bulwiengesa

THE 5 % STUDY 2020

WHERE IT STILL PAYS OFF TO INVEST

Contents

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A study by bulwiengesa AG

With the friendly support of

BEITEN BURKHARDT

Forewords

We are living in uncertain times – back at the beginning of 2020, few of use could have imagined that a pandemic would keep the world in a stranglehold for over a year. COVID-19 brought home to us how fragile and vulnerable some supposedly secure business models may be. Who would ever have thought that urban tourism would grind to a complete halt for months on end, causing hotel occupancy levels in a city like Berlin to drop by well over 60% in 2020 as against the previous year?

Due to the long-lasting lockdown, thousands of livelihoods in bricks-and-mortal retail are at risk. The German Retail Federation (HDE) reports that some 120,000 shops are currently facing permanent closure – it is already clear that the face of our cities is going to change. However, the fact that many areas of bricks-and-mortal retail have not found answers to the growing competition from online retail is not a result of the crisis – rather, the crisis has only served to accelerate this trend.

Many offices are also deserted, with employees workingfrom home. We all suspect that even after the corona-virus pandemic is over (which will hopefully be soon) our day-to-day lives will not go back to how they were before.

But are rapid change processes really new? If we look back at the speed at which our working world and everyday lives have changed over the past decade as a result of digitalisation and connectivity, we can see that the pandemic is having one lasting effect in particular: It is intensifying change and disruption processes. Often, it did not initiate these processes.

It is therefore beneficial that after a year's experience with the pandemic now, debate in the real estate industry has become less emotionally charged and this process of increasing objectivity has been accompanied by higher validity of market data and forecasts. We are therefore delighted to present you – albeit with a half-year delay – with a comprehensive overview of the yield potential on the German real estate market for the year 2020/21, too. I hope you are able to gain many insights from it.

Sven Carstensen, Member of the Management board of bulwiengesa

Despite the coronavirus pandemic, the investment markets developed positively over the past year. However, 2020 was a more difficult year for commercial real estate that for residential real estate, although office properties developed considerably better than retail properties.

After prices for commercial properties had been rising steadily for years, the coronavirus evidently brought about a turnaround. In 2020, prices in this market segment in Germany's major cities decreased again for the first time in years. The reasons included temporary shop closures, insolvencies in the retail sector, vacant hotels and the trend towards working from home – factors that will undoubtedly continue to play an important role for the commercial real estate market in 2021.

There is a different picture when it comes to residential real estate, with prices here continuing to rise in spite of the crisis. Houses and apartments in Germany were once again considerably more expensive in 2020 than in the previous year. As demand for housing in major urban centres remains high, however, the price increases are progressively spreading to the suburbs and rural regions. This is good news for investors, who benefit from the availability of more and more attractive space that promises high yields. Growing numbers of people are willing to pay high rents for residential properties outside major urban centres, too.
The gap between the development of residential and commercial property prices is therefore widening. Measures to combat the COVID-19 pandemic, such as the second lockdown, are causing noticeable difficulties for commercial properties, especially buildings that have not be used for several months. By contrast, continued strong demand for residential properties is resulting in sustained price momentum.

With its many years of experience, BEITEN BURKHARDT provides advice on all phases of property management: from financing to the land purchase and project development through to letting or selling the property. We implement innovative forms of property sales and trading, as well designing German and foreign real estate funds.

Dr Detlef Koch, BEITEN BURKHARDT Rechtsanwaltsgesellschaft mbH

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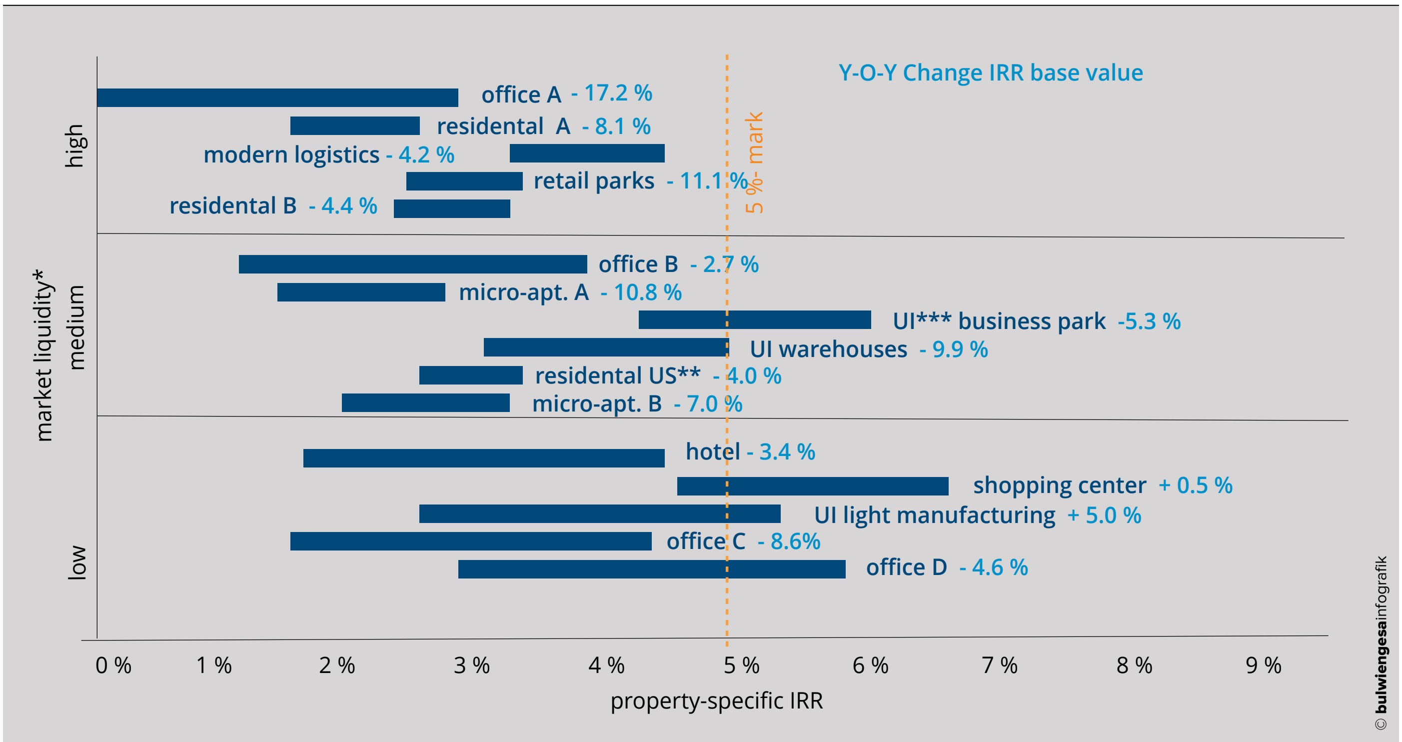
THE 5 % STUDY 2020

WHERE IT STILL PAYS OFF TO INVEST

Summary
Core-Matrix*



* Liquidity of asset classes regardless of investment cycles. Within the categories of low, medium and high market liquidity shown in the diagram, there is no further assessment of the liquidity of the individual types of use. ** UC = University Cities *** UI = Unternehmensimmobilien

For the purposes of this study, core properties are defined as properties with a stable letting situation and sustainable location parameters. The matrix above shows the relationship between the probable internal rate of return on a property investment and the liquidity of the respective market. Here, market liquidity refers to the ability to generate demand for transactions independently of the respective investment cycle and to offer exit opportunities even in years of low demand.

New core world

Generally speaking, last year it became more of a challenge even for professional investors to generate secure yields in most asset classes.

Accelerated by the coronavirus pandemic, the classification of some asset classes within the core matrix has also changed significantly.
For example, logistics properties are right at the top of many investors' wish list – which affects not only prices but also liquidity. It can therefore be assumed that they will continue to influence future investment activity in the long term, regardless of cycle phases. Despite further decreases in purchase yields, the attainable IRRs are comparatively high, coming to between 3.2% and 4.4% in the core segment. Market rent expectations in particular are contributing to this positive result.

Hardly any deals for shopping centres

At the other end of the spectrum, demand for shopping centres – which had already declined considerably before the crisis – has reached a new low. Although IRR expectations here are rising somewhat, as increased purchase yields initially also have a positive impact on profitability, uncertainties in relation to re-letting scenarios are also increasing the risk and thus the yield range. In 2019 a yield of between 3.2% and 3.9% was determined, whereas by 2020 this had spread to between 2.5% bis 4.3%.

Retail spaces focussing on food are still sought-after investments, as they are less dependent on the economy and e-commerce. This benefits specialist retail centres with high shares of periodically required goods. Their comparatively narrow range demonstrates the security of these investments.

Summary
Core-Matrix

Despite falling prices, yields for hotel investments remain low

The core segment in the hotel industry is particularly defined by a long-term lease with a liquid operator. Here the wheat is currently being separated from the chaff: Whereas smaller players with little financial backing are struggling for survival or have finally been forced to give up, larger chains are expanding. For investors, this means firstly that lease default risks are increasing and secondly that (solvent) lessees are in a strong negotiating position when it comes to lease renewals and will expect rent reductions.
So even though purchase yields have risen overall, the expected IRR is below the previous year's level at a base value of 2.9%.

Production properties and industrial parks over 5%

Business properties still offer above-average yields – despite significant decreases over the past six years, industrial parks still offer possibilities for a return with a base value of 5%. For production properties, the figure is even around 5.5%. These two categories of business property thus lead the pack when it comes to yields. IRRs for warehouse properties – the third type of use within the business property segment – have shrunk by 35% since 2015, reflecting growing investor interest in urban logistics properties in particular.

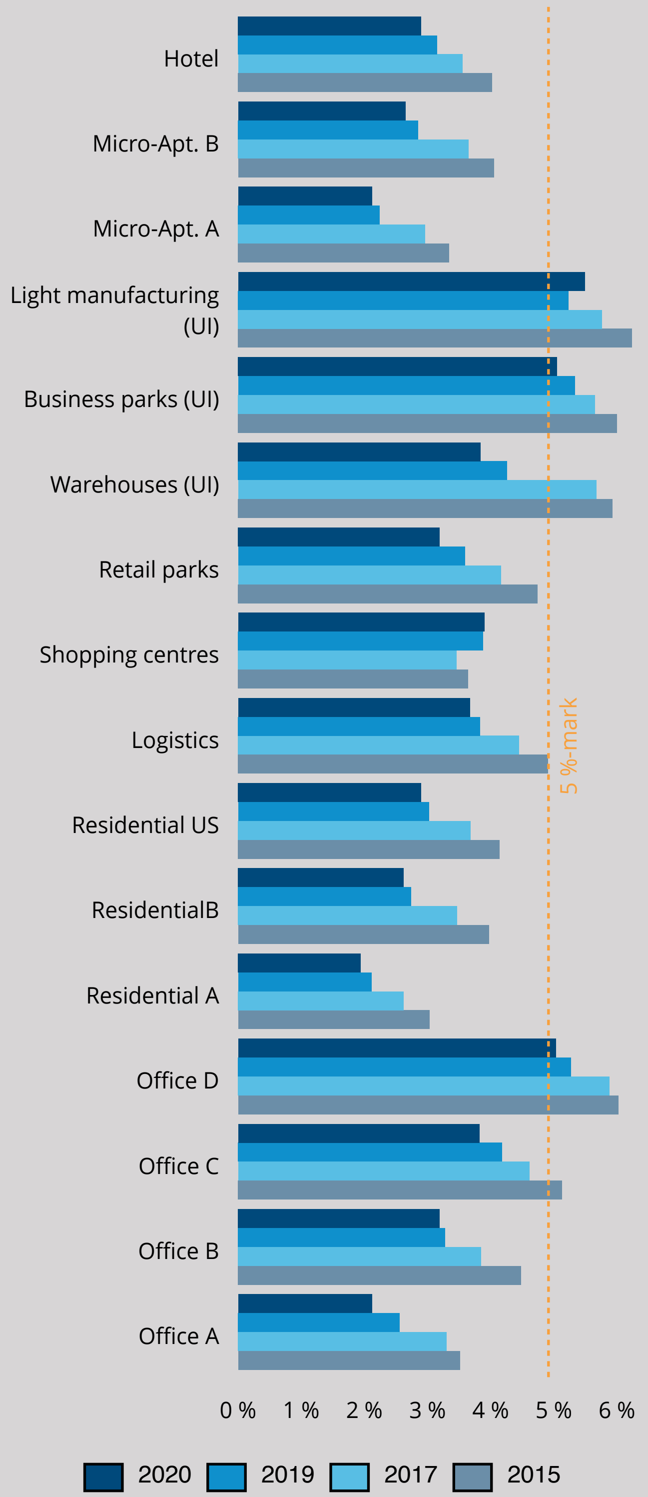
Office yields still decreasing

Investments in offices in A markets are still characterised by high prices that leave little scope for profitable yields. The base value is now close to the 2% mark – meaning that capital preservation clauses are becoming increasingly important instruments for protection from inflation. The further decline in yields year-on-year (-44 bp) particularly also reflects the lower market rent expectations. By contrast, 5% or more can still be achieved in D markets

Residential properties below 2% – and often without capital preservation

The already very low level for residential properties is continuing to decrease – in A markets it is currently at 1.94% and thus 36% lower than in 2016.
Unlike for commercial properties, capital preservation or similar clauses are not usually contractually agreed for residential properties. Additional regulations (rent caps) also limit the potential for adjusting existing rents. It is thus becoming more and more of a challenge in some A markets to achieve protection from inflation with investments in existing housing.

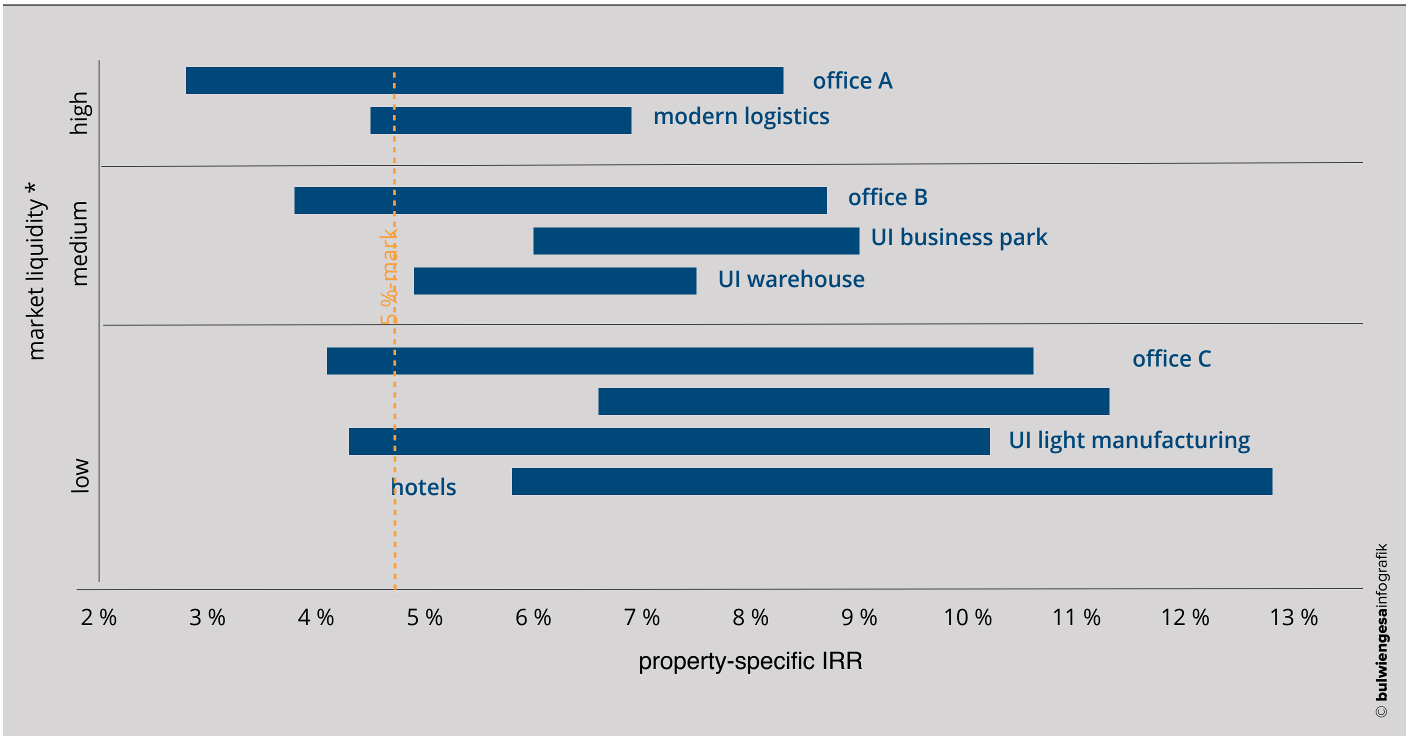
Development of Core Properties' IRRs



Source: bulwiengesa AG

Summary

Non-Core-Matrix*



*Liquidity of asset classes regardless of investment cycles. Within the categories shown in the diagram (low/medium/high market liquidity), there is no further assessment of the individual types of use.

In this study, non-core properties are defined as properties with an increased risk profile and thus higher performance opportunities. They have management deficiencies such as vacancies, are usually situated outside the central locations and have unstable letting structures.

The matrix above shows their market potential only; restructuring or renovations are not taken into account here. No outliers are included either. This means that in some individual cases the yields and the risks may be considerably higher than in the model calculation. Residential property investments are not currently included in the non-core analysis, as the yield potential they offer in established markets is too low for non-core investors. Modern shopping centres and specialist retail centres are likewise not included.

Yield potential for offices (still) taking its time to materialise

The price gap in the office segment could widen again. While purchase yields for core products are even falling, properties with an increased risk profile carry premiums. Using all types of leverage such as vacancy reduction and rent adjustment, up to 8.3% can be achieved in A cities and even as much as 12% in smaller markets. On the other hand, there is an increased cash flow risk, as reflected in negative yields of up to -4%.

Non-core transactions are still relatively rare, however, as the price expectations of buyers and sellers differ considerably. There is likely to be movement here in 2021, especially if the pressure to sell increases due to liquidity squeezes.

Hotels in the non-core segment are currently being examined in terms of their repurposing capacity in particular – a scenario that is not reflected in this study. The modelled yield potential of 10.8% is therefore rather theoretical and is based on the assumption of an optimised lease situation, for example due to a change in operator.

Investments in business properties in the non-core segment also offer high yield opportunities – the maximum attainable yields here are estimated at 11.3% for production properties and at 9% for industrial parks. In addition to using market potential in re-letting, a high level of technical expertise is required for the successful implementation of a non-core strategy. The increased demand pressure on the investment market is also reflected in the yield potential of logistics and warehouse properties, which is considerably lower than for other types of use at 6.8% and 7.5% respectively.

The market environment

In the first half of 2020, the global coronavirus pandemic led to the worst recession in Germany for decades. An economic upturn was slowed significantly by a second wave of infections in Germany and abroad that began in the autumn. Currently, a non-linear growth path is anticipated for the German economy.

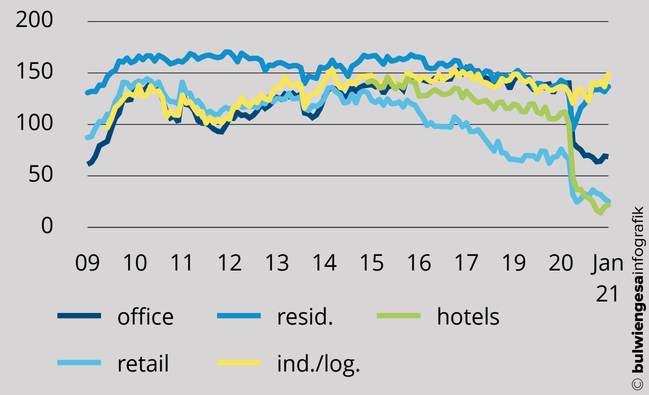
The commercial real estate investment market proved lively even in 2020 at around EUR 50 billion. A large portion of this (40-50%) was attributable to offices, underscoring the excellent position of this use type on the transaction market. The volume is attributable not only to transactions that were initiated before the outbreak of the pandemic already, but also to brisk new business.

After the impact of the pandemic on the real estate market had still been fairly moderate in the first quarter of last year, effects on transaction volumes and rental performance started to make themselves felt as the year progressed. Retail companies, restaurants and hotels were hit particularly hard by the crisis and will still have to deal with the effects of the pandemic long after 2020.

While the real estate climate index has fallen by 41.1% since January 2020, the new year has begun with a positive trend. Compared to December of the previous year, the index climbed by 1.8% to 71.4 points. With an increase of 3.3%, the investment climate index reached its high since the start of the pandemic at 76.9 points and can thus be seen as the driving factor behind this development.

Recovery trends can also be observed within the individual asset classes – in particular, confidence in the hotel climate has increasingly grown again as of the start of the year (+ 7.5%).

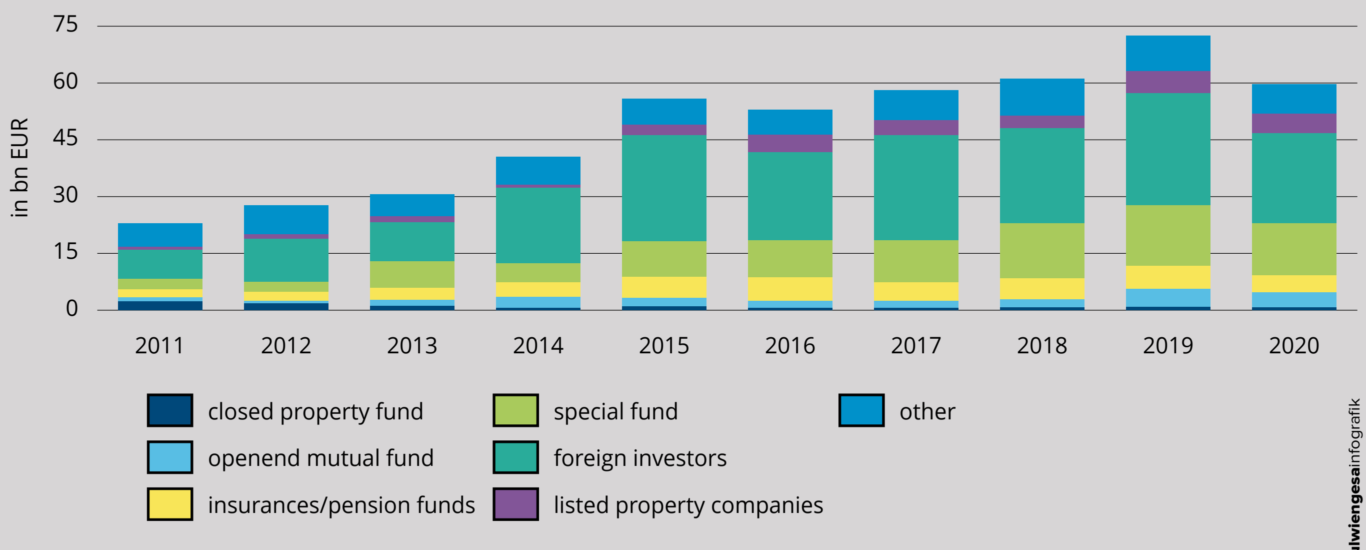
Development if Deutsche Hypo Real Estate index by Segment



Source: Deutsche Hypo/bulwiengesa AG

The undisputed frontrunner among the different asset classes is and remains the logistics climate. Whereas all other climate indices recorded huge losses as compared to 2020, logistics showed impressive fortitude and even increased by 8.8%.

New investments in Commercial Properties in Germany by Institutional Investors



Source: BVI, BaFin, Bankhaus Ellwanger & Geiger, Deutsche Bundesbank, analyses Loipfinger, Scope, FERI, data is based on research and calculations by bulwiengesa AG

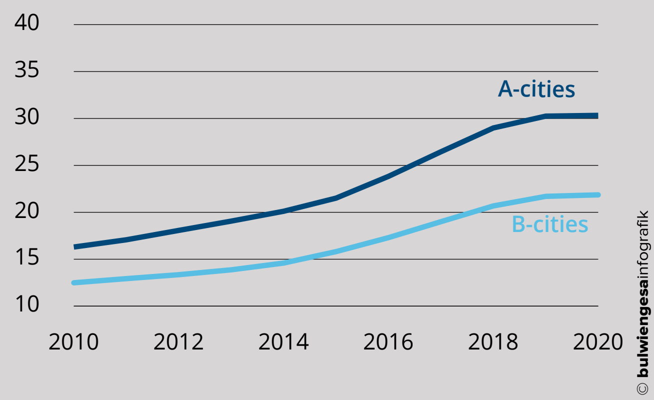
The Market for Residential Properties

Even in the coronavirus year 2020 and despite rent controls, an upward trend could be seen on the housing market in major urban centres. Regardless of the economic uncertainties, many households stepped up their search for a plot of land, a new apartment or a house. Prices for existing owner-occupied homes and undeveloped land in particular are currently rising sharply.

With a year-on-year increase of around 6% and 9% respectively, rents for re-letting in the A and B markets rose at a much faster rate than in 2019.
Munich is still the frontrunner on the rental market with a current average rent of around EUR 17.50 per square metre, followed by Stuttgart and Frankfurt, where the price per square metre comes to EUR 14.30 and EUR 14.50 respectively. Among the B cities, Bochum, Duisburg and Leipzig are still recording a moderate rent level of EUR 7.50 or less per square metre on average.
Purchase prices are also moving in only one direction: upwards. Compared to the previous year, however, prices for owner-occupied apartments in existing buildings saw somewhat weaker momentum of around 8% in A cities and 6% in B cities. In the period under review, prices for owner-occupied apartments in German A cities more than doubled. Here, too, Munich comes top in the ranking at EUR 7,900 per square metre.

The main factor driving up prices – although growth rates will get lower in the coming years – is the fact that mortgage rates are at a historic low. Despite high investment demand and favourable interest rates, bulwiengesa anticipates a slight decrease in the multiplier for existing apartment buildings. This is partly due to somewhat lower momentum in the constant migration to cities due to the coronavirus.

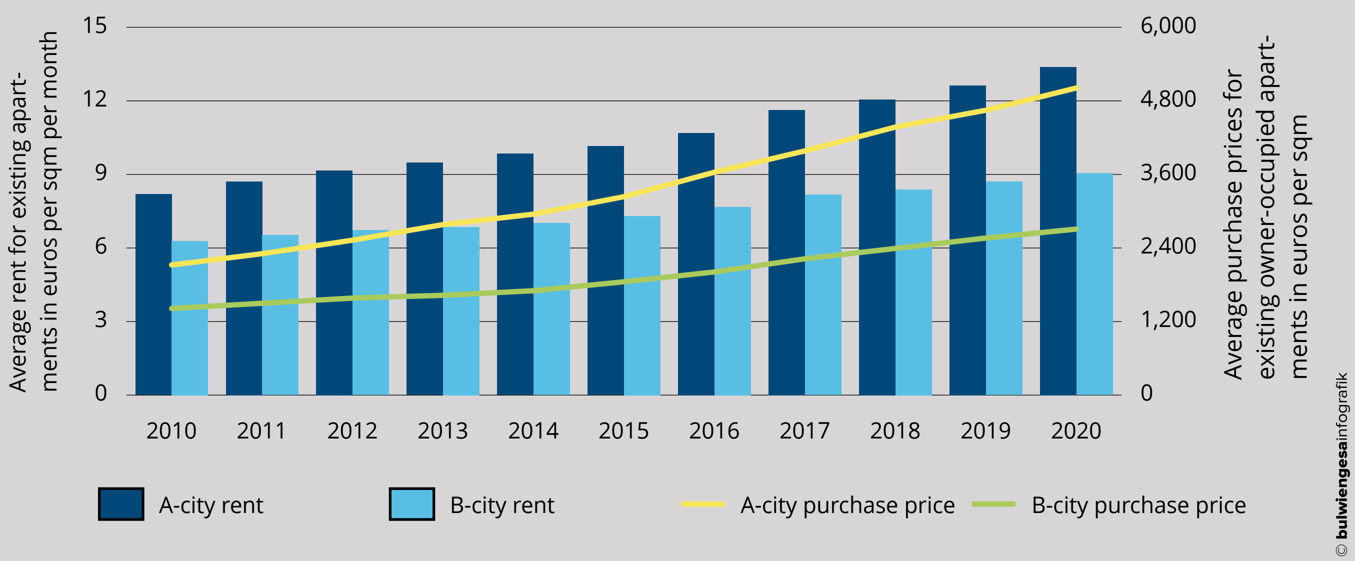
Development of Multipliers* by City Cluster



Source: RIWIS *Existing properties

The decrease is due to the currently somewhat lower momentum in the constant migration to cities, as immigration from abroad in particular has declined significantly due to the coronavirus. The markets in surrounding areas, which have already been drawing growing attention for several years, will continue to gain significance in the coming years as a result of the coronavirus crisis and a key driving factor – employees working from home.

Development of Residential Property Market in German A- and B-Cities

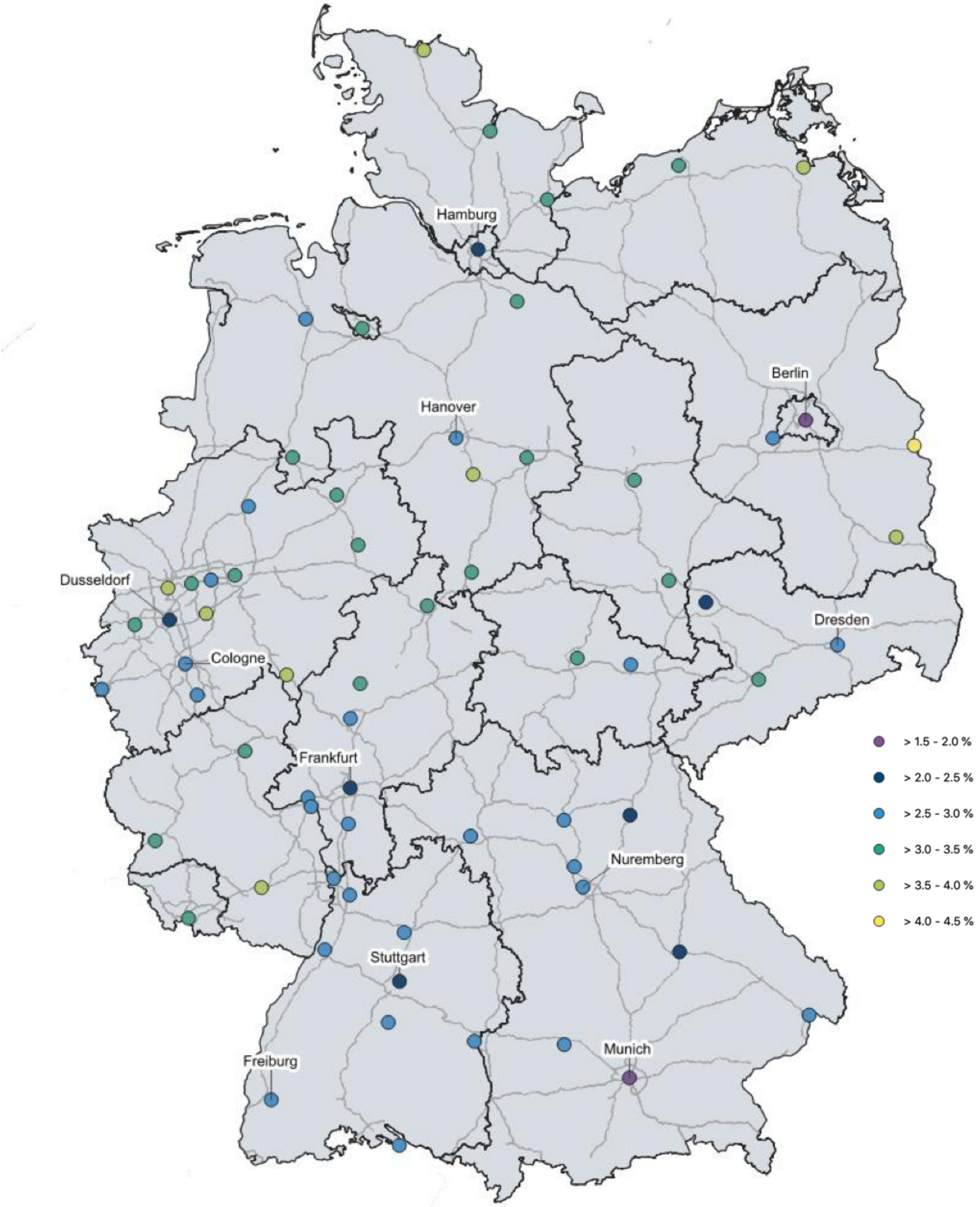


Source: RIWIS

bulwiengesa

The Residential Market

Maximal Obtainable Property-Specific IRR for Core-Investors



Excursus: Build more, regulate less

by Klaus Beine, BEITEN BURKHARDT Rechtsanwaltsgesellschaft

It is not just since the beginning of the pandemic that legislative measures have been raising question marks in the real estate industry. In one current example, the "right to work from home" does not cover the real issues with regard to the workplace, as regulated in the German Civil Code, the German Occupational Safety Act and other laws, or with regard to data security. Or to take another example, the very different judgements delivered recently with regard to the continuation or reduction of lease payments and commercial rents in sectors that have been particularly affected by the pandemic, such as retail and hotels – where frustration of contract is involved (Section 313 of the German Civil Code) – also make it clear that interventions by the legislator have not brought the desired clarity, but on the contrary may actually cause some conflicts in cases where discussion and negotiation, i.e. good communication, would bring about faster and better solutions.

For us as a corporate law firm, the 5% study is therefore always valuable, as we can see how political influence is affecting the market – whether it is rent controls, rent caps, neighbourhood protection statutes, conversion bans or the Building Land Mobilisation Act.

Housing policy has become the arena of populists. Demands for expropriation and the abolition of owner-occupied homes, further tightening of rent controls or even the introduction of rent caps not only divide our society and distract us from the political failures of the past years. These instruments also do not solve the central challenges of our times: ensuring affordable housing in major urban centres and implementing the cost-intensive climate-friendly modernisation of existing housing in Germany. Ideology is out of place; what is needed is pragmatism.

From the law firm's consulting practice and from my experience as a member of the German Property Federation's steering committee, as well as my work on the Economic Council, I know that we need a turnaround in construction and housing policy, a stop sign for regulation and a green light for investment and innovation. Construction is the best form of rent control! After all, the urgently needed vestment in new homes with modern energy systems will not be triggered by regulation and interference in property rights.

In tenancy law, for example, a complete rethink is required. Scattershot approaches to intervention will not work. Instead, the focus when considering subsidies need to be on the individual's ability to pay – so that government support measures can be used in a more targeted way than before. This is also a question of fairness.

Furthermore, all the housing campaigns launched are bound to fail when the building laws are as complicated as they are here in Germany. We need to lower construction costs. The proposals put forward by the Construction Cost Reduction Commission have been waiting a long time to be implemented. The necessary steps also include speeding up the building permit process, for example by introducing the digital construction file and requiring building authorities to grant permits within a reasonable time period. In addition to introducing a building land designation order for municipalities, the Economic Council's proposals for increasing supply on the housing market also include redensification and loft conversions.

The social aspects of ESG – environmental, social and (corporate) governance – are well-intentioned and necessary in principle. However, any excessiveness also creates barriers to investment, when what is needed is incentives for investment.

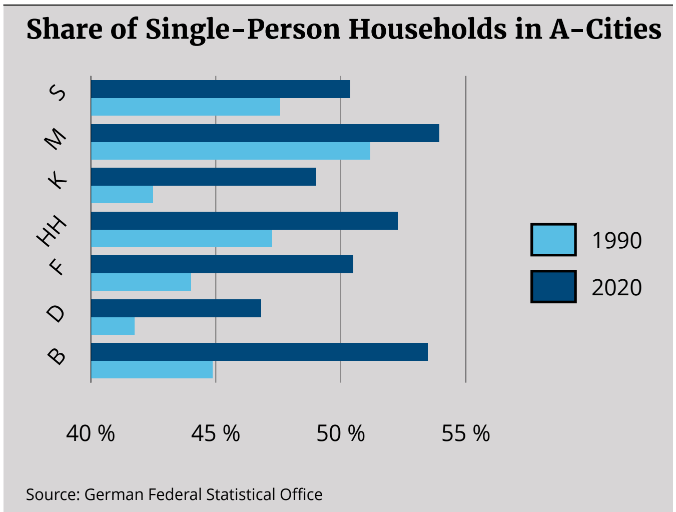
The environmental, economic and demographic challenges of the housing market will not be solved by scaring off a significant part of the solution – private capital. In addition to municipal, cooperative and semi-public players, private companies can also help solve the problems. In the end, we have to remind ourselves that excess demand for a product can only be regulated by increasing the supply.

Klaus Beine
BEITEN BURKHARDT Rechtsanwaltsgesellschaft mbH

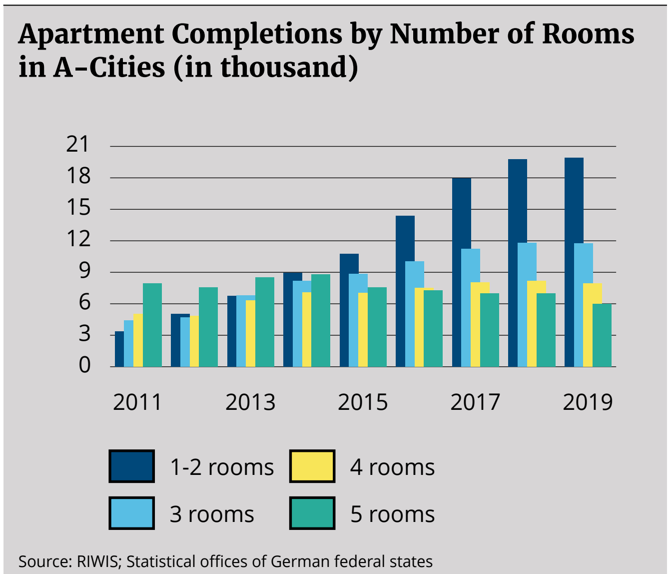
The Marktes for Micro-Apartments

Initiative Micro-Living (initiative.bulwiengesa.de/micro-living/)

In the past, the market for micro-apartments in Germany enjoyed growing demand as a result of demographic and structural change processes. This was particularly due to increasing flexibility on the employment market, modern mobility concepts and a growing number of single-person households. In many A cities, the share of single-person households is above 50%.



Whereas ten years ago the trend was still for larger apartments, now the focus in A cities is on apartments with one or two rooms. In 2019, around 43.5% of all newly constructed apartments (including measures in existing properties) were attributable to this size category. Back in 2010, the figure was 14%.



The start of the coronavirus crisis in March last year and the associated travel restrictions brought about a decline in demand. In July 2020, occupancy in the micro-living segment was down by three percentage points as against January 2020 at 90% – a slight downturn that this previously highly sought-after segment is experiencing for the first time. In addition to the termination of leases for commuter apartments as more employees started working from home, leases for student apartments were also increasingly terminated due to the cancellation of in-person university events.

Micro-Living Initiative

The Micro-Living Initiative was launched by bulwiengesa AG in 2020 and stands for a new innovative association of companies working in the apartments segment of the real estate industry as owner, operators and/or administrators.

Its goal is to improve market transparency on the basis of a reporting system in which the participants' property and letting data are analysed. In this way, investors and market observers are regularly informed about current market trends, and members of the initiative also receive a benchmark report that analyses their portfolio in relation to all other members. As well as general information on the property's location and the number of apartments, its fittings and letting data such as target rents, the occupancy rate and operating costs are also requested.

As an independent entity, bulwiengesa delivers the reports, organises the exchange of data and the preparation of reports, handles all coordination processes on an ongoing basis, and is responsible for the initiative's PR work. Two market reports have been issued so far.

A total of 15 companies operating on the German market for apartments – berlinvo, Bürgermeister-Reuter-Stiftung, Commerz Real, Corestate Capital, Cube Life DEMIWO, GBI, HanseMerkur Grundvermögen, i Live, International Campus, Krams Immobilien, Pro Urban, Staytoo, Union Investment and VEGIS Immobilien – are already members of the initiative. The German Micro-Living Association is also an associate member.

All professional owners, operators and administrators of residential apartment buildings can join the initiative.

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Micro-Living Team Leader
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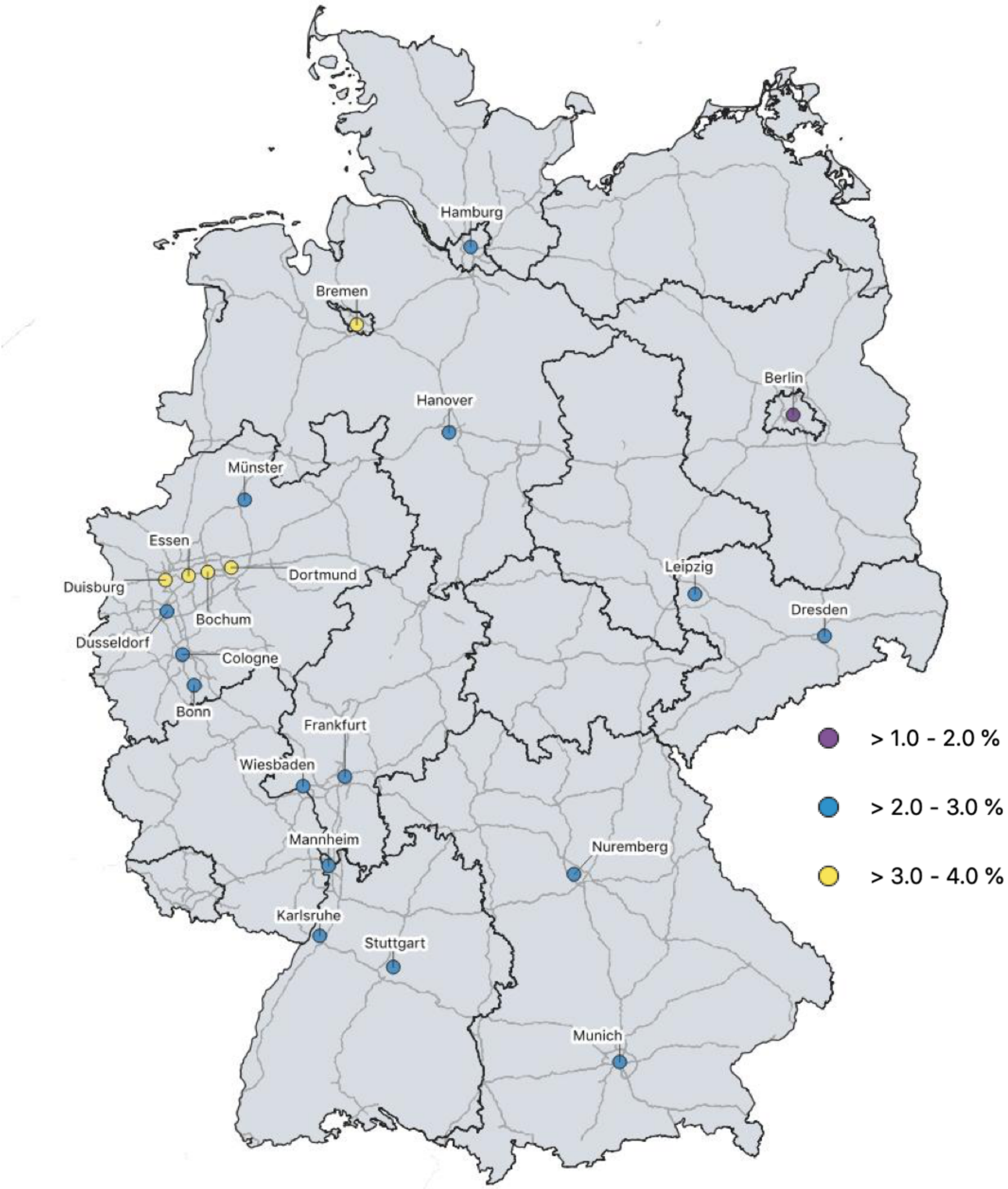
The Market for Micro-Apartments

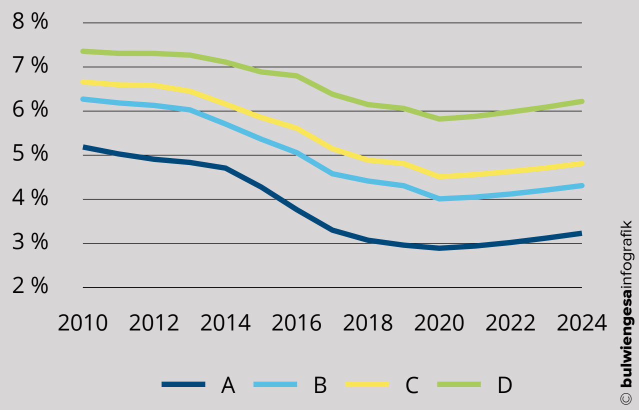
Maximal Obtainable Property-Specific IRR for Core-Investors



The Market for Office Properties

Yield compression and a scarce supply of high-quality assets were considered keywords in the commercial investment market in the past years.

Development of Net Initial Yield



Source: RIWIS, 2021 - 2024 forecast

Despite an initial period of inaction, as is typical in times of crisis, the commercial investment market proved lively again in 2020 with an investment volume of around EUR 50 billions. A large share of the transactions was attributable to offices, underscoring the excellent position of this use type on the transaction market. The average initial net yield for the A cities has remained stable in comparison to the previous year at 2.8%.

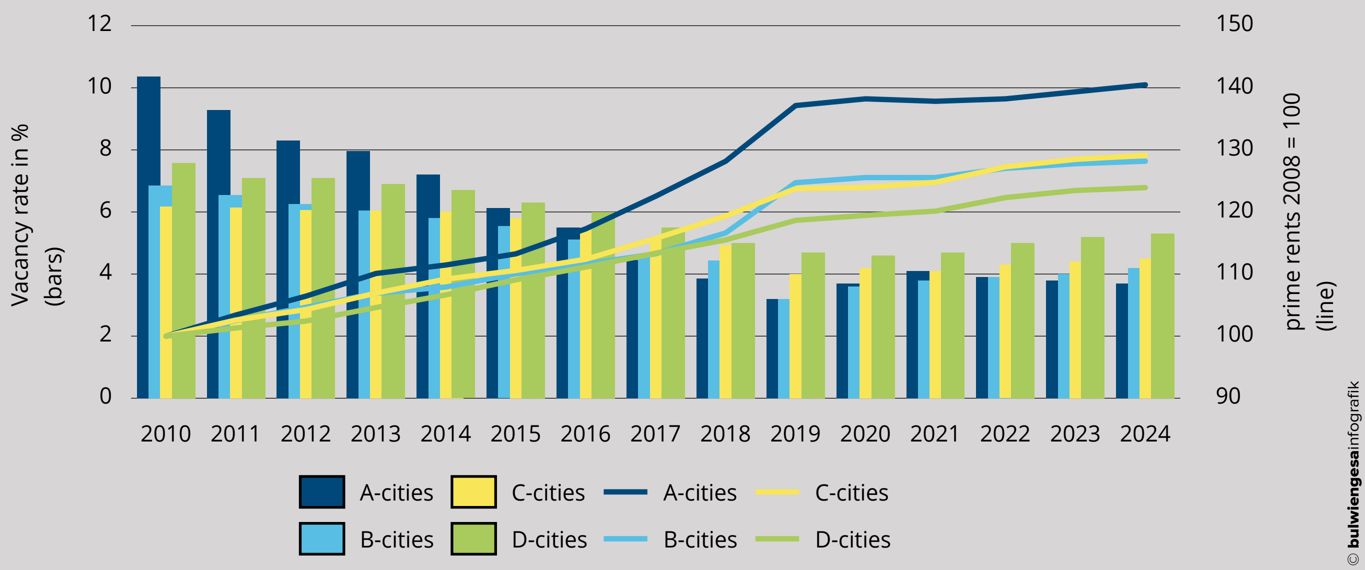
These low values also reflect expectations for the future development of rents. For central locations at least, this is forecast to be stable without any significant mark-ups. This relates to nominal rents, but for effective rents decreases are likely due to the growing importance of incentives offered by lessors, such as rent-free periods. In the future, however, the relationship between location and location quality will be reflected more clearly again in rent levels.

As expected, take-up in the A markets fell by around 37% in 2020. Due to declining take-up on the office rental market in 2020 and sub-leased space gradually coming back onto the market, the average vacancy rate in the A markets rose by around 50 basis points again to around 3.7%. However, a crisis development is not currently expected here (yet).

Properties with a secure risk profile (such as long leases with very creditworthy tenants) are currently strongly preferred by investors. Therefore, only slight movement in prime rents is anticipated in the coming years.

Noticeable price reductions are to be expected more in the case of opportunistic investments, i.e. for properties with shortcomings in terms of their location and qualities.

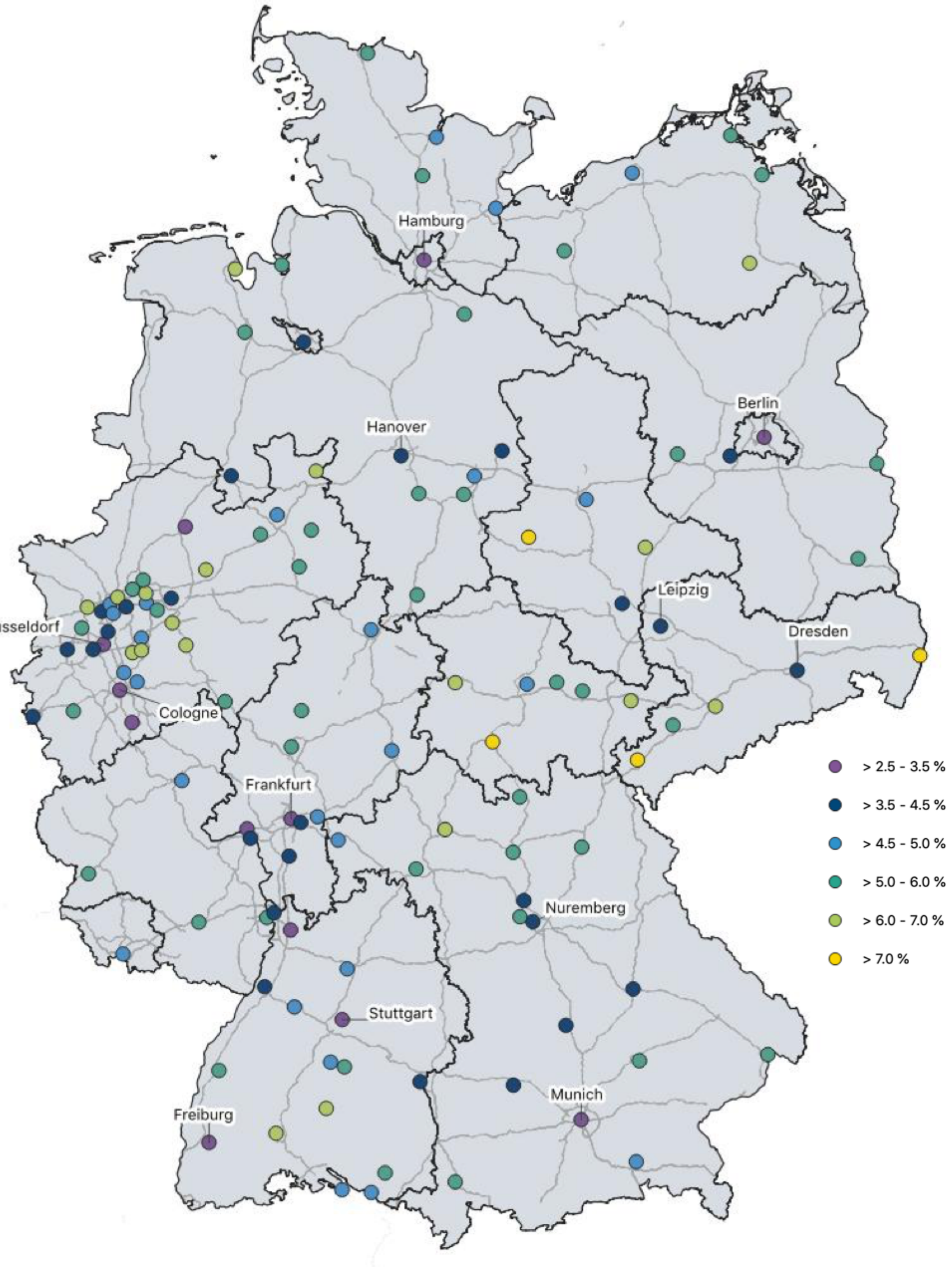
Office Market Development in Germany by City Category



Source: RIWIS, 2021 forecast

The Office Market

Maximal Obtainable Property-Specific IRR for Core-Investors



The Market for Logistics Properties

During the coronavirus crisis, the systemic importance of logistics become clear and demand for logistics and warehouse spaces is constantly increasing. One key driving factor here is growth in online retail. Particularly in the pandemic, the order volume shot up rapidly, with online and mail-order retail marking a sales increase of well above 20% in Germany in 2020. This trend is set to continue.

It is coming up against a limited supply, with logistics space developments still remaining focussed in the established logistics regions. Despite a high number of completions, there is still excess demand. Space is particularly scare in all major urban centres in Germany, even though these are also the regions with the highest level of construction activity. In the lead are the Rhine-Main/Frankfurt, Berlin, Düsseldorf, Rhine-Ruhr and Hamburg logistics regions.

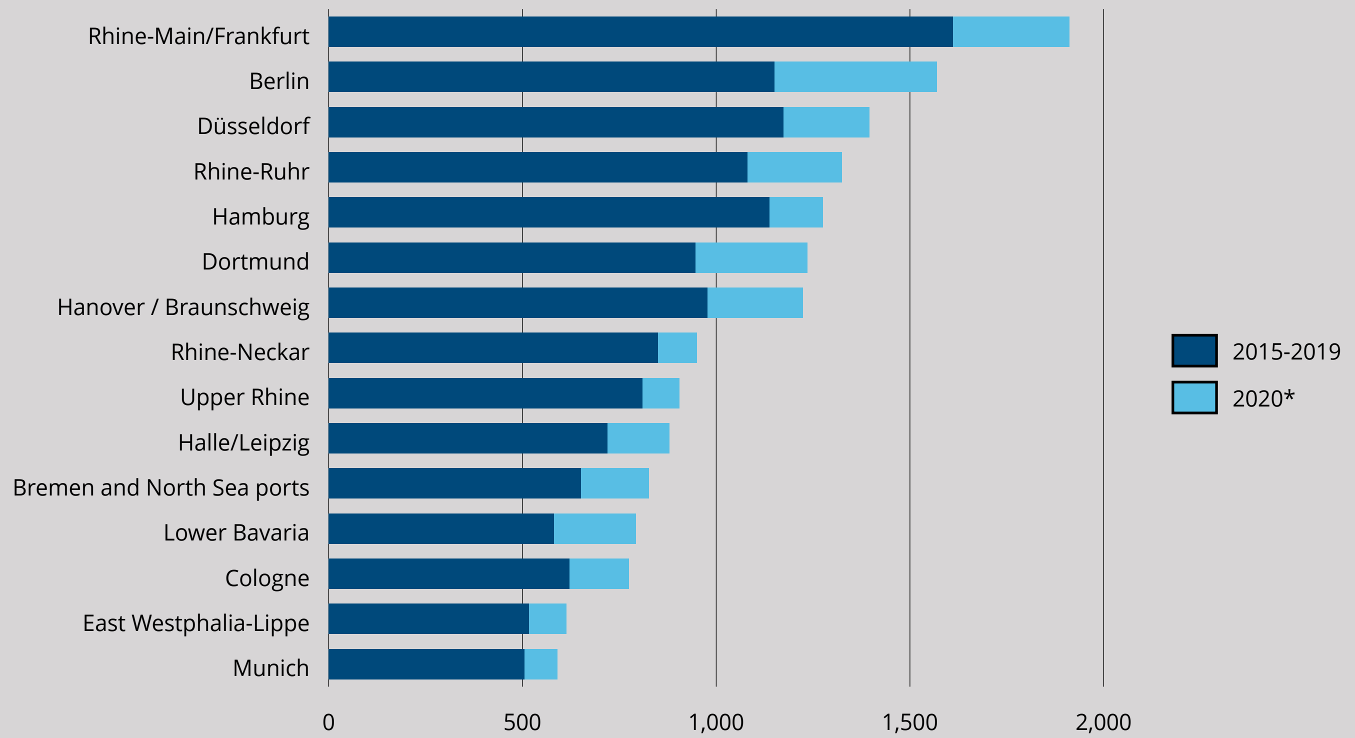
The shortage of space in highly sought-after logistics regions is having a significant impact. Accordingly, many new construction developments are having to switch to “second-tier” locations, where suitable building land can still be found. Last year Berlin overtook the Rhine-Main/Frankfurt region as the hotspot with the most development, with a particular focus on areas around the new BER airport.

The above-mentioned scarcity of space is leading to further increases in rents, especially in existing properties.

Logistics properties are therefore becoming increasingly popular with German and foreign investors, which is reflected in falling yields and rising prices. Initial net yields are thus below 3.5% now in some established logistics regions – particularly for newly constructed space with a secure long-term letting situation.

The steady growth of the logistics market and the steadily increasing demand, even during the coronavirus crisis, are reflected in rising take-up (letting and purchases of owner-occupied properties). A few years ago, the annual average was still below 4 million square metres, whereas the average for the past five years is now around 5.6 million square metres. The fact that around 76% of this relates to the logistics regions also clearly demonstrates their importance on the logistics market. Whereas in 2015 e-commerce accounted or 10 % of total demand fo space, by 2020 this had risen to around 15 %.

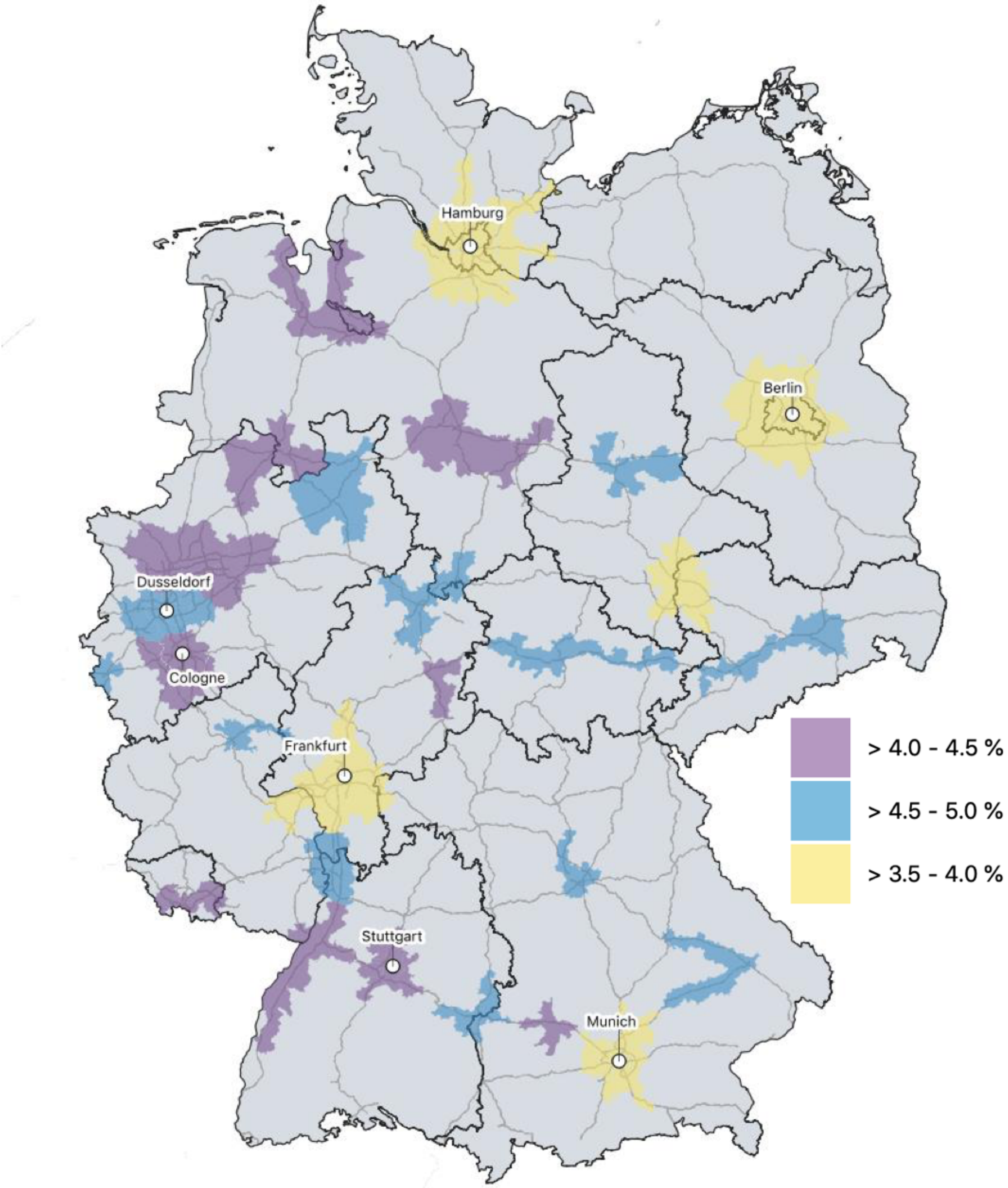
Completed space by logistics region in thousands of square metres, 2015-2020



source: “Logistics and Real Estate 2020” study (download: www.bulwiengesa.de); *2020 forecast

The Market for Logistics

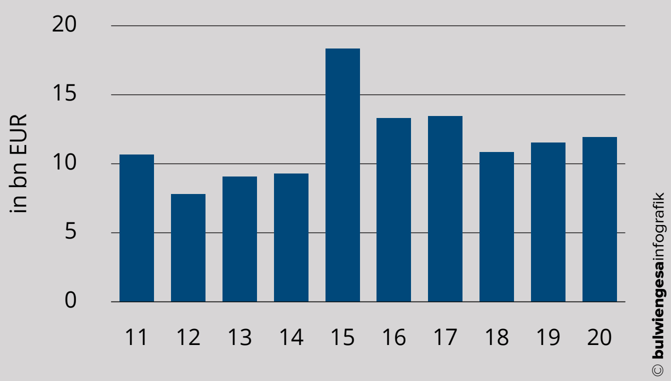
Maximal Obtainable Property-Specific IRR for Core-Investors



The Market for large-scale Retail Properties

In the coronavirus year 2020, the retail market was indisputably one of the segments that were hardest hit by the effects of the crisis. The German retail investment market nonetheless achieved above-average results in 2020 with an investment volume of around EUR 11.94 million and a share of 18.8%. However, demand in the retail sector shows a mixed picture, with shopping centres and commercial buildings rWestphalia ecording a sharp slump while specialist retail centres, and particularly food retail, are in high demand.

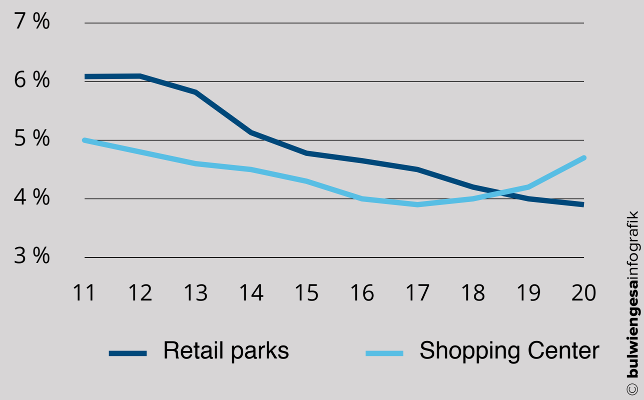
Transaction Volume for Retail Properties



Source: bulwiengesa AG

Although total retail sales increased by 5.71% compared to the previous year, the picture is complex. While bricks-and-mortal retail is generally suffering – business with clothing and shoes is hardest hit with a 23.4% decline year-on-year, whereas food retail has seen growth of 5.8% – online retail is setting record after record and grew by 24.1% compared to the previous year. In 2018 prime rents for specialist retail centres and for shopping centres were both close to 4%, but in 2020 their development was divergent at 3.9% and 4.7% respectively.

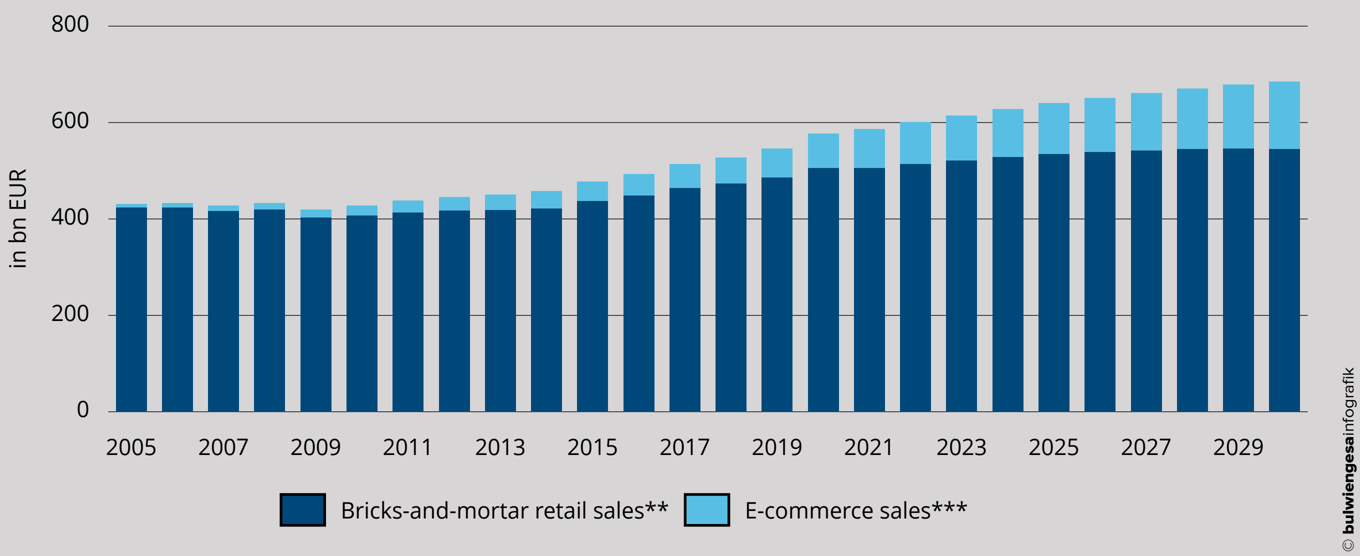
Development Gross Initial Yield



Source: bulwiengesa AG

On the one hand, specialist retail locations and established urban district locations are currently becoming more popular with customers, while on the other hand the desire to be together and socialise is becoming increasingly important again. This can only be met by shopping centres and high-street locations. As such, high-frequency locations will remain highly sought-after in the future, which is why these location qualities contribute to high investment stability.

Retail Sales Development 2005 - 2030*



*dynamic scenario; **retail sales in a narrow sense: not including car dealerships, petrol stations, fuel, pharmacies; *** interactive retail of goods, also including traditional mail-order retail; from 2021 on: provisional/forecast. Source: HDE, bevh. Calculations by bulwiengesa AG

The Market for Hotel Properties

Whereas in 2019 tourism had still been experiencing a success story, the lockdown due to the coronavirus in March 2020 brought it to almost a complete standstill in Germany, like everywhere else.

The total number of commercial overnight stays in Germany fell by around 40% year-on-year to approximately 302 million in 2020. In particular, major cities such as Berlin and Düsseldorf suffered declines of 64% and 63.5% respectively. The number of arrivals also decreased by 49% in the same period. However, due to a decline in business travel, the average length of stay in Germany increased significantly to 3.1 days as compared to the previous year (2.6 days).

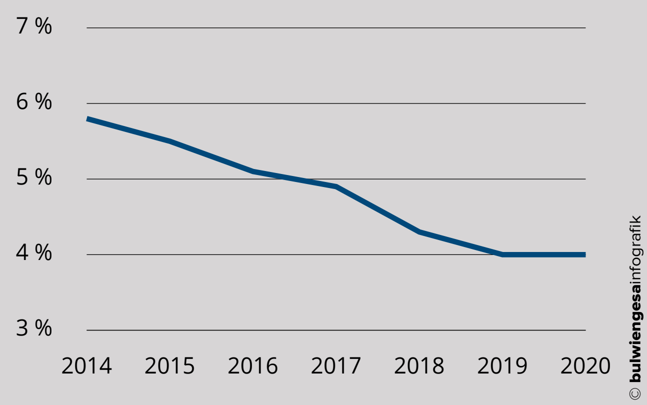
A greater decrease was avoided particularly thanks to the leisure hotel sector, which drew large numbers of visitors in many places due to the easing of restrictions in the summer months. In popular tourist regions such as southern Germany (Chiemsee-Chiemgau) the year-on-year decrease in June 2020 was only 15.5%, and strong domestic demand led to relatively high numbers of guests by the Baltic Sea and the North Sea, too.

When the second (partial) lockdown began in November 2020, the hotel industry had to close its doors to tourists again. All estimates for the recovery of the market now anticipate a recovery process lasting several years, which entails several unknowns. The threat to the existence of many businesses is difficult to judge at present.

With regard to transactions, there is very little activity at present. At around EUR 2.3 billion, the transaction volume in 2020 was considerably lower than in the previous year (EUR 5 billion). Hotels with large-scale capacity for events and airport hotels in particular could be among the losers in the crisis. Investors will have to examine the concept and the operator more closely than before and also pay more attention to options for alternative uses when making purchases.

Meanwhile, yields in the hotel segment are falling. Initial gross yields in A cities are around 4.01%. An increase in yields and a decrease in purchase prices is generally expected.

Development of Gross Initial Yield



Source: bulwiengesa AG

The coronavirus will therefore have a significant impact on the new construction volume on the hotel market, which has risen steadily in recent years. Even in the event of a rapid return to normality, tourism in Germany will not reach the level of 2019 again until 2022 at the earliest.

Demand for accommodation and construction activity in the 7 German A cities

City	Arrivals in 2020	Overnight stays in 2020	Year on year change	Average occupancy rate	Construction activity number of rooms p.a '16-20	total rooms in 2019	total rooms in 2019
Berlin	4,947,581	12,278,640	-64 %	26 %	1,463	1,267	1,141
Düsseldorf	1,082,608	1,825,753	-63.5 %	21 %	328	166	202
Frankfurt	2,162,595	4,085,447	-62.1 %	24 %	1,390	833	1,292
Hamburg	3,172,062	6,878,613	-55.4 %	30 %	1,306	2,053	1,053
Cologne	1,441,825	2,557,212	-61.1 %	25 %	468	238	1,150
Munich	2,998,695	7,059,367	-61.3 %	27 %	2,292	3,286	1,718
Stuttgart	826,405	1,656,977	-59.5 %	24 %	299	548	262

Source: bulwiengesa AG; Statistical Office

The Market for Unternehmensimmobilien (UI)

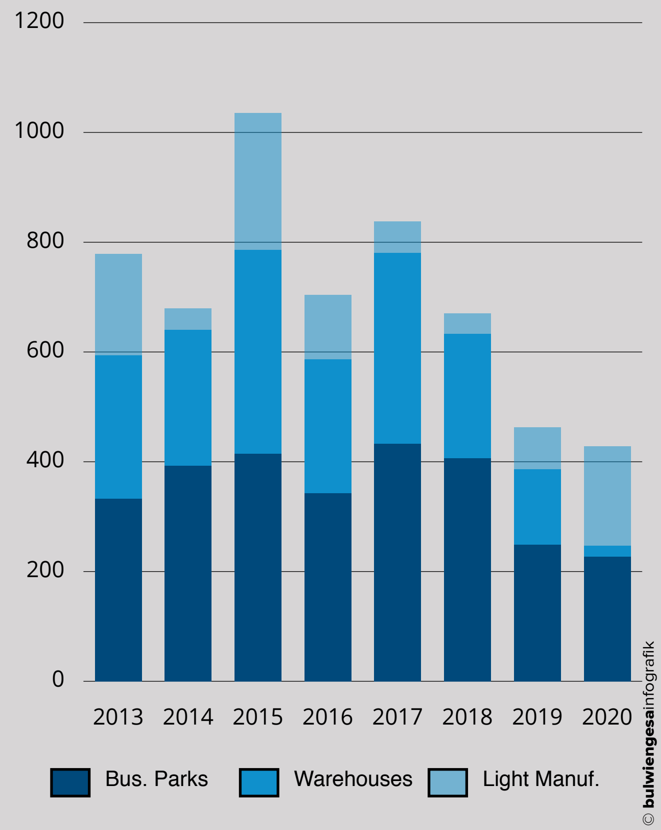
Business properties are regularly analysed by the "Initiative Unternehmensimmobilien"(unternehmensimmobilien.net). They can be broken down into:

- business parks
- warehouse properties
- light manufacturing properties
- transformation properties

Because no project developments are analysed in this study, there is no separate focus on transformation properties.

The take-up figures published by the Business Properties Initiative reveal a divergent picture. Despite growing demand pressure, take-up has been falling significantly for several years.

Take- up of business properties 2013-2020 in thousand of square metres of floor space

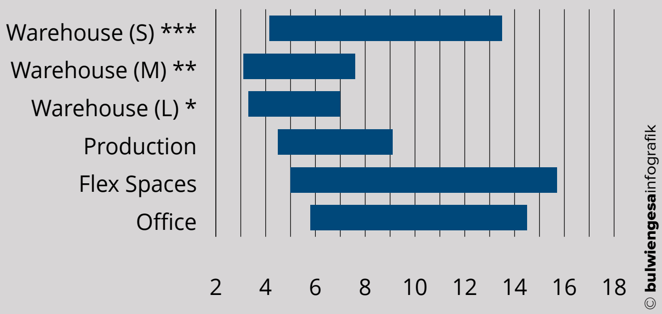


Source: Initiative Unternehmensimmobilien

Whereas in 2017 the volume of letting and purchases of owner-occupied properties came to almost 350,000 square metres, in 2020 a figure of only around 20,000 square metres was reported.

This decrease is attributable to low fluctuation – there are simply very few warehouse spaces available for letting.
As a result, rents are rising despite the decline in take-up – at different paces depending on the property size and use segment.

Rent level in EURO/sqm/month 2020



Source: Initiative Unternehmensimmobilien
* Large: 500 sqm or more; ** Medium: up to 499 sqm; *** Small: up to 100 sqm

For example, the average rent for office space climbed by 5.5% year-on-year to EUR 9.95 per square metre, while for production space the increase was around 8.5% and in the warehouse segment it came to around 1% for smaller spaces and 6% for spaces of 500 square metres or more. Only flex space did not record any significant increase in rent last year. Despite their large stable cash flow profile and resilience to crises, business properties remain a niche product on the investment market.

The transaction volume in the past year thus came to around EUR 2.1 billion, with around 65% of this attributable to industrial parks. The figure was thus around EUR 1 billion lower than the previous year's level, representing a decline of roughly 30%. Here, too, this firstly reflects the very limited supply of tradable products. Secondly, hesitant investment demand is having an impact, which most likely has to do with the current situation in relation to COVID-19.

Whereas in 2017 and 2019 there was an above-average share of international players on the transaction market for business properties, in the first half of 2020 they were much more reticent. For example, the share of North American buyers decreased by around 14 percentage points year-on-year to 2.4% of the total transaction volume.

6

The 5-Percenters

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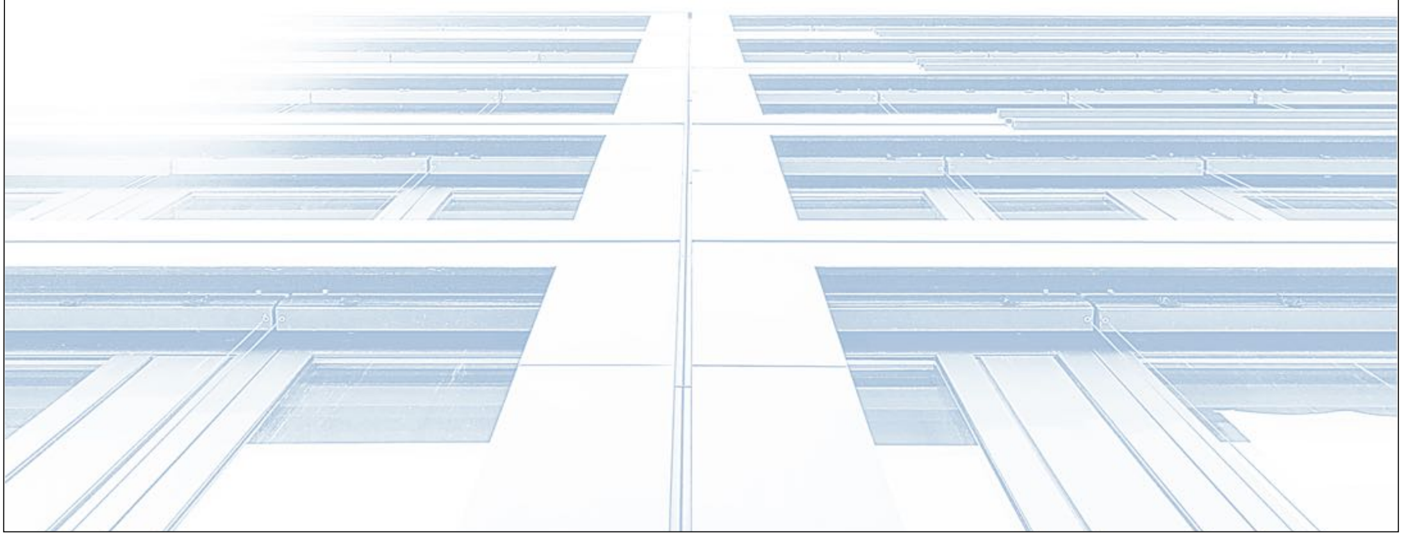
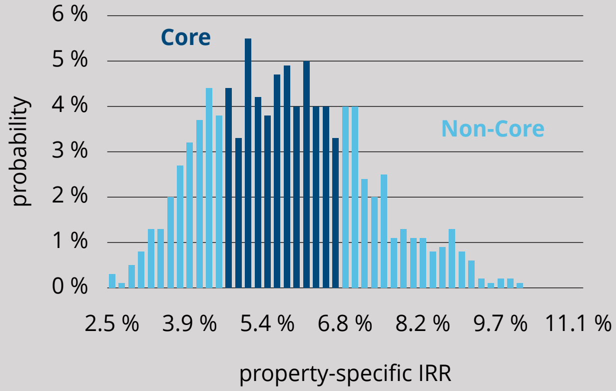


The 4.50- to 5.49-Percenters

Property-Specific IRR

The Market for Light Manufacturing (UI)

IRR Range UI Light Manufacturing



Results Range

IRR base value	5.49 %

performance expectation	Who should invest?
4.5 – 6.6 %	**Core-investors**
4.3 – 6.3 %	previous year
up to 11.3%	**Non-Core-investors**
up to 10.5 %	previous year

Conclusion

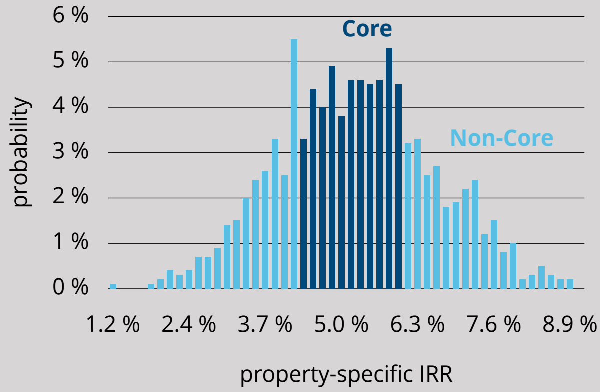
Production properties are the type of use with the highest yield potential in the core segment. They are often designed in a very user-specific way and therefore have limited capacity for alternative uses.

Market Environment

investment demand	national to international
demand for space	regional to national
liquidity	low
volatility	medium
marketable size	from 1 m euros upwards

The Market for Business Parks (UI)

IRR Range UI Business Park



Results Range

IRR base value	5.05 %

performance expectation	Who should invest?
4.2– 6.0 %	**Core-investors**
4.5– 6.4 %	previous year
up to 9.0 %	**Non-Core-investors**
up to 10.0%	previous year

Conclusion

Business parks are benefiting from the shortage of supply in the office sector in particular and have seen steady rent growth over the past few years. They represent a management-intensive and high-yield alternative in the core segment.

Market Environment

investment demand	regional up to international
demand for space	local up to national
liquidity	medium
volatility	medium
marketable size	approx. 2 - 70 m euros

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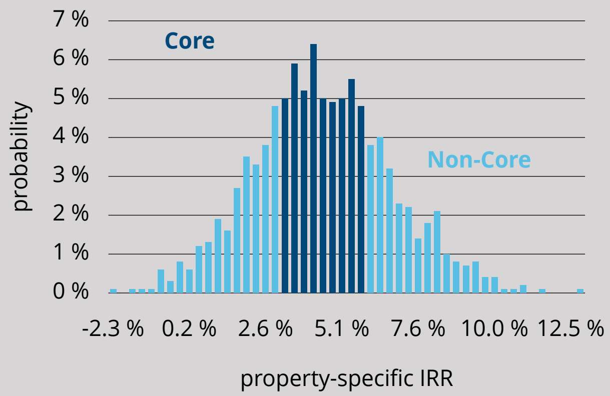
The 4.50- to 5.49-Percenters

Property-Specific IRR

The Market for Office Properties in D-Cities

IRR Range Office D-Cities



Results Range

IRR base value	5.03 %
performance expectation	Who should invest?
2.8 – 5.8%	**Core-investors**
3.6 – 6.4 %	previous year
up to 12.8 %	**Non-Core-investors**
up to 12.4 %	previous year

Conclusion

D cities are suitable for buyers with a high level of local expertise. Phases of sharply decreasing investment activity should be factored in.

Market Environment

investment demand	regional up to international
demand for space	regional up to national
liquidity	low
volatility	low
marketable size	approx. 3 - 18 m euros

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The 4-Percenters

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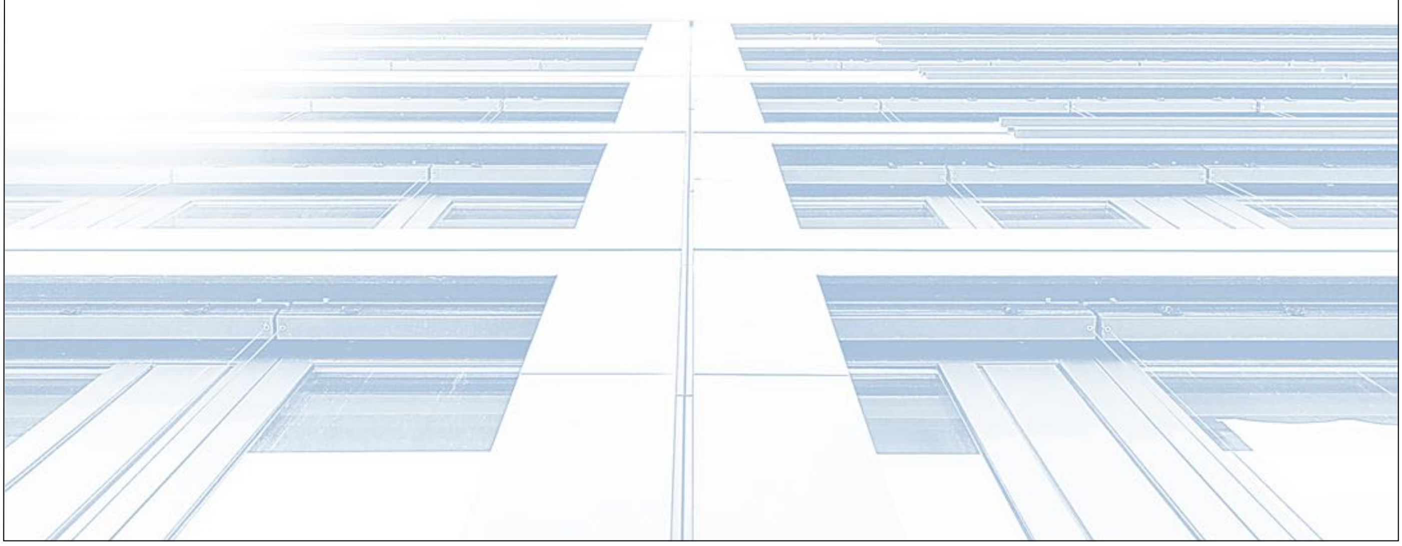
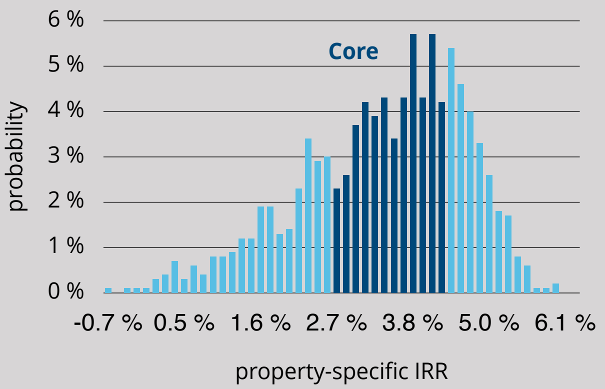


The 3.50- to 4.49-Percenters

Property-Specific IRR

The Market for Shopping Centres

IRR Range Shopping Centres



Results Range

IRR base value	3.88 %
performance expectation	Who should invest?
2.5 – 4.3 %	**Core-Investors**
3.2 – 3.9 %	previous year
max. up to 6.2 %	
max. up to 5.0 %	previous year

Conclusion

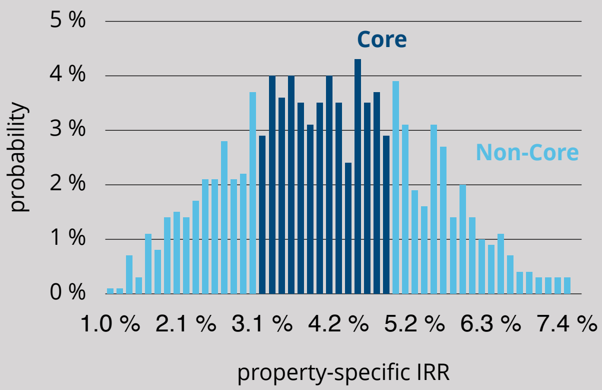
The uncertainties in relation to shopping centres have been further intensified by the coronavirus crisis. Offers in the core segment therefore tend to be the exception at present. In many centres, there is a high level of rent adjustment pressure.

Market Environment

investment demand	national up to international
demand for space	national up to international
liquidity	currently low
volatility	high
marketable size	approx. 80 - 500 m euros

The Market for Warehouse Properties (UI)

IRR Range UI Warehouse



Results Range

IRR base value	3.84 %
performance expectation	Who should invest?
3.0 – 4.9%	**Core-Investors**
3.5 – 5.2%	previous year
up to 7.5 %	**Non-Core-Investors**
up to 8.1 %	previous year

Conclusion

The yield level for warehoue properties is still decreasing with a very limited supply – both for users and on the investment market. The further establishment of urban logistics will continue to fuel high demand for warehouse space in the future.

Market Environment

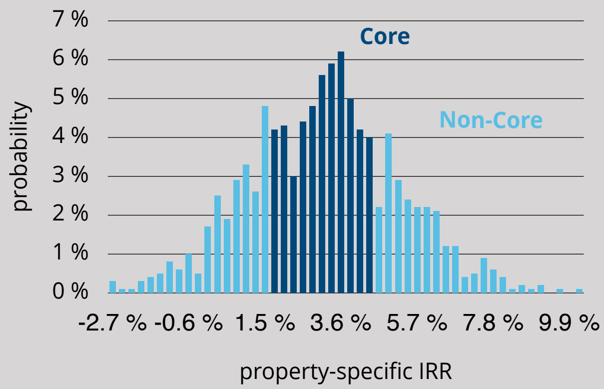
investment demand	regional bis international
demand for space	local up to national
liquidity	low up to medium
volatility	medium
marketable size	approx. 1 -10 m euros

The 3.50- to 4.49-Percenters

Property-Specific IRR

The Market for Office Properties in C-Cities

IRR Range Office C-Cities



Results Range

IRR base value	3.82 %
performance expectation	Who should invest?
1.5 – 4.3 %	**Core-Investors**
2.4 – 5.1%	previous year
up to 10.2 %	**Non-Core-Investors**
max. up to 10.1 %	previous year

Conclusion

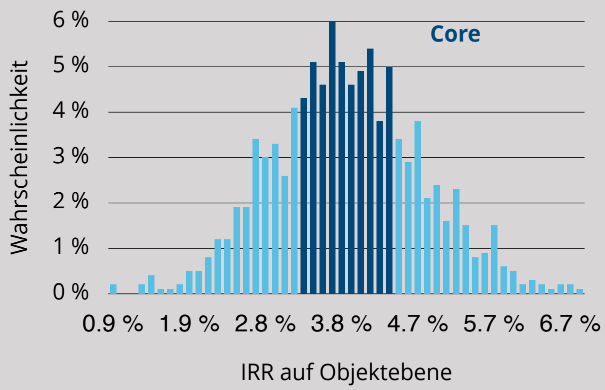
C markets still represent smaller-scale investment alternatives to the major established markets. However, the yield expectation has decreased again in comparison to the previous year. The performance of the individual cities varies greatly.

Market Environment

investment demand	regional up to international
demand for space	regional up to national
liquidity	low
volatility	low
marketable size	approx. 3 - 25 m euros

The Market for Modern Logistics Properties

IRR Range Modern Logistics



Results Range

IRR base value	3.67 %
performance expectation	Who should invest?
3.2 – 4.4 %	**Core-Investors**
3.2 – 4.5%	previous year
max. up to 6.8 %	
max. up to 6.4 %	previous year

Conclusion

Logistics properties are benefiting from growing user demand due to e-commerce, which has increased further during the coronavirus crisis. Purchase yields are therefore falling significantly – particularly in established logistics regions.

Market Environment

investment demand	national up to international
demand for space	regional up to international
liquidity	high
volatility	low
marketable size	> 10 m euros

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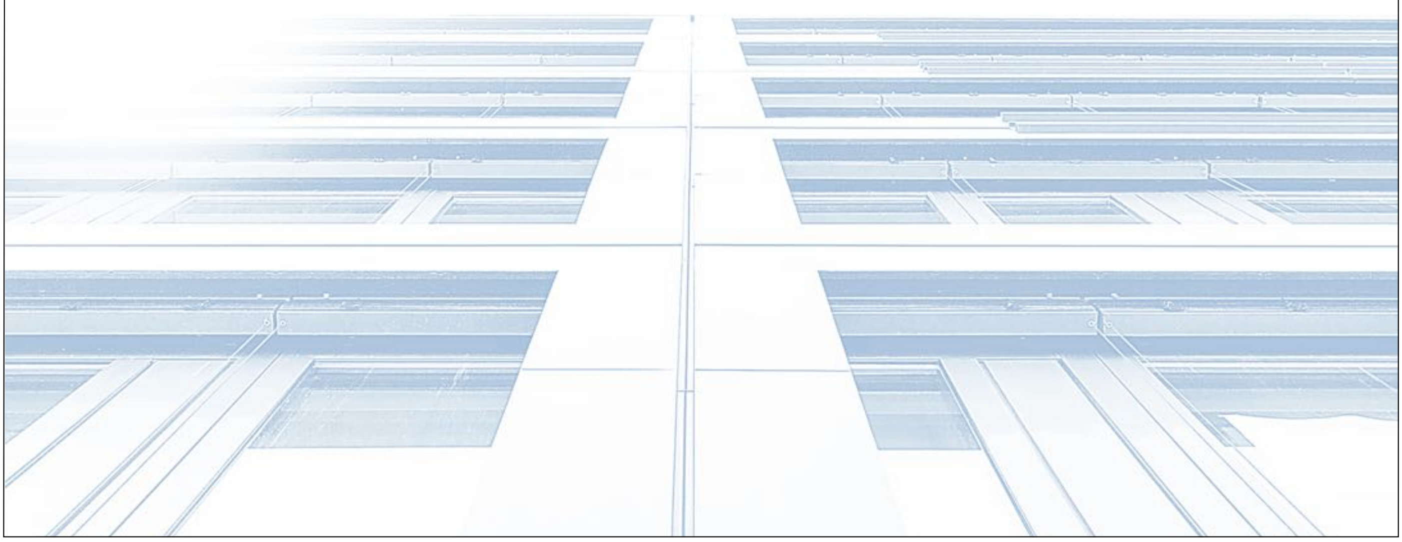
The 3-Percenters

2

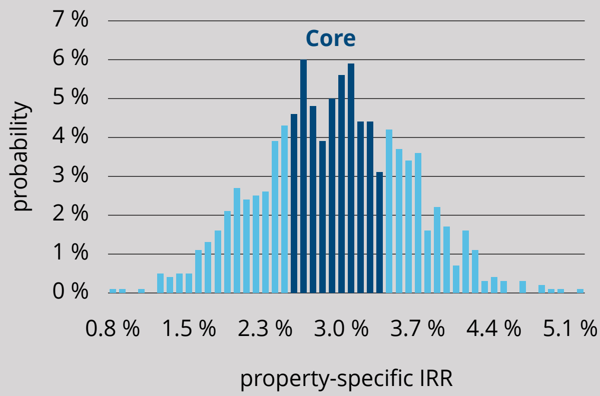


The 2.50- to 3.49-Percenters

IRR objektbezogen

The Market for Specialist Retail Parks

IRR Range Specialist Retail Parks



Results Range

IRR base value	3.19 %
performance expectation	Who should invest?
2.4 – 3.3%	**Core-Investors**
2.8 – 3.7 %	previous year
max. up to 5.2 %	
max. up to 5.3 %	previous year

Conclusion

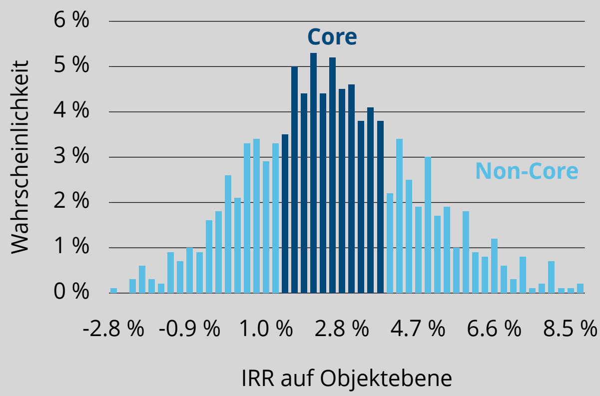
Demand for specialist retail centres with a relevant share of providers from the food retail sector remains high. They thus represent secure investments with yield expectations of over 3%.

Market Environment

investment demand	international
demand for space	international
liquidity	high
volatility	medium
marketable size	approx. 5 - 50 m euros

The Market for Office Properties in B-Cities

IRR Range Office B-Cities



Ergebnisse Ausprägung

IRR base value	3.19 %
performance expectation	Who should invest?
1.1 – 3.8 %	**Core-Investors**
1.9 – 4.2 %	previous year
up to 8.7 %	**Non-Core-Investors**
max. up to 9.7 %	previous year

Conclusion

B cities offer an attractive alternative to the established A markets, including for larger transactions. The current uncertainties due to the crisis are reflected in falling yield expectations.

Market Environment

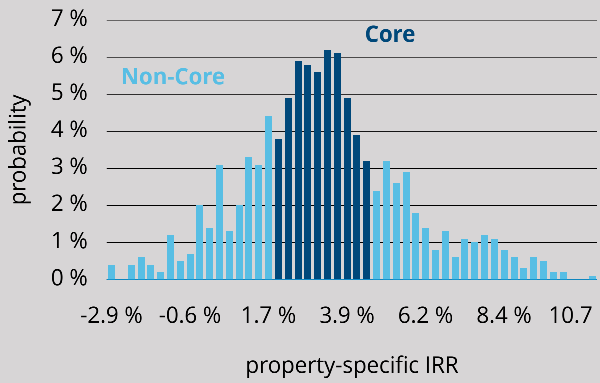
Conclusion	national up to international
demand for space	regional up to national
liquidity	medium
volatility	medium
marketable size	up to 70 m euros

The 2.50- to 3.49-Percenters

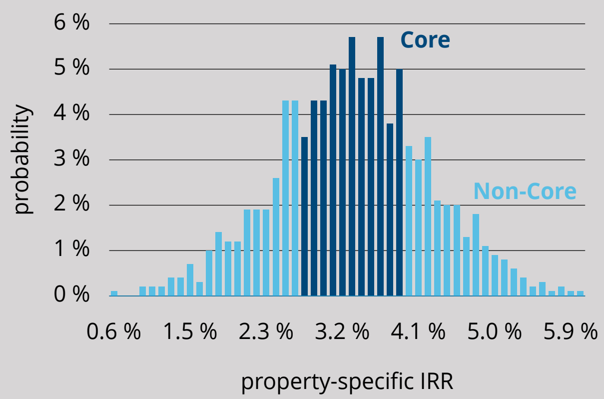
IRR objektbezogen

The Market for Hotel Properties

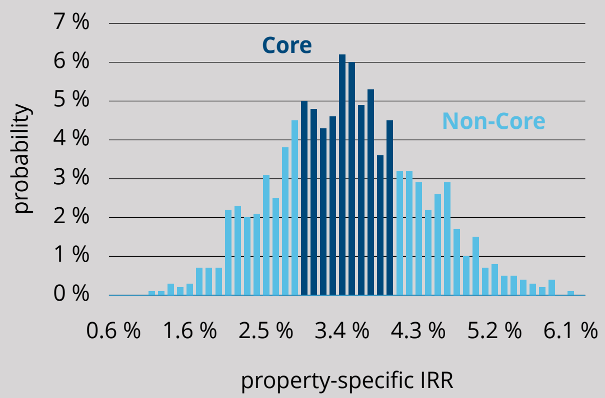
IRR Range Economy Hotel



IRR Range Midscale Hotel



IRR Range Upscale Hotel



Results Range

IRR base value	**2.90 – 3.12 %**
performance expectation	Who should invest?
1.6 – 4.4%	**Core-Investoren**
2.8 – 4.1 %	previous year
bis zu 10.9 %	**Non-Core-Investoren**
up to 6.2 %	previous year

Conclusion

The wave of consolidation on the hotel market due to the crisis will dominate the market this year, allowing providers with liquidity reserves to increase their market share. The cash flow risks for investors as a result of lease adjustments and defaults are very high.

Market Environment

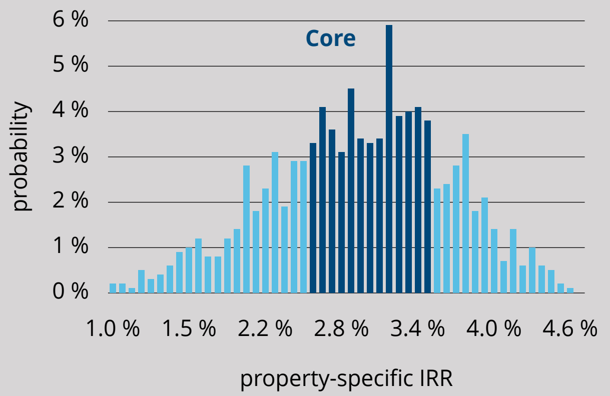
type of market	hotels in former magic cities
investment demand	national up to international
demand for space	national up to international
liquidity	falling / low
volatility	high
marketable size	approx. 5 - 100 m euros

The 2.50- to 3.49-Percenters

Property-Specific IRR

The Market for Residential Properties in University Cities

IRR Range Residential University Cities



Results Range

IRR base value	2.90 %
performance expectation	Who should invest?
2.5 – 3.3 %	**Core-Investors**
2.7 – 3.4 %	previous year
max. up to 4.3 %	
max. up to 4.3 %	previous year

Conclusion

University cities offer a safe alternative on the investment market. The market is characterized by student demand and has been very dynamic in recent years.

Market Environment

investment demand	regional up to international
demand for space	regional up to national
liquidity	medium
volatility	low
marketable size	up to approx. 50 m euros

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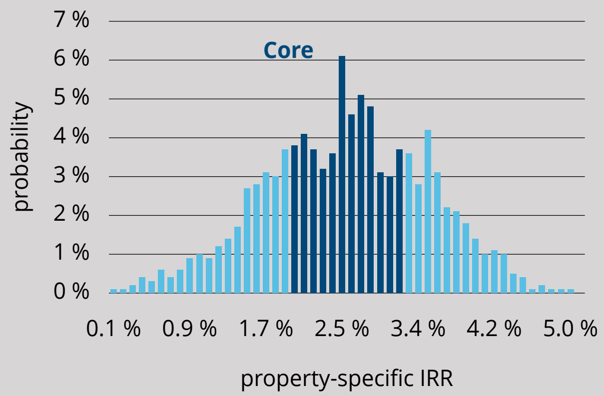
The market for Micro-Apartments in B-Cities

Ausprägung IRR Micro-Apartments B-Städte



Results Range

IRR-Basiswert	2.65 %
performance expectation	Who should invest?
1.9 – 3.2 %	**Core-Investors**
2.4 – 3.4 %	previous year
maximal bis zu 5.1 %	
max. up to 4.9 %	previous year

Conclusion

The coronavirus crisis has led to considerable uncertainty in the apartment living segment – particularly with regard to operator concepts. However, the income risks for residential real estate offers (as presented in this study) are also increasing.

Market Environment

investment demand	regional up to international
demand for space	national
liquidity	low
volatility	medium
marketable size	up to approx. 20 m euros

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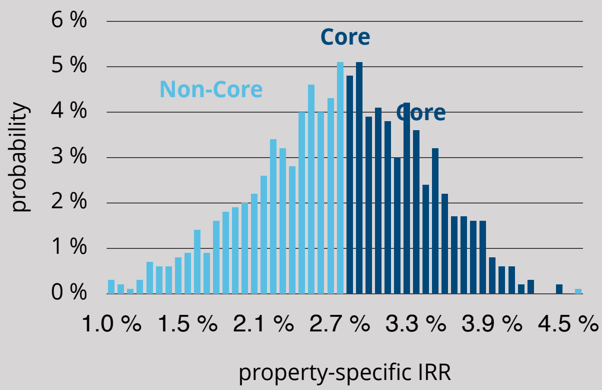
The 2.50- to 3.49-Percenters

Property-Specific IRR

The Market for Residential Prop. in B-Cities

IRR Range Residential B-Cities



Results Range

IRR base value	2.62 %
performance expectation	Who should invest?
2.3 – 3.2 %	**Core-Investors**
2.4 – 3.2 %	previous year
up to 4.6%	**Non-Core Investors**
max. up to 4.2 %	previous year

Conclusion

Residential real estate has remained unfazed by the coronavirus crisis. However, the potential for rent increases is very limited – so the attainable yields are continuing to fall.

Market Environment

investment demand	regional up to international
demand for space	regional
liquidity	medium
volatility	medium
marketable size	approx. 3 - 50 m euros

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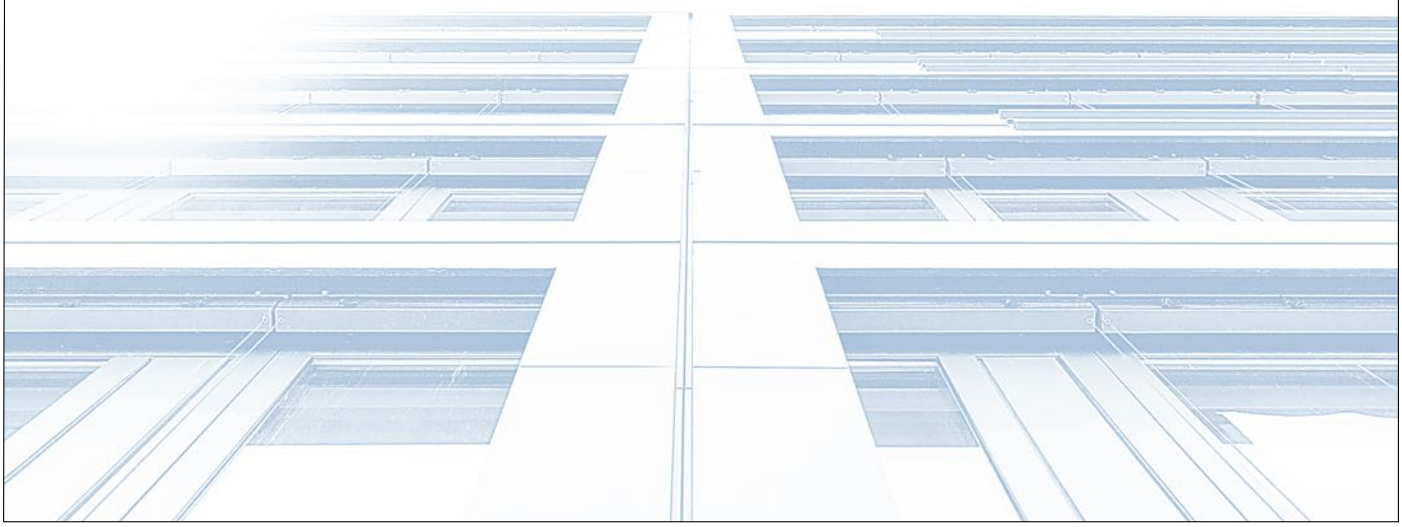
The 2-Percenters

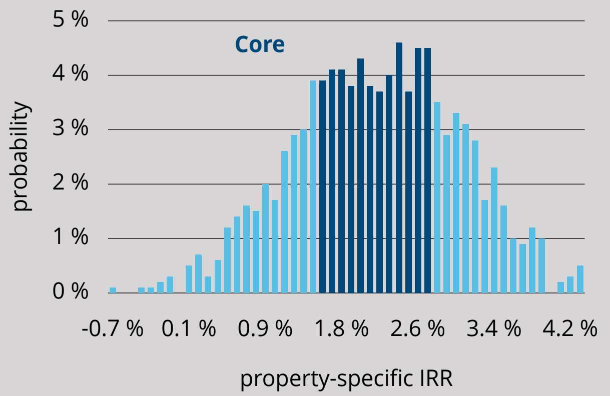


The 1.50- to 2.49-Percenters

Property-Specific IRR

The Market for Micro-Apartments in A-Cities

IRR Range Micro-Apartments A-Cities



Results Range

IRR base value	2.12 %

performance expectation	Who should invest?
1.4 – 2.7 %	**Core-Investors**
1.7 – 2.8 %	previous year
max. up to 4.3 %	
max. up to 4.5 %	previous year

Conclusion

In A cities, too, the loss of demand from national and international commuters and students has given rise to increasing scepticism as regards apartment living. A significant recovery is expected here after the end of the coronavirus crisis.

Market Environment

investment demand	national up to international
demand for space	national up to international
liquidity	currently low
volatility	medium
marketable size	up to approx. 40 m euros

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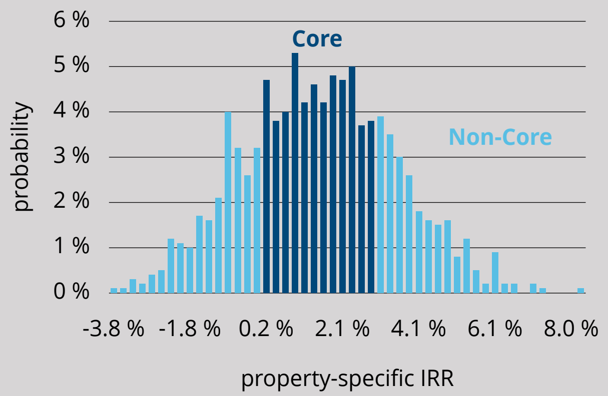
The Market for Office Properties in A-Cities

IRR Range Office A-Cities



Results Range

IRR base value	2.12 %

performance expectation	Who should invest?
0.0 – 2.8 %	**Core-Investors**
0.9 – 3.3 %	previous year
up to 8.3 %	**Non-Core-Investors**
up to 8.6 % %	previous year

Conclusion

Uncertainty regarding the effects of working from home on demand for space is also curbing the yield potential for office properties. Investors are currently focussing on space let to solvent users (such as the public sector) on a long-term basis.

Market Environment

investment demand	regional up to international
demand for space	regional up to international
liquidity	high
volatility	high
marketable size	approx. 3 - 500 m euros

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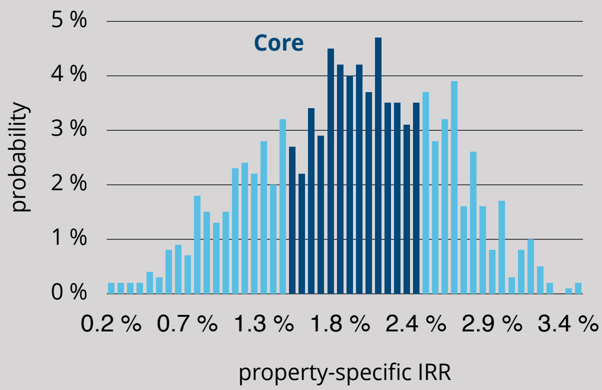
The 1.50- to 2.49-Percenters

Property-Specific IRR

The Market for Residential Properties in A- Cities

IRR Range Residential A-Cities



Results Range

IRR base value	1.94 %

performance expectation	Who should invest?
1.5 – 2.5 %	**Core-Investors**
1.6 – 2.5 %	previous year
max. up to 3.8 %	
up to 3.6 %	previous year

Conclusion

Apartments in A markets continue to offer investors stable investment opportunities with very low yields. In particular, the rent adjustment options for existing apartments are very limited. There are also risks in relation to increasing regulation.

Market Environment

investment demand	regional up to international
demand for space	regional up to international
liquidity	high
volatility	low
marketable size	up to approx. 150 m euros

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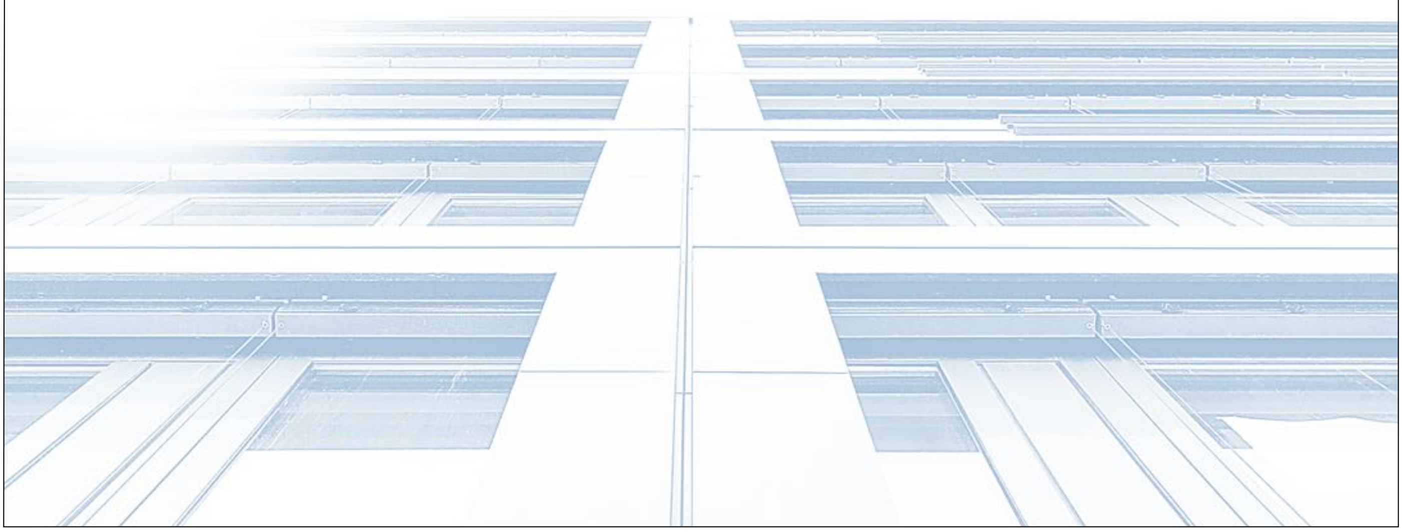
The Results in Detail



Property-Specific IRR in Detail

Office A-, B-, C- and D-Cities in Detail — Property Specific IRR in %

type	city	core-i.		non-core i.	type	city	core-i.		non-core i.	type	city	core-i.		non-core i.
		from	to	up to			from	to	up to			from	to	up to
A	Berlin	-0.4 %	2.6 %	9.9 %	C	Wuppertal	2.2 %	4.8 %	12.3 %	D	Krefeld	2.3 %	5.3 %	10.8 %
A	Cologne	0.9 %	3.5 %	8.1 %						D	Landshut	2.5 %	5.2 %	9.7 %
A	Düsseldorf	0.7 %	2.9 %	6.7 %	D	Albstadt	3.4 %	6.6 %	13.6 %	D	Leverkusen	2.2 %	5.0 %	10.4 %
A	Frankfurt (Main)	0.4 %	3.0 %	7.5 %	D	Aschaffenburg	2.1 %	4.9 %	10.7 %	D	Lüdenscheid	3.6 %	6.6 %	12.6 %
A	Hamburg	0.9 %	3.5 %	8.1 %	D	Bamberg	2.5 %	5.9 %	13.8 %	D	Ludwigshafen	2.6 %	5.2 %	10.6 %
A	Munich	0.2 %	2.9 %	9.0 %	D	Bayreuth	2.5 %	5.5 %	11.0 %	D	Lüneburg	2.7 %	5.6 %	11.7 %
A	Stuttgart	0.4 %	3.0 %	9.1 %	D	Bergisch Gladbach	2.3 %	5.0 %	10.3 %	D	Marburg	2.7 %	5.3 %	10.2 %
					D	Bottrop	3.1 %	6.3 %	12.0 %	D	Minden	3.1 %	6.1 %	13.8 %
B	Bochum	2.0 %	4.7 %	10.7 %	D	Brandenburg (Hl.)	2.5 %	5.7 %	12.7 %	D	Moers	3.2 %	6.3 %	12.5 %
B	Bonn	0.6 %	3.1 %	8.5 %	D	Bremerhaven	1.8 %	5.4 %	13.5 %	D	Neubrandenburg	4.1 %	6.9 %	13.2 %
B	Bremen	1.1 %	3.9 %	9.7 %	D	Chemnitz	3.1 %	6.3 %	12.6 %	D	Neumünster	2.6 %	5.4 %	10.9 %
B	Dortmund	1.4 %	4.0 %	8.9 %	D	Coburg	2.7 %	5.7 %	12.4 %	D	Neuss	1.2 %	4.0 %	8.5 %
B	Dresden	0.9 %	3.8 %	9.5 %	D	Constance	2.4 %	5.0 %	10.5 %	D	Oberhausen	1.9 %	4.8 %	10.7 %
B	Duisburg	1.7 %	4.5 %	9.4 %	D	Cottbus	2.5 %	5.4 %	12.2 %	D	Offenburg	2.5 %	5.4 %	11.2 %
B	Essen	1.3 %	4.1 %	9.7 %	D	Dessau	3.1 %	6.7 %	13.9 %	D	Oldenburg	2.2 %	5.1 %	13.1 %
B	Hanover	1.0 %	3.9 %	9.2 %	D	Detmold	3.0 %	5.9 %	14.8 %	D	Paderborn	2.1 %	5.1 %	12.0 %
B	Karlsruhe	0.8 %	3.6 %	9.9 %	D	Düren	2.4 %	5.5 %	11.2 %	D	Passau	2.1 %	5.1 %	10.7 %
B	Leipzig	0.6 %	3.9 %	12.1 %	D	Eisenach	2.7 %	6.1 %	13.2 %	D	Pforzheim	1.7 %	4.7 %	10.7 %
B	Mannheim	1.0 %	3.7 %	8.3 %	D	Flensburg	2.7 %	5.7 %	12.6 %	D	Plauen	3.6 %	7.2 %	15.6 %
B	Münster	0.6 %	3.4 %	9.7 %	D	Frankfurt (Oder)	2.9 %	6.0 %	12.5 %	D	Ratingen	1.8 %	4.4 %	9.4 %
B	Nuremberg	0.5 %	3.6 %	11.9 %	D	Friedrichshafen	2.2 %	5.0 %	10.2 %	D	Ravensburg	2.5 %	5.4 %	10.9 %
B	Wiesbaden	0.6 %	3.0 %	9.3 %	D	Fulda	1.9 %	5.0 %	12.3 %	D	Recklinghausen	3.0 %	5.7 %	11.7 %
					D	Fürth	2.1 %	5.3 %	12.1 %	D	Remscheid	3.2 %	6.1 %	12.5 %
C	Aachen	1.4 %	4.0 %	8.9 %	D	Gelsenkirchen	2.5 %	5.7 %	12.6 %	D	Reutlingen	2.4 %	5.2 %	11.4 %
C	Augsburg	1.0 %	3.9 %	10.1 %	D	Gera	3.1 %	6.5 %	13.5 %	D	Rosenheim	2.3 %	5.0 %	10.1 %
C	Bielefeld	1.9 %	4.7 %	10.9 %	D	Gießen	2.6 %	5.2 %	10.9 %	D	Salzgitter	2.5 %	5.9 %	11.8 %
C	Brunswick	1.8 %	5.0 %	11.5 %	D	Görlitz	3.6 %	7.7 %	19.7 %	D	Schweinfurt	3.3 %	6.3 %	13.4 %
C	Darmstadt	0.9 %	3.6 %	8.8 %	D	Göttingen	2.5 %	5.2 %	10.9 %	D	Schwerin	2.5 %	5.2 %	11.5 %
C	Erfurt	2.1 %	4.9 %	10.1 %	D	Greifswald	2.6 %	5.5 %	12.1 %	D	Siegen	3.0 %	5.7 %	11.3 %
C	Erlangen	1.5 %	4.5 %	12.2 %	D	Gütersloh	2.6 %	5.6 %	11.7 %	D	Solingen	3.9 %	7.0 %	14.1 %
C	Freiburg	0.7 %	3.2 %	7.5 %	D	Hagen	3.6 %	6.4 %	12.4 %	D	Stralsund	2.6 %	6.0 %	13.2 %
C	Heidelberg	1.1 %	3.4 %	8.6 %	D	Halberstadt	3.8 %	7.5 %	15.9 %	D	Suhl	4.2 %	7.6 %	16.0 %
C	Kiel	2.0 %	4.9 %	10.8 %	D	Halle (Saale)	2.6 %	4.1 %	5.9 %	D	Trier	2.4 %	5.2 %	10.7 %
C	Lübeck	2.1 %	4.9 %	9.9 %	D	Hamm	3.2 %	6.2 %	11.9 %	D	Tübingen	2.3 %	5.0 %	11.0 %
C	Magdeburg	2.2 %	4.9 %	11.2 %	D	Hanau	2.4 %	5.0 %	11.7 %	D	Ulm	1.5 %	3.9 %	9.0 %
C	Mainz	1.1 %	3.8 %	8.2 %	D	Heilbronn	2.0 %	4.6 %	9.9 %	D	Villingen-Schwenn.	3.5 %	6.5 %	12.2 %
C	Mönchengladb.	1.7 %	4.3 %	8.7 %	D	Herne	3.3 %	6.4 %	12.4 %	D	Weimar	2.8 %	6.0 %	12.3 %
C	Mülheim (Ruhr)	2.3 %	5.0 %	10.0 %	D	Hildesheim	2.2 %	5.5 %	11.7 %	D	Wilhelmshaven	3.3 %	6.7 %	12.3 %
C	Offenbach (Main)	1.3 %	4.0 %	10.3 %	D	Ingolstadt	1.7 %	4.2 %	10.3 %	D	Witten	2.8 %	6.0 %	12.8 %
C	Osnabrück	1.3 %	4.0 %	10.2 %	D	Jena	2.3 %	5.4 %	12.1 %	D	Wolfsburg	1.9 %	4.5 %	10.0 %
C	Potsdam	0.9 %	3.7 %	9.7 %	D	Kaiserslautern	2.1 %	5.1 %	10.7 %	D	Würzburg	2.6 %	5.1 %	9.9 %
C	Regensburg	1.5 %	4.2 %	9.2 %	D	Kassel	2.0 %	4.9 %	10.5 %	D	Zwickau	2.2 %	5.8 %	12.8 %
C	Rostock	2.0 %	4.9 %	10.4 %	D	Kempten (Allgäu)	2.5 %	5.5 %	11.6 %					
C	Saarbrücken	1.9 %	4.9 %	10.8 %	D	Koblenz	2.1 %	4.7 %	9.9 %					

Property-Specific IRR in Detail

Residential A-, B- and University Cities (UC) in Detail — Property-Specific IRR in %

type	city	core-i. from	core-i. to	max. up to	type	city	core-i. from	core-i. to	max. up to	type	city	core-i. from	core-i. to	max. up to
A	Berlin	1.5 %	1.8 %	2.4 %	US	Bamberg	2.4 %	2.7 %	3.3 %	US	Kiel	2.6 %	3.4 %	4.2 %
A	Cologne	1.6 %	2.8 %	4.2 %	US	Bayreuth	2.1 %	2.4 %	2.9 %	US	Koblenz	1.6 %	2.6 %	3.9 %
A	Düsseldorf	1.5 %	2.3 %	4.0 %	US	Bielefeld	2.2 %	3.2 %	4.4 %	US	Lübeck	2.0 %	3.1 %	4.6 %
A	Frankfurt (Main)	1.6 %	2.5 %	3.6 %	US	Brunswick	2.0 %	3.2 %	4.6 %	US	Lüneburg	2.3 %	3.4 %	4.8 %
A	Hamburg	1.4 %	2.4 %	3.6 %	US	Chemnitz	2.6 %	3.2 %	4.1 %	US	Magdeburg	2.2 %	3.1 %	4.0 %
A	Munich	1.0 %	1.9 %	3.1 %	US	Constance	2.6 %	3.9 %	5.4 %	US	Mainz	2.2 %	2.7 %	3.7 %
A	Stuttgart	1.7 %	2.5 %	3.7 %	US	Cottbus	2.0 %	3.0 %	4.5 %	US	Marburg	2.5 %	3.3 %	4.5 %
B	Bochum	2.9 %	2.6 %	4.8 %	US	Darmstadt	2.2 %	3.4 %	4.9 %	US	Mönchengladbach	2.6 %	3.3 %	4.3 %
B	Bonn	1.9 %	2.9 %	4.5 %	US	Erfurt	2.2 %	2.7 %	3.3 %	US	Oldenburg	2.0 %	3.0 %	4.2 %
B	Bremen	2.3 %	3.2 %	4.5 %	US	Erlangen	2.9 %	3.6 %	4.8 %	US	Osnabrück	2.6 %	3.3 %	4.4 %
B	Dortmund	2.5 %	3.3 %	4.4 %	US	Flensburg	3.0 %	4.1 %	5.7 %	US	Paderborn	2.3 %	3.3 %	4.5 %
B	Dresden	1.8 %	2.7 %	3.9 %	US	Frankfurt (Oder)	1.5 %	2.6 %	4.0 %	US	Passau	2.2 %	2.7 %	3.3 %
B	Duisburg	3.0 %	3.6 %	4.6 %	US	Freiburg	2.4 %	2.9 %	3.8 %	US	Potsdam	1.3 %	2.6 %	4.7 %
B	Essen	2.6 %	3.3 %	3.8 %	US	Gießen	2.9 %	3.4 %	4.1 %	US	Regensburg	1.8 %	2.5 %	3.3 %
B	Hanover	1.9 %	2.7 %	4.0 %	US	Göttingen	3.1 %	3.9 %	5.0 %	US	Rostock	2.1 %	3.4 %	4.8 %
B	Karlsruhe	1.8 %	2.8 %	4.1 %	US	Greifswald	2.2 %	3.2 %	4.4 %	US	Saarbrücken	2.7 %	3.2 %	3.8 %
B	Leipzig	1.6 %	2.5 %	3.6 %	US	Halle (Saale)	1.7 %	2.6 %	3.7 %	US	Siegen	3.3 %	4.0 %	4.9 %
B	Mannheim	1.9 %	2.8 %	3.8 %	US	Heidelberg	2.3 %	2.8 %	3.4 %	US	Trier	2.6 %	3.1 %	4.0 %
B	Münster	1.5 %	2.6 %	4.0 %	US	Heilbronn	2.9 %	3.8 %	5.1 %	US	Tübingen	1.9 %	3.0 %	4.4 %
B	Nuremberg	2.0 %	2.7 %	4.0 %	US	Hildesheim	2.1 %	3.0 %	4,3,%	US	Ulm	1.8 %	2.7 %	3.8 %
B	Wiesbaden	1.6 %	3.0 %	4.8 %	US	Jena	3.3 %	3.9 %	4.6 %	US	Wuppertal	2.9 %	3.6 %	4.8 %
US	Aachen	2.1 %	2.9 %	4.0 %	US	Kaiserslautern	2.5 %	3.3 %	4.5 %	US	Würzburg	2.0 %	2.6 %	3.4 %
US	Augsburg	1.7 %	2.6 %	4.0 %	US	Kassel	2.2 %	3.1 %	4.3 %					

Micro-Apartments A-, B- and University Cities (UC) in Detail — Property-Specific IRR in %

type	city	core-i. from	core-i. to	max. up to	type	city	core-i. from	core-i. to	max. up to	type	city	core-i. from	core-i. to	max. up to
A	Berlin	1.2 %	2.0 %	3.4 %	B	Bochum	2.5 %	3.5 %	5.3 %	B	Hanover	1.5 %	2.8 %	4.4 %
A	Cologne	1.5 %	2.9 %	5.0 %	B	Bonn	1.6 %	3.0 %	5.1 %	B	Karlsruhe	1.6 %	2.9 %	4.6 %
A	Düsseldorf	1.4 %	2.7 %	4.6 %	B	Bremen	1.9 %	3.2 %	4.9 %	B	Leipzig	1.3 %	2.4 %	4.2 %
A	Frankfurt (Main)	1.4 %	2.4 %	4.8 %	B	Dortmund	2.1 %	3.2 %	4.8 %	B	Mannheim	1.7 %	2.8 %	4.5 %
A	Hamburg	1.4 %	2.8 %	5.0 %	B	Dresden	1.5 %	2.7 %	4.6 %	B	Münster	1.3 %	2.6 %	4.3 %
A	Munich	0.9 %	2.2 %	4.6 %	B	Duisburg	2.5 %	3.5 %	5.0 %	B	Nuremberg	1.7 %	2.8 %	4.3 %
A	Stuttgart	1.4 %	2.6 %	4.1 %	B	Essen	2.3 %	3.3 %	4.8 %	B	Wiesbaden	1.3 %	3.0 %	5.3 %

Logistics Regions — Property-Specific IRR in Detail in %

logistics region	core-i. from	core-i. to	non-core i.. up to	logistics region	core-i. from	core-i. to	non-core i. up to	logistics region	core-i. from	core-i. to	non-core i. up to
A4 Saxony	3.5 %	4.9 %	6.9 %	Halle/Leipzig	3.3 %	4.0 %	5.2 %	Oberrhein	3.1 %	4.4 %	6.8 %
A4 Thuringia	3.7 %	5.0 %	7.1 %	Hamburg	3.3 %	4.0 %	5.4 %	Ostwestfalen-Lippe	3.7 %	4.9 %	7.3 %
Aachen	3.6 %	5.0 %	7.0 %	Hanover/Brunswick	3.2 %	4.2 %	6.1 %	Rhine-Main/Frankfurt	3.1 %	3.9 %	5.3 %
Augsburg	3.2 %	4.5 %	6.2 %	Kassel/Göttingen	3.4 %	4.7 %	7.0 %	Rhine-Neckar	3.7 %	4.7 %	6.5 %
Bad Hersfeld	2.8 %	4.2 %	6.9 %	Koblenz	4.5 %	4.8 %	7.5 %	Rhine-Ruhr	3.5 %	4.5 %	6.0 %
Berlin	3.3 %	4.0 %	5.4 %	Lower Bavaria	3.4 %	4.6 %	6.8 %	Saarbrücken	3.3 %	4.5 %	6.7 %
Bremen/North Sea P.	3.2 %	4.2 %	6.0 %	Magdeburg	3.6 %	4.7 %	7.3 %	Stuttgart	3.4 %	4.3 %	6.3 %
Cologne	3.6 %	4.4 %	5.7 %	Munich	3.3 %	4.0 %	5.4 %	Ulm	3.3 %	4.7 %	6.8 %
Dortmund	3.3 %	4.2 %	5.8 %	Münster/Osnabrück	3.0 %	4.3 %	6.5 %				
Düsseldorf	3.5 %	4.6 %	5.5 %	Nuremberg	3.7 %	4.6 %	6.1 %				

Content and Methodology

Content of the study

Using dynamic performance measurement, the 5% study provides a new approach for describing property markets. The yield prospects of various asset classes are presented on the basis of an analysis of the internal rate of return on an investment. In light of the recognition that a single data point can reflect the complexity of a market only to a very limited extent, this study also highlights the range of investment profitability. Descriptions of property markets in market reports are usually based on top properties that generate prime rents and are accordingly traded at prime yields. However, this does not take account of the high diversification of the investor landscape, where extremely security-focussed investors increasingly find themselves alongside players seeking to identify and take advantage of market opportunities. This study also offers these players an overview of the market.
The subject matter analysed in this 5% study is the performance expectations in the asset classes that currently dominate the German investment market. These include:

- office
- residential
- shopping centres and specialist retail centres
- hotels
- modern logistics properties
  as well as the newer property types:
- micro-apartments and business properties (BP)

Basic concept

The study uses a dynamic model to determine the probable internal rate of return (IRR) on an investment, assuming a holding period of ten years. It is assumed that the investment takes place at typical parameters for the market in question. A cash flow approach was applied, describing the anticipated future cash flows (purchase, rental income, property and operating costs, sale). The internal interest rate on these cash flows represents the IRR.

No financing effects

In addition to the success of the properties themselves, successful real estate investments are also dependent on financing strategies (e.g. taking advantage of interest leverage through increased borrowing). There is typically a very wide range of variants on the market in this respect. To allow for clear statements regarding the property performance, these effects and investor-specific adjustments were not included in the model.

No project developments

This model assumes that the investment is made in buildings that do not require renovation or restructuring. Project developments as part of asset management strategies are therefore not included in the analysis.

Procedure

It was assumed that the success of the investment may be influenced by various different determinants such as management performance and market fluctuations. Accordingly, a simulation (Monte Carlo) of possible results was performed on the basis of changing parameters. To this end, the relevant characteristics affecting the success of the investment were assigned fluctuation ranges that were derived in advance based on consideration and analysis of the respective market. Using Monte Carlo simulation, the probability of occurrence of the individual results was also calculated on the basis of 1,000 draws.

Monte Carlo simulation

Monte Carlo simulation is a stochastic model for the projection of a forecast or base value. Put simply, this statistical method is a sort of limited random number generator that operates within framework conditions and values defined by the user. To map these parameters realistically and in line with market conditions as far as possible, a base value can also be defined in addition to a value range. After the simulation has been performed, the user receives a large number of results (depending on the number of draws) taking account of the predefined conditions. The modelling calculates probabilities of occurrence for the individual results within this range. The value range itself has a probability of occurrence of 100%.
For the performance of the simulation, base values and ranges were defined – depending on the asset class under review – for groups of variables including the rent, vacancy rate, property costs and operating costs. The internal rate of return on the investment resulting from the cash flow calculation was set as the forecast value or IRR base value.

Core versus non-core

Core and non-core have become established as terms for investment strategies on the market, but there are no fixed definitions for them (at property level). Instead, there are a wide range of attempts at definitions, most of which are suggested by the respective investors themselves.

This study does not aim to add a further suggestion to these definitions. The division into core and non-core investors is therefore made at a purely statistical level. In the study, the corridor for core and non-core investors was delimited based on the assumption that core investors assume less risk and accept lower yields while non-core investors are less risk-averse but have higher yield targets.
Accordingly, the Monte Carlo results/IRRs between the 25% quantile and the 75% quantile (corresponding to a 50% probability) are defined as the range within which core investors operate. The rest of the range – starting from an attainable rate of return of 6.49% as the IRR base value – is seen as being for non-core investors. Here, there is a probability of 25% that internal rates of return beyond the core range will be achieved. However, non-core investors may also fall below the attainable rate of return for core investors and in some cases may even generate negative IRRs.

Parameters and fluctuation ranges

bulwiengesa AG's data system (RIWIS) was generally used as the source for rental, vacancy and yield information. For business properties, information from the Business Properties Initiative was selected as the basis. The data for hotels and retail properties were also checked for plausibility using analyses of investment transactions and other secondary sources (e.g. data from HypZert).
The cost data were calculated using primary analyses (where possible) and on the basis of typical market assumptions.
The fluctuation ranges for costs and income were defined individually for each type of use and are based on typical market parameters. Extreme values were excluded in this context.

The internal rate of return method

The internal rate of return method shows the rate of return for which the net cash flows/the net present value is exactly zero. It thus represents the average rate of return on an investment. The internal rate of return method is not to be recommended as the sole basis for an investment decision,since it has a number of methodological shortcomings – the reinvestment assumption is criticised, for example. However, calculating the internal rate of return offers the advantage that this represents the success of a certain investment period (in the case of this study, ten years). This differentiates it from the static yield assessments that are typical on the market. In addition, the internal rate of return method is used by many investors and thus enjoys widespread acceptance.

Performance measurement – guidance for readers

In view of the complex subject matter, guidance for readers is provided below for better understanding of the results. This guidance relates to the sections on the 5-, 4-, 3- and 2-percenters.
In general, all calculations in the study are based on property sizes and parameters in line with the market.
The "Selected model assumptions/parameters" table on page 38 shows the key parameters incorporated in the cash flow calculation and simulation.
The results columns present/summarise the results of the Monte Carlo simulation.
In the diagram, the x-axis shows the projected IRRs based on the Monte Carlo simulation, while the y-axis shows the probability of occurrence for each projected IRR.
The dark blue bars represent the IRR range relevant to core investors as defined by the study. This has a 50% probability of occurrence and is delimited by the 25% and 75% quantiles. In line with this, the top results box shows the core range with values.
The rest of the range – relevant to non-core investors according to the study's definition – is marked in light blue. This is above the core range in 25% of cases, but may also be below this range. The maximum attainable IRR according to the simulation is specified in the bottom results box below the core range.
The internal rate of return on the investment (IRR), calculated using the base values in line with the cash flow method, also corresponds to the base value of the simulation.

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The internal rate of return on the investment (IRR), calculated using the base values in line with the cash flow method, also corresponds to the base value of the simulation.

Selected model assumptions

Office Markets

	A-Cities	B-Cities	C-Cities	D-Cities
type	existing building			
typical property size	24,600 sqm	9,300 sqm	6,100 sqm	3,900 sqm
net initial yield	2.9 %	4.0 %	4.5 %	5.8 %
market vacancy	3.7 %	3.6 %	4.2 %	4.6 %
market rent acq. date	21.50 Euro/sqm	11.10 Euro/sqm	9.80 Euro/sqm	7.80 Euro/sqm
avg. term of lease	3 years	3 years	3 years	3 years

Residential Markets

	A-Cities	B-Cities	University Cities
type	multi-family house, existing building		
typical property size	4,000 sqm	4,000 sqm	4,000 sqm
no. of apartment units	55 units	55 units	55 units
net initial yield	2.3 %	3.0 %	3.2 %
vacancy acquisition	200 sqm (1 month)	200 sqm (1 month)	200 sqm (1 month)
market rent acquisition	13.70 Euro/sqm	9.30 Euro/sqm	9.40 Euro/sqm

Unternehmensimmobilien (UI) and Modern Logistics

	UI Light Manufact.	UI Warehouse	UI Business Park*	Modern Logistics
type	existing building			
typical property size	10,000 qm	10,000 qm	12,000 qm	20,000 qm
net initial yield	2.3 %	3.0 %	3.2 %	4.4 %
vacancy acq. date	2,500 qm (3 months)	2,500 qm (3 months)	rd. 1,000 qm	5,000 qm (3 months)
market rent acq. date	5.40 Euro/sqm	5.00 Euro/sqm	10.0 / 5.10 Euro/sqm	3.90 Euro/sqm
avg. term of lease	5 years	3 years	2 years	3 years

* Verhältnis Büro (B) zu Lager (L) 30 : 70

Retail

	Shopping Center
type	stock, three-floor*
property size / number of shops	48,000 sqm / 75 Shops
net initial yield	5.5 %
range of rent (p.m.)	10.00 – 60.00 Euro/sqm

*inner-city location, no revitalisation

Retail

	Specialist Retail Parks
type	existing building*
typical property size	approx. 20,000 sqm
net initial yield	3.9 %
range of rent (p.m.)	8.00 - 15.00 Euro/qm

* no restructuring, good condition

Micro-Apartments

	A-Cities	B-Cities
type	existing building	
typical property size	4,000 sqm (200 apt. units)	
net initial yield	2.4 %	3.0 %
market rent acq. date	26.80EUR/sqm	18.10 EUR/sqm
avg. term of lease	max. 2 years	

Hotel

building	existing building*
typical property size	2,600 – 9,000 sqm NF
net initial yield	3.9 %
range of lease economy	200 – 450 (euros/room/month)
range of lease midscale	400 – 600 (euros/room/month)
leasing rate upscale	600 – 1,000 (euros/room/month)
lease term	5 – 25 years

* no restructuring

Definitions and Comments

General Classification of cities

Overview A-, B-, C-, D- and University-Cities (UC)

city	category	city	category	city	category	city	category
Berlin	A	Lübeck	C/ UC	Fürth	D	Neuss	D
Cologne	A	Magdeburg	C/ UC	Gelsenkirchen	D	Oberhausen	D
Düsseldorf	A	Mainz	C/ UC	Gera	D	Offenburg	D
Frankfurt (Main)	A	Mönchengladbach	C/ UC	Gießen	C/ UC	Oldenburg	C/ UC
Hamburg	A	Mülheim (Ruhr)	C	Görlitz	D	Paderborn	C/ UC
Munich	A	Offenbach (Main)	C	Göttingen	C/ UC	Passau	C/ UC
Stuttgart	A	Osnabrück	C	Greifswald	C/ UC	Pforzheim	D
		Potsdam	C/ UC	Gütersloh	D	Plauen	D
Bochum	B	Regensburg	C/ UC	Hagen	D	Ratingen	D
Bonn	B	Rostock	C/ UC	Halberstadt	D	Ravensburg	D
Bremen	B	Saarbrücken	C/ UC	Halle (Saale)	C/ UC	Recklinghausen	D
Dortmund	B	Wuppertal	C/ UC	Hamm	D	Remscheid	D
Dresden	B			Hanau	D	Reutlingen	D
Duisburg	B	Albstadt	D	Heilbronn	C/ UC	Rosenheim	D
Essen	B	Aschaffenburg	D	Herne	D	Salzgitter	D
Hanover	B	Bamberg	C/ UC	Hildesheim	C/ UC	Schweinfurt	D
Karlsruhe	B	Bayreuth	C/ UC	Ingolstadt	D	Schwerin	D
Leipzig	B	Bergisch Gladbach	D	Jena	C/ UC	Siegen	C/ UC
Mannheim	B	Bottrop	D	Kaiserslautern	C/ UC	Solingen	D
Münster	B	Brandenburg (Hl.)	D	Kassel	C/ UC	Stralsund	D
Nuremberg	B	Bremerhaven	D	Kempten (Allgäu)	D	Suhl	D
Wiesbaden	B	Chemnitz	C/ UC	Koblenz	C/ UC	Trier	C/ UC
		Coburg	C/ UC	Krefeld	D	Tübingen	C/ UC
Aachen	C/ UC	Constance	C/ UC	Landshut	D	Ulm	C/ UC
Augsburg	C/ UC	Cottbus	D	Leverkusen	D	Villingen-Schwenn.	D
Bielefeld	C/ UC	Dessau	D	Lüdenscheid	D	Weimar	D
Brunswick	C/ UC	Detmold	D	Ludwigshafen	D	Wilhelmshaven	D
Darmstadt	C/ UC	Düren	D	Lüneburg	C/ UC	Witten	D
Erfurt	C/ UC	Eisenach	D	Marburg	C/ UC	Wolfsburg	D
Erlangen	C/ UC	Flensburg	C/ UC	Minden	D	Würzburg	C/ UC
Freiburg	C/ UC	Frankfurt (Oder)	C/ UC	Moers	D	Zwickau	D
Heidelberg	C/ UC	Friedrichshafen	D	Neubrandenburg	D		
Kiel	C/ UC	Fulda	D	Neumünster	D		

Classification as A-, B-, C- and D-cities was used to categorise the German real estate market. This was based on the functional significance of the cities for the international, national and regional or local real estate market:

A-Cities

The most important centres in Germany with national and sometimes international significance. Large, well-functioning markets in all segments.

B-Cities

Large cities with national and regional significance.

C-Cities

Major German cities with regional and limited national significance and an important impact on the surrounding region.

D-Cities

Small, regionally focussed locations with a central role for their direct surroundings; lower market volume and sales.

University cities

47 cities with at least 7,000 students are classified as university cities in this study, not including A- and B-cities since these are analysed separately.

Yields/Multipliers (source: gif e. V.)

Gross initial yield

The gross initial yield is a simple comparison of the contractual rent to the purchase price, not including incidental acquisition costs. The gross initial yield is equivalent to the reciprocal of the multiplier that is typically used in the market (e.g. 12.5 times the contractual rent = 8 % p.a. gross initial yield).

Gross initial yield = contractual rent / net purchase price

Net initial yield

The net initial yield represents net rental income in relation to the purchase price plus property-specific incidental acquisition costs. For the sake of clarification, please note that other non-recurring costs and revenue losses/risks are not deducted from the net rental income.
However, calculatory items (e.g. maintenance costs) are also taken into account in the operating costs or in the gross purchase price. The valuations used for this must be in line with the market standard and must be reported separately when stating the net initial yield. They can be disclosed either individually for each item or for the cost block as a whole, in which case they can be referred to "operating costs" and "incidental acquisition costs" as a simplification (e.g. "net initial yield x.x % p.a. including y % operating costs and z % incidental acquisition costs").

Net initial yield = net rental income / gross purchase price

Short Glossary for Office Property

Vacancy

Vacancy refers to vacant office space at the end of the respective year. It takes account of marketable properties only; structural vacancy therefore is not included.
The vacancy rate shows the ratio of vacancy to total space.

Take-up

Take-up is defined as an annual amount. It describes mostly office space taken up for rent, but also includes project developments focussing on owner-occupiers. The take-up date is the conclusion of the contract in the case of letting and the start of construction in the case of owner-occupiers.

Rents

Office rents are reported in euros per sqm rentable area according to gif e.V. (RA-C) and apply to office space in a marketable (technical/spatial) condition with good fixtures and fittings and small to medium-sized rental units. The reported rents are nominal values. The nominal rent is the initial rent shown in the contract, not including incentives, ancillary costs or local taxes.
The prime rent relates the top price segment – in relation to the respective market area – with a market share of between 3 % and 5 % of rental revenues (not including owner-occupiers) in the past twelve months and represents a median value. At least three concluded contracts should be included. It does not correspond to the absolute top rent (defined as outliers). To calculate the average rent, the individual rents for all new rental agreements concluded in the defined period are weighted according to the space rented in each case and an average is calculated.

Short Glossary for Residential Properties/Micro-Apartments

Residential rents

Residential rents for re-letting are reported in euros per sqm of residential space and ideally apply to an apartment with three rooms, around 65 to 95 sqm of residential space and standard fixtures and fittings. Because the fixtures and fittings and the sizes are standardised, the degree of variation shown in the rent range is influenced mainly by the location and the micro-location. The reported rents are nominal values.
The rents are stated without including ancillary costs or taking account of other benefits. Average rents represent the average value across the whole of the defined market.
The stated rents are average values intended to map a typical or usual level. They do not represent the strict arithmetic mean, the mode (most frequent value) or the median (central value) in a mathematical sense.

Micro-apartments

Micro-apartments or business apartments are generally found in larger complexes with 100 to 300 units. They are offered as partly or fully furnished one-room apartments measuring between 18 and around 35 sqm, with a small kitchen and a separate bathroom. Optional services often include a concierge service, fitness facilities and laundry service. In terms of tax law, micro-apartments represent private-sector letting rather than operator-managed properties, meaning that rental agreements are concluded directly between the investor and the tenant.

Short Glossary for Retail Property

Specialist retail parks

Specialist retail park are defined as follows: They have:

- gross lettable area (GLA) of 10,000 sqm or more
- locations on the city outskirts with good transport con nections; they are generally easy to reach, including for the wider surroundings
- ground-level floor space and extensive parking space, usually also at ground level
- simple functionality in terms of their appearance
- discount retailers with aggressive price strategies that have a crowd-pulling effect and are supplemented by re tailers and service providers with small amounts of space.

Shopping centres

Shopping centres are large-scale facilities that are constructed on the basis central planning and cover short-, medium- and long-term requirements.
They are characterised by:

- a spatial focus on retail, catering and service businesses of different sizes
- a generous supply of parking spaces
- central management/administration
- joint performance of certain functions by all tenants (e.g. advertising)
- and generally have sales space of at least 10,000 sqm.

Short Glossary for Unternehmensimmobilien (Source: Initiative Unternehmensimmobilien)

The statements on Unternehmensimmobilien (UI) in this study are based on the market data of the Initiative Unternehmensimmobilien published in its Market Reports No. 10. According to these data, UI are mixed-use commercial properties, typically with a SME-dominated tenant structure. The mix includes office, warehouse, production, research, service and/or wholesale space as well as open space.
Unternehmensimmobilien comprise four different property categories:

- Converted properties (not included in the study due to their very high degree of variation)
- Business parks
- Light manufacturing properties
- Warehouse properties

All four categories are characterised by the features of capacity for alternative uses, use reversibility and fundamental suitability for multi-party structures. This means that the strengths of Unternehmensimmobilien lie in their flexibility with regard to not only the use but also the users.

Business parks

- Usually planned and constructed specifically to be let out to companies
- Consist of several individual buildings forming a complex
- Management and infrastructure are organised uniformly
- Have all types of space (share of office space generally be tween 20 % and 50 %)
- Usually located on the outskirts of cities and easily acces sible

Light manufacturing properties

- Predominantly individual hall properties with a moderate office share
- Suitable for a variety of types of production
- In principle, hall space can also be used for other pur poses such as storage, research, services, wholesale and retail
- Capacity for alternative uses depends primarily on the lo cation

Warehouse properties

- Predominantly existing properties with mainly basic stor age facilities and in some cases service space
- Within Unternehmensimmobilien, distinguished from modern logistics halls by a maximum size of 10,000 sqm
- Varying fit-out and quality standards
- Flexible and inexpensive types of space
- Generally reversible and suitable for higher-value uses (e.g. through retrofitting of ramps and gates)

Short Glossary for Logistics Properties

The study relates to a modern logistics property with hall space of more than 10,000 sqm.
Rents for warehouse/logistics space are reported in euros per sqm of hall space and apply to a heatable hall with standard fixtures and fittings, not including high-bay warehouses or similar, that are located in a conventional industrial area with good connections. The reported rents are nominal values.

The rents are stated without including ancillary costs or taking account of other benefits. Maximum and average values are shown. The maximum rents represent an average value for the top 3 to 5 % of the market. They do not correspond to the absolute top rent (defined as outliers). Average rents represent the average value across the whole of the defined market.
The stated rents are average values intended to map a typical or usual level. They do not represent the strict arithmetic mean, the mode (most frequent value) or the median (central value) in a mathematical sense

Short Glossary for Hotels

"Magic Cities"

This term refers to the former city alliance Magic Cities e. V., which included the following cities as its members:Berlin, Cologne, Dresden, Düsseldorf, Frankfurt am Main, Hamburg, Hanover, Leipzig, Munich, Nuremberg and Stuttgart. These cities are characterised by above-average tourist demand and a corresponding diverse offering for tourists.

Classification

This study is based on the following breakdown:
Economy: 1 or 2 stars
(Upper) midscale: 3 stars (3+ stars)
(Upper) upscale: 4 stars (4+ stars)
Luxury: 5 stars
The breakdown is based on the hotel classification used by DEHOGA (German Hotel and Restaurant Association), while the number of stars is taken from the online portals expedia.de and booking.com.

List of abbreviations

List of abbreviations

ECB	European Central Bank
GDP	gross domestic product
gif e. V.	gig Gesellschaft für immobilien-wirtschaftliche Forschung e.V.
IRR	internatl rate of return
(non-)core-I	(non-)core-investors
RA-C	rentable area according to gif
SME	small and medium-sized enterprises
sqm	square metres
UI	Unternehmensimmobilie

In general, renovations and project developments are not included. All calculations in the study are based on data, forecasts and analyses by bulwiengesa AG and its knowledge of the market. In addition to rent loss risk, vacancy risk is also taken into account in the cash flow calculation.

Terminology

Market liquidity is defined as investment demand irrespective of economic cycles.
Fluctuation refers to changes in tenants assumed at predefined dates – depending on the asset class.

Office

The study presents 127 office markets, broken down into A-, B-, C- and D-cities. A notional existing office property with average-quality space is assumed. The property size varies depending on the volume of the office market and the average take-up over the past ten years. The model also assumes annual fluctuation of 10 % of the property size and a three-year term for newly concluded rental agreements. The office rents are index-linked. The market rent in the year of the respective contract conclusion corresponds to the company's own forecast, while the ageing process of the property is taken into account with a rent discount. The purchase yield (net initial yield) in the model corresponds to the exit yield, so as to avoid distortions.

Residential

The study presents 68 residential markets, broken down into A-, B- and (other) university cities. The calculation is based on the assumption of an existing apartment building with 4,000 sqm of residential space and 55 residential units and with average fixtures and fittings. Annual fluctuation of 200 sqm is assumed. The fluctuation corresponds to the respective newly let space and a one-month vacancy p.a. For existing rental agreement space, rent adjustments to the market level every three years are assumed. The purchase yield (gross initial yield) in the model corresponds to the exit yield, so as to avoid distortions.

Micro-apartments

A-, B- and (other) university cities – a total of 68 cities – are analysed. The calculation is based on the assumption of a property with 4,000 sqm of residential space and 200 fully furnished residential units of 20 sqm each. The base scenario assumes annual fluctuation of two-thirds of the total residential space, but the simulation also includes fluctuation of 0 % and 100 %. The purchase yield (gross initial yield) in the model corresponds to the exit yield, so as to avoid distortions. An operator model is not assumed.

Specialist retail parks

The model is based on an ideal specialist retail centre with floor space of around 20,000 sqm. The user structure consists of several retail spaces. Two anchor tenants and a use mix in line with the market are assumed.

Shopping centres

The model is based on a three-storey shopping centre (including a basement level). It assumes one anchor tenant, a total of 78 retail spaces and sales space of 48,000 sqm.

Modern logistics properties

The model assumes an existing modern distribution/handling centre. Good divisibility and capacity for alternative uses are assumed. The hall space totals 20,000 sqm. Office space accounts for less than 10 % of the hall space, meaning that it can be assumed that the amount of space for administration of the logistics hall is in line with demand. For reasons of simplification, office space therefore is not taken into account separately in the model.

Business parks (UI)

An existing business park with rental space of 12,000 sqm is assumed, with office use accounting for 30 % and warehouse use accounting for 70 %. All assumptions and data are based on information from the Initiative Unternehmensimmobilien and its Market Report No. 10.

Warehouses (UI)

A simple existing warehouse with 10,000 sqm of warehouse space is assumed. In contrast to modern logistics space, there is only limited divisibility and capacity for alternative uses and the property quality is lower (including with regard to hall height, floor load capacity etc.). All assumptions and data are based on information from the Initiative Unternehmensimmobilien and its Market Report No. 10.

Light manufacturing (UI)

A light manufacturing hall with 10,000 sqm of production space is assumed. In view of the high level of user specificity, longer lease terms (five years) are assumed than for the other types of described Unternehmesimmobilien. All assumptions and data are based on information from the Initiative Unternehmensimmobilien and its Market Report No. 10.

Hotels

The calculations in this study relate to chain hotel businesses, defined as businesses with four or more individual hotels.

In addition, the analysis is based on fundamental assumptions that reflect only part of the market. For example, it was assumed that a lease contract is concluded; operator contacts and hybrid forms were not included in the analysis. Another fundamental assumption is that the contract has a long term. The presentation of short-term contracts in the case of yield-focussed investments with additional capex requirements on expiry of the lease contract (generally two to three annual rents) was ensured by means of risk premiums and yield mark-ups. The model is based on city hotels with business customers and city tourists as their target groups. A high level of tourist demand is also assumed.

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