glance>



After the retail investment market was significantly shaped by the specialist store segment in the recent past, a more balanced picture emerges for the first time in the distribution of sales by property type: Although the specialist store sector moves up the ranking with a good 43%, shopping centers also make extensive contributions (27 %) through the EuroShop takeover and commercial buildings (22%), which benefit from large-volume high street investments in the single deal and portfolio segment. Department stores come to just under 8%, just like in the previous year.

While prime yields for office and logistics properties were already showing an upward trend towards the middle of the year, the upward trend became apparent in the retail sector over the course of the third quarter. This is mainly due to the fact that the development of yields for premium retail properties has already stagnated in recent years and no continuous compression of yields, as in the core office and logistics segment, could be observed. There were also shifts in the high street prime yields within the hierarchy of the seven A locations, each with increases of between 5 and 10 basis points: Munich (2.85%) is currently alone at the top, ahead of Berlin (2.90%), Hamburg (3.05%), Frankfurt (3.20%), Stuttgart (3.25%), Düsseldorf (3.30%) and Cologne (3.35%). Among the other property types, retail parks rose by 35 basis points to 3.85%, individual retail parks rose by 10 basis points to 4.50% and shopping centers also increased by 10 basis points to 4.80%.

## INVESTMENTS IN THE OFFICE MARKET

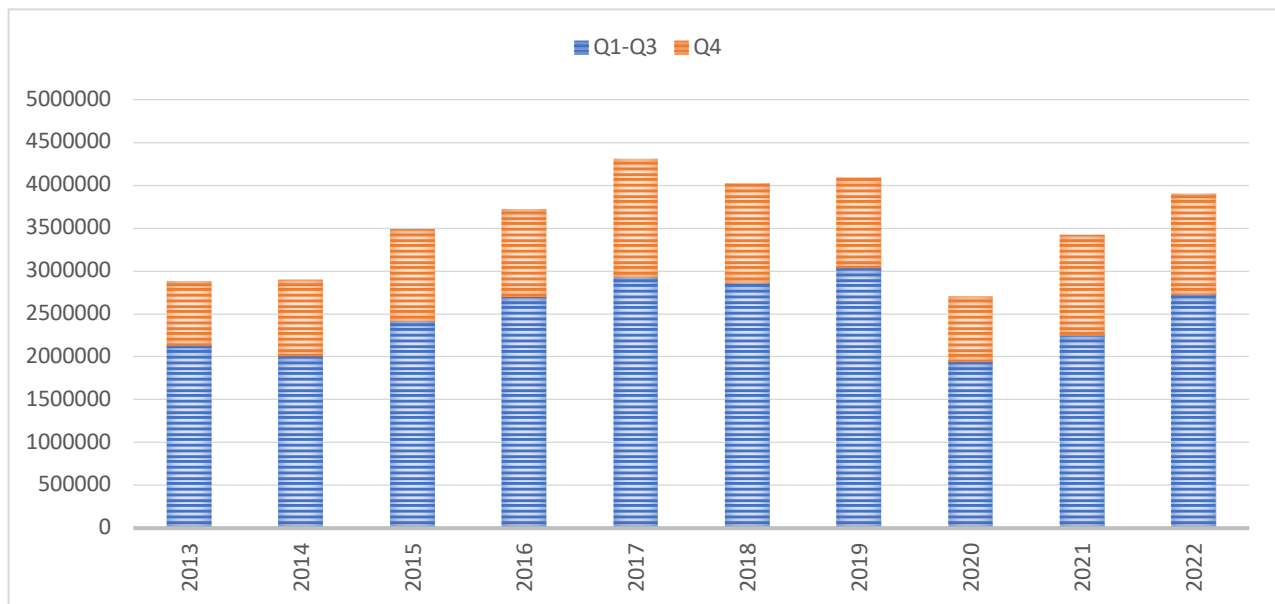
End of Q3 2022, investments in offices had risen to 18,8 billion, what on a year-to-year is an increase of 5%, what even under current uncertainties, many, is quite a feat and a demonstration of the strength of the market. Looking also at the proportion of transactions in the commercial asset class, offices are the preferred market for investors with a total of 43% of the investments for commercial assets in volume of transactions. Also it is to be taken into consideration that such high volume has been influenced by the portfolio transaction takeover of alstria by Brookfield in the first quarter.

By looking at the data, we can start to infer the doom scenario many were playing in the office industry with people working remote, have to be downplayed, since despite the growing trend towards remote working, it is clear that offices will remain essential in the future and will continue to be in high demand by tenants.

**Despite all the adversities, the German office market stayed on course in the third quarter, and in many markets letting activity even increased further during the summer months. Overall, take-up in the eight locations of Berlin, Düsseldorf, Essen, Frankfurt, Hamburg, Cologne, Leipzig and Munich totalled 2.7 million m<sup>2</sup> by the end of September. This exceeded the result for the same period last year by a good 21% as well as the 10-year average by 3%. It is particularly noteworthy that, despite the further deterioration in the economic outlook in the summer months, letting activity in the third quarter rose by 2% compared with Q3 2021 and still passed the 900,000 m<sup>2</sup> mark. Again, here we see another example of all the doom scenarios predicted by many guru's in the industry but not reflected in the hard data we see: Transactions still happen and price corrections are not significant, although we have seen a flight to quality locations/cities.**



OCCUPANCY OFFICE SPACE IN THE MOST POPULAR 8 CITIES\* OF GERMANY IN MILL <sup>13</sup>



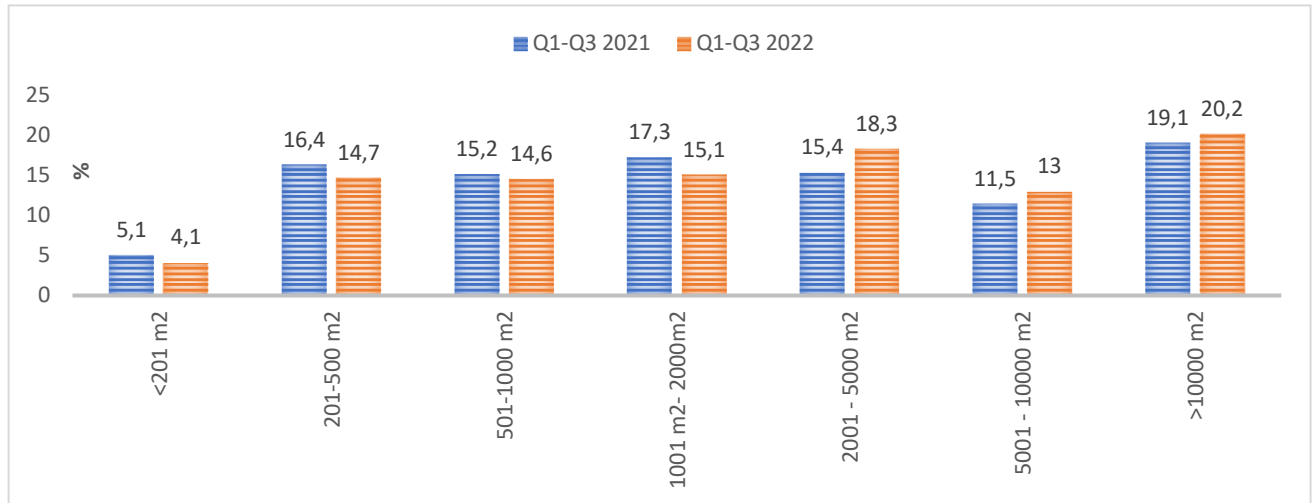
With a take-up of 627,000 m<sup>2</sup>, Berlin once again leads the field of the large office markets. The federal capital is reporting a result that is a good 13% above the long-term average. In the third quarter alone, a take-up of 263,000 m<sup>2</sup> was registered in the federal capital. Munich ranks second with 592,000 m<sup>2</sup> and, after the weak years of 2020 and 2021, can report a result that is a good 12% above the 10-year average and 34.5% above the previous year's value. With a volume of 445,000 m<sup>2</sup>, Hamburg is in third place. The increase compared to the previous year amounts to 29% and compared to the long-term average by 19%. The quarterly result from Frankfurt as fourth place with 120,000 m<sup>2</sup> is better than in the previous quarter. The banking metropolis can report a total volume of 362,000 m<sup>2</sup> for the current year. The result is in line with the long-term average and 10% above that of the previous year. Market activity in Cologne was also well above average with 295,000 m<sup>2</sup> (+32% compared to 10-year average; +28% compared to Q1-Q3 2021).

The analysis of take-up by size clearly shows the currently high level of dynamism in the medium to large market segment. While a decrease of 3% compared to the previous year can be registered in the small-scale area under 200 m<sup>2</sup>, a significant increase is recorded for other size classes. The percentage increases were particularly high for deals of 2,000 to 5,000 m<sup>2</sup> (+44% compared to the previous year) and 5,000 to 10,000 m<sup>2</sup> (+37% compared to the previous year). Nevertheless, the category of large transactions over 10,000 m<sup>2</sup> is responsible for the highest share of the turnover with a contribution to earnings of a good 20%.

<sup>13</sup> \* Berlin, Düsseldorf, Essen, Frankfurt, Hamburg, Köln, Leipzig, München.

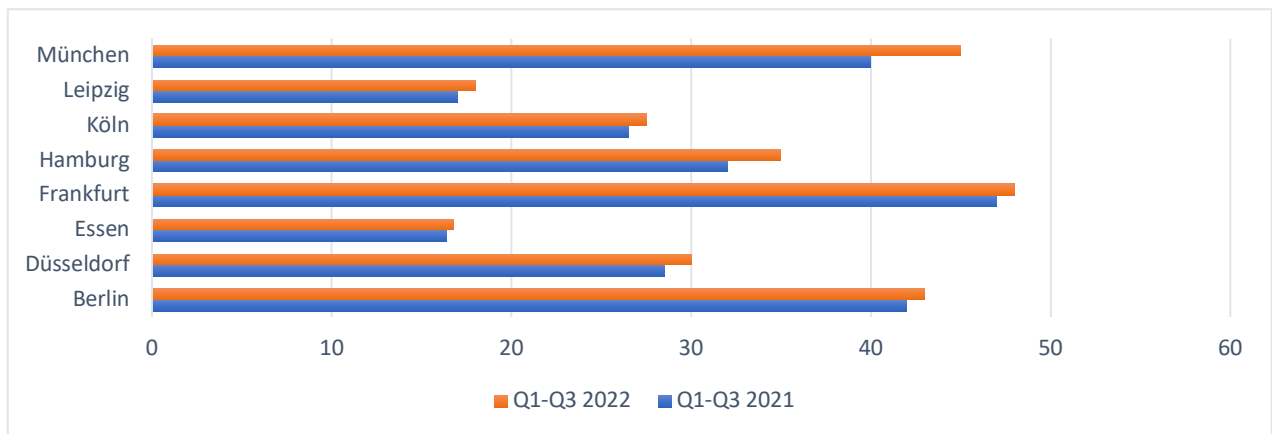


TAKE-UP OF SPACE BY SIZE CLASS % <sup>14</sup>



The vacancy volume in the eight major office locations currently totals 5.1 million m<sup>2</sup> and is thus almost unchanged compared to the previous quarter (-0.5%). The level is therefore moderately (almost 4%) higher than at the end of September 2021. In the majority of markets, the vacancy rate fell in the third quarter of 2022 or is stable. An exception are Düsseldorf (10.5%) and Cologne, for which an increase in office space vacancies is again recorded. Berlin (3.1%), Hamburg (3.9%), Cologne (3.4%), Leipzig (4.1%) and Munich (4.2%) are still below the fluctuation reserve of 5%. The vacancy rate in Frankfurt has fallen to 8.6% and in Essen to 5.7%.

Prime rents are stable and rising at all locations in Q3 2022<sup>15</sup> The financial metropolis of Frankfurt continues to rank at the top, registering an increase in prime rents of €1.00/m<sup>2</sup> to €48.00/m<sup>2</sup> in Q3. Rent growth was even stronger only in the top segment in Munich (+2.00 €/m<sup>2</sup> to 45.00 €/m<sup>2</sup>). The average rent has risen in almost all locations. Sideways movements are registered for Essen and Hamburg.



<sup>14</sup> <https://www.realestate.bnpparibas.de/marktberichte/bueromarkt/deutschland-at-a-glance>

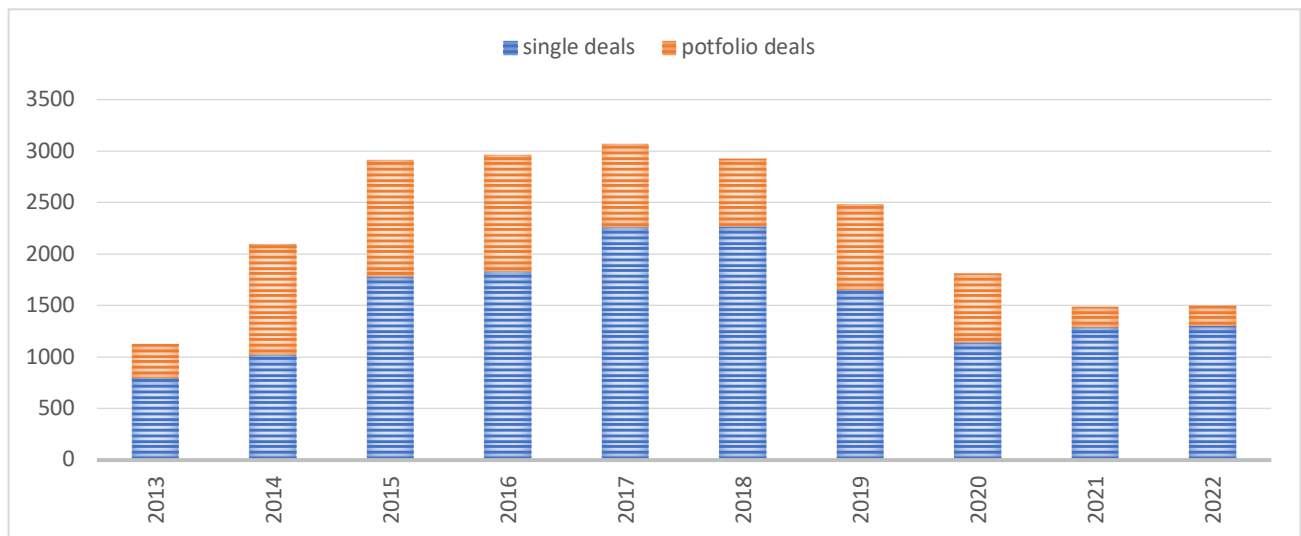
<sup>15</sup> <https://www.realestate.bnpparibas.de/marktberichte/bueromarkt/deutschland-at-a-glance>



## INVESTMENTS IN THE HOTEL MARKET

The total volume in hotel investments in the current year is almost €1.3 billion and is thus 13% below the previous year's result and the 10-year average by a whole 41%. In the meantime individual deals are stable, but total volume was decreasing. This is not least due to the fact that no portfolio transactions have been registered to date. However, if one looks at the individual deal volume, a completely different picture emerges. The previous year's value for individual deals was roughly maintained (+1%) and thus represents the second slight increase since 2020. If you look at the third quarter in isolation, €532 million was 21% more than in the first and a full 60% more than in invested in the second quarter. In view of the changed interest rate environment and economic and geopolitical uncertainties, this can certainly be seen as a positive signal. The continued recovery in lodging and performance metrics could add further momentum to this trend.

HOTEL INVESTMENTS IN GERMANY Q1-Q3 IN MILL. EURO <sup>16</sup>



As in the first half of the year, corporates, which usually hide hotel operators and companies, are in first place with a 21% share of the investment volume. At €279 million, the best result for this group of buyers since 2018 was registered. Various hotel operators and companies are using the current market situation to press ahead with their expansion plans and to secure attractive properties for the long term. This underlines that there are still attractive opportunities in the hotel market despite the difficult environment. Investment/asset managers followed in second and third place with 14% (€188

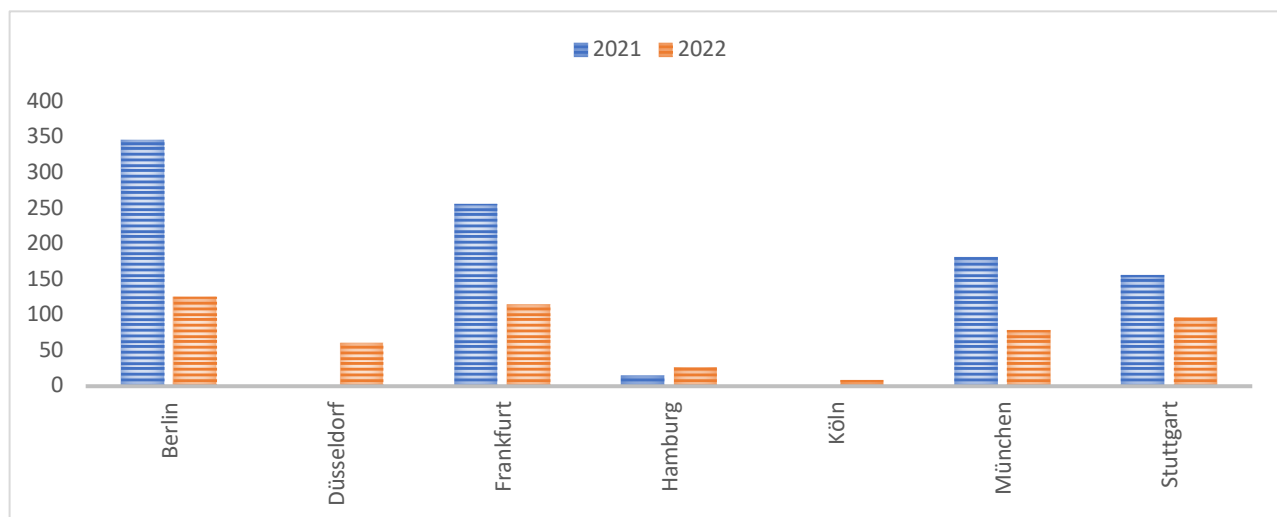
<sup>16</sup> BNP Paribas Real Estate GmbH



million) and special funds with 12% (€158 million). Family offices (12%), project developers (9%), real estate companies (8%) and private investors (5%) also achieve further significant shares.

Unlike in the previous year, hotel transactions were made in all 7 biggest cities of Germany by the end of September. With around € 513 million, this results in a market share of 39% of the total volume and a decline of almost 50% compared to the previous year's result. Responsible here is the **different pace of recovery in tourism activities, which is slower in the cities, which are characterized by business travel, than in the classic holiday regions**, which can already often build on the high figures from before 2020. **It is then in particular the locations away from the metropolises where investors carry out significant transactions**, including the five-star hotel A-ROSA on Sylt, which was brokered by BNPPRE. With €126 million, Berlin achieved the highest result, but at the same time missed the previous year's figure by 64%. Frankfurt follows closely behind with €115 million (-55%). In third and fourth place are Stuttgart with €97 million (-38%) and Munich with €79 million (-57%). In Düsseldorf, where no transaction was registered in the previous comparison period, €61 million has already been placed in the current year. It is to state the 3 loans to hotels the fund holds, are hotels which cater to internal tourism and not international/business tourism, therefore we are better protected on our loan's capital.

**HOTEL INVESTMENTS IN THE BIGGEST 7 CITIES IN GERMANY Q1-Q3 IN MILL. EURO 17**

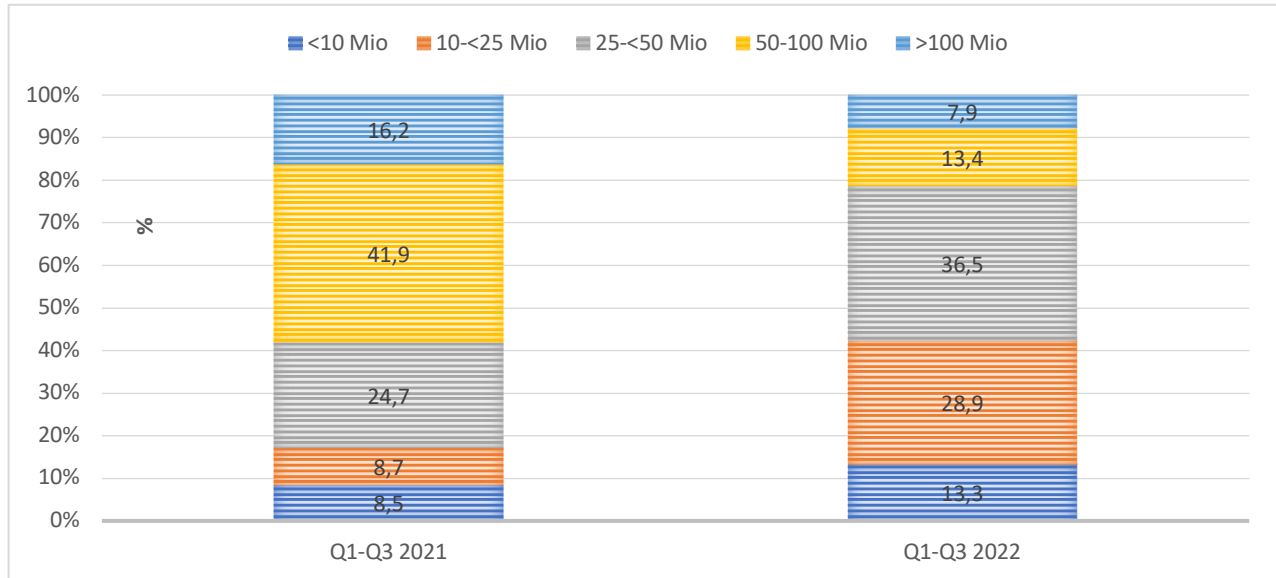


The temporary shift towards smaller deals will continue in the third quarter of 2022. **With around 37% and €475 million, most of the volume was invested in properties in the €25-50 million category. This means an increase of 29% compared to the previous year and 17% compared to the 10-year average. The €10-25 million category follows in second place with just under 29% and €377 million. This puts the segment roughly at the long-term average. At around 13%, the €50-100 million and €<10 million categories have roughly the same share. At 8%, the largest category >€100m achieved a historically low value. In this respect, it is not surprising that the average volume per deal of €18 million is around 39% below the long-term average.**

<sup>17</sup> <https://www.realestate.bnpparibas.de/en/market-reports/hotel-investment-market/germany-at-a-glance>



HOTEL INVESTMENTS DIVERSIFIED BY SIZE IN GERMANY Q1-Q3 IN % <sup>18</sup>



## INVESTMENTS IN THE LOGISTICS MARKET

After new records were already reported in the first and second quarters, the logistics investment market is picking up where it left off at the end of the third half of the year: the total transaction volume is a good €8.5 billion, what not only means the third increase in sales in a row, but also represents an almost 80% higher volume compared to the long-term average. Even if the market continues to benefit from the very strong first quarter (almost 56% of the result), the momentum has not decreased in the last three months with sales of almost €2 billion (+10% compared to Q2 2022). **This is an indication that investors continue to believe in the German logistics investment market despite the geopolitical and financial market-driven uncertainties.** Almost the same amount was invested in the single deal segment and the portfolio segment, which each contributed around 50% to the total volume at just over €4 billion. Compared to previous years, package sales with more than ten transactions in the three-digit million segment achieved a high volume, while individual investments were able to confirm their already very good results from the last two years.

<sup>18</sup> <https://www.realestate.bnpparibas.de/en/market-reports/hotel-investment-market/germany-at-a-glance>



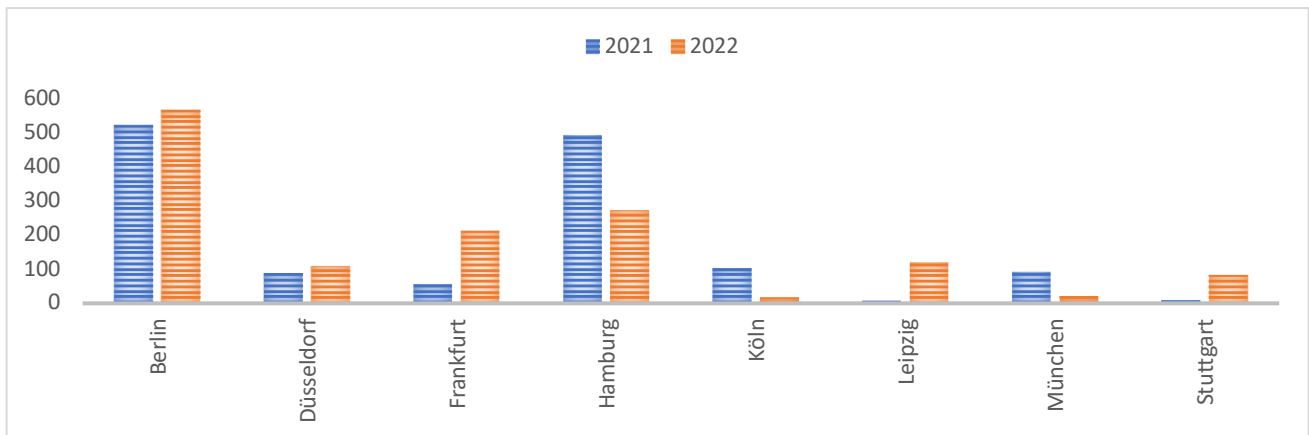
LOGISTIC INVESTMENTS IN GERMANY IN Q1-Q3 MILL. EURO 19



BNP Paribas Real Estate GmbH

The major locations accounted for almost €1.7 billion after nine months, which is also a new record. A total of six out of eight large logistics hubs were able to contribute with sales increases to the fact that the top markets achieved a good 21% higher result than in the previous year. The most important driver is the capital Berlin, which is clearly ahead of the pack with a volume of €567 million. Between €100 and €300 million were also invested in Munich (€281 million), Hamburg (€272 million), Frankfurt (€212 million), Leipzig (€121 million) and Düsseldorf (€109 million). In contrast, Stuttgart (€84 million) and Cologne (€18 million) are below the €100 million mark. It is also noteworthy that with a good 80% of sales, a very high volume is once again to be located outside the top markets.

LOGISTICS INVESTMENTS IN MAJOR LOGISTICS MARKETS IN Q1- Q3 MILL. EURO 20



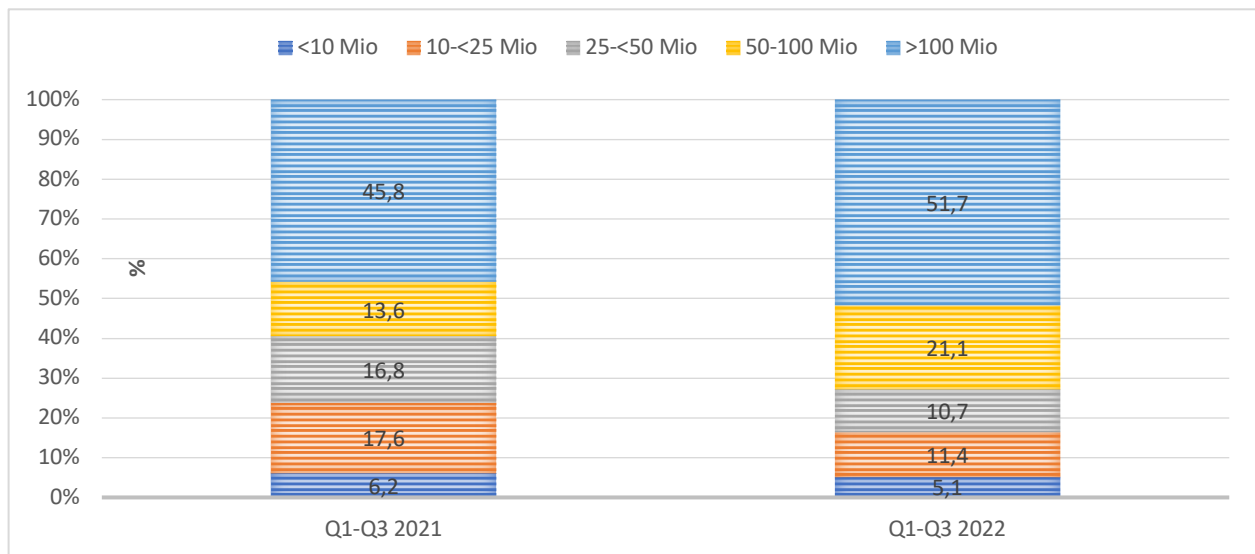
<sup>19</sup> <https://www.realestate.bnpparibas.de/en/market-reports/logistics-investment-market/germany-at-a-glance>

<sup>20</sup> <https://www.realestate.bnpparibas.de/en/market-reports/logistics-investment-market/germany-at-a-glance>



The numerous large-volume portfolios and some big tickets in the new construction segment have led to an impressive new record in the category from €100 million (€4.4 billion; 52% share), which is above the previous record (2017; 4.1 billion €). However, exceptional results were also recorded in the middle (€25 to 100 million) and the smaller segment (up to €25 million), which accounted for 32% and 17% respectively.

**CONCENTRATION OF THE INVESTMENTS IN LOGISTIC SECTOR IN Q1- Q3 MILL. EURO <sup>21</sup>**

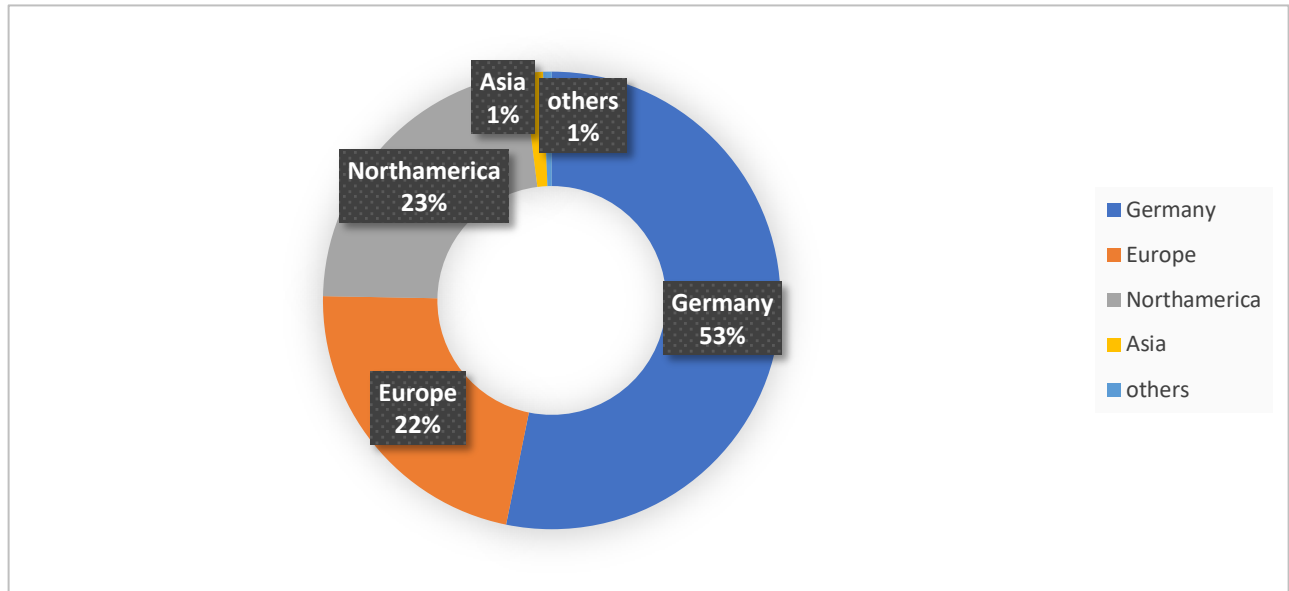


After the market for logistics investments was initially firmly in the hands of international investors over the course of the year, German investors participated very actively in the market in the third quarter and cracked the 50% mark (a good 53% share). They account for a good €4.5 billion and thus a higher volume than ever before. Although international buyers were somewhat more cautious in the last three months than in the previous quarters, they also generated a new record in the interim balance sheet (around €4 billion and a share of almost 47%). The focus here was primarily on North American and European investors, who invested almost the same amount in logistics assets at almost 23% and a good 22% respectively.

<sup>21</sup> <https://www.realestate.bnpparibas.de/en/market-reports/logistics-investment-market/germany-at-a-glance>

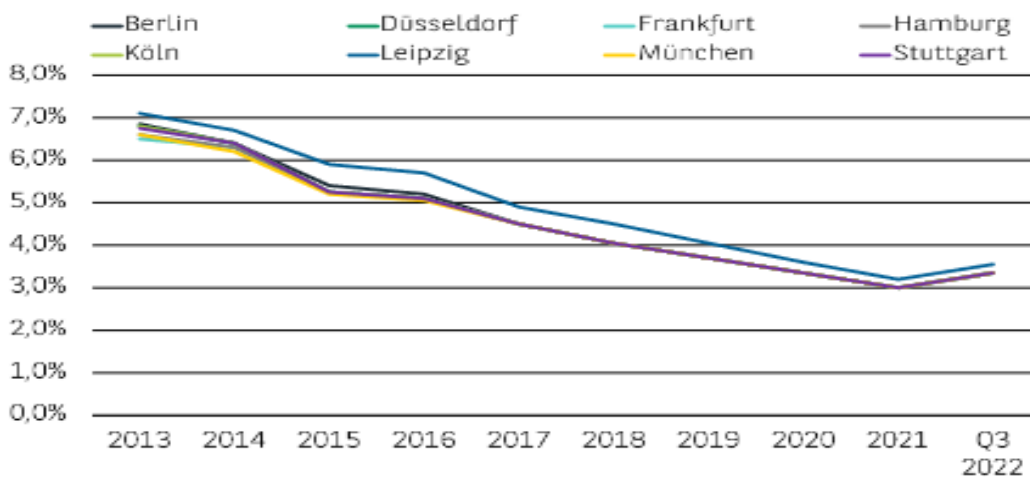


LOGISTIC INVESTMENTS IN GERMANY IN Q1-Q3 MILL. EURO 22



Although demand can still be summed up as very high, the changed interest rate environment on the financial markets has also left its mark on top logistics yields. Accordingly, the yield compression of the last few years has stopped and reversed in a slight increase in prime yields by 25 basis points in the top markets. All big 7 cities are currently trading at 3.35% and Leipzig at 3.55%.

TOP YIELDS FOR LOGISTICS REAL ESTATE IN THE 7 MOST BIGGEST CITIES AND LEIPZIG 23



<sup>22</sup> BNP Paribas Real Estate GmbH

<sup>23</sup> <https://www.realestate.bnpparibas.de/en/market-reports/logistics-investment-market/germany-at-a-glance>



## INVESTMENTS IN HEALTHCARE MARKET

The international real estate consultancy Cushman & Wakefield (C&W) recorded sales of around EUR 660 million in the third quarter of 2022 (Q3 2021: EUR 450 million) on the German healthcare real estate market. This increases the volume for the year as a whole to EUR 1.66 billion (Q1-Q3/2021: EUR 1.68 billion). The majority of the transaction volume in the past three months was once again attributable to care properties with a turnover of EUR 410 million. Top yields hardly changed.

The top yields for nursing homes increased slightly compared to the previous quarter to 4.0 percent (Q2/2022: 3.9%). In the assisted living segment, C&W recorded values between 3.0 and 3.5 percent, with a slight upward trend. The prime yield for medical centres and medical care centres is still between around 3.5 and 4.0 percent, for clinics and hospitals it is around 50 basis points higher.

**Jan-Bastian Knod, Head of Healthcare Advisory and Residential Advisory at C&W: "Institutional investors' interest in German healthcare real estate remains high. The structure of the long-term value-secured cash flows and the systemic relevance for healthcare in Germany contribute to market stability. The megatrend of demographic change and the increasing need for health care in the next 10 to 20 years will continue unchanged. Major price corrections are not to be expected. Rather, new investors are trying to find a way into the German healthcare real estate market."**

### We should note following trends at the healthcare properties market:

#### *1. Portfolio transactions dominate the market.*

In the third quarter of 2022, portfolio transactions accounted for around 77 percent of the total investment volume in the German healthcare real estate market. In particular, the acquisition of nine ProCurand care properties by Primonial, the purchase of five wecare care homes by TSC Real Estate and the sale of three medical care centres by Quadoro made a significant contribution to this.

#### *2. German investors very active*

The 3rd quarter was particularly characterized by a high transaction volume in the area of medical centres and medical care centres with over EUR 243 million. There were only domestic investors. A total of more than 60 percent of the capital invested in German healthcare real estate came from Germany.

#### *3. Investors focus on high building quality*

The demand for sustainable healthcare properties with the appropriate building fabric and high energy efficiency is increasing rapidly. For new construction projects, at least the KfW 55 standard is the norm. Existing properties are also evaluated according to ESG criteria and potential for increasing energy efficiency is identified.

Sustainable construction and building structure go hand in hand with innovative care and living concepts. C&W is convinced that the modernization and refurbishment of existing properties will continue to be necessary in the future, in



addition to the development of new senior citizens' properties, in order to cover the increasing need for outpatient and inpatient care.



## SUMMARY

### INVESTMENTS IN RESIDENTIAL REAL ESTATE

Analysing the housing market, it should be noted that in anticipation of a further increase in key interest rates in the last quarter of this year, we can again expect a slight increase in yields, although the expected recession could dampen investment activity. After the economic crisis is resolved, markets should again become easier for investors to calculate and continue the steady upward trend that was observed before.

Ceteris paribus, in the absence of an energy crisis, it can be assumed that the most important influencing parameters of the housing market will stabilize during the first/second half of 2023.

### INVESTMENTS IN RETAIL MARKET

It should be noted that the retail investment market performed well for the three quarters of 2022, which was achieved despite geopolitical and financial uncertainty.

A positive signal should be considered a good result in the segment of single transactions and a large number of registered transactions. Although, with regard to prices, from today's point of view, we can assume a further drop in yields.

### OFFICE MARKET

The German economy faces difficult winter months. In particular, the energy crisis, as well as the further development of inflation, will keep entrepreneurs in suspense. It looks like the fourth quarter will be weaker than usual, although the yearly total should be higher than 2020.



## HOTELS MARKET

With changing interest rate conditions, geopolitical tensions and a weakening economy in the hospitality investment market, investors are showing some caution. However, the hotel market is getting more and more momentum thanks to a steady recovery in the number of overnight stays and, in particular, key performance indicators on the part of the operators.

## LOGISTICS MARKET

Although the geopolitical, economic and financial uncertainty associated with the market is likely to continue in the next quarter, the logistics investment market began the second half of the year with a good third quarter, nevertheless, a good result is expected for this year in the logistics real estate market. One positive factor is the ongoing boom in user markets. Although it is still difficult to say how the stage of price setting between sellers and investors will develop in the coming months and how the market environment will be assessed by international investors.

## HEALTHCARE PROPERTIES

It should be noted stable trends in the medical real estate market, for example, the segment of rehabilitation clinics has reached the volumes of 2020, and in the segment of medical centres it has outstripped them. Also, the modernization and renovation of existing facilities in addition to the development of new facilities for the elderly will continue to be necessary in the future to meet the growing demand for outpatient and inpatient care.



## CREDIT CONSTRAINTS IN Q3 2022

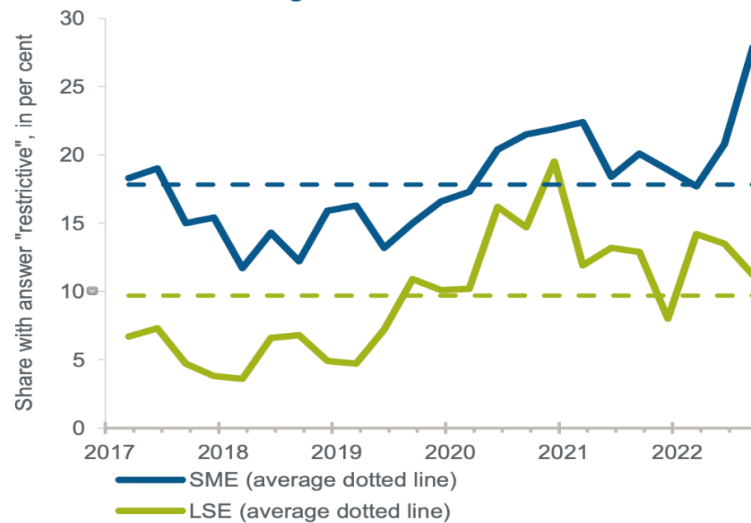
At Emerald Managements Luxembourg AIFM, besides having our pulse on the market by talking to our borrowers as well as banks, we also follow the KfW IFO Credit Constraint Indicator<sup>24</sup>, which gives a decent indication and comparison of what we see with our borrowers and in our conversations with banks. Such indicator today reflects a market condition which has become significantly more difficult for small and medium-size enterprises (SMEs).

As a summary, we can see a spike of more than 7 percentage points pushed the credit constraint for small and medium-sized enterprises (SMEs) to a new record high in the third quarter and specially for construction which since Q3 2021 it has been going up in the level of difficulties in getting credit. Around 28% of businesses engaged in loan negotiations reported facing restrictive bank lending policies. SME service providers and manufacturing companies were particularly affected.

Overall credit demand has hardly changed. The share of enterprises in loan negotiations with banks remained below the long-term average in both size categories. The survey results should be seen in the context of the exceptionally strong lending growth achieved by German banks so far this year. The volume of loans outstanding to

domestic non-financial corporations grew by around 13% in August on the previous year. A possible explanation for this discrepancy is that high financing requirements for working capital and inventories, are emerging as a consequence of the massive increase in energy prices and persistent supply bottlenecks and companies may be using the open lines of credit to close the liquidity needs.

**KfW-ifo Credit Constraint Indicator: How did banks conduct themselves in loan negotiations?**

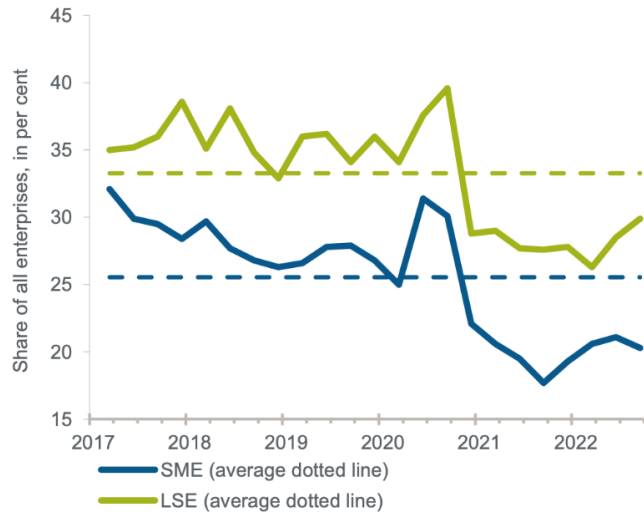


<sup>24</sup> [https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente-KfW-ifo-Kredithuerde/2022-EN/KfW-ifo-Kredithuerde-Q3-2022\\_EN.pdf](https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente-KfW-ifo-Kredithuerde/2022-EN/KfW-ifo-Kredithuerde-Q3-2022_EN.pdf)



SMEs looking to borrow are facing considerable barriers. The KfW ifo Credit Constraint Indicator for SMEs rose steeply in the third quarter. Of the surveyed SMEs who were in loan negotiations, 27.9% regarded the policies of banks as restrictive. That was 7.1 percentage points more than in the previous quarter – a surge more than three times the average quarterly variation. It means that the Credit Constraint Indicator for small and medium-sized enterprises has reached a new record high since the current survey methodology was introduced in 2017. Given the looming recession, the huge spikes in energy prices and rising interest rates, more cautious bank policies and worsening financing terms were to be expected. It is therefore surprising that the situation for large enterprises eased for the second consecutive quarter. In this size class, credit constraint fell to 11.2% (-2.3 PP). The advantage which large enterprises traditionally have in accessing credit is therefore also widening and not easy to explain nowadays.

Percentage of enterprises in loan negotiations



Sources: KfW Research, ifo Institute

			Quarter / Year						
Shares in per cent			Q3/21	Q4/21	Q1/22	Q2/22	Q3/22	q-o-q	y-o-y
<b>Credit constraint</b>									
Manufacturing	SME		17.3	18.3	11.7	17.7	27.7	10.0	10.4
	LSE		16.4	11.1	22.6	15.8	8.7	-7.1	-7.7
Construction	SME		4.9	5.9	6.3	13.6	18.3	4.7	13.4
	LSE		6.6	13.3	12.7	6.8	13.3	6.5	6.7
Wholesale trade	SME		15.9	14.9	14.3	18.8	17.3	-1.5	1.4
	LSE		7.7	8.8	9.5	7.8	11.8	4.0	4.1
Retail trade	SME		17.7	18.7	22.9	15.5	17.2	1.7	-0.5
	LSE		10.4	5.4	5.2	12.4	9.3	-3.1	-1.1
Services	SME		26.9	23.4	24.9	25.9	33.2	7.3	6.3
	LSE		10.4	3.4	6.2	12.6	15.3	2.7	4.9
<b>Germany</b>	<b>SME</b>		<b>20.1</b>	<b>18.9</b>	<b>17.7</b>	<b>20.8</b>	<b>27.9</b>	<b>7.1</b>	<b>7.8</b>
	<b>LSE</b>		<b>12.9</b>	<b>8.0</b>	<b>14.2</b>	<b>13.5</b>	<b>11.2</b>	<b>-2.3</b>	<b>-1.7</b>
<b>Share of enterprises in loan negotiations</b>	SME		17.7	19.3	20.6	21.1	20.3	-0.8	2.6
	LSE		27.6	27.8	26.3	28.5	29.9	1.4	2.3



## GERMANY THE NEXT 12-24 MONTHS

At Emerald managements Luxembourg AIFM, we did choose initially Germany as the country where we wanted to lend to, because it is critical for a lender to be in a market where the volatility of prices is small, since after all, we are a lender, and in case of a default, it takes time to sell the asset and recover our capital, and the more time it takes, if the historical volatility of prices is high, then this increases the tale risk we have in our loans, since if prices drop quickly, the properties, once they are sold, they may be worth much less.

Looking at the historical price change in the index provided by the Bundesbank<sup>25</sup>, we can see the evolution of residential prices over the period of 2008, which although there were decreases of prices, such were not significant, at least compared to many other countries, what reflects that the probability of a big downturn for the residential prices in our portfolio to fall by a significant value, is not high, and thus, we are well protected if you look at the LTV's of our loans (58%) being the majority senior.

The last years since 2012, we have seen price increases well above the long term trend, but a price decrease of 25% on a 5 year time period, as some news claim could happen, would mean the index should fall to 100, and recede to the values of 2016 (8 years ago), and only 20% off the values of 2004, what is hard to imagine such a destruction of value since it has never happened in history, nor in 2008, except for the big war close to 100 years ago

Also, we want to point out other variables, which can help reflect/predict the amplitude of the potential future price correction, since many times in residential assets, such correction originates from families being overleveraged and having floating rate mortgages, what translates to an increase in defaults, which leads to having to sell the property to have to pay the bank, thus putting selling pressure into the market. This in many countries in Europe was the main factor of the cataclysm 2008 (together with oversupply of residential assets). We do not think when the correction comes, it will be as severe as in 2008 for several factors, and even less in Germany, and neither in our portfolio:

Year	Index	Annual increase
2004	74,3	
2005	73,4	-1,21%
2006	73	-0,54%
2007	72,9	-0,14%
2008	72,8	-0,14%
2009	72,1	-0,96%
2010	73	1,25%
2011	74,9	2,60%
2012	78	4,14%
2013	82,1	5,26%
2014	86,3	5,12%
2015	92,3	6,95%
2016	100	8,34%
2017	107,5	7,50%
2018	116,4	8,28%
2019	124,5	6,96%
2020	132,9	6,75%

1. Families in Germany have been switching to fixed rates mortgages. Only a small part of households will feel the pain when rates go up, assuming they continue to do so.
2. It is important to know the duration of mortgages, especially in times like today when the base

<sup>25</sup> Residential property price index Deutsche Bundesbank / Owner-occupied apartments and houses; transaction-based property and regional weighting. / Germany: Administrative districts / Unadjusted figure



*rates for mortgages goes up dramatically, and also quickly, because if mortgages have short maturities, or they reset the interest rates charged in short periods, then families are at risk of default if their LTV's are high. If we look at the last 12 years, German mortgages with maturities over 10 years were between 20%-12% and today 48%. Mortgages of duration between 5-10 years were about 35%-38 of the market in 2010, and today are 35%<sup>26</sup>. Therefore, we have a small proportion of the mortgages in Germany which will reset to the higher rates existing today, and this translates to a smaller number of defaults and thus apartments coming to the market to be sold to pay off family debts. Again, same as point 1) above, less downward pressure on prices expected than 2008.*

- 3. Another key factor is to understand if mortgages have been underwritten by banks fixed or variable, since if market rates go up and the mortgage is variable, this could lead to a default by the family and therefore they would be forced to sell the residence, and would increase the markets price downward pressures. We have the following statistic from the ECB (Share of variable rate loans in total loans for house purchases<sup>27</sup> . In 2003 there were in Germany 17% of the mortgages being variable, nowadays 8,38%, something that seems banks want to stop momentarily since it is too much risk nowadays with current interest rate volatility. So, again here, Germany is partially insulated, compared to other countries, from interest rate increases affecting local families, so no dumping of residences into the market for the current increase in interest rates.*
- 4. Banks change of underwriting guidelines on 2008, produced that families had to put a lot of equity in order to get a mortgage, so the cases of 95%-100% LTV mortgages, has not been the case since 2008, and therefore, families have a lot of equity invested in their house and therefore this will not create additional pressure to have to sell quickly the residences for 2 reasons: one they have too much equity to lose, and second before banks force them to sell, the price decrease should be very significant in order to wipe out the families equity. Therefore, a lower probability today compared to 2008 that there's a significant surge in residences being put into the market to be sold.*
- 5. Another factor is the low supply of residential assets being completed in Germany, what is quite a difference between now and 2008, since at least in Germany, there's a lack of supply of residential assets being delivered to the market<sup>28</sup>. German experts from LBS and Sparkasse consider a calming of prices to be more likely than a sharp decline. Because the supply will remain scarce.*
- 6. Another important factor, in contrast to 2008, in the lower household debt, which is the critical variable, when we are looking for quick and dramatic corrections, in special in countries where mortgages are variable and rates increase suddenly. If we look at the chart from the OECD<sup>29</sup> we see Germany is not highly leveraged, and therefore families will not be forced by a change in mortgage payments to have to sell their residency to cover their mountain of debts, like in some countries they will: Sweden, Netherlands, Switzerland, Norway, Denmark or Australia, where such leveraged households, will ignite an increase of houses to be sold onto the market to be able to cover their defaulted debts.*
- 7. To bring another piece of perspective for Germany, we can look at the evolution of household debt from 1995 till 2021, and of the OECD economies, Japan and Germany are the ones that have remained more stable. The other OECD countries, have been gradually increasing their household debt. Germany was at 98*

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<sup>26</sup> <https://www.fitchratings.com/research/structured-finance/covered-bonds/long-fixed-rate-periods-mitigate-german-mortgage-rate-rise-14-06-2021>

<sup>27</sup>

[https://sdw.ecb.europa.eu/quickview.do;jsessionid=A40226F542E6719A1BDA1B4C4C0ABBA8?SERIES\\_KEY=304.RAI.M.DE.SVLHPPH.EUR.MIR.Z](https://sdw.ecb.europa.eu/quickview.do;jsessionid=A40226F542E6719A1BDA1B4C4C0ABBA8?SERIES_KEY=304.RAI.M.DE.SVLHPPH.EUR.MIR.Z)

<sup>28</sup> According to the Federal Statistical office, the number of building permits for single family homes dropped 17.8% from January to May 2022.

<sup>29</sup> <https://data.oecd.org/hha/household-debt.htm>



*in 1995 and today is 102<sup>30</sup>. The other countries have increased quite significantly like Netherlands, UK, Canada, France.*

As can be seen, when Germany goes through a correction on the residential real estate prices, where the fund focusses, such correction will not be as dramatic as in other countries (nor as dramatic as the news seem to imply putting in the same group Canada, Australia, UK, Sweden, Norway than Germany) because there will be less of a need to sell properties to cover for unpaid loans, which was one of the main variables that caused drops in residential assets in several countries in Europe, due to families and banks unloading into the market properties to be sold to cover for bad loans, what further increased the degree of real estate price corrections. Therefore, a correction in a 3-5 year period in Germany of 30% as it did happen in some countries in 2008 (not Germany), seems quite unlikely, and thus our portfolio with low LTV's (currently 58%) and the majority of the loans being senior (currently 84%), we feel we are in a somewhat more comfortable situation.

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<sup>30</sup> <https://data.oecd.org/hha/household-debt.htm>