bulwiengesa

WHERE IT STILL
PAYS OFF TO INVEST

The 5% Study

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The 5 % Study

WHERE IT STILL PAYS OFF TO INVEST

A study by bulwiengesa AG
on behalf of

Forewords

5 % was seen as a target yield by many investors back in the time before terms such as “low-interest policy” and “debt crisis” came to dominate the discussion and when properties were still regarded as long-term assets. So now 5 % is something of a nostalgic figure – it stands not only for a targeted rate of return but also for a good balance between risks and opportunities.

This study provides an overview of the current benchmark values – in an investment market where yields are adjusted downward almost on a quarterly basis and a 5 % yield is becoming an ever more distant prospect. Because it is no longer just specialists who are interested in real estate – the lack of alternatives is making it a focus of virtually all types of investor. Among them are players who are very comfortable in the current market environment and see yield opportunities, as well as others who prefer to settle for a slightly lower yield but generate secure cash flows instead. In this context, preferences for specific uses are regularly abandoned.

This study therefore aims to recategorise the property market and shift the focus from assessing only the type of use to considering performance as well. In doing so, it analyses not only the core segment for very risk-averse investors, but also the opportunities for yield-focussed non-core investors.

Perhaps this study will open up a completely new perspective on the property market – particularly for those who are not experts in the field. I therefore hope you find some interesting insights.

Sven Carstensen, Frankfurt am Main Branch Manager, bulwiengesa AG

Aurelis is familiar with various different real estate asset classes: As a land developer, we prepare building plots for residential construction and mixed uses. As a lessor, portfolio holder and project developer, our focus is on light industrial and other commercial properties. Since back in 2010, we have been working with different partners to increase the transparency and comparability of investment products for real estate investors on the basis of market data. This is why, among other activities, Aurelis is a founding member of the Initiative Unternehmensimmobilien, which has set itself the goal of preparing semi-annual reports on the basis of current primary data.

Now more than ever, the current low interest rates and volatile capital markets are intensifying the need to examine yield opportunities on the property market even more closely. International investors are also increasingly flocking to Germany again, where they want to profit from the stable economic situation. For a number of years now, the sustained competition and the resulting high prices in the core segment have been pushing investors to look at alternative investment strategies as well. Investors are now considering the possibility of investing in so-called B-,C- and D-locations or in other commercial uses besides office and retail for the purpose of portfolio diversification.

The study presented here is intended to provide indicative information and background data for assessing the risk/return profile that can be generated. This gives investors a quick overview of how and where it still pays off to invest today.

Dr Joachim Wieland,
CEO of Aurelis Real Estate GmbH & Co. KG

The German real estate investment market is undergoing significant change. It is not just the continuing tense financial market and currency situation, but also recently enacted laws that are leading investors to wonder where they can still meet their yield expectations.

Take the example of the rent controls introduced in spring this year. Although they were initially feared by investors, our article in this study shows that attractive yields can still be generated with properties in top locations despite the new legislation and that another instrument, known as the neighbourhood preservation statute (so-called Milieuschutzsatzung), is likely to have a much greater influence with regard to renting property.

At the same time, investors are increasingly extending their focus to secondary locations – which are not usually subject to rent controls or neighbourhood preservation – as the properties here are comparatively inexpensive and the rents are rising. Whether it's metropolises or so-called B-cities, attractive yields can be generated in both segments.

With its many years of experience, BEITEN BURKHARDT provides advice on all phases of property management and infrastructure projects: 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 as designing German and foreign real estate funds.

Dr Detlef Koch,
BEITEN BURKHARDT Rechtsanwaltsgesellschaft mbH

Forewords

Transparency is an important prerequisite for successful investments. With this study, “5 % – Where It Still Pays off to Invest”, bulwiengesa has made a significant contribution to improving the transparency of Germany's real estate market.

The findings provide an even stronger foundation for making investment decisions. In simulating potential income from real estate investments for an unusually wide sectoral and geographical range of assets, it becomes clear that yields of more than 5 % may also be possible in the current environment, but that such properties will not just drop into investors' laps. Rather, investors have to make considerable efforts to find these more profitable properties.

As the results of the study strikingly indicate, there are certainly still opportunities to be had, particularly outside the “overfished” core segment: Those who are willing to accept a certain level of vacancy risk or to invest in smaller and thus less liquid cities, for example, may be rewarded with yields above the 5 % mark even in the current ultra-low-interest environment. Any investor who is currently counting on generating high income from a good exit in a few years' time would also be well advised to take a look at the study: In light of the very high purchase prices at present – particularly for core properties – the bulwiengesa study does not leave much room for ambitious exit phantasies.

Dr Andreas Muschter, Chairman of the Management Board
Commerz Real AG

High liquidity, investment pressure and a lack of suitable investment properties are the features that characterise the current real estate market for core investors in Germany. For this reason, many of them have long since had to abandon yield targets of 5 % or more.

In addition, market players such as pension funds and insurance companies are reliant on investing their customers' funds as safely, predictably and at as low a risk as possible. This in itself prevents them from looking beyond Germany's real estate strongholds to smaller cities. But for investors who are willing to take risks, this study shows that it is still possible today to achieve yields of well over 5 %.

There is interesting potential to be tapped in the markets in Germany's C-and D-cities, particularly for non-core-focussed investors. However – and this is also documented by the present study – this is an environment that has only limited suitability for the usual big players on the market. The lack of transparency and reliable data is simply too great. However, the study shows which individual types of expertise and market knowledge an investor needs in order to invest successfully in German C- and D-cities. It therefore makes an important contribution to reducing the gaps that currently still exist in the German research landscape and offers an interesting read that also goes beyond the more familiar investment paths.

Christian Zilly,
Waterway Investments GmbH

Introduction

Demand for German real estate is at its highest level since the investment boom between 2006 and 2008. The Federal Republic is regarded as economically stable and free of political crises, and thus as a safe haven for investors. It is no longer just specialised investors who want to invest in the property market in the hope of a reliable return. More and more new players are entering the market, either directly or indirectly. This is reflected in a highly diversified investor landscape. For example, whereas in 2004 there were only around 50 specialised funds on the German property market, by 2014 this figure had risen to over 320.

There have also been fundamental changes in the general conditions over the past few years: In 2009/10 it was prices for residential properties in particular that rose sharply as a result of private and institutional demand, but since 2011/12 the commercial markets have rapidly followed suit.

An increase in prices can be observed across all asset classes. Because (rental) income from properties is developing stably but cannot keep pace with the investment market, yield expectations have fallen and are continuing to fall at regular intervals. This is illustrated, for example, by the office market in Frankfurt, where net initial yields for very good office properties were still as high as 5.4 % in 2009, but have now (Q2 2015) fallen to a historic low of 4.5 %. In terms of the price per square metre, this is equivalent to an increase of around 20 %.

It is not just the returns on the established asset classes of residential, office and retail that are currently under pressure. Niche markets that are regarded as alternative investment opportunities are increasingly drawing the interest of investors. This is partly attributable to shifts in the social and economic environment with changing user-specific demand preferences. The real estate industry is facing the challenge of seizing upon this process of change and offering solutions that are tailored to specific uses. This is giving rise to new asset classes with their own yield profiles, such as Unternehmensimmobilien (as business parks, light manufacturing properties, warehouses and converted properties) and micro-apartments. When seeking investment opportunities, investors therefore need to display a high degree of flexibility and expertise that encompasses different use types. They are coming up against a market environment characterised by a considerable lack of transparency, particularly in niche markets.

In view of this tense market situation, even established market players regularly have to adjust their yield expectations downward at present. Just a few years ago, 5 % was seen by many security-focussed investors as the target yield for a low-risk investment – a level that now seems scarcely achievable. Nonetheless, the name of this study picks up on this figure with the aim of examining the profitability of the current real estate market.

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
- specialist retail parks
- hotels
- modern logistics

as well as the new property types

- micro-apartments and
- Unternehmensimmobilien

Because the regional demand structures vary considerably, particularly in the residential and office market, the study covers up to 127 cities. These are classified on the basis of bulwiengesa AG's established division into A-, B-, C- and D-cities and university cities. In addition, there is also a regional assessment for the use types micro-apartments and modern logistics. The study does not categorise the asset classes and markets in terms of their type of use, as is usually done, but instead in terms of their yield potential.

It thus pursues a completely new methodological approach in real estate market research that serves as guidance for the reader.

It should be noted that the calculated internal rate of return does not take account of financing effects. Rather, the assessment aims to present the most undistorted results possible purely at property level.

Methodology

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 net present value of these cash flows represents the internal rate of return (forecast value).

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

Based on the assumption that the success of the investment may be influenced by various different determinants such as management performance and market fluctuations, a simulation (Monte Carlo, see glossary) 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 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 the following groups of variables: rent, vacancy rate, property and operating costs, fluctuation (space becoming vacant/re-letting). The internal rate of return on the investment resulting from the cash flow calculation was set as the forecast value.

Sensitivity analysis

To find out which of the user-defined variables has the greatest impact on the internal rate of return of the investment (=forecast value), the Monte Carlo simulation measures the impact of each predefined variable (see also the sensitivity diagrams in the sections on the 3-, 4-, 5- and 6-percenters).

In the study, the top 3 sensitivities with the greatest impact on the success of the respective investment are shown. A negative figure means that there is an inverse relationship between the respective parameter and the success of the investment (for example, the lower the vacancy rate when the property is sold, the higher the internal rate of return). Conversely, positive sensitivities indicate a strong correlation with the respective property performance (for example, the higher the vacancy rate when the property is purchased, the higher the internal rate of return). For example, a higher vacancy rate when the property is purchased can have a positive impact on the internal rate of return if the vacancy rate is then successfully reduced.

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 % – is seen as being for non-core investors.

Here, there is a probability of 25 % that internal rates of returns beyond the core range will be achieved – but equally, non-core investors may fall below the attainable rate of return for core investors and in some cases may even generate negative IRRs.

Parameters and fluctuation ranges

bulwiengesa's data system (RIWIS) was generally used as the source for rental, vacancy and yield information. For Unternehmensimmobilien, information from the Initiative Unternehmensimmobilien 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. To check plausibility, the study also used data from the company Treureal (immobench.de) for the residential use category and data from the company Rotermund Ingenieure (rotermundingenieure.de) for the office use category. We would like to thank both of these companies for their support.

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 pages with orange-bordered results boxes in the sections on the 3-, 4-, 5- and 6-percenters.

In general, all calculations in the study are based on property sizes and parameters in line with the market.

The **model assumptions/parameters** table shows the key parameters incorporated in the cash flow calculation and simulation.

The **orange-bordered results box** presents/summarises 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 dark blue field of the 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 medium 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 medium blue field 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, corresponds to the forecast value of the simulation.

The three predefined variables with the greatest impact on the forecast value/the internal rate of return on the investment are shown in the **top 3 sensitivities diagram**.

As a general rule, high percentages – whether positive or negative – indicate a high correlation between the variable and the forecast value. These variables thus have a significant impact on the forecast value. A distinction can be drawn between positive and negative deflections.

Variables with positive percentages indicate a positive correlation, meaning that an increase in the variable brings about an increase in the forecast value. Variables with negative percentages indicate an inverse relationship, meaning that an increase in the variable brings about a decrease in the forecast value.

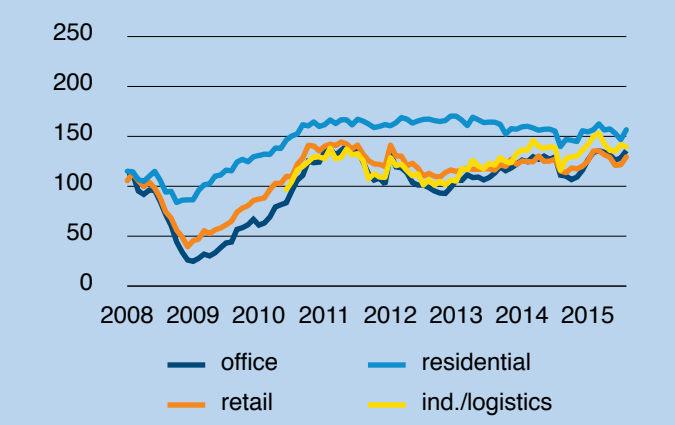
Macroeconomic Conditions

Buoyant Atmosphere on the German Real Estate Market

The German real estate market is booming. Despite – or perhaps because of – a geopolitical and macroeconomic environment full of crises and uncertainties, the German real estate industry is in excellent shape.

Deutsche Hypo's real estate climate index – based on a survey panel of over 1,000 experts – is continuing to record very high values in spite of a few fluctuations, indicating widespread confidence among market participants. The logistics sector in particular has closed the gap with the residential segment. However, the current buoyant atmosphere encompasses all types of use.

Development Deutsche Hypo Property Index by Sectors



Source: Deutsche Hypo/bulwiengesa AG

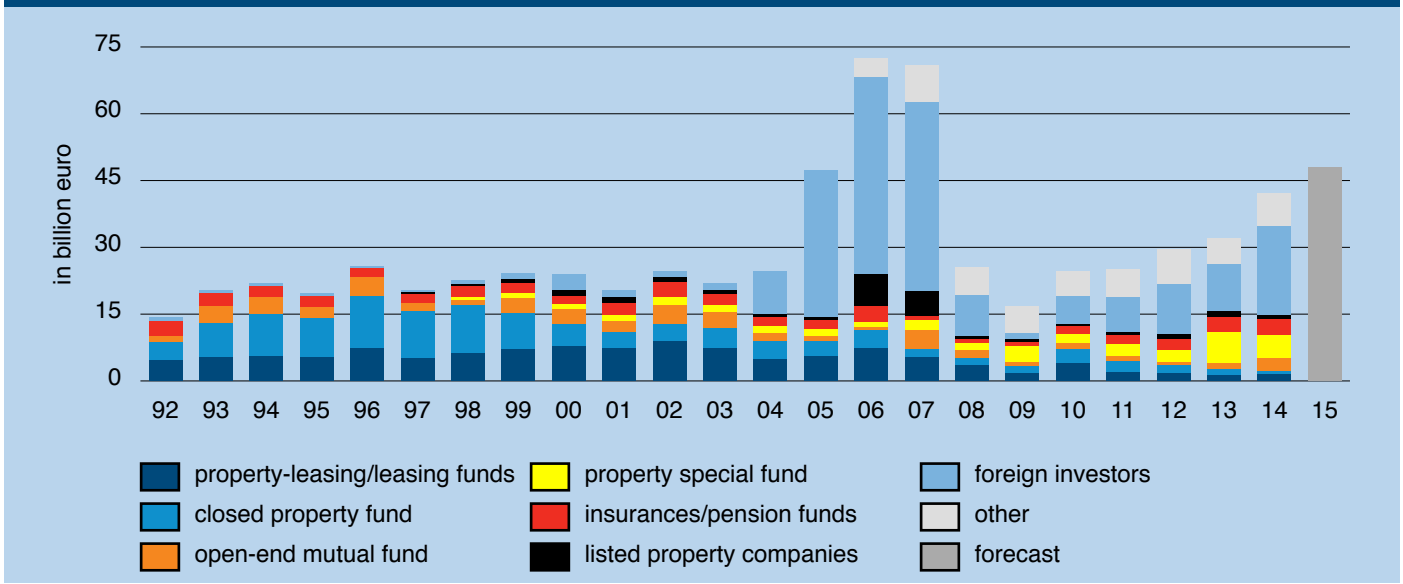
Very Dynamic Investment Market

This optimism is driven by a very agile investment market. It is no longer just domestic investors who view German properties as safe assets. Thanks to the robust macroeconomic conditions and its political stability, Germany is regarded as a "safe haven" by investors from all around the world. This is also reflected in the real estate market.

In the wake of the economic and financial crisis in 2008/09, the volume of real estate investments in the commercial segment declined to around 16.7 billion euros (2009). However, a gradual recovery could be observed over the following years, with the effect that the investment volume more than doubled to a level of 42.1 billion euros in 2014. This figure is expected to be exceeded by a wide margin in 2015. Around half of the transactions in 2014 were attributable to foreign investors, and this proportion is also set to rise in 2015.

Non-institutional money from private investors is also increasingly entering the market. Whereas a few years ago private investment related almost entirely to low-volume properties (particularly residential and office buildings), asset managers are now also focussing on stable commercial properties. The market has not yet reached the level of the years 2006 and 2007, when more than 70 billion euros p.a. was invested in German commercial properties. However, the figures are displaying a significant rising trend for the fourth year in a row.

New Property Investments of Institutional Investors in Commercial Property in Germany

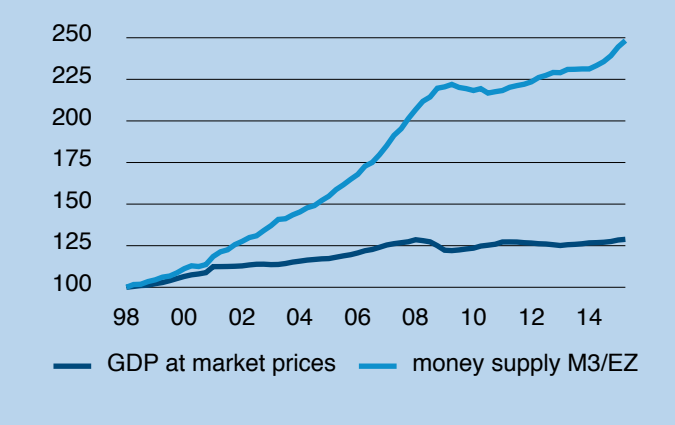


Source: BVI, BaFin, Bundesverband Deutscher Leasing-Gesellschaften, Bankhaus Ellwanger & Geiger, Deutsche Bundesbank, analyses by Loipfinger, Scope, FERI, data is based on research and calculations by bulwiengesa AG

High Market Liquidity Gives Additional Boost to the Investment Market

The current financial market environment, which is characterised by an abundance of liquidity, is giving an additional boost to the equity and real estate markets. The pressure to invest is evident in view of the widening gap between the money supply and gross domestic product.

Development GDP and Money Supply M3 in the Eurozone



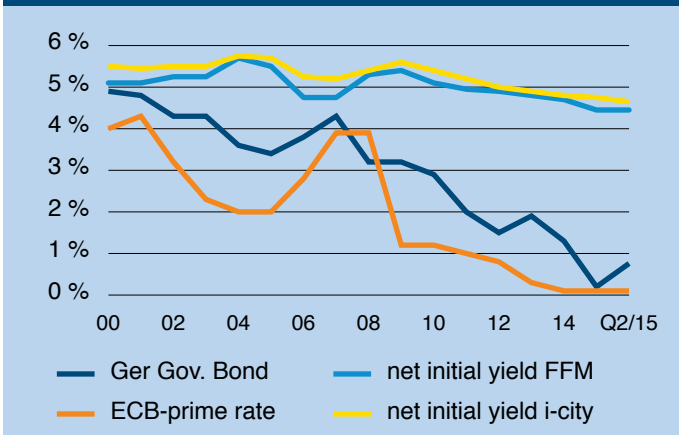
Source: Eurostat, Deutsche Bundesbank

While GDP at market prices has seen an increase – albeit at a moderate level – since 1998, the M3 money supply within the eurozone has more than doubled. This large quantity of money in circulation entails an elevated inflation risk and the threat of a bubble being formed. However, there is currently no risk of the former in the eurozone and the latter is likewise not anticipated at present, at least as far as real estate investments are concerned. Instead, the development explains the pressure of demand on the investment market, which is driving up prices for tangible assets such as properties.

Interest Rates Still at Record Low

Driven by the expansive monetary policy and the lack of secure investments, German government bonds (Bunds) – which are considered gilt-edged and thus without any default risk – are at a level of considerably below 1 %. The risk premium has therefore reached an all-time high – the difference between the net initial yield and the government bond/ECB key interest rate has been rising continuously for several years. These are regarded as the basis for risk premiums for real estate investments. Despite falling yields, risk premiums are currently at peak levels – in the case of the Frankfurt office market, for example, it is now at around 370 basis points.

Overview Risk Premium of Office Property



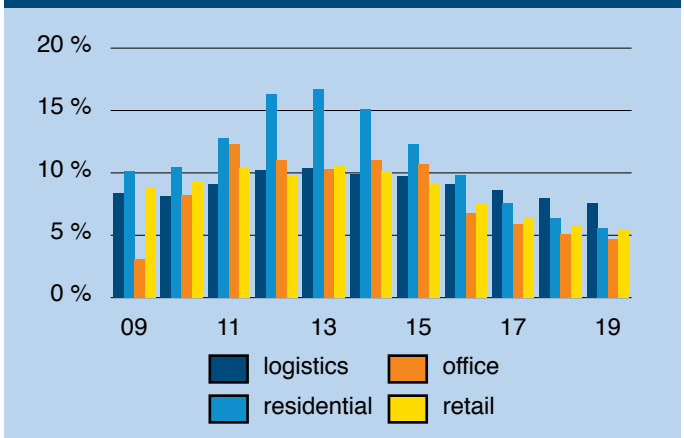
Source: Bundesbank, ECB/ bulwiengesa AG

Following the global low-interest phase, it now seems increasingly likely that the US central bank will raise its interest rate in the autumn. To avoid too much of a difference between the eurozone and the dollar region, the probability of an interest rate hike in Europe will also increase towards the end of 2016. The increase is likely to be very moderate at first and will probably also remain below the long-term average in the medium and long term. Favourable refinancing prospects can therefore be expected in the future, too, not least as a result of the large quantity of money in circulation.

Performance of German Properties

The German Property Index (GPI) reflects the performance of individual property segments. Overall it shows the the total return, consisting of the capital growth return and the cash flow return. Driven by a substantial decrease in net initial yields over the past few years, the GPI reached record levels. For example, new and existing properties in the residential sector have posted an impressive performance since 2009, generating an average annual return of 14 %. The driving factor here was the annual capital growth return. The average level for the other asset classes – office, logistics and retail – was around 10 % in each case, which is also a very good figure when compared over time.

Forecast Total Return in Germany



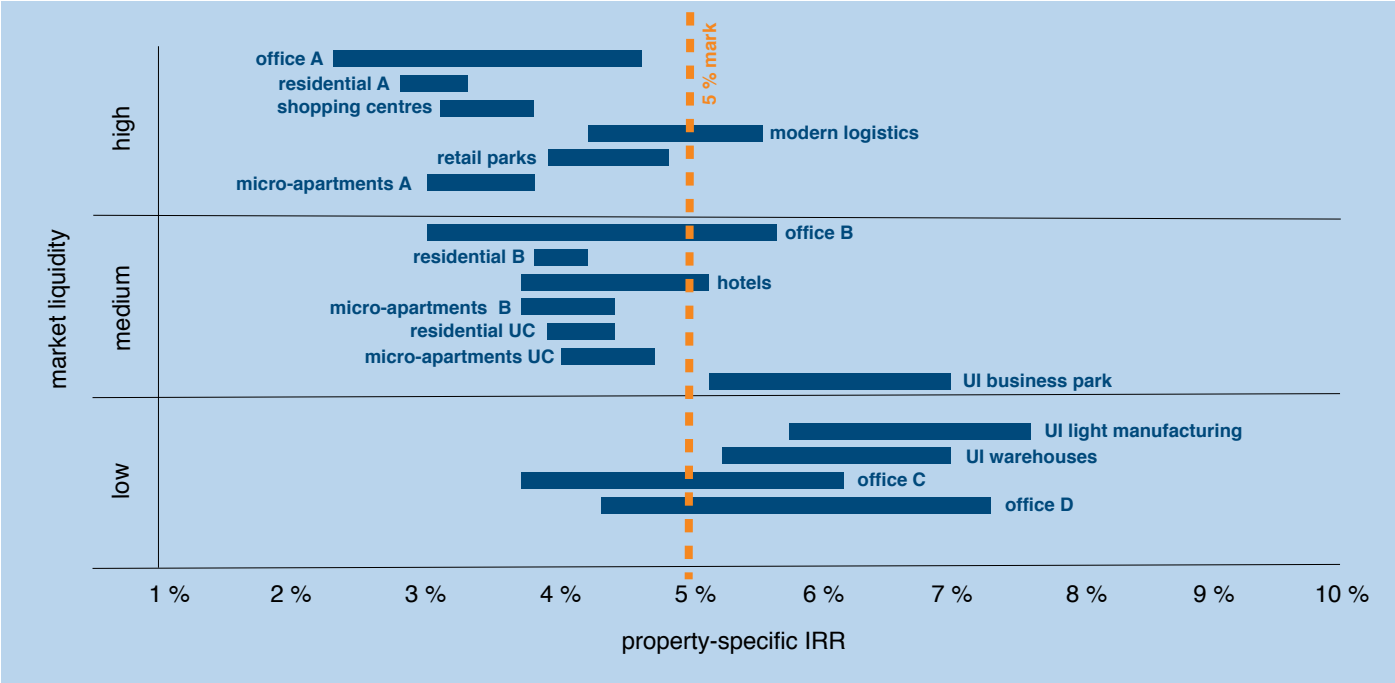
Source: bulwiengesa AG; 2015 - 2019 forecast

The cashflow is forecasted to stay on a stable level until 2019 resulting in positive trends for the total return. However it is expected that the dynamics of capital growth will slow down or show negative values in some cases.

Summary

Core-Matrix*

** 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.*



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 generate investment demand independently of economic cycles and to offer exit opportunities even in years of low demand.

It can be seen clearly that the performance expectation in A-markets, which are characterised by a wide range of demand and high liquidity, is very limited irrespective of the use. For placements of large volumes of capital, however, the A-cities' office markets in particular offer good investment opportunities for core investors – but in turn the internal rate of return here is only between 2.3 % and 4.6 %. In the residential segment, an internal rate of return of between 2.8 % and 3.3 % is generated, meaning that residential property investments in - cities display the lowest yields out of all of the asset classes under review. However, the cash flow risks here are also very low. A positive rent forecast and potential for rent increases prevent an even lower yield expectation. The performance of micro-apartments – i.e. small furnished apartments with individual rental agreement – is generally slightly higher than the values for the housing market. This is influenced by high fluctuation and therefore very pronounced rent leverage.

Shopping centres also offer opportunities for large-volume investments – the IRR range here is between 3.1 % and 3.8 %. However, possible necessary restructuring measures may have a negative impact on the performance. The growing attractiveness of logistics properties, which have almost closed the gap with the established asset classes as far as yields are concerned, is also reflected in the diagram.

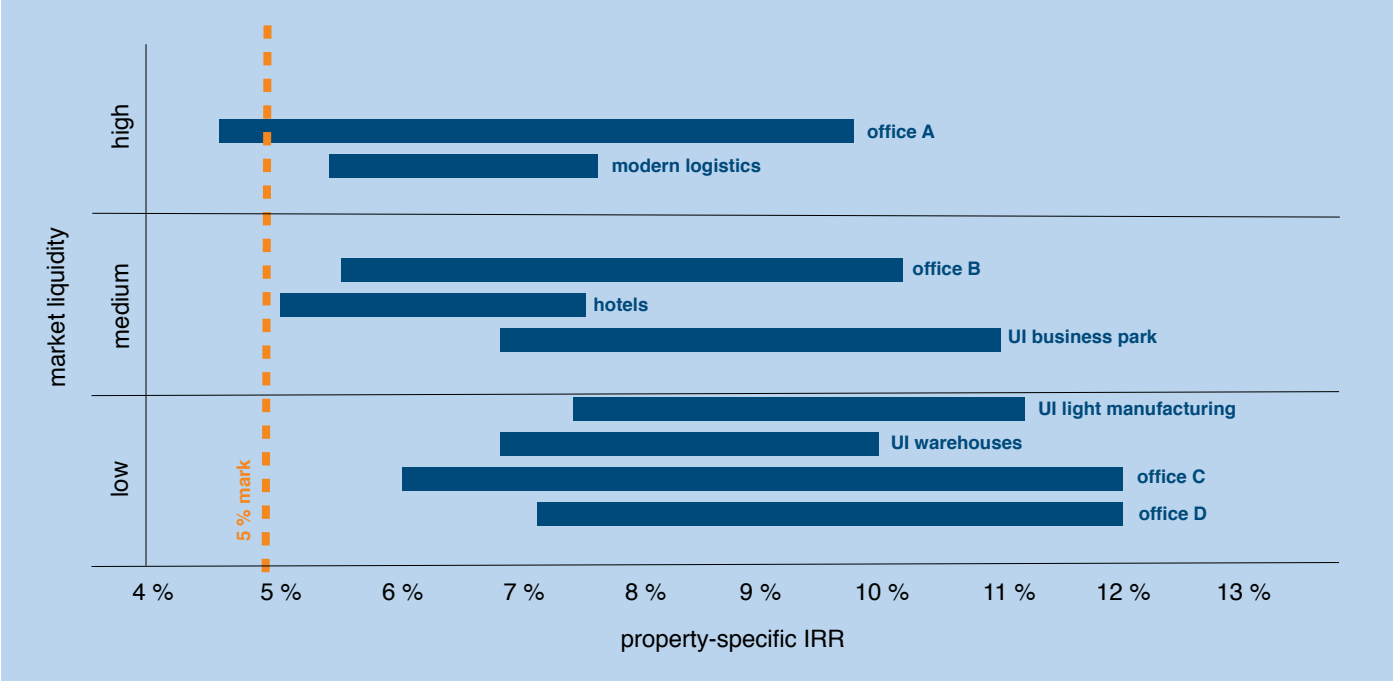
Smaller markets such as university cities and C-cities are currently recording a general increase in market liquidity. However, if investment demand lessens again, these markets are likely to be impacted to a particularly large extent. In addition, the property sizes that can be placed also decrease significantly here. As a result of their diverse structure, the office markets in B-cities display a comparatively wide IRR range of between 3.0 % and 5.6 %. By contrast, somewhat higher yields – thus jumping above the 5 % mark – are offered by properties in the C- and D-office markets. However, strong local expertise is needed here and the volumes that can be placed are even more limited.

The performance expectation for Unternehmensimmobilien is between 5.1 % and 7.5 %. This new asset class – represented in the study with three types of Unternehmensimmobilien: light manufacturing properties, business parks and warehouse properties – is beginning to establish itself on the investment market. Owing to the particular requirements involved, technical expertise is also needed here in particular.

Summary

Non-Core Matrix*

** 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.*



Properties with an increased risk profile are defined as non-core properties in this study. They are characterised by vacancies and are usually situated outside the central locations. In addition, they present increased performance opportunities but also increased risks – the matrix above only shows their market potential. Extensive restructuring or renovations were not taken into account in this study.

In the office markets of the A-cities, non-core properties are generally to be found in peripheral locations. Here they have increased market liquidity in comparison to non-core assets in B-, C- and D-cities, i.e. they are a focus for investors even in phases of lower investment demand. However, the potentially attainable yield in the A-office markets is limited for non-core properties, too, at between 4.6 % and 9.8 % – and there is always the risk of generating a negative internal rate of return.

The non-core segment for modern logistics properties is to be found particularly in regions outside the major hubs.

Hotel investments outside the core segment usually relate to the purchase of short-term lease contracts with corresponding re-letting risks. The potential here comes to a maximum of 7.6 %.

Increased performance opportunities are offered by Unternehmensimmobilien as a new asset class. For example, business parks with their mix of offices and warehouse/service space generate an internal rate of return of between 6.9 % and 11 %, while light manufacturing properties generate between 7.5 % and 11.2 %. Because these properties are largely dominated by regional demand, a high degree of networking of asset management is a key criterion for the long-term success of the investment, in addition to technical expertise. Simple warehouse properties reach a maximum annual rate of return of between 6.9 % and 10.0 % in the model calculation.

Although office markets in the C-and D-cities, in addition to B-locations such as Wiesbaden, are currently drawing increasing attention from many yield-focussed investors, including international ones, this demand regularly tails off again during flattening market cycles. The market is then dominated by local and national players. Potential with regard to users also tends to be limited in these markets and is largely determined by regional components. A high degree of local market knowledge is therefore a basic prerequisite for operating successfully as a non-core investor in these markets.

However, non-core investors can generate the highest internal rates of return from property management in these markets – the range of potential for office properties is between 6.1 % and 12.0 % in the C-markets and between 7.2 % and 12.0 % in the D-markets.

The 6-Percenters

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3

The Market for Light Manufacturing Properties (UI)

The 5.50 to 6.49-Percenters – Property-Specific IRR

The Market for Light Manufacturing Properties (UI)

A changing working world with new requirements for space has recently led to the introduction of the asset class of Unternehmensimmobilien (UI). These are mixed-use commercial properties, usually with a SME-dominated tenant structure and with a high capacity for alternative uses and reversibility of the space. In addition to light manufacturing properties, this new asset class also includes warehouses, business parks and converted properties.

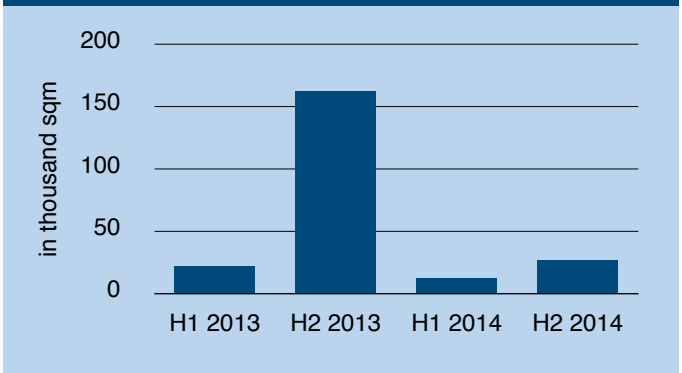
Definition UI Light Manufacturing	
criteria	predominantly individual hall properties with a moderate office share
	suitable for a variety of types of production, particularly low-emission industries
	in principle, hall space can also be used for other purposes such as storage, research, service, wholesale and retail -> high reversibility
	Capacity for alternative uses depends primarily on the location

Source: Initiative Unternehmensimmobilien, Market Report No. 2

Within the category of Unternehmensimmobilien, light manufacturing properties are by far the dominant use with a share of over 50 %. As of the end of 2014 they comprised space totalling approximately 543 million square metres, equivalent to a total monetary amount of 299 billion euros. However, in view of the high share of owner-occupiers, among other factors, only 40 % of such properties can be considered available for investment.

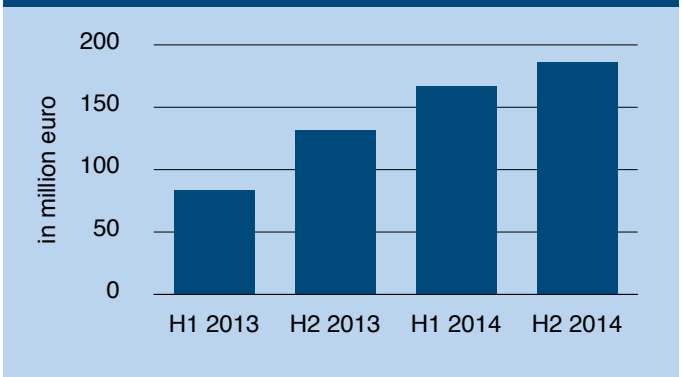
The strong presence of owner-occupiers, as well as high costs of investment in the space in some cases, contribute to a long useful life and increase tenant retention. This also has an impact on the rental performance recorded on an annual/semi-annual basis. Compared to other types of Unternehmensimmobilien, take-up for light manufacturing properties is considerably lower.

Take Up UI Light Manufacturing



Source: Initiative Unternehmensimmobilien, Market Report No. 2

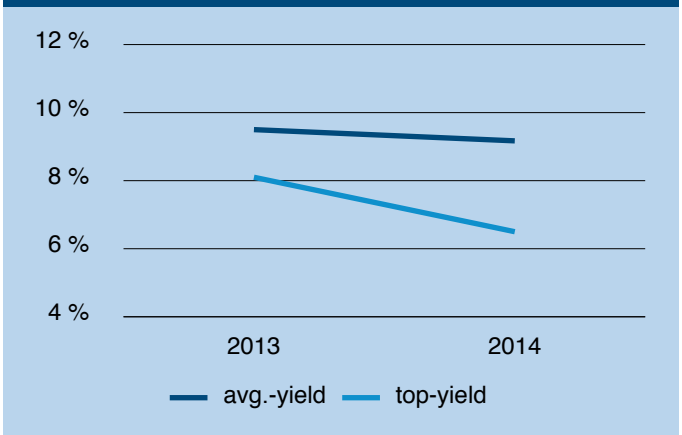
Investment Volume UI Light Manufacturing



Source: Initiative Unternehmensimmobilien, Market Report No. 2

Investor demand for UI in general and light manufacturing properties in particular has grown significantly over the past few years. This is attributable firstly to the increased transparency of this asset class and secondly to the high demand on the market as a whole. Light manufacturing properties account for around 22 % of the total volume of UI.

Gross Initial Yield UI Light Manufacturing



Source: Initiative Unternehmensimmobilien, Market Report No. 2

As with warehouse properties and business parks, the market for light manufacturing properties is also characterised by rising prices. According to the assessment, gross yields in the prime segment fell by 160 basis points year-on-year. On average, a largely stable development can be observed. Depending on the location, the tenant's credit quality and the terms of the rental agreements, yields of less than 6 % are also possible for selected properties at present in view of the strong demand pressure on the investment market.

Performance Measurement of Light Manufacturing Properties (UI) Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national
demand for space	regional up to national
liquidity	low
volatility	low
marketable size	> 1 million euros*

Source: bulwiengesa AG; *wide range

Unternehmensimmobilien are primarily a focus for investors within Germany. In general, two different types of investors can be identified: Firstly, portfolio holders with a long-term perspective and a high level of management expertise, and secondly project developers that are often also seeking to implement options for subsequent use in the case of light manufacturing properties with high vacancy rates. These options also include a transition to converted properties and business parks.

Model Assumptions	
type	existing building
typical property size	10,000 sqm
net initial yield	6.5 %
vacancy acquisition date	2,500 sqm (3 months)
market rent acquisition date	4.10 euros/sqm
avg. term of lease	5 years

Source: bulwiengesa AG

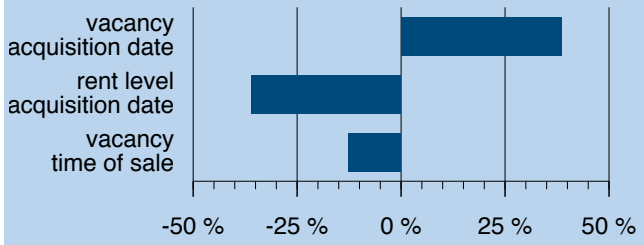
The modelled assessment only includes existing properties with a good property and letting quality.

The performance analysis for light manufacturing properties showed an internal rate of return ranging between 5.7 % and 7.5 % (secured range). Light manufacturing properties entail particular management requirements in the technical field and are therefore to be recommended as core properties only if corresponding expertise is involved.

In contrast to the established asset classes, light manufacturing properties are only gradually starting to emerge as fungible investment products that are regularly traded. Due to this liquidity risk, which can have a negative impact on the exit scenario in particular, marketing specialists with access to the relevant investor groups should also be involved.

For non-core investors, light manufacturing properties offer yield opportunities of up to 11.2 %. Owing to the specific use requirements, a high level of target group expertise is necessary here.

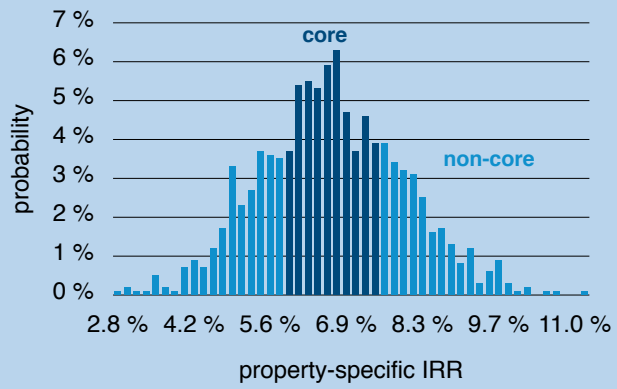
Top3 Sensitivities IRR UI Light Manufacturing



Interpretation:
Vacancies and a low rental level at the time of acquisition are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range UI Light Manufacturing



Results Range

IRR base value	6.26 %
performance expectation	***Who should invest?***
5.7 - 7.5 %	**core-investors**
up to 11.2 %	**non-core-investors**

Conclusion

As management-intensive investment targets, light manufacturing properties are suitable for specialists and offer elevated yield opportunities.

Office Markets in D-Cities

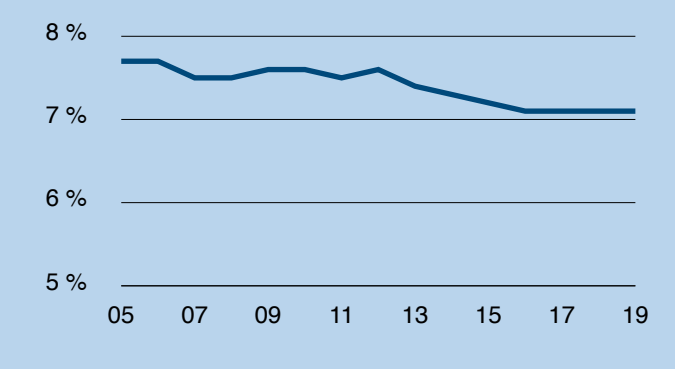
The 5.50 to 6.49-Percenters – Property-Specific IRR

The Office and Investment Market in D-Cities

The office rental markets in the 84 D-cities are largely dominated by regional demand for space. Owner-occupiers, whose projects are also included in the rental statistics at the start of construction, also play an important role.

In general, a great deal of variation can be observed in the office property markets in D-cities. For example, the average take-up of commercial rental space over the past ten years ranges between around 2,100 square metres rental area (RA-C) in Albstadt and around 20,100 sqm RA-C in Ratingen. Besides Ratingen – which, like Neuss, benefits from its proximity to Düsseldorf – other significant D-markets with a rental performance (including owner-occupiers) averaging at least 17,000 RA-C are Wolfsburg, Ludwigshafen, Koblenz and Ulm.

Development Vacancy Rate D-Cities

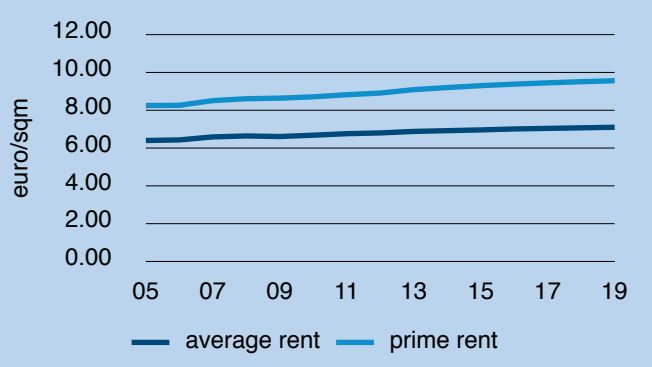


Source: bulwiengesa AG, 2015 - 2019 forecast

The differences between the individual D-cities are also confirmed when looking at the vacancy rates. Here, too, there is a wide range varying between 1.5 % in Heilbronn and 25.9 % in Görlitz. Besides Görlitz, there are three other cities (Brandenburg an der Havel, Cottbus and Suhl) where at least one-fifth of existing office space was vacant as of the end of 2014. As a result of the low level of construction activity, a slight reduction in vacancy rates is expected in future on the whole. However, in some individual markets the vacancy rate will increase further because the quality of the space is often no longer marketable.

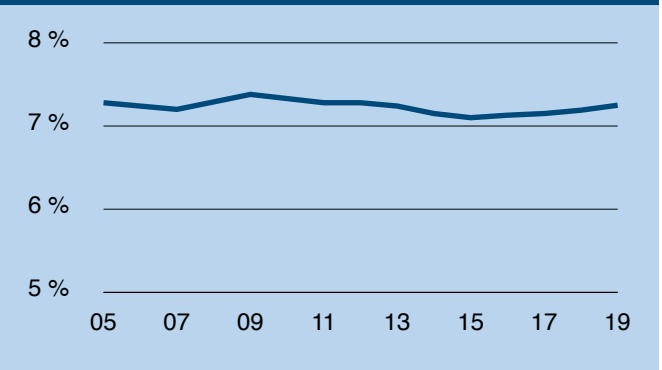
Depending on the amount of additional space from new construction, the rent level also tends to vary significantly among the D-cities. As of the end of 2014, prime rents of at least 12.00 euros/sqm RA-C were achieved in only ten cities, including Ulm, Friedrichshafen, Constance and Ingolstadt. However, the majority of the D-cities are characterised by prime rents of less than 10.00 euros/sqm RA-C. At the end of 2014, the average rent in D-cities was 6.92 euros/sqm RA-C, with only Ulm, Friedrichshafen, Marburg and Ratingen recording a rent level of more than 9.50 euros/sqm.

Rental Development D-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

Development Net Initial Yield D-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

From an investor perspective, considerably higher yields are generally attainable in D-cities. For example, the net initial yield in Fulda is 7.2 %. However, some individual markets have become more expensive over the years in this respect, too, and in some cases yields fell below the 6 % mark in 2014.

Key Facts Office Market D-Cities

D-Cities – selection	Aschaffenburg, Bayreuth, Chemnitz, Gießen, Hanau, Ingolstadt, Kassel, Kaiserslautern, Pforzheim, Rosenheim, Trier, Ulm, Weimar, Wolfsburg
	2014
avg. take up p.a.	8,300 sqm
avg. prime rent	9.20 euros/sqm
avg. rent	6.92 euros/sqm
avg. vacancy rate	7.3 %
avg. net initial yield	7.2 %

Source: bulwiengesa AG

Performance Measurement of Office Properties in D-Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national
demand for space	regional
liquidity	low
volatility	low
marketable size	approx. 3 - 18 million euros

Source: bulwiengesa AG

D-cities are still dominated by regional players. The market cluster of D-cities comprises 84 cities, meaning that there is a wide range of structural differences. As such, the analysis of the average market parameters for D-cities, such as rent and vacancy rates, has only limited relevance at the level of the individual cities. Rather, it is regarded as a model for the entire group of cities. The calculation therefore shows an average assessment of all of the cities. Please also refer to the list of D-cities attached as an annex to this study.

The model calculation is based on average values for all D-cities. It is also assumed that the investment is made in an existing property with good-quality space. Renovations and project developments are not included in the analysis.

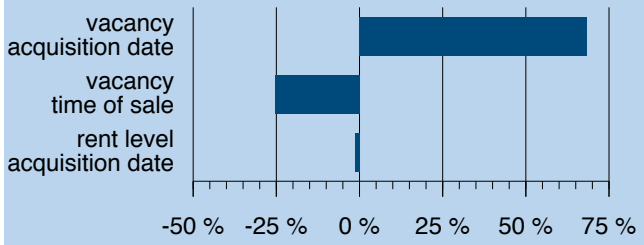
Model Assumptions	
type	existing building
typical property size	3,900 sqm
net initial yield	7.1 %
market vacancy	7.2 %
market rent acquisition date	7.00 euros/sqm
avg. term of lease	3 years

Source: bulwiengesa AG

The performance value of between 4.3 % and 7.2 % with a forecast value of 6.0 % shows the range covered by the market-specific values of the D-cities on average. At the level of the individual cities, performance ranges between 3.1 % and 6.6 % in Bremerhaven and between 5.2 % and 8.1 % in Lüdenscheid.

Similarly to C-cities, the focus for core/security-focussed investors can only be on a few selected properties with a very good location and building quality. In particular, a property size in line with the market is also extremely important. For core and non-core investors alike, investment in D-cities is advisable only if they have local expertise (in the field of both letting and investment). By purchasing vacant space, a performance of up to 12 % can be achieved in the case of non-core investments. In cases where renovation or restructuring work is performed (not included in the assessment), the figure may be even higher.

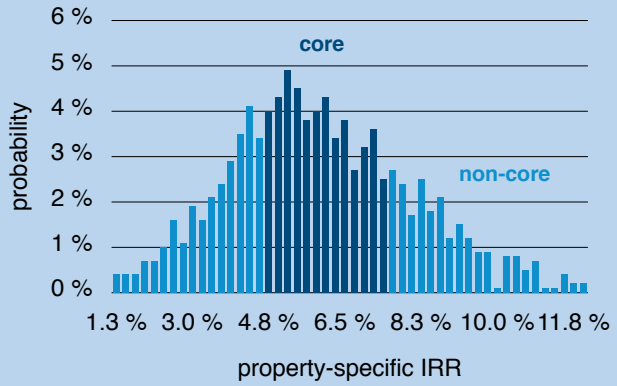
Top3 Sensitivities IRR Office D-Cities



Interpretation:
High vacancy rates upon acquisition and low vacancies at the time of sale are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Office D-Cities



Results Range

IRR base value	6.02 %
performance expectation	***Who should invest?***
4.3 - 7.2 %	**core-investors**
up to 12.0 %	**non-core-investors**

Conclusion

D-cities have the highest yield prospects in the office segment. However, the volume that can be placed is much lower than in A-, B- or C-locations.

The Market for Business Parks (UI)

The 5.50 to 6.49-Percenters – Property-Specific IRR

The Market for Business Parks (UI)

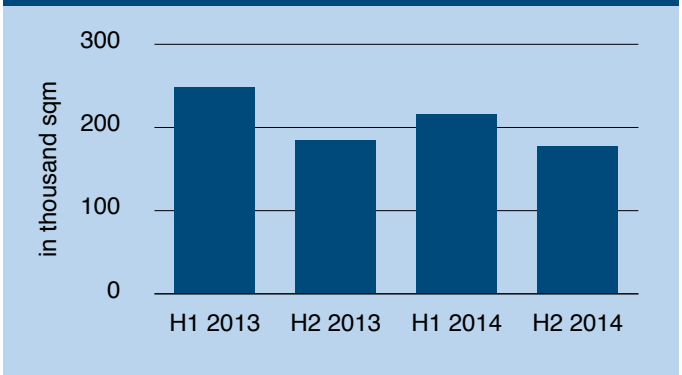
Unternehmensimmobilien represent a newly defined asset class. This new category was defined in the context of a changing working world and its effects on requirements and demand for space. Typically, Unternehmensimmobilien are mixed-use commercial properties with a SME-dominated tenant structure. Another characteristic is a high capacity for alternative uses. In general, Unternehmensimmobilien can be sub-divided into four types of properties, one of which is business parks.

Definition UI Business Park	
criteria	usually planned and constructed specifically to be let out to companies
	usually consists of several individual buildings forming a complex
	management and infrastructure are organised uniformly
	can have all types of space (share of office space generally between 20% and 50%)
	usually located on the outskirts of cities and easily accessible

Source: Initiative Unternehmensimmobilien, Market Report No. 2

Compared to the other three types of Unternehmensimmobilien, demand for space in business parks is above average, with take-up of 392,600 square metres recorded in 2014. It is particularly the small-scale mix of office and warehouse use, combined with often very flexible rental agreements and combinations of space and an attractive price level, that makes this property category appealing for tenants.

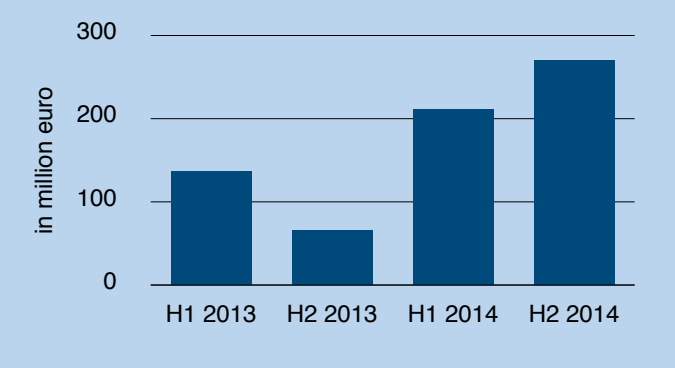
Take Up UI Business Park



Source: Initiative Unternehmensimmobilien, Market Report No. 2

In total, this segment comprises space of 7.8 million square metres throughout Germany with a total value of approximately 10.6 billion euros – of which around 90 % is available for investment.

Investment Volume UI Business Park

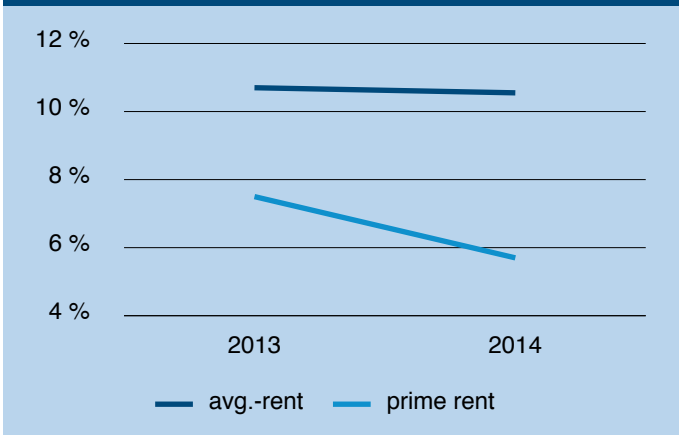


Source: Initiative Unternehmensimmobilien, Market Report No. 2

With a share of around 4 % of the total German commercial real estate investment volume, Unternehmensimmobilien represent a niche segment. However, they are increasingly being perceived as an investment alternative. Foreign buyers are also active on the German market in this area. In 2014 as a whole, they accounted for a share of around 30 %.

The transaction volume of the Unternehmensimmobilien asset class totalled around 1.62 billion euros in 2014. Around 480 million euros of this total was attributable to business parks, making them the second strongest type of Unternehmensimmobilien after converted properties.

Gross Initial Yield UI Business Park



Source: Initiative Unternehmensimmobilien, Market Report No. 2

It is particular the risk diversification due to multi-tenant characteristics and the different types of use that make business parks appealing for investors.

As of the end of 2014, business parks were the type of use among Unternehmensimmobilien with the lowest yield level at 5.7 % (gross initial yield). Prices have thus become more expensive, particularly compared to the previous year.

Performance Measurement of UI Business Parks Based on the Property-Specific IRR

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

Source: bulwiengesa AG

Business parks are a very diverse asset class with investment targets in both the small-volume and the large-volume segment. The performance simulation is based on an assessment of existing properties (in the base scenario: well-positioned) and a modelled space structure. Development properties and renovations were not taken into account.

Model Assumptions	
type	existing building
typical property size	12,000 sqm
office to warehouse ratio	30 to 70
net initial yield	6.7 %
vacancy acquisition date	approx. 1,000 sqm
market rent office	7.90 euros/sqm
market rent warehouse	4.00 euros/sqm
avg. term of lease	2 years

Source: bulwiengesa AG

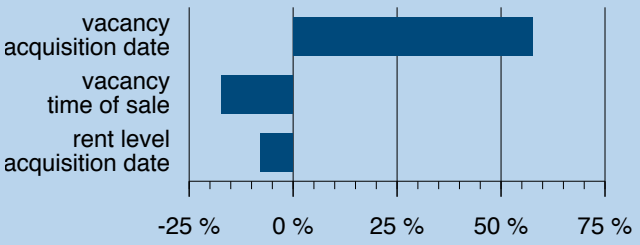
The performance modelling resulted in a wide range of secured returns of between 5.1 % and 6.9 %, with a base scenario of 6.00 %.

Active letting and property management measures can increase the success of the investment. In this context, purchasing properties with vacancies and rental development potential (due to poor management performance) is the key factor for improving the economic result.

For non-core investors, there are yield prospects of up to 11.0 %. These can be achieved in particular with properties in less prosperous regions, for which there is an especially high risk of revenue losses and thus of a significant decline in the success of the property.

The importance of business parks on the investment market particularly increases during phases of high investment demand. Conversely, market phases with lower demand pressure are associated with increased liquidity risks. Successful asset management therefore particularly depends on a good knowledge of the market and high market penetration.

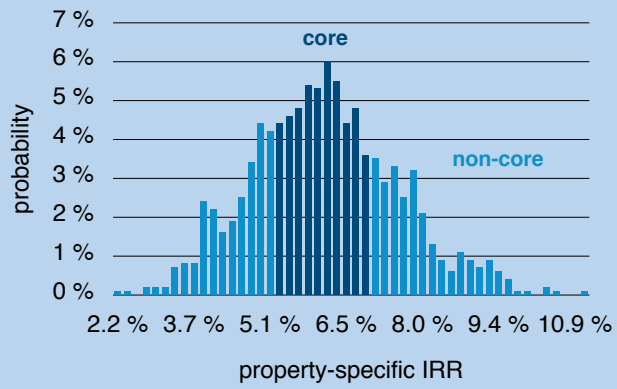
Top3 Sensitivities IRR UI Business Park



Interpretation:
High vacancy rates upon acquisition and low vacancies at the time of sale are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range UI Business Park



Results Range

IRR base value	6.00 %
performance expectation	***Who should invest?***
5.1 - 6.9 %	**core-investors**
up to 11.0 %	**non-core-investors**

Conclusion

Business parks are a niche product on the investment market that is particularly suited to specialists due to the high management requirements.

The Market for Warehouse Properties (UI)

The 5.50 to 6.49-Percenters – Property-Specific IRR

The Market for Warehouse Properties (UI)

Unternehmensimmobilien are a new asset class. This new category was defined due to the different requirements for space resulting from a changing working world. Unternehmensimmobilien are characterised by commercial use with a SME-dominated tenant structure and with a high capacity for alternative uses and reversibility of the space. Simple warehouse properties are seen as one of four types of UI.

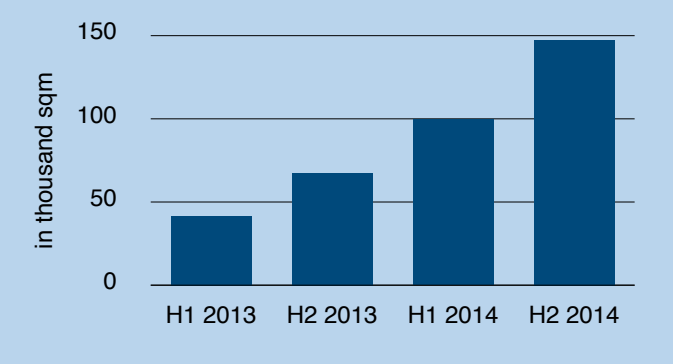
Definition UI Warehouse	
criteria	predominantly existing properties with mainly basic storage facilities and in some cases service space
	usually integrated, urban locations, often (very) well incorporated in the transport network
	varying fit-out and quality standards
	flexible and inexpensive types of space
	generally reversible and suitable for higher-value uses
	maximum size of 10,000 square metres

Source: Initiative Unternehmensimmobilien, Market Report No. 2

According to the Unternehmensimmobilien Initiative's market report from February 2015, warehouse properties comprise the second largest amount of space among the different types of Unternehmensimmobilien at around 324 million square metres. They have a total value of approximately 192 billion euros, of which around 60 % is considered available for investment.

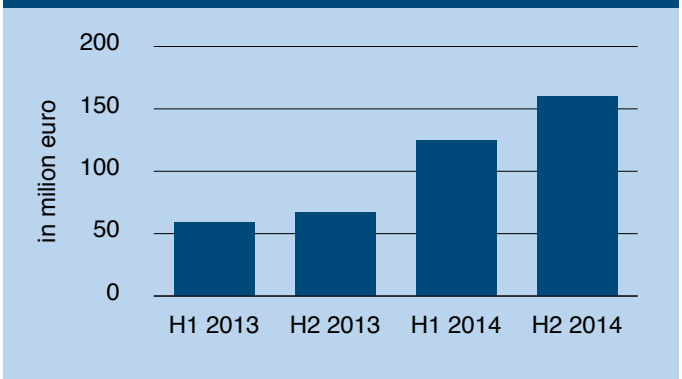
Demand for warehouse space has risen steadily over the past two years. Take-up in 2014 totalled 247,100 square metres. The rental performance thus more than doubled in comparison to the previous year.

Take Up UI Warehouse



Source: Initiative Unternehmensimmobilien, Market Report No. 2

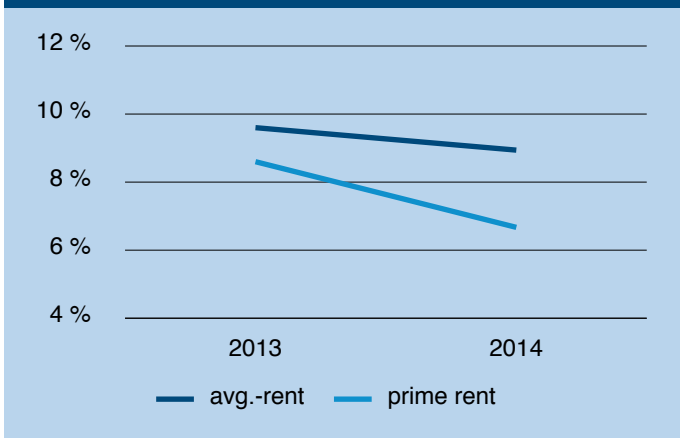
Investment Volume UI Warehouse



Source: Initiative Unternehmensimmobilien, Market Report No. 2

Out of the four types of Unternehmensimmobilien, it is warehouse properties that attract the lowest investor demand. This is attributable in particular to a high proportion of owner-occupiers. The investment volume amounted to around 285 million euros in total in 2014. However, a significant increase was recorded here, too, with the investment volume rising from 126 million euros in 2013 to 285 million euros in 2014. The positive investment environment and the increase in the transparency of the Unternehmensimmobilien asset class had a stimulative effect here.

Gross Initial Yield UI Warehouse



Source: Initiative Unternehmensimmobilien, Market Report No. 2

As of the end of 2014, the gross initial yield for warehouse properties in the prime segment was 6.7 %. However, depending on the quality of the space and the location, yields of less than 6.5 % may also be generated here.

In general, a rise in prices can also be observed for warehouse properties; this is partly attributable to growing interest from investors. Investors looking for higher yields are increasingly also considering niche products such as the different forms of Unternehmensimmobilien as investment alternatives.

Performance Measurement UI Warehouse Based on the Property-Specific IRR

Market Environment UI Warehouse	
investment demand	regional up to international
demand for space	regional up to national
liquidity	low up to medium
volatility	medium
marketable size	approx. 1 - 10 million euro

Source: bulwiengesa AG

Owing to the generally more basic space and property types in comparison to modern logistics properties, as well as the size of the properties, the investment market for warehouse properties tends to be characterised by lower-volume transactions. It therefore primarily appeals to regional target groups with access to the local economy. However, international investors are also showing increased interest in this asset class.

The modelled assessment includes only existing properties with a good property and letting quality. Financing effects were not taken into account. Properties requiring renovation also were not analysed.

Model Assumptions	
type	existing building
typical property size	10,000 sqm
net initial yield	6.5 %
vacancy acquisition date	2,500 sqm (3 months)
market rent acquisition date	3.75 euros/sqm
avg. term of lease	3 years

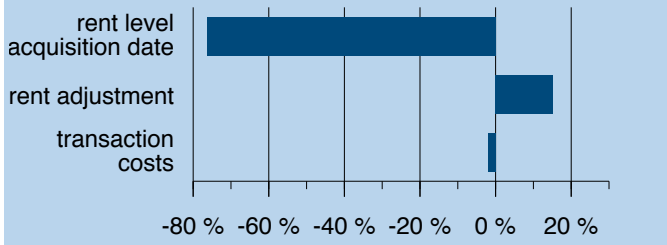
Source: bulwiengesa AG

Overall, the modelling showed a broad distribution of performance – as is typical for Unternehmensimmobilien – of between 5.2 % and 6.9 %. With a forecast value of 5.93 %, the base scenario is within this secured range.

For non-core investors, double-digit yields are possible. The main factors driving this increased profitability are the implementation of potential for rent increases and/or an optimised letting situation. Successful asset management and a good knowledge of the market are therefore particularly important.

With Unternehmensimmobilien in general and warehouse properties in particular becoming increasingly well-established, a further increase in purchase prices can be expected in this asset class. This particularly relates to regions that are characterised by a broad-based and structurally strong economy. A high level of regional expertise and networking is therefore a prerequisite for successful investment in warehouse properties.

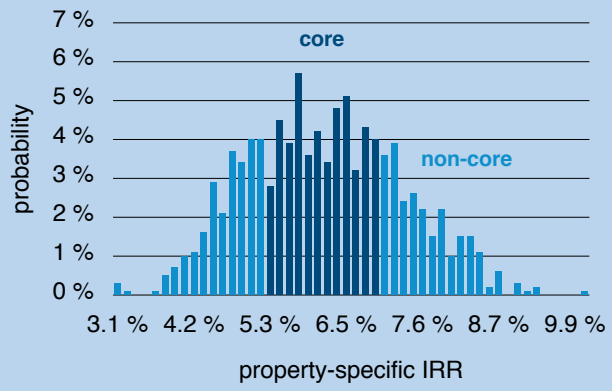
Top3 Sensitivities IRR UI Warehouse



Interpretation:
A low rental level at the time of acquisition is the main factor for increasing returns.

Source: bulwiengesa AG

IRR Range UI Warehouse



Results Range

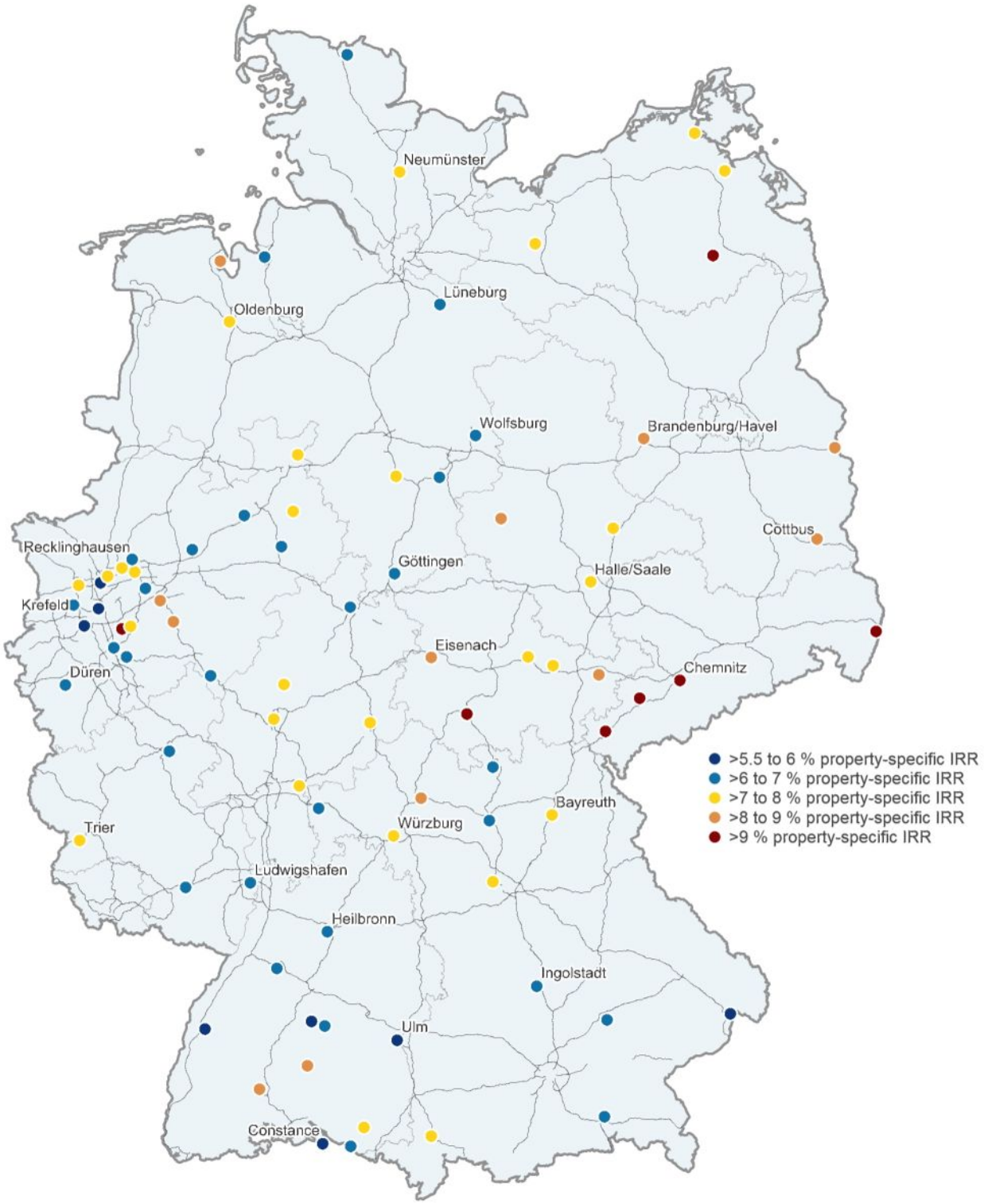
IRR base value	5.93 %
performance expectation	***Who should invest?***
5.2 - 6.9 %	**core-investors**
up to 10.0 %	**non-core-investors**

Conclusion

Warehouse properties are a type of investment property with increased yield prospects. Demand ranges from regional to international investors.

The Office Market in D-Cities

Obtainable Property-Specific IRR for Core-Investors

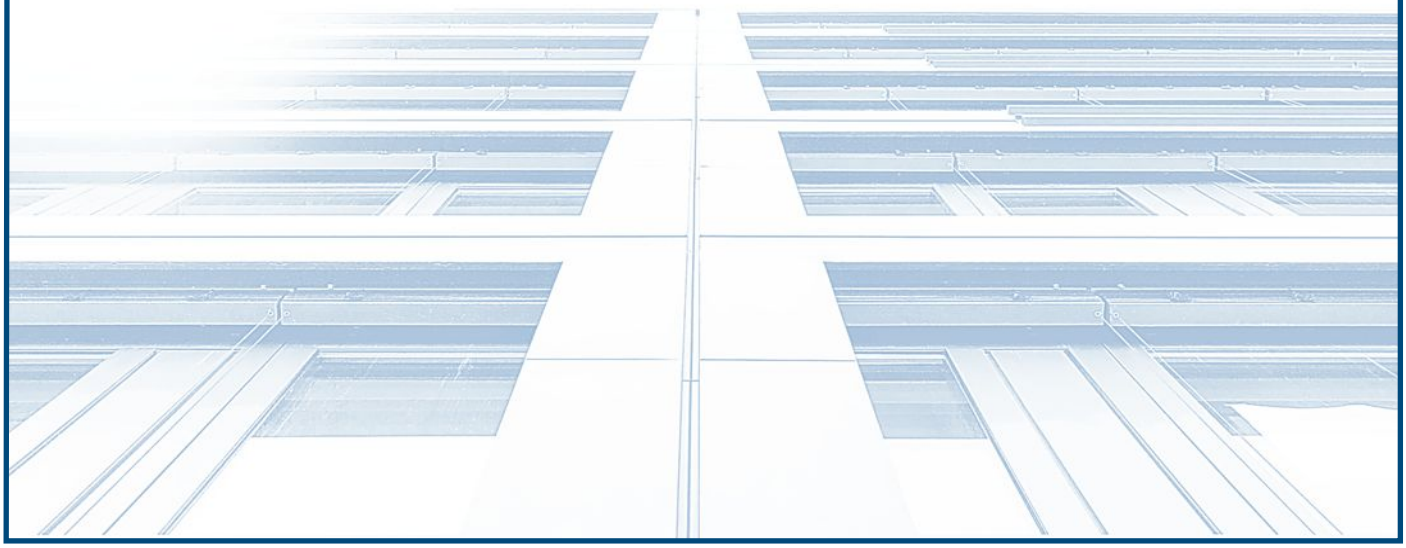


6

The 5-Percenters

4

3



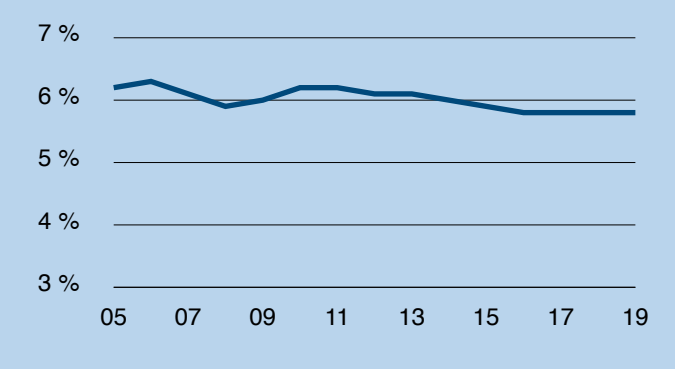
Office Markets in C-Cities

The 4.50 to 5.49-Percenters – Property-Specific IRR

The Office and Investment Market in C-Cities

The office rental markets in C-cities are characterised by largely stable development, making them considerably less volatile than A-/B-markets. In terms of demand for space, Darmstadt and Heidelberg are the clear leaders among the C-office markets with annual take-up of averaging 42,300 sqm RA-C and 38,200 sqm RA-C respectively. This is particularly evident when compared to the average take-up for a C-city of only around 24,600 sqm RA-C. Besides public authorities, it is usually major individual companies or industry clusters that dominate these markets, such as the major office user Telekom in Darmstadt or the science/pharmaceutical and biotechnology sector in Heidelberg.

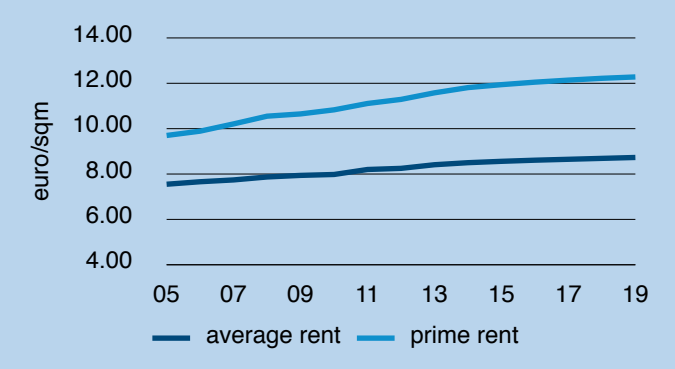
Development Vacancy Rate C-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

Office markets in C-cities generally tend to be characterised by low vacancy levels. While in most cases the vacancy rates are below the 6 % mark, the markets in Offenbach, Erfurt and Magdeburg represent an exception with vacancy rates between 9.4 % and 18.5 %. At the end of 2014, the average rent in C-cities was 8.50 euros/sqm RA-C, with prime rent amounting to 11.81 euros/sqm RA-C. This moderate increase was particularly attributable to a low level of additional space from new construction.

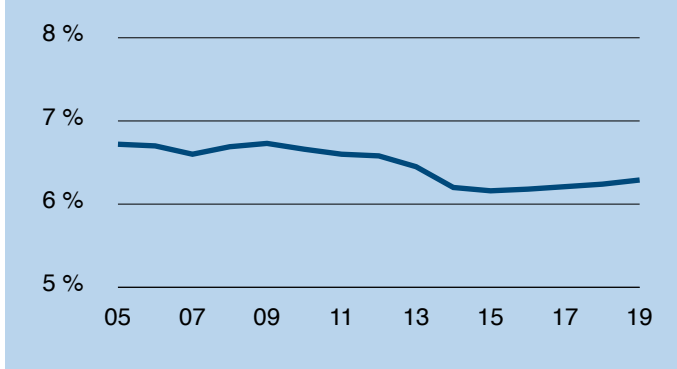
Rental Development C-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

The investment market in C-cities can benefit only to a limited extent and selectively from the shortage of supply in A-cities. This is partly due to a growing lack of market transparency, which often makes it more difficult to invest, particularly for non-local investors with little knowledge of the market. Only a few C-cities, including Mainz, Freiburg, Darmstadt and Regensburg, have recently become an increasing focus of investors. This is also reflected in the yield development in these cities, where net initial yields are 0.3 to 0.4 percentage points lower than in the previous year and are all below the level of 6 %. The most expensive C-office market is Regensburg with a net initial yield of 5.5 %.

Development Net Initial Yield C-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

By contrast, the average net initial yield for all C-cities as of the end of 2014 is still above the 6 % mark at 6.2 %. However, this represented a year-on-year decrease of 0.25 percentage points.

According to the current forecast, these locations are also not expected to become significantly more expensive in the future.

Key Facts Office Markets C-Cities

C-Cities – selection	Aachen, Augsburg, Darmstadt, Erlangen, Freiburg, Heidelberg, Mainz, Mönchengladbach, Offenbach, Regensburg, Saarbrücken, Wuppertal
	2014
avg. take up p.a.	23,000 sqm
avg. prime rent	11.81 euros/sqm
avg. rent	8.50 euros/sqm
avg. vacancy rate	6.0 %
avg. net initial yield	6.2 %

Source: bulwiengesa AG

Performance Measurement of Office Properties in C-Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national
demand for space	regional up to national
liquidity	low
volatility	low
marketable size	approx. 3 - 25 million euros

Source: bulwiengesa AG

C-cities are gradually starting to come to the attention of non-local investors. The market cluster of C-cities comprises 22 cities, meaning that there is a wide range of structural differences.

The model therefore shows an average assessment of all of the cities. For detailed results, please refer to the list of individual C-cities attached as an annex to this report.

The model calculation is based on average values for all C-cities. It is also assumed that the investment is made in an existing property with good-quality space. Renovations and project developments are not included in the analysis.

Model Assumptions	
type	existing building
typical property size	6,100 sqm
net initial yield	6.2 %
market vacancy	5.9 %
market rent acquisition date	8.60 euros/sqm
avg. term of lease	3 years

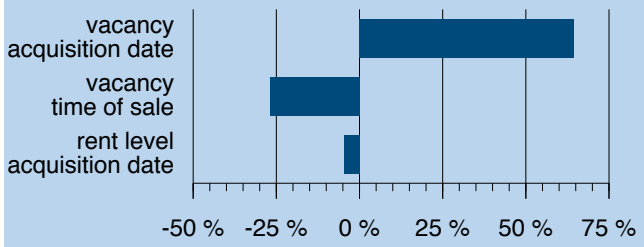
Source: bulwiengesa AG

The simulation resulted in an internal rate of return for C-cities of between 3.7 % and 6.1 % (secured range), with a base scenario value of 5.13 %. These values are achieved particularly for property sizes in line with the market in sustainable locations (generally central locations). The market for core investors is thus limited both by the property size and by the location parameters.

For non-core investors who buy up vacant space and/or invest in non-central locations in particular, the C-cities offer a potential performance of up to 12 %. In the case of properties where extensive restructuring measures are performed (not included in the model assessment), the opportunities may be even higher.

Such investments can only be successful if there is very strong regional marketing expertise. This requires very good knowledge of the market and a very strong local network, particularly in view of the growing lack of transparency of C-markets.

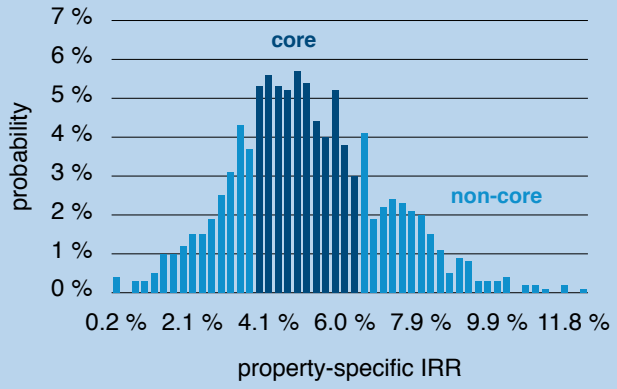
Top3 Sensitivities IRR Office C-Cities



Interpretation:
High vacancy rates upon acquisition and low vacancies at the time of sale are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Office C-Cities



Results Range

IRR base value	5.13 %
performance expectation	***Who should invest?***
3.7 - 6.1 %	**core-investors**
up to 12.0 %	**non-core-investors**

Conclusion

Provided there is a high level of local market expertise and networking, double-digit yields can be generated in C-office markets.

The Market for Modern Logistics Properties

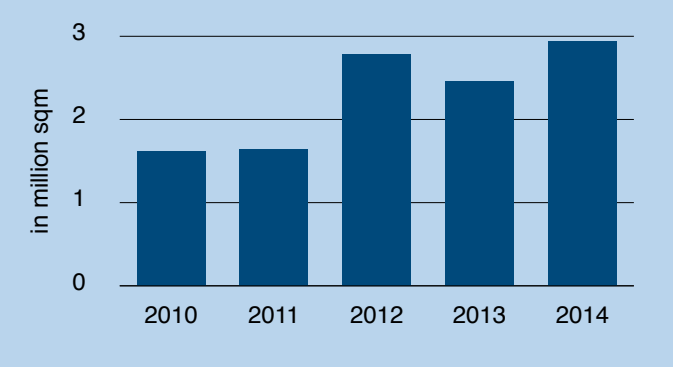
The 4.50 to 5.49-Percenters – Property-Specific IRR

Der German Market for Modern Logistics Properties

Germany is regarded as an industrial, exporting country. In 2014, the Federal Republic generated an export surplus of approximately 217 billion euros – a new record. Germany's strong focus on exports, combined with its central location in Europe and its excellent transport infrastructure via roads, rail, water and air, also has a positive impact on the logistics property market.

The German logistics property market can be broken down into 28 logistics regions. The logistics hotspots include the Rhine-Main/Frankfurt, Hamburg, Hanover/Brunswick and Munich markets. However, as commodity flows toward Eastern Europe increase, markets such as Halle/Leipzig and Ulm are also becoming more important.

Completions Mod. Logistics Properties (≥ 10.000 sqm)*

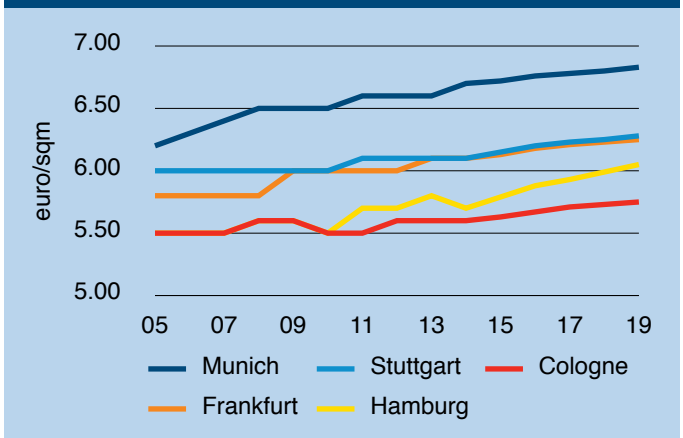


Source: bulwiengesa AG; * new construction, demolition, expansion

Germany's attractiveness for logistics companies is also reflected in growing demand for modern hall space and a significant increase in construction activity. As such, 2014 was the third consecutive year to record a completion volume for modern logistics space of considerably above 2 million square metres. This increase was attributable not least to the growing share of retail sales generated by online retailers, with major logistics projects by users such as the webshops Amazon and Zalando.

The growing demand for space is also driving up logistics rents to new record levels. As a result of numerous projects lettings and the scarcity of modern space available in the top regions, a significant rise in rents could be observed here, particularly over the past two years. This development is also influenced by a limited supply of suitable land and rising purchase prices.

Development Prime Rent

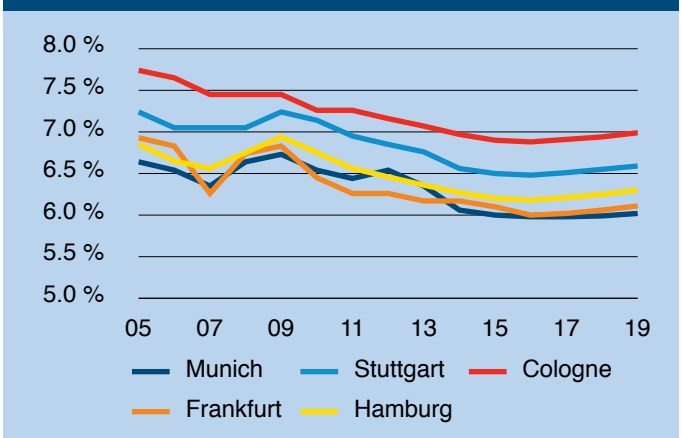


Source: bulwiengesa AG, 2015 - 2019 forecast

As of the end of 2014, by far the highest logistics rents were generated in the Munich region. The Stuttgart and Rhine-Main/Frankfurt regions also posted prime logistics rents of over 6.00 euros per square metre. These prices are generated in new construction projects at locations with a considerable shortage of land and excellent transport connections.

Logistics properties are increasingly becoming an attractive asset class for investors, particularly in view of the price increases in the office and retail sectors. Although logistics yields have also come under pressure in recent years, it is still the case than significantly higher yield levels can be achieved here in comparison to office or retail properties.

Development Gross Initial Yield



Source: bulwiengesa AG, 2015 - 2019 forecast

In the future, yields are expected to stabilise at a low level. However, they are not expected to fall below 6 % – at least as far as markets with high demand for space as concerned.

Performance Measurement of Modern Logistics Properties Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to international
demand for space	regional up to international
liquidity	high
volatility	low
marketable size	approx. 10 - 50 million euros

Source: bulwiengesa AG

The German logistics property market is characterised by international demand for both space and investment. Traditionally, requirements for space on the logistics market have always been strongly influenced by owner-occupiers. Thanks to the comparatively wide range of investments, liquidity can be rated as high.

The modelling is based on the assumption of an existing building with a good property quality. Renovation properties are not included in the analysis. The market rent represents the weighted average of the German logistics regions, which display very wide ranges due to the varying prosperity of the individual markets.

Model Assumptions	
type	existing building
typical property size	20,000 sqm
net initial yield	5.6 %
vacancy acquisition date	5,000 sqm (3 months)
market rent acquisition date	4.00 euros/sqm
avg. term of lease	3 years

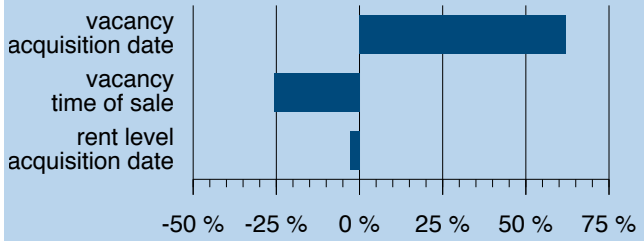
Source: bulwiengesa AG

The result for internal rate of return on an investment in a modern logistics property shows a range of 4.2 % to 5.5 %, with a base value of 4.91 %. Modern logistics properties have thus become established as an asset class on the institutionalised investment market and have closed the gap with office and retail properties. The range in the core segment of up to 5.1 % in the Rhine-Main/Frankfurt region and up to 6.4 % in Magdeburg reflects the regional variation within the market.

Yields can be increased by means of good tenant management and by purchasing vacant space or concluding short-term rental agreements. However, the value of a maximum of 7.7 % for non-core investors also increasingly reflects the different regional market conditions.

Potential for rent increases for logistics properties generally tends to be limited on the market. For this reason, the rent at the acquisition date is a decisive factor for the long-term success of the investment. Logistics users have special requirements with regard to space and management. Investments should therefore be made only in collaboration with specialists.

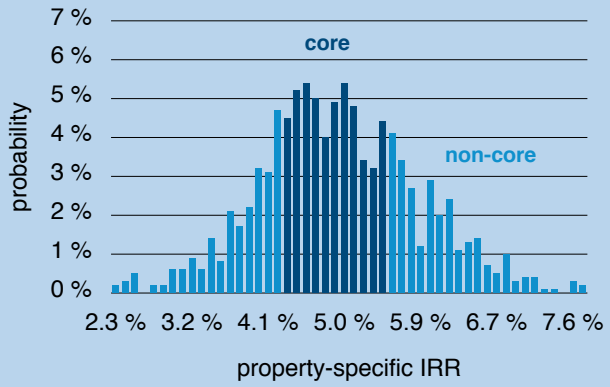
Top3 Sensitivities IRR Modern Logistics



Interpretation:
High vacancy rates upon acquisition and low vacancies at the time of sale are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Modern Logistics



Results Range

IRR base value	4.91 %
performance expectation	***Who should invest?***
4.2 - 5.5 %	**core-investors**
up to 7.7 %	**non-core-investors**

Conclusion

Modern logistics properties generate secure cash flows and are particularly attractive for large-volume investments.

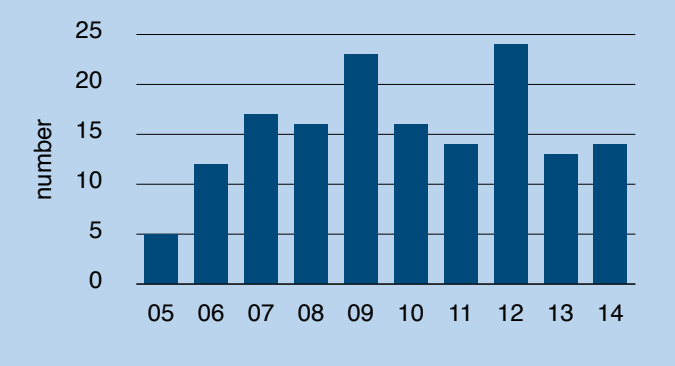
The Market for Specialist Retail Parks

The 4.50 to 5.49-Percenters – Property-Specific IRR

The Market for Specialist Retail Parks

The market for (specialist) retail parks has been experiencing a dynamic positive development for a number of years. This is also reflected in the completion figures, which rose significantly in the period from 2005 to 2014. During this period, an average of 15 retail parks were completed each year.

Completions Retail Parks in Germany*



Source: bulwiengesa AG; * incl. expansions, renovations und changes of use

The total sales space covered by such centres consequently amounts to 6.78 million square metres and is thus slightly lower than the level of 7.17 million square metres covered by standalone specialist stores (with over 10,000 square metres of sales space).

In Germany, retail sales of approximately 100 billion euros are attributable to the specialist retail segment, with specialist retail parks (> 10,000 square metres of sales space) accounting for over 21 billion euros. In contrast to the office market, for example, the rent level strongly depends on the type of specialist store in question. This means that market rents for the specialist retail segment as a whole have only limited relevance.

Prime rents range from 9 to 20 euros/sqm rentable space. In the case of low-performing specialist stores, rents may fall to 5 euros/sqm.

Overview of Rent Ranges for Specialist Stores

type	marketable rents p. m.
toy store	5.00 - 9.00 euros/sqm
bed/matress store	5.00 - 9.00 euros/sqm
drinks store	5.00 - 9.00 euros/sqm
pet store	6.00 - 9.00 euros/sqm
clothes store	7.00 - 14.00 euros/sqm
electronics store	7.50 - 11.00 euros/sqm
drugstore	10.00 - 20.00 euros/sqm

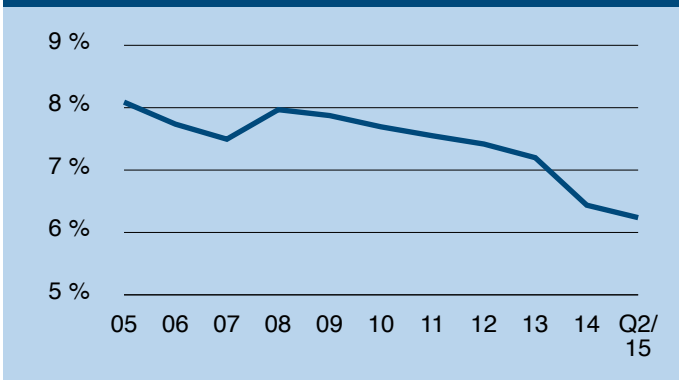
Source: HypZert Berlin

Specialist retail parks as investment properties have been characterised by high demand in recent years. Due in particular to the continuing compression of yields in all asset classes, they are seen as a secure asset class with increased yield opportunities.

In recent years, considerably more than 2 billion euros per year has been invested in specialist stores and specialist retail parks throughout Germany. In 2014 the investment volume amounted to as much as approximately 4.4 billion euros.

Yields vary significantly depending on regional prosperity. Whereas gross initial yields of below 6 % can be expected in structurally strong regions, the yield level in structurally weak regions significantly exceeds this figure.

Development Gross Initial Yield



Source: bulwiengesa AG, 2015 forecast

The average gross initial yield for Germany as a whole is currently around 6.25 %. This figure relates to properties that do not require restructuring and have a good letting and building quality.

The gross initial yield has thus fallen by around 175 basis points since 2010. In the period from 2013 to the end of the second quarter of 2015 alone, there was a decrease of around 90 basis points.

Key Facts Specialist Retail Parks

region	Germany
	2014
number of retail parks*	380
total stock	6.78 million sqm
sales productivity total	3,000 euros/sqm
turnover volume total	21 billion euros

Source: bulwiengesa AG; * > 10.000 sqm

Performance Measurement Retail Parks Based on the Property-Specific IRR

Market Environment	
investment demand	international
demand for space	international
liquidity	high
volatility	high
investment volume	approx. 5 - 30 million euros

Source: bulwiengesa AG

The modelling of the performance of specialist retail centres is based on the assumption of an existing property without relevant restructuring requirements at the time it is purchased.

A wide variety of sectors is assumed, ranging from large-scale DIY stores to small shops. Overall, the property size in the model totals 25,000 square metres.

Model Assumptions	
type	existing building
state	in good condition*
typical property size	approx. 25,000 sqm
net initial yield	5.5 %
base rent construction market	8 euros/sqm
base rent electronics store	10 euros/sqm
base rent clothes store	12 euros/sqm
base rent other (aperiodic)	8 euros/sqm
base rent consumer market	12 euros/sqm
base rent drugstore	15 euros/sqm
base rent pet store	8 euros/sqm

Source: bulwiengesa AG; * no restructuring

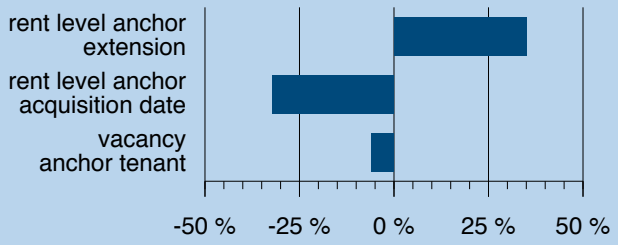
The secured internal rate of return for investments in specialist retail centres is between 3.9 % and 4.8 % p.a., with a base scenario value of 4.74 %.

The performance of specialist retail centres largely depends on the degree of success achieved in letting the large spaces. If rental agreements with short terms and/or high rent potential are acquired, then this can significantly boost the performance.

For non-core investors, investments in existing properties can generate yields of up to 6.4 %, particularly in structurally weak regions. Restructuring and renovation measures, which were not included in the model, may contribute to higher yields

Because retail concepts and therefore requirements for space in the specialist store segment regularly change, it is important to check the extent to which the space structure and parking capacity meet the market requirements before purchasing the property.

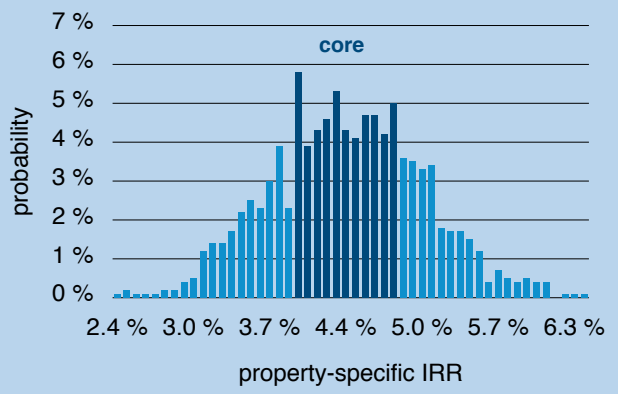
Top3 Sensitivities IRR Retail Parks



Interpretation:
A high rent level of the anchor tenant upon contract extension is the main factor for increasing returns.

Source: bulwiengesa AG

IRR Rate Specialist Retail Parks



Results Range

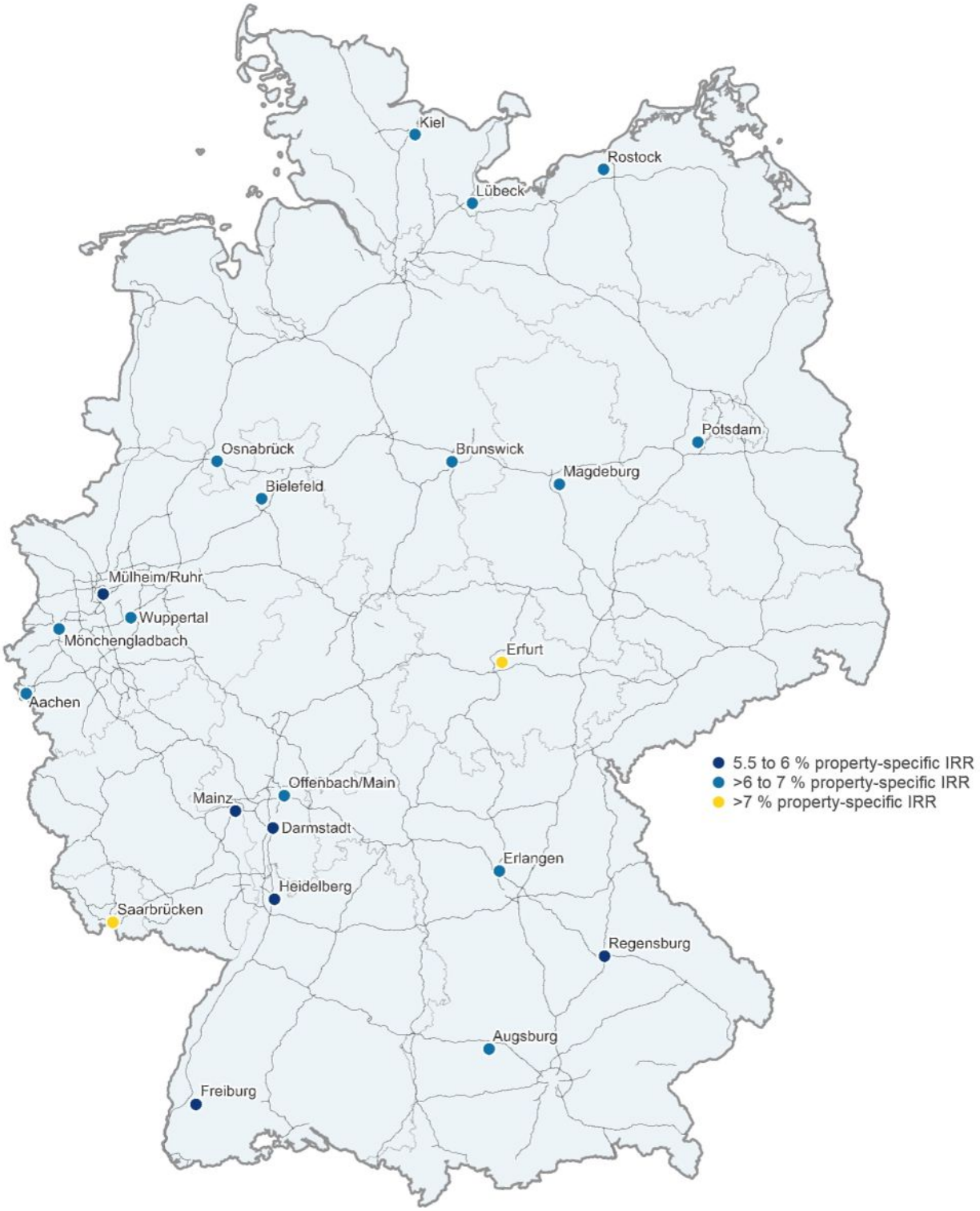
IRR base value	4.74 %
performance expectation	***Who should invest?***
3.9 - 4.8 %	**core-investors**
max. up to 6.4 %	

Conclusion

Despite the sharp price increases in recent years, specialist retail centres offer good yield opportunities.

The Office Market in C-Cities

Obtainable Property-Specific IRR for Core-Investors



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The 4-Percenters

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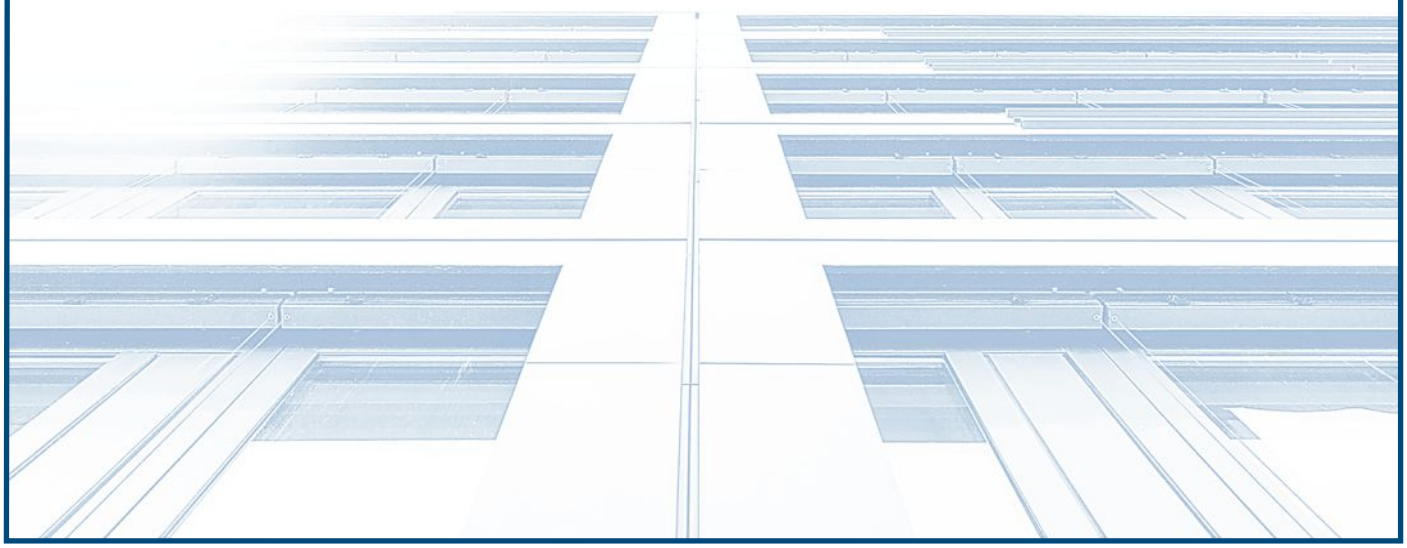


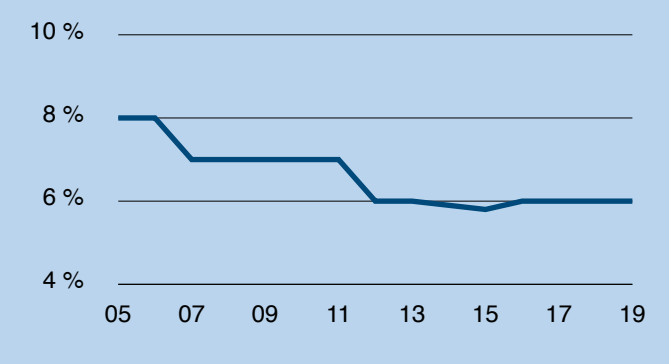
The Market for Office Properties in B-Cities

The 3.50 to 4.49-Percenters – Property-Specific IRR

The Office and Investment Market in B-Cities

In contrast to the A-markets, the office rental markets in the 14 B-cities are characterised to a much lesser extent by international demand. A significant share of demand for space often comes from the public sector and administrative units of manufacturing companies. Depending on the market, average take-up for the past ten years varies between around 37,000 square metres and 120,000 square metres RA-C. Besides Hanover, other major B-markets with a rental performance (including owner-occupiers) averaging more than 80,000 square metres RA-C include Essen, Bonn, Leipzig and Bremen.

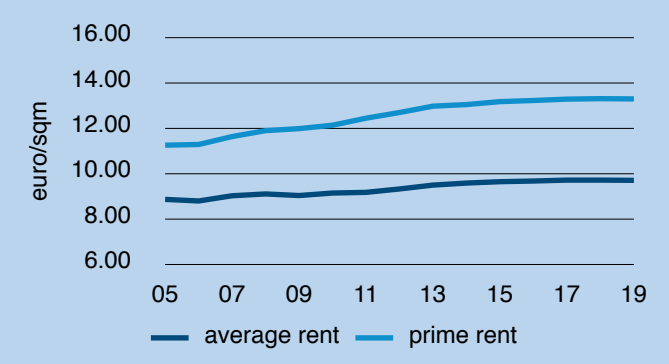
Development Vacancy Rate B-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

As with the A-cities, a reduction in vacancy rates could be observed in all B-cities – apart from Bochum – over the past ten years. However, this decrease was mainly driven by Leipzig, which significantly reduced its vacancy rate but was still at a higher than average level of 13.5 % as of the end of 2014. The other B-cities recorded only slight decreases of at most 310 basis points. Nonetheless, at the end of 2014 they were generally at a considerably lower level of under 6 % in most cases and thus lower than the average level for the A-cities.

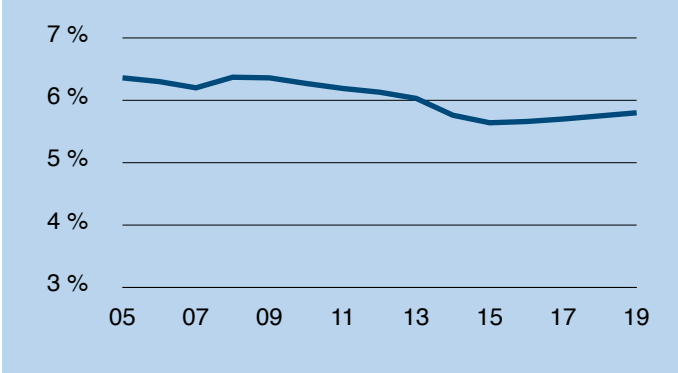
Rental Development B-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

As of the end of 2014, the average rent in the office segment in B-cities was around 9.60 euros/sqm RA-C. Prime rents average 13.05 euros/sqm RA-C, with the highest rent levels currently to be found in Mannheim and Hanover at 14.30 and 14.20 euros/sqm RA-C respectively.

Development Net Initial Yield B-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

The growing shortage of supply in the core segment in A-cities has increasingly drawn investors' attention to B-locations over the past few years. This is emphasised by investment volumes exceeding the 1 billion euros mark (since 2011). In particular, insurance firms and fund companies seeking investment alternatives to A-markets are showing increasing interest in B-cities – provided the property has a very good location and long-term rental agreements with highly creditworthy users.
This shift in demand is also reflected in the development of the average net initial yield in B-cities, which reached a level of below 6 % for the first time in 2014. The most expensive markets are Bonn and Nuremberg with an net initial yield of 5.3 %. Net initial yields are under the most pressure in Dresden, Mannheim, Hanover and Wiesbaden – where they have fallen by 0.8 or 0.7 percentage points since 2009 in each case. According to the forecast, net initial yields will also remain under pressure in the future.

Key Facts Office Markets B-Cities

B-Cities	Bochum, Bonn, Bremen, Dortmund, Dresden, Duisburg, Essen, Hanover, Karlsruhe, Leipzig, Mannheim, Münster, Nuremberg, Wiesbaden
	2014
avg. take up p.a.	63,000 sqm
avg. prime rent	13.05 euros/sqm
avg. average rent	9.59 euros/sqm
avg. vacancy rate	5.9 %
avg. net initial yield	5.76 %

Source: bulwiengesa AG

Performance Measurement Office Properties in B-Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national*
demand for space	regional up to national
liquidity	medium
volatility	medium
marketable size	approx. 3 - 50 million euros

Source: bulwiengesa AG; * increasing international

Office markets in B-cities have become considerably more important in recent years. As a result of their diverse structure, they display very different market profiles.

The model therefore shows an average assessment of all of the cities. Please also refer to the list of individual B-cities attached as an annex to this study.

The model calculation is based on average values for all B-cities. It is also assumed that the investment is made in an existing property with good-quality space. Renovations and project developments are not included in the analysis.

Model Assumptions	
type	existing building
typical property size	9,300 sqm
net initial yield	5.6 %
market vacancy	5.8 %
market rent acquisition date	9.70 euros/sqm
avg. term of lease	3 years

Source: bulwiengesa AG

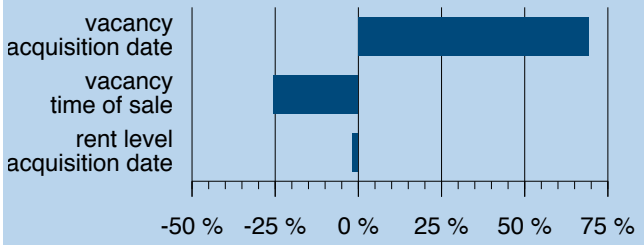
The simulation resulted in a range of secured achievable internal rates of return of between 3.0 % and 5.6 %. The base scenario is 4.48 %.

There are considerable differences between the individual markets, which explains the wide range of different results.

B-markets are generally considered to be less liquid than A-markets. In phases of declining investment activity, bottlenecks may arise when exiting the investment. Because demand from users is generally lower than in the A-cities, core investors in particular should ensure that they purchase a sufficient amount of space in line with the market.

Non-core investors have the possibility of achieving an internal rate of return of over 10 % by purchasing vacant space. However, regional networking and marketing expertise are critical factors in this context.

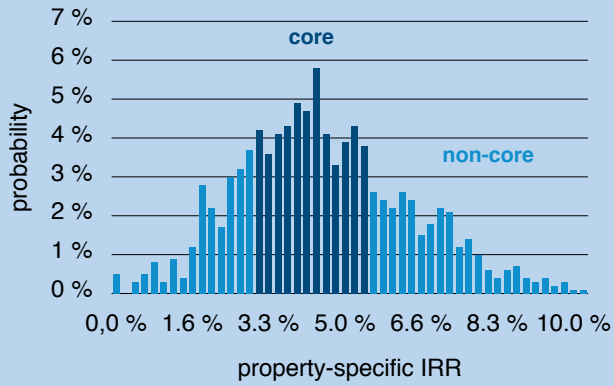
Top3 Sensitivities IRR Office B-Cities



Interpretation:
High vacancy rates upon acquisition and low vacancies at the time of sale are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Office B-Cities



Results Range

IRR base value	4.48 %
performance expectation	***Who should invest?***
3.0 - 5.6 %	**core-investors**
up to 10.2 %	**non-core-investors**

Conclusion

B-cities represent good core investments – assuming an investment volume in line with the market. Increased yield opportunities can be achieved with local experts.

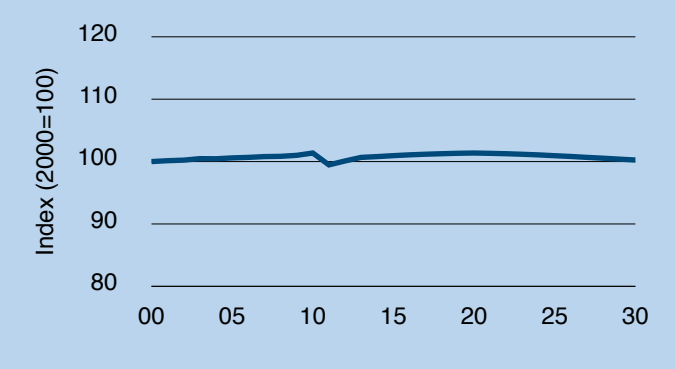
Residential Property Markets in University Cities

The 3.50 to 4.49-Percenters – Property-Specific IRR

Residential Property Markets in University Cities

A total of 47 of the 127 markets are home to a university and have accordingly been classified as university cities (except for A/B-cities). The number of students throughout Germany has recently risen significantly as a result of generally higher interest in studying, double cohorts of school-leavers and the discontinuation of compulsory military service. Students also tend to have a significant impact on the residential market, as they strongly influence demand with their desire for central housing.

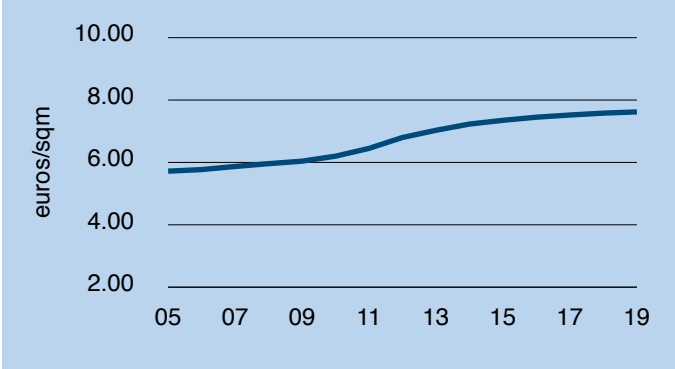
Demographic Growth University Cities (Aggregated)



Source: Statistisches Bundesamt, 2015 - 2019 forecast

However, this development is not reflected in the population development in all cities. This is firstly due to a frequent lack of official registration of students at their place of study, and secondly to a widely varying distribution between the university locations. For example, Potsdam recorded a 16 % increase in the number of residents between 2000 and 2014, whereas the population in Frankfurt (Oder) declined by almost 20 % in the same period. The significant regional differences with regard to the demographic situation are clearly reflected in the aggregated population development, which shows stagnation across all cities.

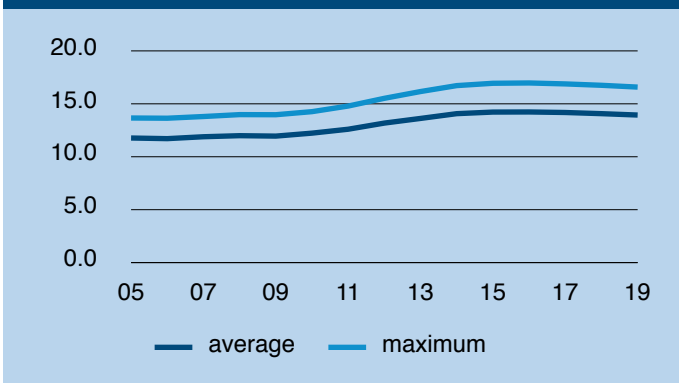
Rental Development Residential* (avg. University Cities)



Source: bulwiengesa AG, 2015 - 2019 forecast, * existing properties

Rents for existing apartments in university cities have seen substantial increases in recent years and averaged 7.23 euros/sqm as of the end of 2014. However, the differences between the cities are immense: Whereas in Constance rents have reached a level of 10.20 euros/sqm, in Chemnitz they are only 4.90 euros/sqm. Rents in popular student cities such as Constance, Heidelberg, Tübingen and Mainz are strikingly high, illustrating how student demand tends to drive up prices on the residential market.

Multipliers Multi-Family House*, avg. University Cities



Source: bulwiengesa AG, 2015 - 2019 forecast, *existing properties

The multipliers are also correspondingly differentiated when the different cities are compared. For example, cities with a growing population and a dynamic market development have become significantly more attractive for institutional investors. The factors for large university cities such as Freiburg and Heidelberg with their extremely tight housing markets range between 22 and 23 and are thus at the level of the A-markets. Smaller markets that are characterised by negative growth, such as Halle (Saale) and Frankfurt (Oder), are at the lower end of the spectrum with multipliers of 11 to 12.5.

Ranking Multipliers Residential University Cities (Selection)*

rank	city	multplier multi-family house (stock)
1	Freiburg (Breisgau)	23.0
2	Heidelberg	22.0
3	Ulm	22.0
47	Cottbus	13.0
48	Halle (Saale)	12.5
49	Frankfurt (Oder)	11.0

Source: bulwiengesa AG; *Date: Q4/2014, existing properties

Performance Measurement of Residential Markets in University Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national
demand for space	regional up to national
liquidity	medium
volatility	medium
marketable size	up to approx. 50 million euros

Source: bulwiengesa AG

The spectrum of university cities ranges from structurally weak cities such as Frankfurt (Oder) to vibrant markets such as Mainz and Freiburg. This is also reflected in the modelling, which is generally based on average values.

It is assumed that the investment is made in a stable existing property. Renovation properties are not included in the assessment. An investment in the medium rent segment is assumed.

Model Assumptions	
type	multi-family house, stock
typical property size	4,000 sqm
no. of apartment units	55 apt. units
net initial yield	4.8 %
vacancy acquisition date	200 sqm (1 month)
market rent acquisition date	7.40 euros/sqm

Source: bulwiengesa AG

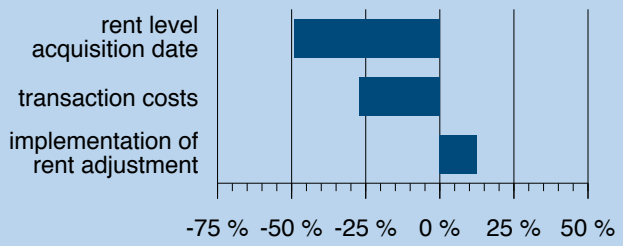
The model calculation shows a performance of between 3.9 % and 4.4 % for residential properties in B-cities. The base scenario is 4.14 %.

Residential properties in structurally strong university cities generally represent a secure investment with low vacancy risks. The risk increases substantially for structurally weak university cities. This is also reflected in the performance assessment of the individual cities. For example, the forecast value for Chemnitz is 4.6 %, whereas for Regensburg it is only 3.4 %. For non-core investors, a differentiated examination of the opportunities in university cities is required. Individual cities such as Marburg and Erfurt offer yield opportunities of up to 5.3 % and 5.6 % respectively (see results list in the annex).

Similarly to the B-cities, the economic success of a residential property investment generally depends on the rent level on acquisition, good tenant management and the implementation of rent increases (for both existing and new letting). The effect of maintenance costs is also relevant.

As with the B-cities, it is highly advisable to examine the location before making a purchase and to involve regional expertise.

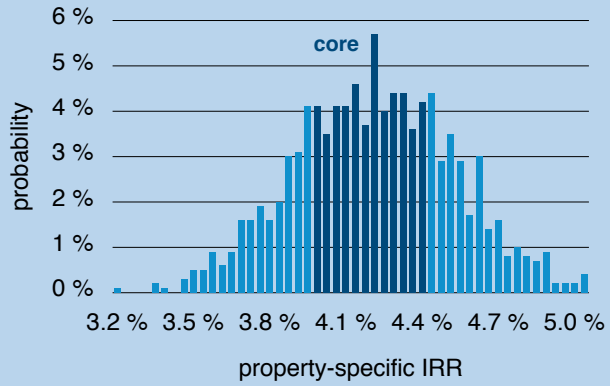
Top3 Sensitivities IRR Residential University Cities



Interpretation:
A low rental level upon acquisition and low transactions costs are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Residential University Cities



Results Range

IRR base value	4.14 %
performance expectation	***Who should invest?***
3.9 - 4.4 %	**core-investors**
max. up to 5.0 %	

Conclusion

Security-focussed investment in structurally strong university cities, local knowledge highly recommended.

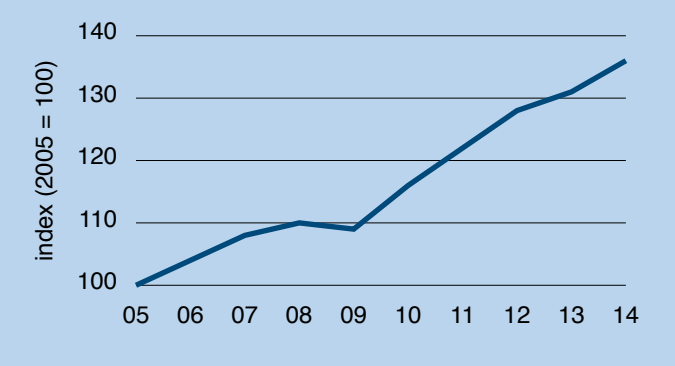
The Market for Hotel Properties

The 3.50 to 4.49-Percenters – Property-Specific IRR

The German Hotel Market

Germany has become an increasingly attractive destination over the past few years. This trend is documented by a growing number of visitors and overnight stays. For example, the number of overnight stays in hotels and bed-and-breakfast hotels rose by around 36 % in the period from 2005 to 2014.

Development Overnight Stay* in Germany



Source: destatis; * overnighter in hotel/bed and breakfast establishm.

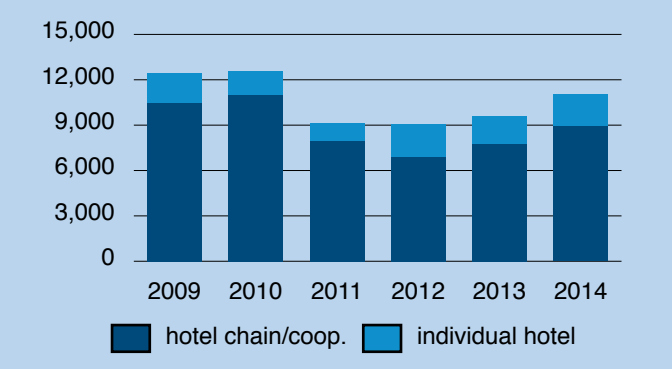
Particularly in the so-called "Magic Cities" (Berlin, Cologne, Dresden, Düsseldorf, Frankfurt am Main, Hamburg, Hanover, Leipzig, Munich, Nuremberg and Stuttgart), there has been a substantial increase in the number of overnight stays since 2010. The city with the highest increase in overnight stays is Berlin (increase of around 40 % between 2010 and 2014). The capital city recorded an average of over 13.2 million overnight stays per year over this five-year period. Munich follows in second place with around 7.2 million overnight stays. In 11th place is Hanover with a five-year average of around 1.3 million overnight stays per year.

However, it is not just demand which has risen in recent years, but also supply. This is also reflected in the number of new rooms constructed throughout Germany. In the period from 2009 to 2014, a total of approximately 63,800 new hotel rooms were constructed, distributed among 425 accommodation facilities with a minimum size of 40 rooms. This new construction activity is mainly concentrated in the Magic Cities. For example, the number of hotels in Berlin increased by around 40 % in the period from 2010 to 2014. However, because demand is growing faster than supply in many cities, hotel chains in Germany have been generating rising room occupancy rates for several years. In 2014 the average rate was just under 69 % (source: STR Global).

The expansion of hotels is driven primarily by five brands that have constructed more than 2,000 new hotel rooms. In addition to B&B and Motel One, which each constructed more than 1,000 new hotel rooms (six and ten hotels respectively) in 2014 alone, these brands also include ibis (including ibis budget and ibis styles), A&O and Holiday Inn (including Express by Holiday Inn). However, there are some significant differences in terms of their geographical expansion. Whereas Motel One and A&O almost exclusively prefer locations in the Magic Cities, B&B and ibis (mainly with ibis styles) are increasingly also choosing locations outside these cities. Furthermore, B&B predominantly operates in southern and western Germany, while Motel One has increasingly been expanding eastwards in recent years.

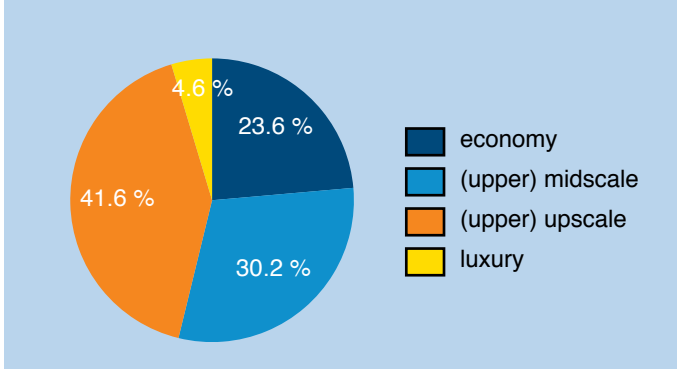
The focus of new hotel openings in the period from 2009 to 2013 was on the (upper) upscale segment (4*/4*+). In 2014 there was increased construction activity in the economy and midscale segments, which represent the preferred hotel categories for business travellers in particular.

Completions Hotel Rooms



Source: bulwiengesa AG

New Constructions of Hotels (by No. of Rooms)



Source: bulwiengesa AG

Hotels on the Investment Market

Hotels are a type of operator-managed real estate and as such they display a number of special features as investment properties. For example, two types of contract are common on the hotel investment market: management contracts and lease contracts. Lease contracts are viewed as the most widespread form of contract for non-owner-managed hotels in the German-speaking region. Under such contracts, the lessor receives a fixed lease that is not linked to the hotel's operating results. By contrast, management contracts, which transfer the operating risk to the lessor and are preferred by international hotel businesses, are still comparatively rare in Germany, although they are on the rise. Far more common are so-called "hybrid contracts", which combine elements of lease contracts and management contracts and thus divide the property management risk between the lessor and the lessee.

Valuations for hotel leases vary significantly depending on the classification, type, location and age of the hotel. Generally accepted indicative values are shown below:

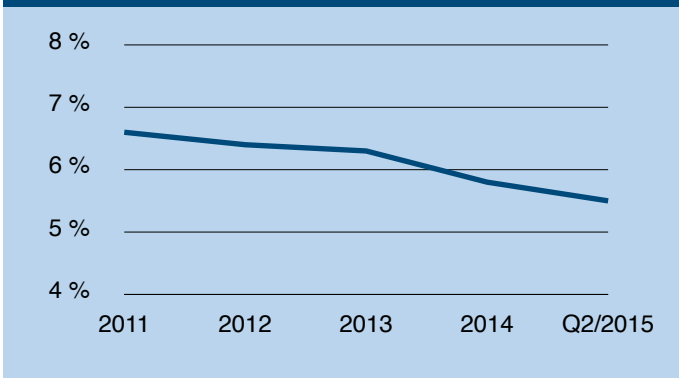
Typical Hotel Leasing Prices			
	economy	midscale	upscale
leasing price (euros/ room/month)	180 - 450	300 - 600	500 - 1,200
space/room in sqm	27 - 35	35 - 50	40 - 80

Source: Hypzert/bulwiengesa AG

Demand for hotels as assets on the investment market generally tends to increase when traditional core investment markets – particularly office markets – are already in a tight market situation and the yields here have therefore fallen considerably.

The current rise in demand is reflected in a growing transaction volume: Whereas in 2013 the investment volume was still around 1.7 billion euros, in 2014 it climbed to over 3 billion euros. The market development to date indicates that there is likely to be a further increase in investment activity on the hotel market in 2015.

Development Gross Initial Yield Hotel Properties



Source: bulwiengesa AG

The high demand for hotels, particularly in top locations, has caused gross initial yields to decline. The average gross initial yield for good and very good properties throughout Germany in Q2 2015 is estimated as 5.5 %. It is thus around 100 basis points lower than the reference value from 2011.

A wide spread can be observed on the market: While there is very high demand for centrally located hotels with solvent hotel operators (chains) among German and foreign institutional investors, private investors and owner-operators play a major role when it comes to smaller hotels in rural areas.

Performance Measurement Hotel Properties Based on the Property-Specific IRR

Owing to the variation within the hotel market, it is necessary to narrow down the basic assumptions of the performance measurement significantly. It is therefore assumed that the hotel investment is made in one of the leading hotel markets (Magic Cities).

Market Environment	
type of market	hotels in magic cities
investment demand	national up to international
demand for space	national up to international
liquidity	medium
volatility	high
marketable size	approx. 5 - 100 million euros

Source: bulwiengesa AG

Further restrictions include the assumption of a marketable property size and the exclusion of restructuring cases. In addition, the model assumes a lease contract with medium to long remaining terms. The IRR at property level was simulated for three different hotel categories (budget, midscale and upscale).

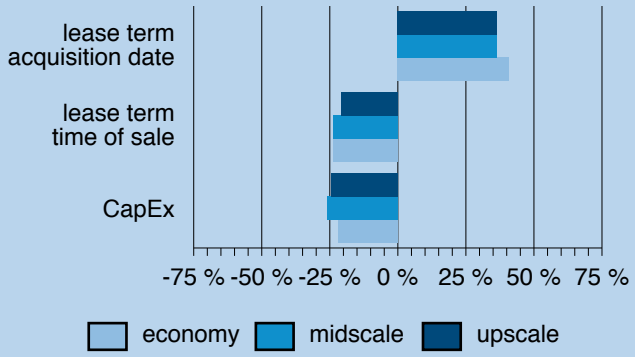
Model Assumptions	
building	stock/no restructuring
type of contract	lease contract
lease term	5 - 25 years
typical property size (sqm)	2,600 - 9,000
range of lease economy (euros/room/month)	200 - 450
range of lease midscale (euros/room/month)	400 - 600
leasing rate upscale (euros/room/month)	600 - 1,000
net initial yield	4.9 %

Source: bulwiengesa AG

All three of the hotel categories under review show comparable yield potential. For security-focussed investments – i.e. for long-term contract configurations – the yields range between 3.7 % and 5.1 %, with the values in the main scenario centring around roughly 4.1 %. The terms of the contract and the CapEx costs (usually at the end of the contract term) are thus the main factors affecting the performance of the hotel investment.

Investments in operator-managed properties present particular challenges: The relationship between the contract term and the rate of return/value regularly poses a dilemma for investors. On the one hand, secure income can be generated with very low administrative and maintenance costs, and on the other hand risk premiums rise as contract terms decrease, which has a negative impact in an exit scenario. This then presents opportunities for yield-focussed experts who buy up short-term lease contracts and thus take on the risk of medium-term yield losses (non-core investors).

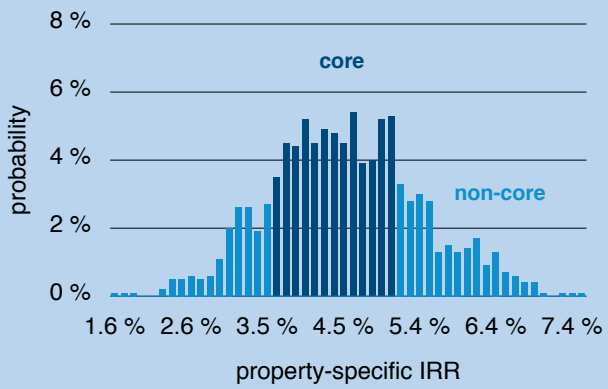
Top3 Sensitivities IRR Hotel



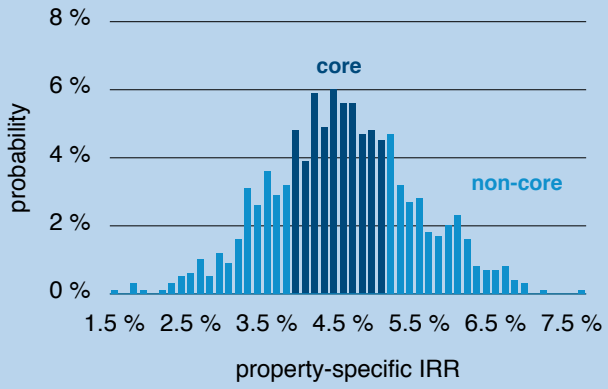
Interpretation:
Short lease terms upon acquisition, long lease durations at the time of sale as well as low modernisation costs are the main factors for increasing returns.

Source: bulwiengesa AG

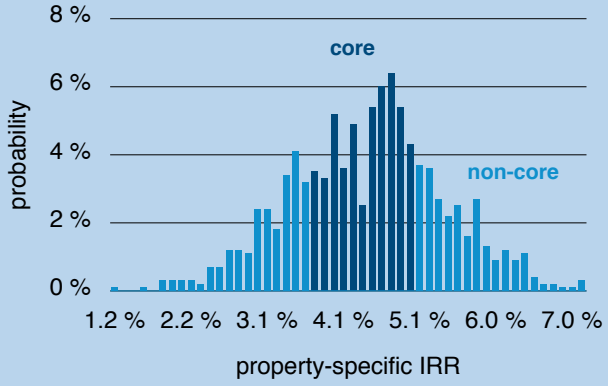
IRR Range Economy Hotel



IRR Range Upscale Hotel



IRR Range Midscale Hotel



Results Range

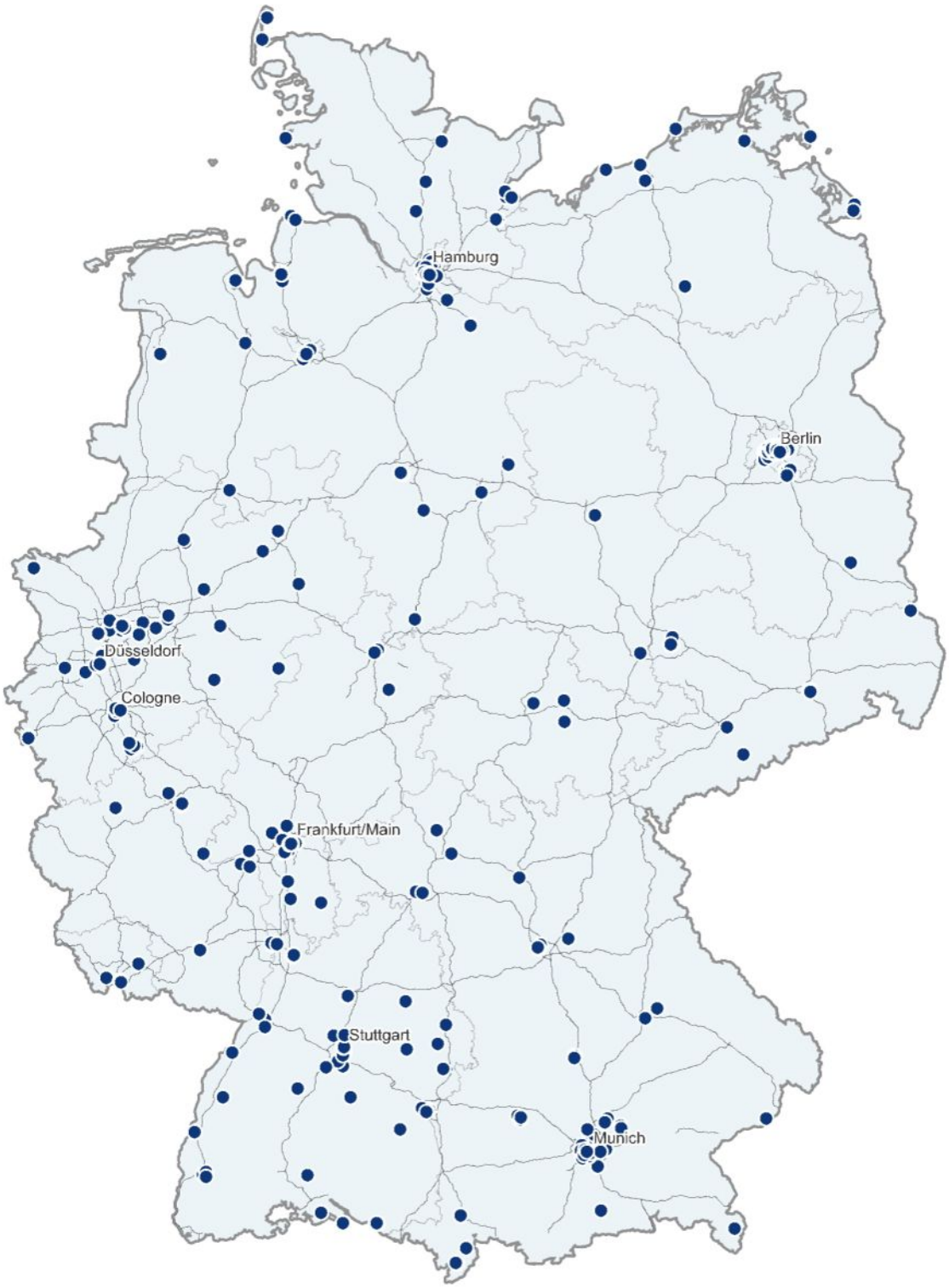
IRR base value	4.02 - 4.13 %
performance expectation	***Who should invest?***
3.7 - 5.1%	**core-investors**
up to 7.6 %	**non-core-investors**

Conclusion

As operator-managed properties, hotels have a particular mix of opportunities and risks. To avoid risks, investments with long contract terms and established chains are advised. Strategies to increase yields are recommended only if undertaken with specialists.

Building Activity in the Hotel Segment

Completions 2009 to 2014 (more than 40 Rooms, no Refurbishments)



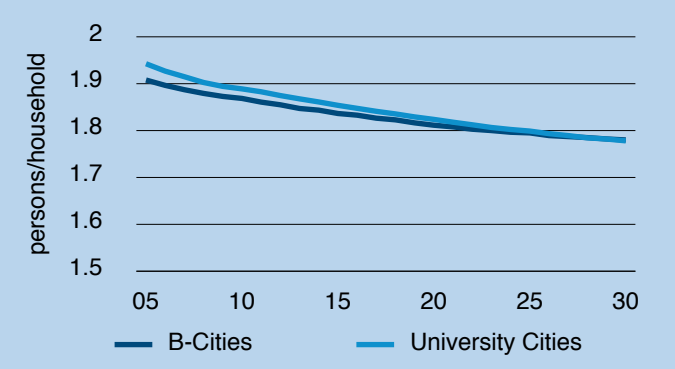
The Market for Micro-Apartments in B-/University Cities

The 3.50 to 4.49-Percenters – Property-Specific IRR

The Market for Micro-Apartments in B-/University Cities

In line with the general trend, decreasing household sizes are being recorded in German cities overall. This development is particularly pronounced in the major cities, but B-cities and university cities currently also have an average household size of just 1.84 and 1.86 people respectively. This trend is also set to continue in the years ahead: A further decrease to an average figure of 1.78 people per household by 2030 is anticipated for both city categories.

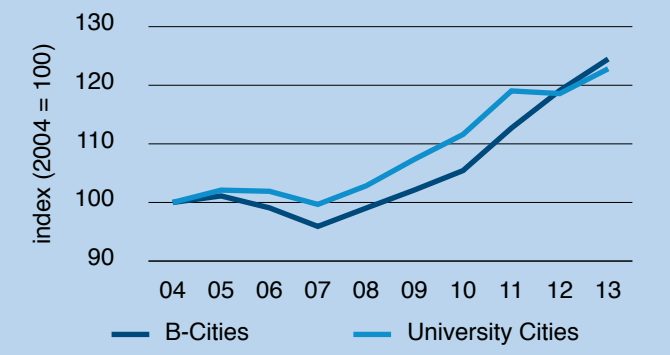
Inhabitants in Private Households



Source: Bundesinstitut für Bau-, Stadt- und Raumforschung; 2014 - 2030 forecast

Existing housing in the cities is not geared towards these small household sizes, as can be seen particularly clearly in the tight housing markets of major university cities. Throughout Germany, there was a significant increase of more than 20 % in the number of students both in B-cities and in university cities between 2004 and 2013. This was attributable to various factors such as double cohorts of school-leavers, the discontinuation of compulsory military service and generally higher interest in studying. In the coming years, the figures are expected to stabilise at a high level.

Development No. of Students in B-/University Cities



Source: Federal Statistical Offices

In tight housing markets, demand from single people and commuters comes up against a large number of students who are generally looking for housing with good transport connections. The supply in halls of residence offered by student services organisations often is not sufficient to cover the demand, with the result that private developers are increasingly taking action in university cities and constructing residential complexes. The product range is highly diversified, running from simple, functional facilities to luxurious apartments with concierge services. Cities with a large supply of more basic housing, for example in the Ruhr region and parts of eastern Germany, have hardly benefited from this development to date, since apartment-seekers can find cheap housing here.

The results of bulwiengesa's micro-apartment scoring substantiate this geographical differentiation. The scoring analysed the suitability of all 127 cities for the micro-apartment segment based on various different variables in relation to supply and demand.

In addition to major cities, high potential for this product is also attested for the B-cities of Hanover, Bonn and Münster. Other top-ranking locations include university cities such as Regensburg and Darmstadt, while eastern German cities are at the bottom of the table.

Results Micro-Apartment-Scoring (Selection)

rank	city	scoring result
1	Hamburg	4.84
7	Hanover	4.44
8	Bonn	4.36
9	Münster	4.20
115	Kaiserslautern	1.64
117	Cottbus	1.60
123	Frankfurt (Oder)	1.48

Source: bulwiengesa AG 2015;
Range of scoring from 1 (underweighted) up to 5 (outstanding)

Across all cities, potential for micro-apartments is regularly limited by municipal parking space quotas which require proof of a comparatively very high number of parking spaces and can thereby significantly limit the profitability of an apartment building.

Performance Measurement Micro-Apartments in B-Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national
demand for space	regional up to national
liquidity	medium
volatility	high
marketable size	up to approx. 20 million euros

Source: bulwiengesa AG

The share of global service providers and financial institutions is at a low level in the B-cities. Instead, these cities are dominated by individual players (some of which are international). Demand from commuters therefore varies considerably between regions, and this is also reflected in the model assumption.

Model Assumptions	
type	existing buildiing
typical property size	4,000 sqm
no. of apartment units	200 apt. units
net initial yield	4.5 %
vacancy acquisition date	200 sqm (1 month)
market rent acquisition date	14.60 euros/sqm
avg. term of lease	max. 2 years

Source: bulwiengesa AG

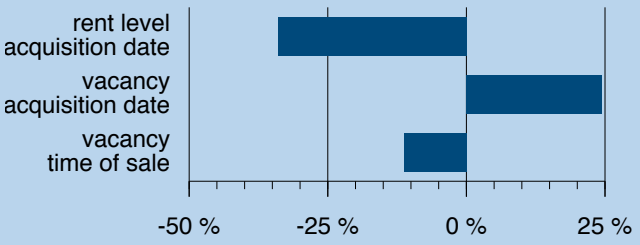
It is assumed that the investment is made in an existing property with good building qualities; renovations are excluded. With a performance of 3.7 % to 4.4 % in the secured range and a base value of 4.05 %, micro-apartments in B-cities show higher yield potential than residential properties.

However, the narrow target group range increases the risk of an investment in this asset class. For non-core investors, micro-apartments are of interest particularly in cases of restructuring (re-purposing of office properties or similar). Existing properties in B-cities offer yields of up to 5.2 %, which considerably limits their attractiveness for yield-focussed investors.

Before making an investment, it is essential to examine the sustainability of the market in question. The increased performance of micro-apartments in B-cities is – similarly to A-cities – attributable to active management. In dynamically developing markets, short rental agreement terms lead to an increase in the rate of return.

In B-cities, too, it should be emphasised that there is a wide range of options for re-purposing micro-apartments. These may include use as residential/retirement homes or as basic hotels.

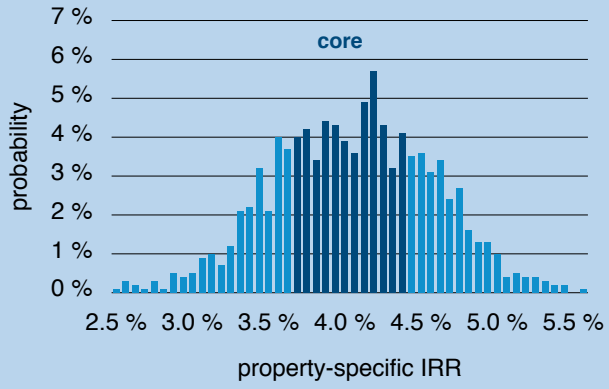
Top3 Sensitivities IRR Micro-Apartments B-Cities



Interpretation:
A low rental level and high vacancy rates at the time of acquisition are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Micro-Apartments B-Cities



Results Range

IRR base value	4.05 %
performance expectation	***Who should invest?***
3.7 - 4.4 %	**core-investors**
max. up to 5.2 %	

Conclusion

Individual B-cities are suitable as investment locations for micro-apartments. We recommend a thorough examination of the target groups.

Performance Measurement Micro-Apartments in University Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national
demand for space	regional up to international
liquidity	medium
volatility	high
marketable size	up to approx. 20 million euros

Source: bulwiengesa AG

University cities display very different regional economic structures. Consequently, the target group potential may be limited to students or it may also include those in employment. The different structures are therefore also reflected in the analysis of the profitability of micro-apartments. The model is based on the assumption of an existing property with good building qualities and a sufficient market size. Renovations are not included in the analysis. Furthermore, it is assumed that individual rental agreements are involved; lease contracts, for example with student services organisations, likewise are not covered in the analysis. Therefore, the model is only representative of a subsegment of the apartment market.

Model Assumptions	
type	existing building
typical property size	4,000 sqm
no. of apartment units	200 apt. units
net initial yield	4.8 %
vacancy acquisition date	200 sqm (1 month)
market rent acquisition date	14.80 euros/sqm
avg. term of lease	max. 2 years

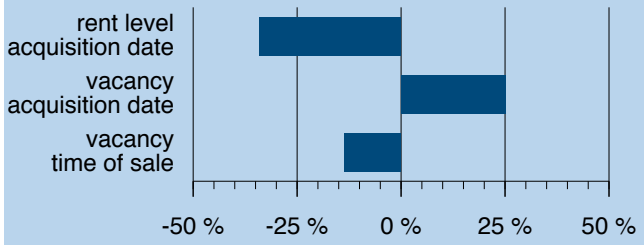
Source: bulwiengesa AG

The performance of micro-apartments showed a secured range of between 4.0 % and 4.7 %, with a base scenario value of 4.31 %.

Maximum internal rates of return of up to 6.0 % can be generated; these particularly reflect the share of structurally weak cities in the analysis. Micro-apartments in university cities can be recommended only in markets where there is a significant shortage of housing for students and the rental market displays corresponding demand pressure.

A substantial share of foreign students also increases the performance prospects, since there is a higher degree of willingness to pay in this case. In addition to active letting management, the success of the investment also depends on good technical property management. Possible wear and tear of furnishings and higher maintenance expenses than for standard residential properties should be factored in before making an investment.

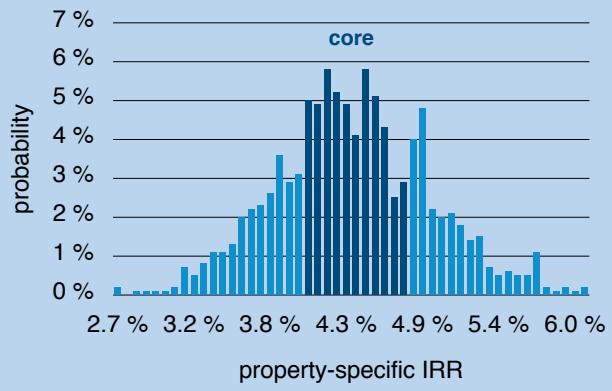
Top3 Sensitivities IRR Micro-Apartments UC



Interpretation:
A low rental level and high vacancy rates at the time of acquisition are the main factors for increasing returns.

Source: bulwiengesa AG

Range IRR Micro-Apartments UC



Results Range

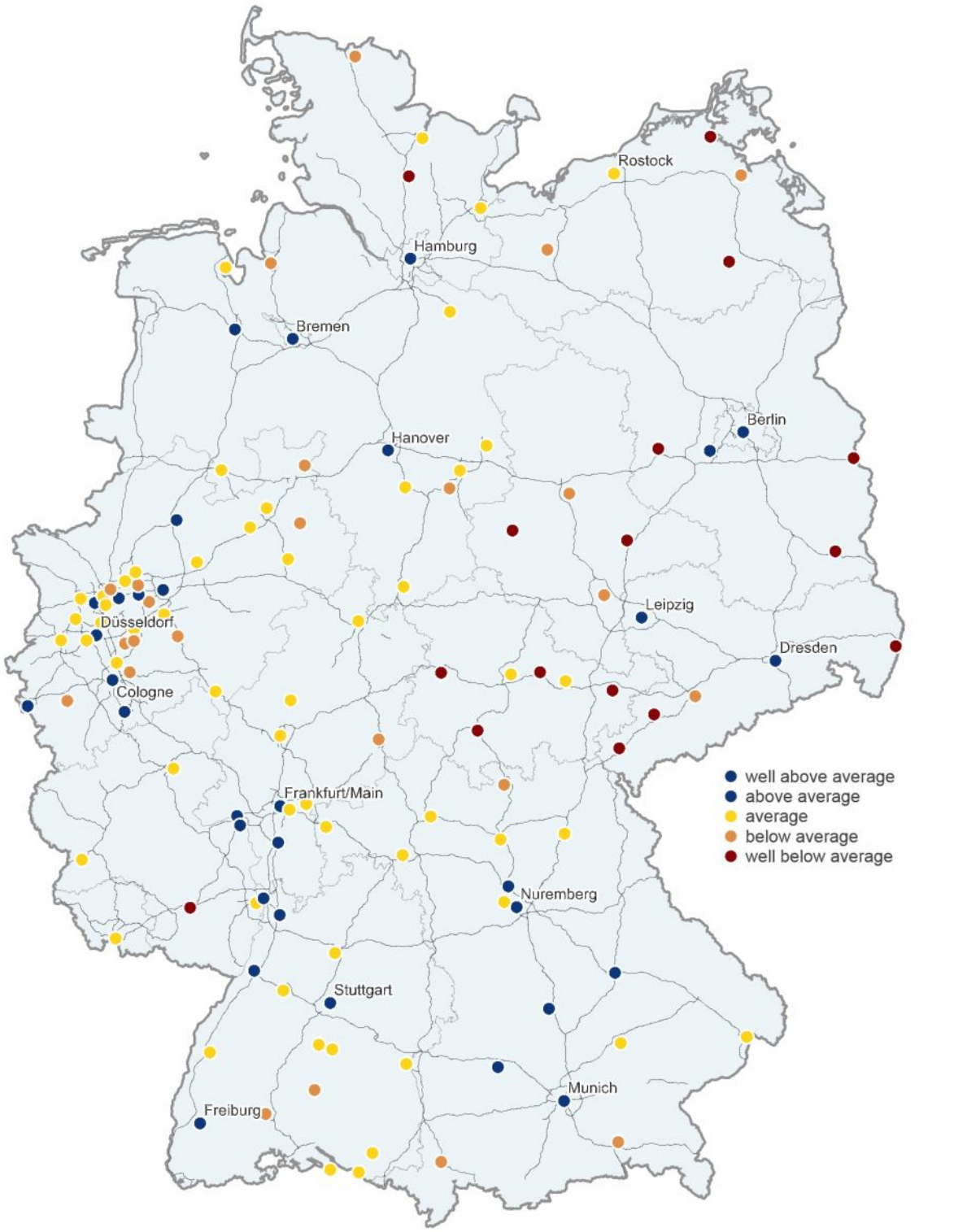
IRR base value	4.31 %
performance expectation	***Who should invest?***
4.0 - 4.7 %	**core-investors**
max. up to 6.0 %	

Conclusion

Micro-apartments are particularly well-suited for locations with internationally focussed universities and a broad economic structure.

Scoring Micro-Apartments

Market Attractivity



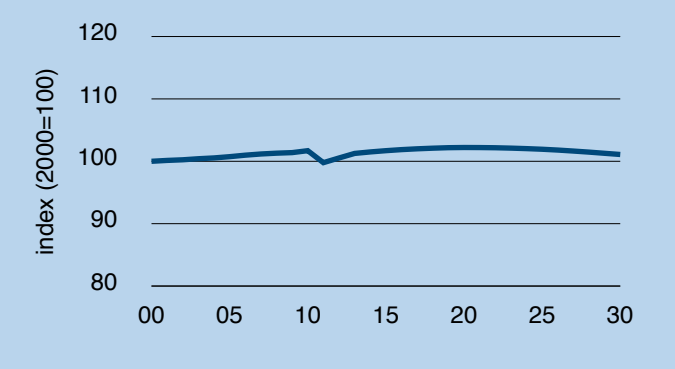
Residential Property Markets in B-Cities

The 3.50 to 4.49-Percenters – Property-Specific IRR

The Residential Property Market in B-Cities

The residential markets in the 14 German B-cities display sharply contrasting trends in some cases. While several cities in the Ruhr region are characterised by substantial population declines, the population growth in cities such as Dresden, Münster and Wiesbaden has been higher than average for many years. The fact that it is particularly cities in the Ruhr region that are experiencing population declines is mainly attributable to the still sluggish pace of structural change there, whereas other B-markets have become considerably more appealing thanks to a good supply of jobs combined with high quality of life.

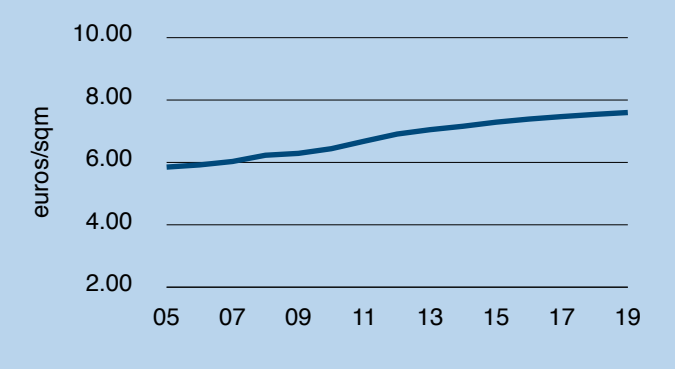
Demographic Growth B-Cities (Aggregated)



Source: Statistisches Bundesamt, 2014 - 2030 forecast

As a result of the negative population development and frequent maintenance backlogs, vacancy rates in the Ruhr region markets are high and there are large quantities of apartments that are no longer marketable, often in peripheral locations. This is turn has the effect of curbing rents for existing apartments, which are therefore consistently lower in the B-markets of Duisburg, Bochum, Dortmund and Essen than the average B-market rent of 7.16 euros per square metre.

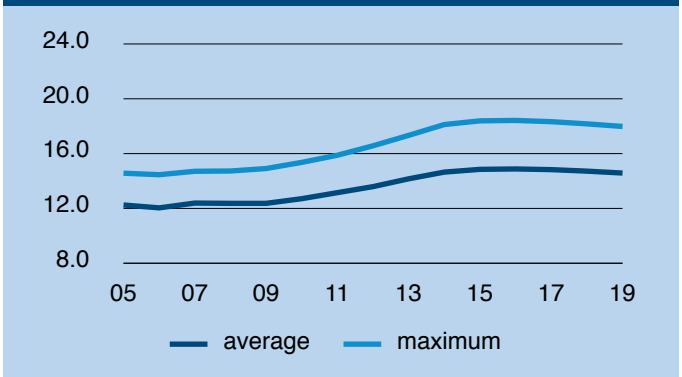
Rental Development Residential* (avg. B-Cities)



Source: bulwiengesa AG, 2015 - 2019 forecast, *existing properties

Overall, the rent development for existing apartments across all of the B-cities is positive and a continued slight increase is also anticipated in the coming years – despite regulatory intervention (rent controls). At the end of 2014, the highest rents were to be found in Bonn at 9.10 euros/sqm, whereas in Duisburg they were only 5.20 euros/sqm.

Multipliers Multi-Family House (Existing), avg. B-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

As a result of the growing shortage of supply in A-cities, B-cities have also increasingly come to investors' attention lately. The preference in the residential segment is for existing and newly constructed properties in central locations with low re-letting risks.

The increased demand is also reflected in the development of the multipliers for apartment buildings in B-cities, which reached factors of up to 18 in top locations across all markets in 2014. According to the forecast, a continued stable level is to be expected over the next five years, albeit with significant differences between the individual B-cities in line with the rent development. For example, top properties in Münster generated factors of up to 22 as of the end of 2014, while Bochum brought up the rear with an average factor of 14.5.

Ranking Multipliers Residential B-Cities (Selection)*

rank	city	multiplier multi-family house (stock)
1	Münster	22.0
2	Wiesbaden	21.0
3	Karlsruhe	20.0
12	Essen	16.5
13	Duisburg	15.0
14	Bochum	14.5

Source: bulwiengesa AG; * Date: Q4 2014, existing properties

Performance Measurement of Residential Markets in B-Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to national
demand for space	regional up to national
liquidity	medium
volatility	medium
marketable size	up to approx. 75 million euros

Source: bulwiengesa AG

The German B-markets display significant structural differences, a fact that is also reflected in the modelling. In general, a stable existing property is assumed. Renovation properties are not included in the assessment. An investment in the medium rent segment is assumed.

Model Assumptions	
type	multi-family house, stock
typical property size	4,000 sqm
no. of apartment units	55 apt. units
net initial yield	4.5 %
vacancy acquisition date	200 sqm (1 month)
market rent acquisition date	7.30 euros/sqm

Source: bulwiengesa AG

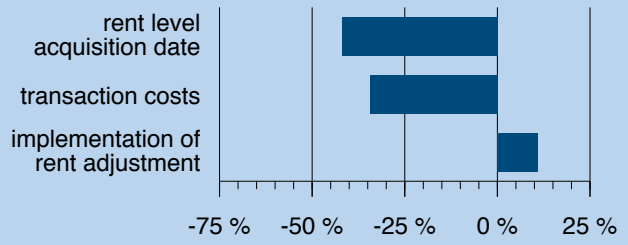
The model calculation shows a performance of between 3.8 % and 4.2 % for residential properties in B-cities. The base scenario is 3.97 %.

Similarly to A-cities, residential properties in structurally strong B-cities therefore represent secure investment opportunities but with slightly higher yield potential. The impact of individual structurally weak B-cities on the overall performance shown here is generally minor, but can be seen in detail in the individual analysis. B-cities are generally less attractive for non-core investors due to the low yield level. However, individual exceptions are possible here, too.

Starting at a rent level in line with the market or lower is extremely important. Good tenant management and the implementation of rent increases (for both existing and new letting) are a prerequisite for economic success. Due to the lower rent level in comparison to the A-cities, maintenance costs have a greater influence. A corresponding technical examination and a realistic calculation of the ongoing maintenance and repair costs prior to the purchase are therefore highly relevant.

For investments in residential property in general and in smaller cities in particular, special knowledge of the micro-location and its development potential is a prerequisite.

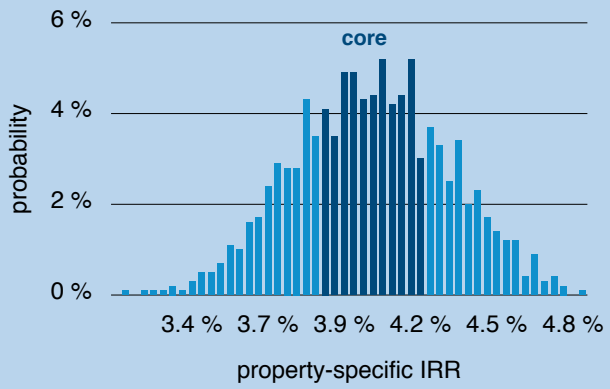
Top3 Sensitivities IRR Residential B-Cities



Interpretation:
A low rental level upon acquisition and low transactions costs are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Residential B-Cities



Results Range

IRR base value	3.97 %
performance expectation	***Who should invest?***
3.8 - 4.2 %	**core-investors**
max. up to 4.9 %	

Conclusion

Security-focussed investment in structurally strong B-cities, local knowledge highly recommended.

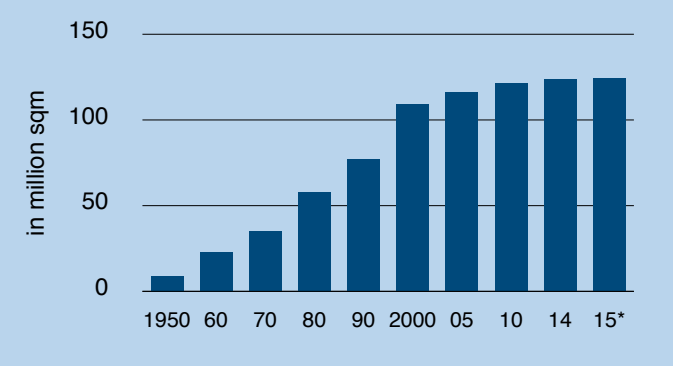
The Market for Shopping Centres

The 3.50 to 4.49-Percenters – Property-Specific IRR

The Market for Shopping Centres

Retail sales have developed positively overall in recent years, rising by a nominal 7.7 % between 2004 and 2014. Roughly 8 % of these sales are generated in bricks-and-mortar retail in shopping centres. These therefore have a particular significance in the retail sector. A total of 296 centres in Germany (not including hybrid and specialist retail centres) can be assumed, covering sales space of approximately 6.98 million square metres. At a rough estimate based on a sales output of around 4,500 euros per square metre, this corresponds to a sales volume of approximately 32 billion euros p. a.

Development Retail Space in Germany

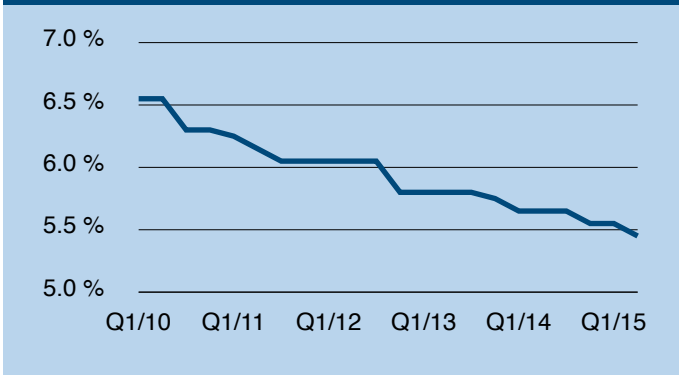


Source: Hauptverband des Deutschen Einzelhandels; *2015 forecast bulwiengesa AG

Quantitatively speaking, the market for retail space is largely saturated, which has sharply curbed its growth in terms of space in recent years. However, the market is dominated by qualitative upheavals – and this particularly applies to shopping centres. Whereas 30 years ago most shopping centres were built on greenfield sites on the outskirts of cities, all new developments in the past few years have been in city-centre locations. The growing competition from online retailers in particular is leading to constant evolution of shopping centres as an experience for shoppers.

This is also reflected in changes in the sector mix over the past ten years: Periodically required goods have become considerably more important, while aperiodic goods have become less so, but with a significant shift in the focus towards fashion products. Regardless of the changes emerging in the market situation for shopping centres, they remain very popular with investors. The gross initial yield for very good city-centre properties has fallen by 100 basis points since 2010 and is currently around 5.45 %.

Development Gross Initial Yield of Shopping Centres



Source: bulwiengesa AG

Due to a lack of offers, the investment volume for shopping centres has declined somewhat in the past few years, falling from around 4.7 billion euros in 2011 to around 2.7 billion euros in 2014. At present, there is an intensified focus on shopping centres again due to a number of portfolio transactions, with the effect that the volume of properties traded will increase again.

Sectoral Share on New Openings in Shopping Centres

	opening 2005/06/07	opening 2012/13/14
periodic demand total	12 %	15 %
– food	5 %	7 %
– drugstore articles	4 %	6 %
– other	3 %	2 %
aperiodical demand total	74 %	70 %
– fashion/clothes (incl. shoes)	40 %	50 %
– electronics	14 %	6 %
– other hardwares (i.a. books, toys, home appliance)	20 %	14 %
retail total	86 %	85 %
service	5 %	5 %
gastronomy	5 %	8 %
entertainment/leisure	4 %	2 %

Source: bulwiengesa AG

Key Facts Market for Shopping Centres

region	Germany
	2014
no. of shopping centres*	approx. 296
sales area total	approx. 6.98 million sqm
avg. sales productivity	approx. 4,500 euros/sqm
turnover volume total	approx. 32 billion euros

Source: bulwiengesa AG; *without hybrid centres and retail parks

Performance Measurement of Shopping Centres Based on the Property-Specific IRR

Market Environment	
investment demand	national up to international
demand for space	national up to international
liquidity	high
volatility	high
marketable size	approx. 80 - 500 million euros

Source: bulwiengesa AG

The modelling of the performance of shopping centres is based on the assumption of an existing property in the city centre without relevant restructuring expenses when it is purchased. A three-storey property is assumed. The vacancy rate in the main scenario is between 3 % and 6 %.

Model Assumptions	
type	stock, three-floor*
quality	no revitalisation
property size	48,000 sqm
net initial yield	4.9 %
range of rent (p.m.)	10 - 60 euros/sqm
avg. weighted rent (basement)	15.30 euros/sqm
avg. weighted rent (ground floor)	23.30 euros/sqm
avg. weighted rent (first floor)	19.40 euros/sqm
sales area shops < 200 sqm	3,200 sqm
sales area shops 201 - 500 sqm	6,300 sqm
sales area shops 501 - 1,000 sqm	11,250 sqm
sales area shops 1,001 - 2,000 sqm	7,500 sqm
sales area shops 2,001 - 5,000 sqm	14,000 sqm
sales area shops > 5,000 sqm	5,000 sqm
number of shops	75

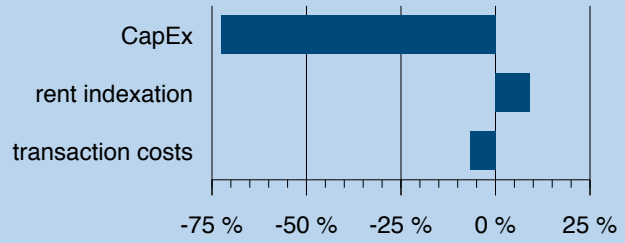
Source: bulwiengesa AG; *inner-city location

Shopping centres provide an opportunity to make large-volume investments and generate sustainable cash flows. Overall, a secured performance of between 3.1 % and 3.8 % can be assumed, with the base scenario also reaching 3.64 %. Higher yields are therefore scarcely possible through tenant and property management alone.

For yield-focussed non-core investors, well-positioned existing properties are generally of little interest. Yield fluctuations here are attributable to regional differences. The non-core segment can be found in cases of revitalisation, which were not included in the model assessment.

The success of the investment depends to a large extent on necessary restructuring measures prior to the sale at the end of the modelled investment period. Identifying and pricing in these measures at an early stage when purchasing properties is therefore a prerequisite for a successful investment. Another prerequisite is good management – particularly with regard to contracts and letting.

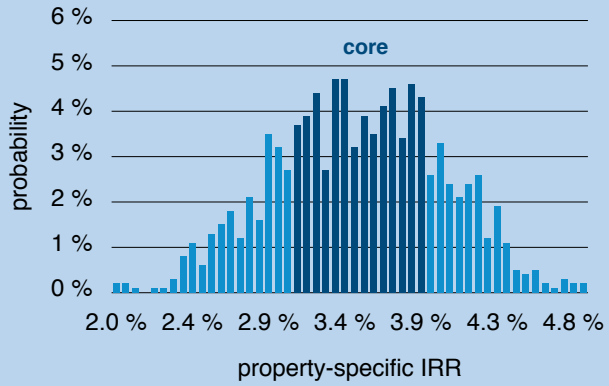
Top3 Sensitivities Shopping Centres



Interpretation:
A low CapEx (restructuring costs) is the main factor for increasing return.

Source: bulwiengesa AG

IRR Range Shopping Centres



Results Range

IRR base value	3.64 %
performance expectation	***Who should invest?***
3.1 - 3.8 %	**core-investors**
max. up to 4.9 %	

Conclusion

Performance can be increased particularly by means of good contract and letting management. It is important to perform a sound assessment of possible restructuring measures prior to the purchase.

The Office Market in B-Cities

Obtainable Property-Specific IRR for Core-Investors

6

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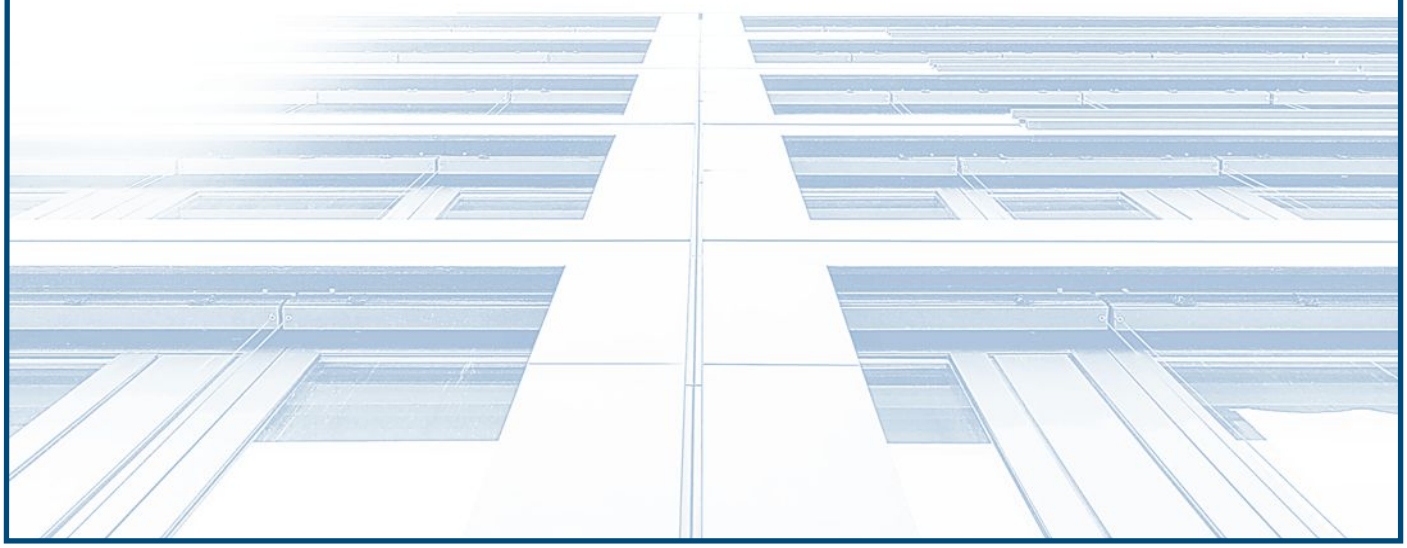
The 3-Percenters



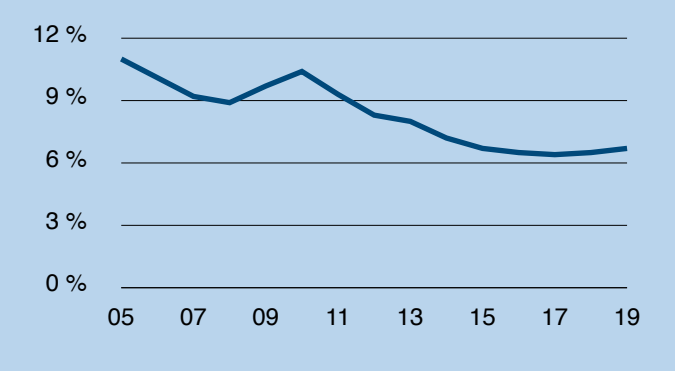
The Market for Office Properties in A-Cities

The 2.50 to 3.49-Percenters – Property-Specific IRR

The Office and Investment Market in A-Cities

The top 7 office rental markets in Germany have displayed a generally positive development over the past few years, although demand for space in markets such as Frankfurt/Main and Düsseldorf has recently been somewhat below average.

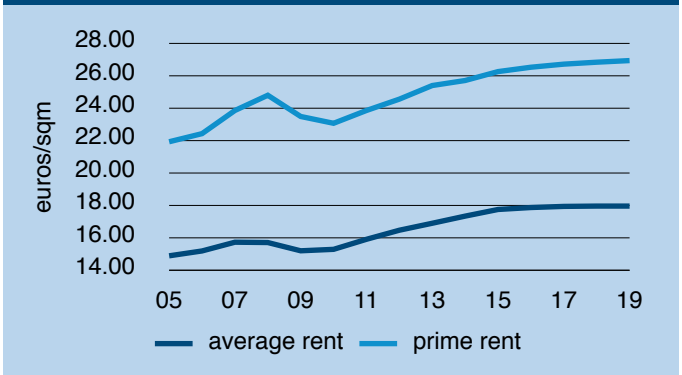
Development Vacancy Rate A-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

Despite low take-up in some cases, a significant reduction in vacancy rates was recorded in all seven A-markets. The greatest decrease was recorded in Frankfurt am Main, where the vacancy rate fell from 18.5 % (2010) to 11.7 % in the second quarter of 2015. This reduction in vacancies is particularly due to a large number of conversions of vacant office buildings into residential properties or hotels. Across all of the A-markets, a low level of speculative construction activity also had a positive impact on the volume of vacancies.

Rental Development A-Cities

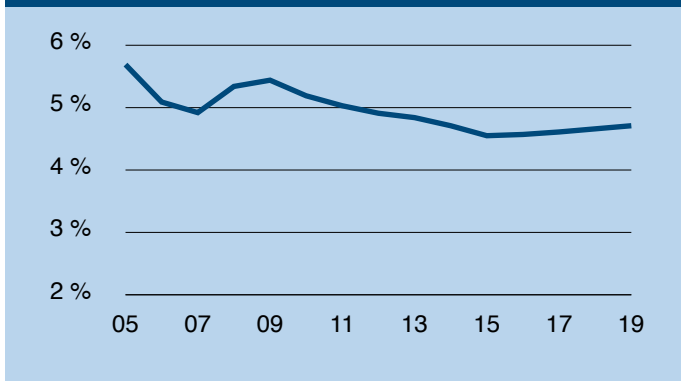


Source: bulwiengesa AG, 2015 - 2019 forecast

This restrained construction activity also affected the development of rents. Both prime rents and average rents rose significantly. As of the end of the first half of 2015, prime rents – with the exception of Düsseldorf and Frankfurt – were at their highest level in the past ten years.

The A office investment markets have been characterised by booming investor demand in recent years. Compared to the previous year, the aggregated investment volume increased by another 3.5 billion euros to approx. 14.6 billion euros in 2014. Offices therefore remain the strongest asset class. This was partly attributable to several major deals such as the sale of the "Silvertower" in Frankfurt for around 470 million euros. Compared with the rest of Europe, Germany is still seen as a safe haven for investors. The growing interest among foreign investors (the most significant buyer group in 2014) therefore is not surprising.

Development Net Initial Yield A-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

The high demand for premium products is also reflected in the yield development. Net initial yields have been falling steadily since 2010. As of the end of the first half of 2015, Munich had the lowest yield level at 4.0 %, followed by Hamburg at 4.3 %. The main factors driving this development are investment pressure among investors combined with a shortage of supply in the core segment, an attractive financing environment and a positive macroeconomic situation at national level. Yields in the office segment are expected to remain well below the 5 % mark in the future, too. The extent to which uncertainties such as the crises in Ukraine and Greece and China's economic development will affect the investment markets remains to be seen.

Key Facts Office Markets A-Cities

A-Cities	Berlin, Cologne, Düsseldorf, Frankfurt (Main), Hamburg, Munich, Stuttgart
	2014
avg. take up p.a.	392,700 sqm
avg. prime rent	25.71 euros/sqm
avg. rent	17.34 euros/sqm
avg. vacancy rate	7.2 %
avg. net initial yield	4.7 %

Source: bulwiengesa AG

Performance Measurement of Office Properties in A-Cities Based on the Property-Specific IRR

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

Source: bulwiengesa AG

The market development in the A-cities displays similar trends, although the income parameters (rents, yields) vary.

The model calculation is based on average values for all A-cities. It is also assumed that the investment is made in an existing property with good-quality space. Renovations and project developments are not included in the analysis.

Model Assumptions	
type	existing building
typical property size	24,600 sqm
net initial yield	4.6 %
vacancy acquisition date	6.7 %
market rent acquisition date	17.80 euros/sqm
avg. term of lease	3 years

Source: bulwiengesa AG

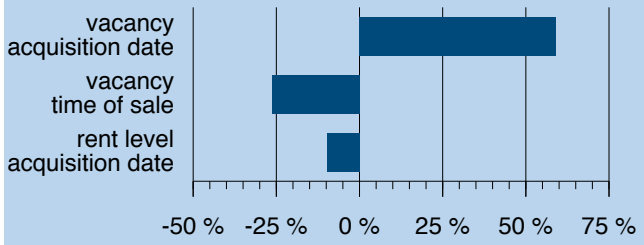
The secured corridor for the internal rate of return (IRR) ranges from 2.3 % to 4.6 %. The forecast value is 3.51 %. The wide range of realistic rates of return reflects the varying market structures both among the mixture of A-cities and also within the individual cities.

For non-core investors, properties outside the most central locations with relevant vacancy rates are of particular interest. Here, the simulation shows performance potential of up to 9.6%. Restructuring cases were not included in this calculation.

The office markets in the A-cities also offer core investors the opportunity to place larger investment volumes. The success of the investment largely depends on vacancy management. In A-markets, the best performance is generated by properties that can position themselves below the typical vacancy rate in the respective market. In addition to the risks arising from market vacancies, there are also opportunities for well-managed properties.

For example, buying properties with an elevated vacancy rate and then then selling them after leveraging this potential may represent a successful investment strategy.

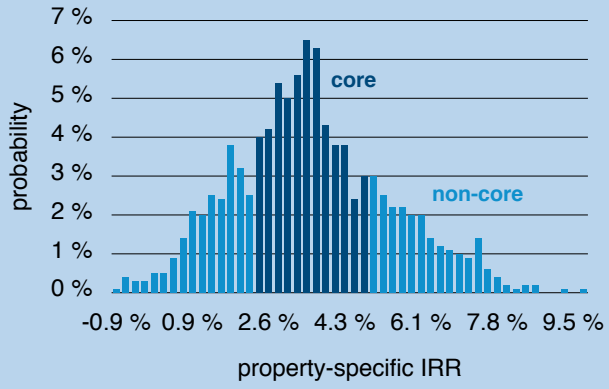
Top3 Sensitivities IRR Office A-Cities



Interpretation:
High vacancy rates upon acquisition and low vacancies at the time of sale are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Office A-Cities



Results Range

IRR base value	3.51 %
performance expectation	***Who should invest?***
2.3 - 4.6 %	**core-investors**
up to 9.8 %	**non-core-investors**

Conclusion

Office properties in A-cities are large-volume investments with limited yield opportunities. Yield potential is possible through the reduction of vacancies.

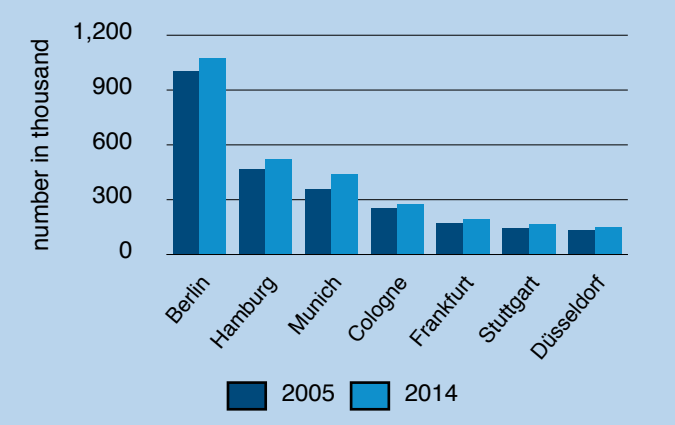
The Market for Micro-Apartments in A-Cities

The 2.50 to 3.49-Percenters – Property-Specific IRR

The Market for Micro-Apartments in A-Cities

The proportion of people in Germany who live in cities has increased steadily in the past due to demographical and social changes such as a rise in the number of single people, growing flexibility on the employment market and increasing mobility requirements. This particularly applies to the seven A-cities, which have recorded a very positive population development over the past few years (see section on residential properties in A-cities).

Number of 1-Person-Households in A-Cities



Source: Bundesinstitut für Bau-, Stadt- und Raumforschung

The social trends described above have led to shifts in household sizes, with the effect that a significant increase in small households has been recorded in all A-markets over the past years, while the share of multiple-person households has fallen. Comparing the different markets, particularly high growth rates were recorded between 2005 and 2014 in Munich (+ 23 %). However, the existing housing does not match these household sizes, since in the A-cities it is generally dominated by three- and four-room apartments.

Small units in central locations are accordingly scarce and highly sought-after and often also command above-average rents. One way in which developers are reacting to this situation is by creating compact furnished units in larger complexes – known as micro-apartments. This relatively new asset class is aimed at target groups such as commuters, single people, young professionals and short-term tenants. The complexes are usually located in districts close to the city centre with good transport connections. In contrast to student residences, micro-apartments are not usually managed as operator-managed properties with a lease contract, but rather they are let to the tenant directly by the investor. Micro-apartments thus represent private-sector letting rather than accommodation businesses such as boarding houses, which are generally

Definition Micro-Apartments	
criteria	complexes with around 100 to 300 units, mostly one-room apartments measuring 18 square metres to 35 square metres
	partly or fully furnished, always with a separate kitchen unit and bathroom
	in some cases, optional services such as fitness facilities, concierge, laundry
	location with good local public transport and road connections and accessibility of workplaces

Source: bulwiengesa AG

geared towards providing short-term accommodation for guests. Potential for micro-apartments is regularly limited by municipal parking space quotas which stipulate a corresponding quota per residential unit and thereby significantly limit the profitability of an apartment building.

Target Groups for Micro-Apartments (Selection)

user group	reasons for use
commuters/ weekend commuters	staying in the respective city only because of their job
career starters	flexible housing concept, alternative to short supply of housing
international professionals	housing concept for the duration of their employment in the city; in some cases, language barrier when seeking accommodation
single people and young people	flexibility; willingness to accept less living space in return for central location

Source: bulwiengesa AG

The rents per square metre for modern micro-apartments are often considerably higher than the market rents. However, they are usually cheaper for short-term tenants than a "normal" apartment, since the tenants do not have to pay for furnishings. Micro-apartments also offer the advantage of an all-inclusive monthly rent that covers all ancillary costs, electricity and Internet access.

The high demand for micro-apartments has resulted in a significant increase in developer activity in this segment in many A-cities. Owing to the generally short rental periods, it is possible to react to market changes (rent adjustments). There are possible re-purposing options such as use as retirement homes etc.

Performance Measurement of Micro-Apartments in A-Cities Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to international
demand for space	regional up to international
liquidity	high
volatility	high
marketable size	up to approx. 40 million euros

Source: bulwiengesa AG

The model assessment assumes an existing building with individually let apartments. Renovation properties and buildings leased to an operator are not included in the analysis.

Although micro-apartments have become much more important over the past few years, the data set for long-term operation as a basis for the present model calculation is not very representative. Micro-apartments offer the possibility to react directly to market changes, i.e. rising rents.

Model Assumptions	
type	existing building
typical property size	4,000 sqm
no. of apartment units	200 apt. units
net initial yield	3.8 %
vacancy acquisition date	200 sqm (1 months)
market rent acquisition date	20.90 euros/sqm
avg. term of lease	max. 2 years

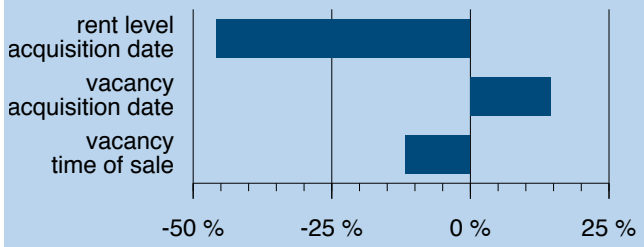
Source: bulwiengesa AG

In the A-cities, they generate a higher internal rate of return than standard residential properties, with a secured range of between 3.0 % and 3.8 %.

For non-core investors, micro-apartments in A-cities play only a minor role due to the price level. The yields required by these investors can be generated at most by individual renovation properties, which are not taken into account in this model. On the investment market, micro-apartments have being playing a relevant role for institutional investors for only a few years. It remains to be seen how demand for this product as an asset class will develop as investment activity decreases.

The performance of micro-apartments depends to a large extent on rent management and on avoiding vacancy periods. However, these products entail higher maintenance and administrative expenses than standard residential properties, and regular replacement/maintenance of furniture and fittings also needs to be taken into account. It should be emphasised that micro-apartments are also suitable for alternative uses (e.g. as retirement homes).

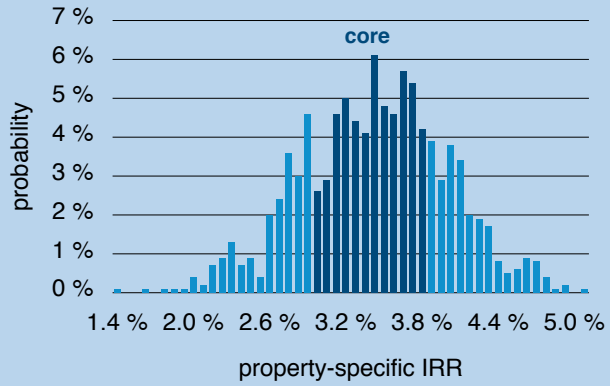
Top3 Sensitivities IRR Micro-Apartments A-Cities



Interpretation:
A low rental level and high vacancy rates at the time of acquisition are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Micro-Apartments A-Cities



Results Range

IRR base value	3.34 %
performance expectation	***Who should invest?***
3.0 - 3.8 %	**core-investors**
max. up to 5.1 %	

Conclusion

New asset class for security-focussed investors, higher management and administrative expenses than for residential properties.

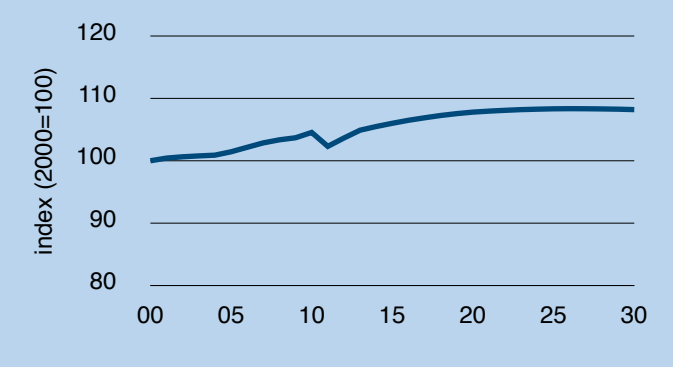
Residential Property Markets in A-Cities

The 2.50 to 3.49-Percenters – Property-Specific IRR

The Residential Property Market in A-Cities

The A-cities have seen positive population development for several years, recording population growth of around 4.9 % between 2000 and 2014. The highest growth in percentage terms was recorded by Munich with an increase of 18.5 %. With the exception of Berlin, where a slight decrease in the number of residents is forecast, this trend is expected to continue up until 2030. This is attributable to social dynamics such as a trend towards living in the city, the availability of jobs and growing immigration.

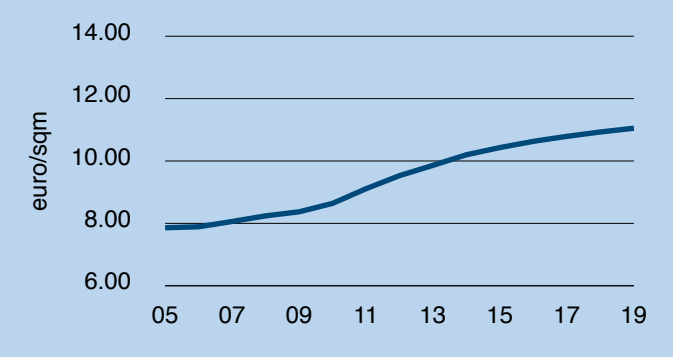
Demographic Growth A-Cities (Aggregated)



Source: Statistisches Bundesamt, 2015 - 2030 forecast

The substantial population growth affects the development of rents in the cities. Despite a recent increase in construction activity in many markets, supply has thus continued to fall short of demand for central housing. Combined with shrinking household sizes, this is resulting in significant rent increases: Across all A-markets, a rise in rents for existing properties of almost 30 % has been recorded since 2005 and there is currently no sign of an end to this development, with further increases anticipated up until 2019 despite regulatory intervention (rent controls).

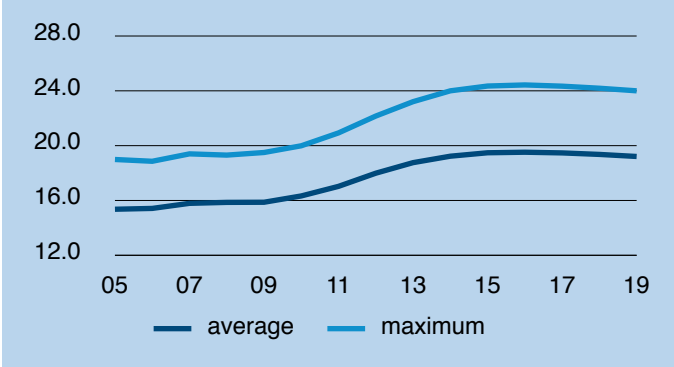
Rental Development Residential A-Cities* (Aggregated)



Source: bulwiengesa AG, 2015 - 2019 forecast, *existing properties

Developers are responding to the demand pressure with various different markets. For example, in markets with high office vacancies and low availability of space, a growing role is played by the conversion or demolition of office properties that are no longer marketable to create new housing. Smaller units are often being implemented to cater the demand from singles and commuters. Another trend in top locations is building upwards: Apartment towers are becoming established as a luxury product aimed at an affluent, often international clientele.

Multipliers Multi-Family House (Existing), avg. A-Cities



Source: bulwiengesa AG, 2015 - 2019 forecast

The transaction market for residential properties has been in a very dynamic phase for a number of years, since both institutional and private investors are increasingly investing in the residential segment due to a lack of alternatives and the attractive interest rate environment. Properties in the A -markets are particularly sought-after due to the positive general conditions. This is accordingly reflected in the multipliers and thus in the purchase prices for apartment buildings, which have recently risen significantly for top properties in the A-markets and have reached factors of up to 28 in Munich. In the event of an unchanged interest rate environment, the sales factors will remain at a high level in the future, too.

Ranking Multipliers Residential A-Cities*

rank	city	multiplier multi-family house (stock)
1	Munich	28.0
2	Hamburg	27.0
3	Frankfurt (Main)	24.0
4	Stuttgart	23.0
5	Berlin	22.5
6	Cologne	22.5
7	Düsseldorf	21.0

Source: bulwiengesa AG; * Date: Q2/2015, existing properties

Performance Measurement of Residential Properties Based on the Property-Specific IRR

Market Environment	
investment demand	regional up to international
demand for space	regional up to international
liquidity	high
volatility	high
marketable size	up to approx. 150 million euros

Source: bulwiengesa AG

Residential properties in the A-cities are regarded as secure investment properties. Despite regulatory intervention (rent controls), demand and the price development have continued unabated. The model for calculating the performance of residential properties is based on the assumption of an existing property in good condition. Renovation properties are not shown in this model. An investment in the medium rent segment is assumed.

Model Assumptions	
type	multi-family house, stock
typical property size	4,000 sqm
no. of apartment units	55 apt. units
net initial yield	3.5 %
vacancy acquisition	200 sqm (1 month)
market rent acquisition	10.40 euros/sqm

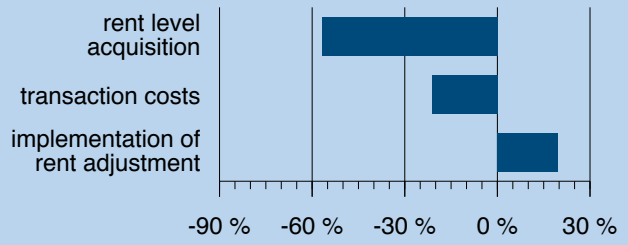
Source: bulwiengesa AG

The model calculation shows a performance of between 2.8 % and 3.3 % for residential properties in A-cities. The base scenario is 3.03 %. Residential properties in A-cities thus represent very secure investment opportunities but have very limited yield potential. Opportunities for increasing performance can be found particularly in purchasing properties that are badly managed, as reflected in low rents. Avoiding transaction costs, which particularly include real estate transfer tax, is another relevant factor.

Implementing rent increases and rent adjustments during the investment period is also a relevant prerequisite for economic success. Maintenance and repair costs should be priced in when purchasing a property. Miscalculations here may result in risks. At present, there are hardly any letting risks for existing apartments in the A-markets. As a result of the demographic development, the A-cities will continue to be characterised by high demand in the future, too.

Existing properties in A-markets do not offer any investment opportunities for yield-focussed non-core investors. Such opportunities are to be found at most in individual renovation properties, particularly on the outskirts of cities, which are not included in this analysis. Non-core investors generally operate in structurally weaker regions and with non-stabilised properties.

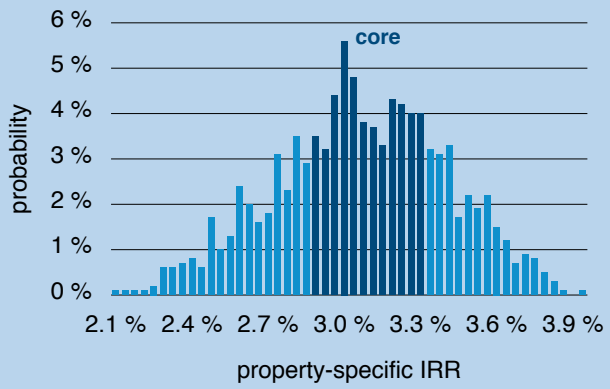
Top3 Sensitivities IRR Residential A-Cities



Interpretation:
A low rental level upon acquisition and low transactions costs are the main factors for increasing returns.

Source: bulwiengesa AG

IRR Range Residential A-Cities



Results Range

IRR base value	3.03 %
performance expectation	***Who should invest?***
2.8 - 3.3 %	**core-investors**
max. up to 4.0 %	

Conclusion

Security-focussed investment with low yield potential. Low risks with regard to the market.

Excursus on Rent Controls

By Klaus Beine, BEITEN BURKHARDT

Rent Controls: Numerous Exceptions Ensure Continued Attractive Yields for Investors

On 21 April 2015, the German Federal Parliament (Bundestag) passed the "Act to Curb the Rent Increase in Tight Housing Markets and to Strengthen the Purchaser Principle in Real Estate Brokerage". With this federal law, four new provisions were entered in the German Civil Code (Bürgerliches Gesetzbuch) (sections 556 d – 556 g BGB).

I. Principle of the new regulations

This basic concept of this law stipulates that the rent at the beginning of a residential lease must not exceed the typical local comparable rent by more than ten percent if the rental property is situated in a district that has been designated by the state government as an area with a tight housing market.

II. The statutory ordinance of the state government as a link for the application of the law

The legal regulations apply only if the individual state governments have designated a district as an area with a tight housing market by way of a statutory ordinance. The legislator assumes that such an area exists if there is a particular risk of insufficient provision of rental apartments at adequate conditions for the population in a municipality or part of a municipality. Among other examples, the law specifies cases where rents in an area are rising at a significantly faster rate than the nationwide average. A corresponding statutory ordinance of the state governments must have entered into force by no later than 31 December 2020 and may designate a district as a tight housing market area for a maximum of five years.

Statutory ordinances are already in place in the states of Berlin and Hamburg for the entire area of these states, as well as in North Rhine-Westphalia for 22 cities including Cologne, Düsseldorf and Bonn. There are also plans to enact them in other states, including in Rhineland-Palatinate for the university cities of Mainz, Trier and Landau and in Hesse for Frankfurt am Main.

III. Exceptions to the ten percent limit

There are a number of exceptions to the principle that a rent increase must not exceed ten percent of the typical local comparable rent. In the case that the rent due most recently (the "previous rent") exceeds the rent now permitted (i.e. the typical local comparable rent plus a maximum of ten percent), the landlord can agree a rent up to the amount of the previous rent. The landlord therefore does not have to lower its rent to the typical local comparable rent, but instead can continue to demand its higher rent. However, rent increases that were agreed with the previous tenant in the last year before the end of the lease are not taken into account.

Certain types of modernisation – specifically, the modernisation measures already defined by law – are also taken into account. If the landlord implemented these measures within the last three years before the beginning of the lease, then it may exceed the permissible rent by the amount of eleven percent per year of the costs incurred for the apartment.

Furthermore, the new regulations are not applicable to apartments that are used and rented out for the first time after 1 October 2014 (new construction). Landlords of such apartments can initially determine the amount of the rent freely and are not tied to the typical local comparable rent. This is subject to the restriction that after the rent amount is set for the first time the regulation regarding the previous rent then applies to subsequent letting.

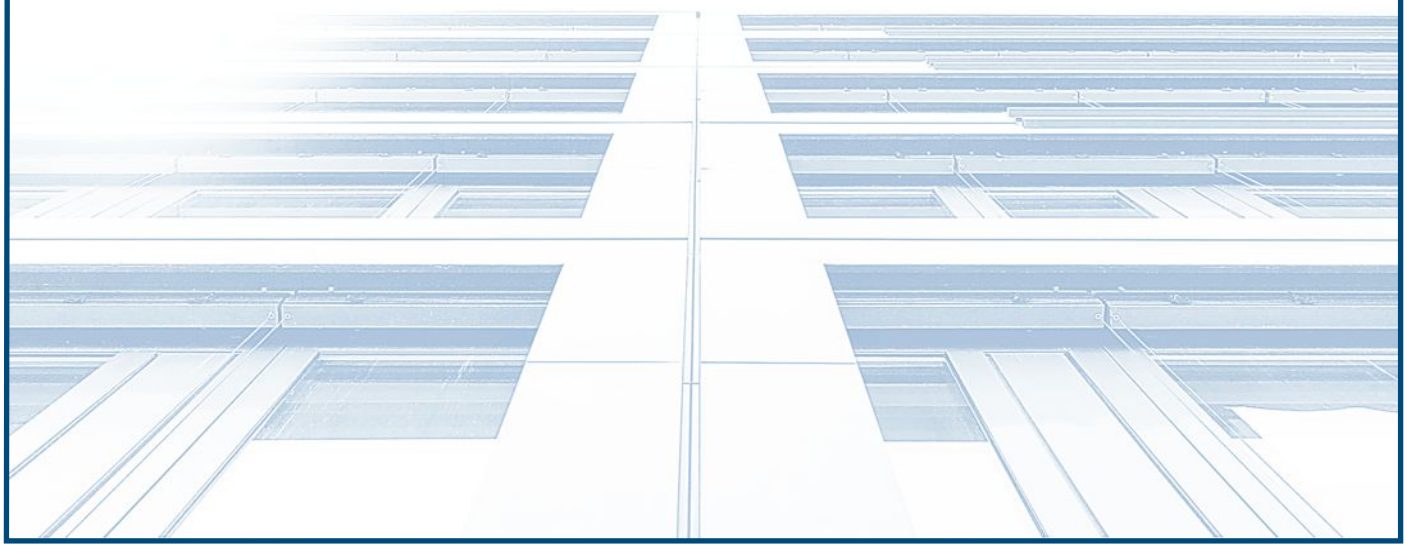
Finally, the law also does not apply to the first letting after what is referred to as extensive modernisation. Extensive modernisation is a term that has not previously featured in the German Civil Code and is not to be understood as being synonymous with modernisation measures. According to the explanatory memorandum to the law, modernisation is defined as extensive if its scope is significant enough that it can justifiably be considered equivalent to new construction.

Summary

The law is intended to bring about a stagnation in the rising rents in districts where the housing market is considered to be tight. However, in our view there is no reason for investors to be concerned. There are special provisions for letting new buildings for the first time and after extensive modernisation, as well as for subsequent letting after modernisation measures. Similarly, the provision on previous rent ensures that existing rent levels are preserved in the case of subsequent letting above the level of the typical local comparable rent. Owing to the numerous exceptions, the rent controls actually only have a narrow scope of application.

By contrast, preservation statutes in the form of neighbourhood protection statutes (so-called Milieuschutzsatzung) may have a much greater influence on letting. Such statutes are increasingly being resolved by municipalities. Aimed at preserving the tenant structure in individual urban districts, they govern aspects such as apartment extensions and may also prohibit conversion into owner-occupied apartments.

The Results in Detail



Office – Property-Specific IRR in Detail

A-, B-, C- and D-Cities in Detail – Property Specific IRR

type	city	core-i. from	core-i. to	non-core-i. up to	type	city	core-i. from	core-i. to	non-core-i. up to	type	city	core-i. from	core-i. to	non-core-i. up to
A	Berlin	2.4 %	4.6 %	9.4 %	C	Wuppertal	3.9 %	6.8 %	12.1 %	D	Krefeld	3.4 %	6.1 %	11.5 %
A	Cologne	2.4 %	4.8 %	9.4 %						D	Landshut	3.9 %	6.6 %	11.0 %
A	Düsseldorf	2.3 %	4.5 %	8.6 %	D	Albstadt	4.6 %	8.2 %	17.9 %	D	Leverkusen	3.4 %	6.1 %	11.5 %
A	Frankfurt (Main)	2.1 %	4.3 %	8.1 %	D	Aschaffenburg	4.1 %	6.8 %	11.2 %	D	Lüdenscheid	5.2 %	8.1 %	14.7 %
A	Hamburg	2.0 %	4.4 %	9.3 %	D	Bamberg	3.6 %	6.5 %	11.8 %	D	Ludwigshafen	4.3 %	7.0 %	12.9 %
A	Munich	1.9 %	4.6 %	11.4 %	D	Bayreuth	4.8 %	7.8 %	13.3 %	D	Lüneburg	4.5 %	7.0 %	11.7 %
A	Stuttgart	2.3 %	4.7 %	9.1 %	D	Bergisch Gladbach	4.1 %	6.7 %	11.2 %	D	Marburg	4.2 %	7.1 %	12.9 %
					D	Bottrop	4.7 %	7.4 %	13.1 %	D	Minden	4.4 %	7.7 %	14.7 %
B	Bochum	3.2 %	5.8 %	10.2 %	D	Brandenburg (Hl.)	4.3 %	8.4 %	14.3 %	D	Moers	4.7 %	7.3 %	13.3 %
B	Bonn	2.7 %	5.1 %	9.5 %	D	Bremerhaven	3.1 %	6.6 %	14.5 %	D	Neubrandenburg	6.3 %	9.1 %	14.9 %
B	Bremen	3.1 %	5.9 %	12.0 %	D	Chemnitz	6.5 %	9.3 %	14.9 %	D	Neumünster	4.3 %	7.1 %	12.7 %
B	Dortmund	3.4 %	5.6 %	9.8 %	D	Coburg	4.1 %	7.0 %	12.2 %	D	Neuss	3.3 %	5.7 %	10.4 %
B	Dresden	3.2 %	6.0 %	11.0 %	D	Constance	3.6 %	6.0 %	10.3 %	D	Oberhausen	3.3 %	5.9 %	12.5 %
B	Duisburg	3.3 %	5.9 %	10.8 %	D	Cottbus	5.8 %	9.0 %	12.9 %	D	Offenburg	3.3 %	5.9 %	11.5 %
B	Essen	3.0 %	5.5 %	10.3 %	D	Dessau	4.6 %	7.9 %	14.6 %	D	Oldenburg	4.4 %	7.8 %	14.5 %
B	Hanover	3.2 %	5.7 %	10.6 %	D	Detmold	4.2 %	7.5 %	14.5 %	D	Paderborn	3.3 %	6.2 %	12.6 %
B	Karlsruhe	3.3 %	5.8 %	10.9 %	D	Düren	3.8 %	6.7 %	12.4 %	D	Passau	2.9 %	6.0 %	11.8 %
B	Leipzig	3.5 %	6.2 %	11.1 %	D	Eisenach	4.8 %	8.3 %	15.3 %	D	Pforzheim	3.3 %	6.2 %	13.3 %
B	Mannheim	2.9 %	5.5 %	9.9 %	D	Flensburg	3.9 %	6.7 %	12.6 %	D	Plauen	5.6 %	9.3 %	17.7 %
B	Münster	3.1 %	5.9 %	11.4 %	D	Frankfurt (Oder)	5.4 %	8.5 %	14.0 %	D	Ratingen	3.5 %	5.9 %	10.4 %
B	Nuremberg	2.7 %	5.5 %	11.8 %	D	Friedrichshafen	3.5 %	6.2 %	12.8 %	D	Ravensburg	4.6 %	7.3 %	14.0 %
B	Wiesbaden	2.9 %	5.3 %	10.4 %	D	Fulda	4.2 %	7.6 %	14.2 %	D	Recklinghausen	3.9 %	6.7 %	12.8 %
					D	Fürth	4.3 %	7.4 %	12.0 %	D	Remscheid	4.9 %	7.7 %	13.5 %
C	Aachen	3.0 %	6.1 %	12.7 %	D	Gelsenkirchen	4.5 %	7.6 %	13.4 %	D	Reutlingen	3.7 %	6.4 %	10.9 %
C	Augsburg	3.3 %	6.1 %	11.7 %	D	Gera	5.6 %	8.9 %	17.9 %	D	Rosenheim	3.7 %	6.2 %	11.9 %
C	Bielefeld	3.8 %	6.7 %	13.3 %	D	Gießen	4.4 %	7.1 %	12.2 %	D	Salzgitter	3.8 %	6.8 %	12.5 %
C	Brunswick	3.5 %	6.5 %	13.4 %	D	Görlitz	5.1 %	9.6 %	16.1 %	D	Schweinfurt	5.2 %	8.1 %	14.6 %
C	Darmstadt	3.3 %	5.7 %	10.9 %	D	Göttingen	4.4 %	7.0 %	12.1 %	D	Schwerin	4.6 %	7.5 %	12.8 %
C	Erfurt	4.1 %	7.0 %	11.7 %	D	Greifswald	5.2 %	7.9 %	13.4 %	D	Siegen	3.8 %	6.5 %	11.7 %
C	Erlangen	3.3 %	6.3 %	14.2 %	D	Gütersloh	4.1 %	7.0 %	13.0 %	D	Solingen	6.1 %	9.4 %	15.9 %
C	Freiburg	3.1 %	5.7 %	10.8 %	D	Hagen	5.2 %	8.1 %	13.9 %	D	Stralsund	4.4 %	7.6 %	13.4 %
C	Heidelberg	3.3 %	5.5 %	10.0 %	D	Halberstadt	5.0 %	8.4 %	14.3 %	D	Suhl	5.6 %	9.6 %	16.3 %
C	Kiel	3.7 %	6.4 %	12.3 %	D	Halle (Saale)	4.4 %	7.3 %	12.1 %	D	Trier	4.3 %	7.2 %	12.8 %
C	Lübeck	3.7 %	6.4 %	12.2 %	D	Hamm	3.4 %	6.3 %	11.5 %	D	Tübingen	3.2 %	6.0 %	11.0 %
C	Magdeburg	3.9 %	6.5 %	11.6 %	D	Hanau	4.3 %	7.3 %	12.5 %	D	Ulm	3.2 %	5.7 %	11.7 %
C	Mainz	3.4 %	5.9 %	10.8 %	D	Heilbronn	3.7 %	6.5 %	11.6 %	D	Villingen-Schwenn.	5.4 %	8.2 %	15.4 %
C	Mönchengladbach	3.7 %	6.1 %	11.1 %	D	Herne	5.2 %	8.0 %	14.0 %	D	Weimar	4.5 %	7.9 %	14.2 %
C	Mülheim (Ruhr)	3.3 %	5.8 %	10.6 %	D	Hildesheim	4.1 %	7.1 %	14.4 %	D	Wilhelmshaven	5.3 %	8.6 %	15.4 %
C	Offenbach (Main)	3.9 %	6.5 %	11.1 %	D	Ingolstadt	3.7 %	6.3 %	12.4 %	D	Witten	3.4 %	6.5 %	12.9 %
C	Osnabrück	3.7 %	6.7 %	12.9 %	D	Jena	4.6 %	7.3 %	12.2 %	D	Wolfsburg	4.1 %	6.6 %	11.1 %
C	Potsdam	3.4 %	6.1 %	10.3 %	D	Kaiserslautern	4.1 %	7.0 %	12.9 %	D	Würzburg	4.5 %	7.2 %	12.8 %
C	Regensburg	2.9 %	5.9 %	13.8 %	D	Kassel	3.6 %	6.8 %	13.0 %	D	Zwickau	6.4 %	9.8 %	15.0 %
C	Rostock	3.6 %	6.3 %	11.5 %	D	Kempten (Allgäu)	4.1 %	7.2 %	12.6 %					
C	Saarbrücken	3.8 %	7.2 %	14.6 %	D	Koblenz	4.1 %	6.8 %	12.3 %					

Residential/Micro-Apartments – 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	2.7 %	3.3 %	4.1 %	UC	Bamberg	4.0 %	4.5 %	5.1 %	UC	Kiel	3.9 %	4.4 %	5.2 %
A	Cologne	2.9 %	3.4 %	4.1 %	UC	Bayreuth	4.0 %	4.4 %	5.0 %	UC	Koblenz	3.8 %	4.1 %	4.7 %
A	Düsseldorf	3.2 %	3.6 %	4.4 %	UC	Bielefeld	4.1 %	4.5 %	5.1 %	UC	Lübeck	4.1 %	4.5 %	5.1 %
A	Frankfurt (Main)	2.8 %	3.3 %	4.1 %	UC	Brunswick	4.7 %	5.1 %	5.7 %	UC	Lüneburg	4.1 %	4.4 %	5.0 %
A	Hamburg	2.7 %	2.9 %	3.7 %	UC	Chemnitz	4.6 %	5.1 %	6.1 %	UC	Magdeburg	4.3 %	4.6 %	5.2 %
A	Munich	2.5 %	3.0 %	3.8 %	UC	Constance	3.4 %	3.9 %	4.7 %	UC	Mainz	3.7 %	4.2 %	4.9 %
A	Stuttgart	2.9 %	3.4 %	4.1 %	UC	Cottbus	4.8 %	5.2 %	6.0 %	UC	Marburg	4.1 %	4.5 %	5.3 %
B	Bochum	4.6 %	5.0 %	5.7 %	UC	Darmstadt	3.7 %	4.2 %	5.1 %	UC	Mönchengladbach	4.1 %	4.5 %	5.1 %
B	Bonn	3.5 %	3.8 %	4.4 %	UC	Erfurt	4.5 %	4.9 %	5.6 %	UC	Oldenburg	3.6 %	4.0 %	4.6 %
B	Bremen	3.7 %	4.1 %	4.8 %	UC	Erlangen	3.9 %	4.3 %	4.8 %	UC	Osnabrück	4.0 %	4.6 %	5.5 %
B	Dortmund	3.8 %	4.2 %	4.8 %	UC	Flensburg	4.6 %	5.0 %	5.7 %	UC	Paderborn	3.4 %	3.8 %	4.5 %
B	Dresden	3.7 %	4.1 %	4.7 %	UC	Frankfurt (Oder)	5.4 %	5.8 %	6.6 %	UC	Passau	3.9 %	4.3 %	5.0 %
B	Duisburg	4.0 %	4.4 %	5.1 %	UC	Freiburg	3.0 %	3.4 %	4.0 %	UC	Potsdam	3.2 %	3.9 %	4.6 %
B	Essen	3.8 %	4.1 %	4.7 %	UC	Gießen	4.3 %	4.7 %	5.3 %	UC	Regensburg	3.2 %	3.9 %	4.6 %
B	Hanover	4.1 %	4.5 %	5.1 %	UC	Göttingen	4.0 %	4.3 %	4.8 %	UC	Rostock	4.3 %	4.6 %	5.4 %
B	Karlsruhe	3.4 %	3.8 %	4.6 %	UC	Greifswald	5.2 %	5.5 %	6.1 %	UC	Saarbrücken	4.7 %	5.0 %	5.6 %
B	Leipzig	3.7 %	4.1 %	4.6 %	UC	Halle (Saale)	4.9 %	5.2 %	5.8 %	UC	Siegen	4.5 %	4.9 %	5.4 %
B	Mannheim	4.3 %	4.3 %	5.2 %	UC	Heidelberg	3.2 %	3.6 %	4.3 %	UC	Trier	4.3 %	4.7 %	5.4 %
B	Münster	2.9 %	3.4 %	4.1 %	UC	Heilbronn	4.1 %	4.5 %	5.2 %	UC	Tübingen	3.8 %	4.2 %	4.7 %
B	Nuremberg	4.0 %	4.1 %	5.1 %	UC	Hildesheim	4.4 %	4.7 %	5.4 %	UC	Ulm	3.3 %	3.9 %	4.7 %
B	Wiesbaden	3.3 %	3.4 %	4.3 %	UC	Jena	4.6 %	4.9 %	5.5 %	UC	Wuppertal	4.5 %	4.9 %	5.5 %
UC	Aachen	3.2 %	3.7 %	4.7 %	UC	Kaiserslautern	4.5 %	4.9 %	5.5 %	UC	Würzburg	3.6 %	4.0 %	4.6 %
UC	Augsburg	3.6 %	4.1 %	4.7 %	UC	Kassel	4.3 %	4.8 %	5.6 %					

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

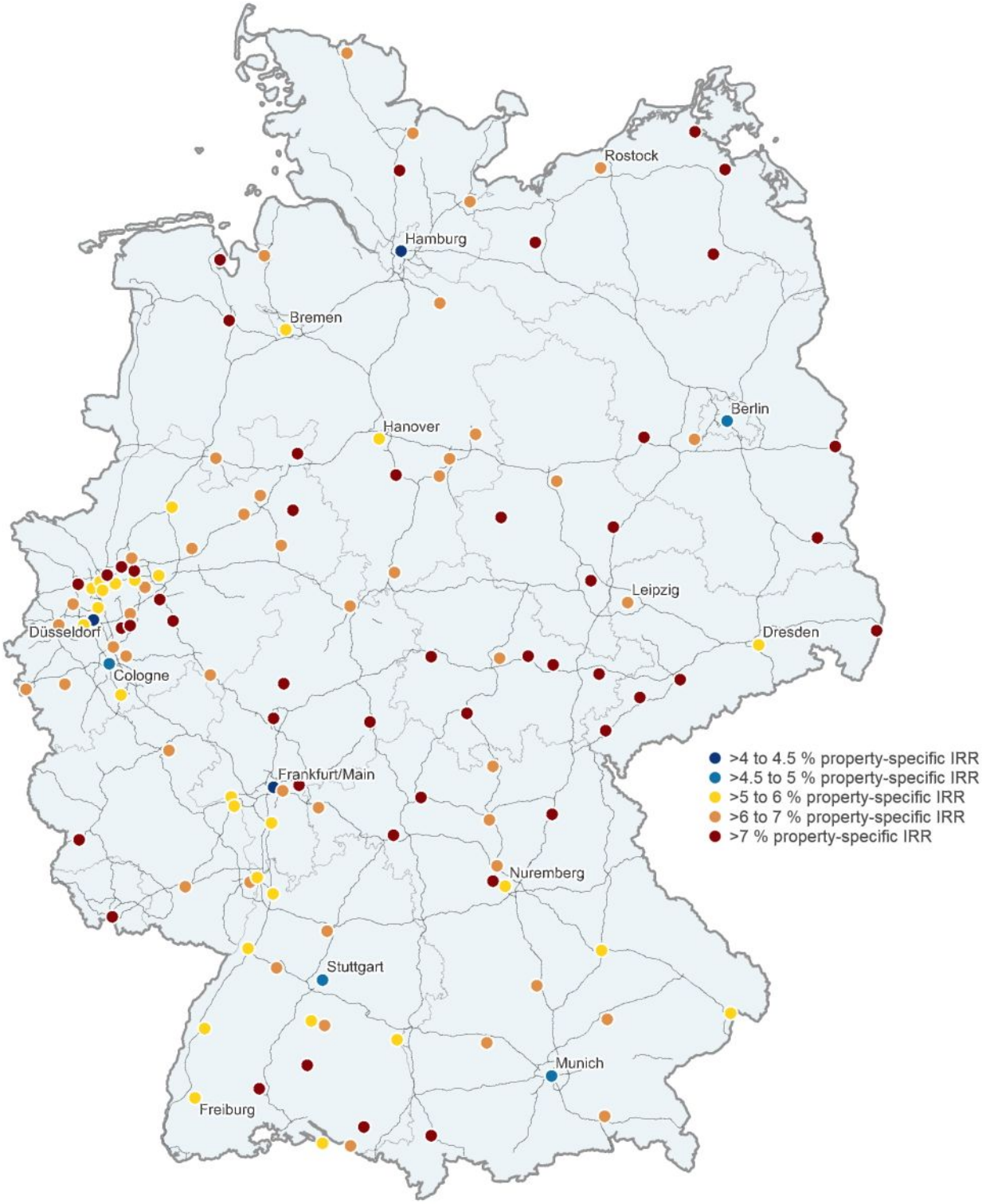
type	city	core-i. from	core-i. to	max. up to	type	stadt	core-i. from	core-i. to	max. up to	type	city	core-i. from	core-i. to	max. up to
A	Berlin	2.6 %	3.5 %	5.0 %	UC	Bamberg	3.7 %	4.5 %	5.7 %	UC	Kiel	4.0 %	4.8 %	5.8 %
A	Cologne	3.1 %	3.8 %	5.2 %	UC	Bayreuth	3.8 %	4.5 %	5.9 %	UC	Koblenz	3.6 %	4.3 %	5.6 %
A	Düsseldorf	3.3 %	4.0 %	5.4 %	UC	Bielefeld	3.8 %	4.5 %	5.5 %	UC	Lübeck	3.9 %	4.7 %	5.7 %
A	Frankfurt (Main)	3.1 %	3.9 %	5.1 %	UC	Braunschweig	4.2 %	5.0 %	6.3 %	UC	Lüneburg	4.0 %	4.7 %	5.9 %
A	Hamburg	3.2 %	3.9 %	5.1 %	UC	Chemnitz	4.1 %	4.7 %	6.0 %	UC	Magdeburg	3.7 %	4.3 %	5.6 %
A	Munich	2.6 %	3.5 %	4.8 %	UC	Constance	3.4 %	4.1 %	5.4 %	UC	Mainz	3.8 %	4.7 %	6.2 %
A	Stuttgart	3.0 %	3.9 %	4.9 %	UC	Cottbus	4.5 %	5.3 %	6.8 %	UC	Marburg	4.1 %	4.8 %	5.9 %
B	Bochum	4.0 %	4.6 %	5.7 %	UC	Darmstadt	3.6 %	4.5 %	5.9 %	UC	Mönchengladbach	4.0 %	4.6 %	5.8 %
B	Bonn	3.5 %	4.1 %	5.3 %	UC	Erfurt	4.2 %	4.9 %	6.1 %	UC	Oldenburg	3.5 %	4.2 %	5.5 %
B	Bremen	3.7 %	4.5 %	5.6 %	UC	Erlangen	3.7 %	4.4 %	5.5 %	UC	Osnabrück	3.8 %	4.6 %	5.8 %
B	Dortmund	3.7 %	4.4 %	5.7 %	UC	Flensburg	4.4 %	5.2 %	6.4 %	UC	Paderborn	3.4 %	4.0 %	5.3 %
B	Dresden	3.6 %	4.3 %	5.4 %	UC	Frankfurt (Oder)	4.8 %	5.5 %	6.9 %	UC	Passau	3.1 %	3.9 %	5.1 %
B	Duisburg	4.0 %	4.6 %	5.8 %	UC	Freiburg	3.0 %	3.7 %	4.9 %	UC	Potsdam	3.1 %	4.0 %	5.5 %
B	Essen	3.9 %	4.4 %	5.5 %	UC	Gießen	4.1 %	4.8 %	6.2 %	UC	Regensburg	3.3 %	4.1 %	5.5 %
B	Hanover	3.9 %	4.7 %	5.8 %	UC	Göttingen	3.8 %	4.6 %	5.7 %	UC	Rostock	4.3 %	5.0 %	6.0 %
B	Karlsruhe	3.3 %	4.0 %	5.3 %	UC	Greifswald	4.7 %	5.4 %	6.7 %	UC	Saarbrücken	4.3 %	5.0 %	6.1 %
B	Leipzig	3.6 %	4.3 %	5.5 %	UC	Halle (Saale)	4.3 %	5.0 %	5.9 %	UC	Siegen	4.3 %	5.0 %	6.3 %
B	Mannheim	4.1 %	4.8 %	6.2 %	UC	Heidelberg	3.2 %	4.0 %	5.1 %	UC	Trier	4.1 %	4.8 %	6.1 %
B	Münster	2.7 %	3.5 %	5.0 %	UC	Heilbronn	3.8 %	4.6 %	6.0 %	UC	Tübingen	3.7 %	4.5 %	6.0 %
B	Nuremberg	3.8 %	4.6 %	5.6 %	UC	Hildesheim	3.8 %	4.5 %	5.7 %	UC	Ulm	3.5 %	4.4 %	5.9 %
B	Wiesbaden	3.3 %	4.0 %	5.2 %	UC	Jena	4.3 %	5.0 %	6.5 %	UC	Wuppertal	4.4 %	5.1 %	6.4 %
UC	Aachen	3.3 %	4.1 %	5.5 %	UC	Kaiserslautern	3.9 %	4.6 %	5.9 %	UC	Würzburg	3.4 %	4.1 %	5.6 %
UC	Augsburg	3.4 %	4.2 %	6.0 %	UC	Kassel	3.9 %	4.6 %	5.8 %	UC				

Logistics – Property-Specific IRR in Detail

Logistics Regions Property-Specific IRR in Detail in %							
logistics region	core-i.		non-core-i.	logistics region	core-i.		non-core-i.
	from	to	up to		from	to	up to
A4 Saxony	5.0 %	6.3 %	8.5 %	Koblenz	4.8 %	6.1 %	8.6 %
A4 Thuringia	5.0 %	6.3 %	8.5 %	Lower Bavaria	4.8 %	5.9 %	8.1 %
Aachen	5.1 %	6.4 %	8.4 %	Magdeburg	5.0 %	6.4 %	8.8 %
Augsburg	4.6 %	5.8 %	8.5 %	Munich	4.6 %	5.2 %	6.3 %
Bad Hersfeld	4.5 %	5.8 %	8.2 %	Münster/Osnabrück	4.6 %	5.8 %	7.9 %
Berlin	4.6 %	5.2 %	6.3 %	Nuremberg	5.2 %	6.0 %	7.9 %
Bremen and North Sea ports	5.3 %	5.4 %	6.9 %	Oberrhein	5.5 %	5.8 %	8.2 %
Cologne	4.8 %	5.4 %	6.7 %	Ostwestfalen-Lippe	4.9 %	6.1 %	8.6 %
Dortmund	4.5 %	5.5 %	7.6 %	Rhine-Main/Frankfurt	4.4 %	5.1 %	6.1 %
Düsseldorf	4.8 %	5.5 %	6.4 %	Rhine-Neckar	5.0 %	5.9 %	7.5 %
Halle/Leipzig	4.5 %	5.2 %	6.3 %	Rhine-Ruhr	4.7 %	5.7 %	7.2 %
Hamburg	4.5 %	5.2 %	6.2 %	Saarbrücken	4.4 %	5.8 %	7.8 %
Hanover/Brunswick	4.5 %	5.4 %	6.9 %	Stuttgart	4.8 %	5.7 %	7.4 %
Kassel/Göttingen	4.6 %	6.0 %	8.1 %	Ulm	4.5 %	5.8 %	7.9 %

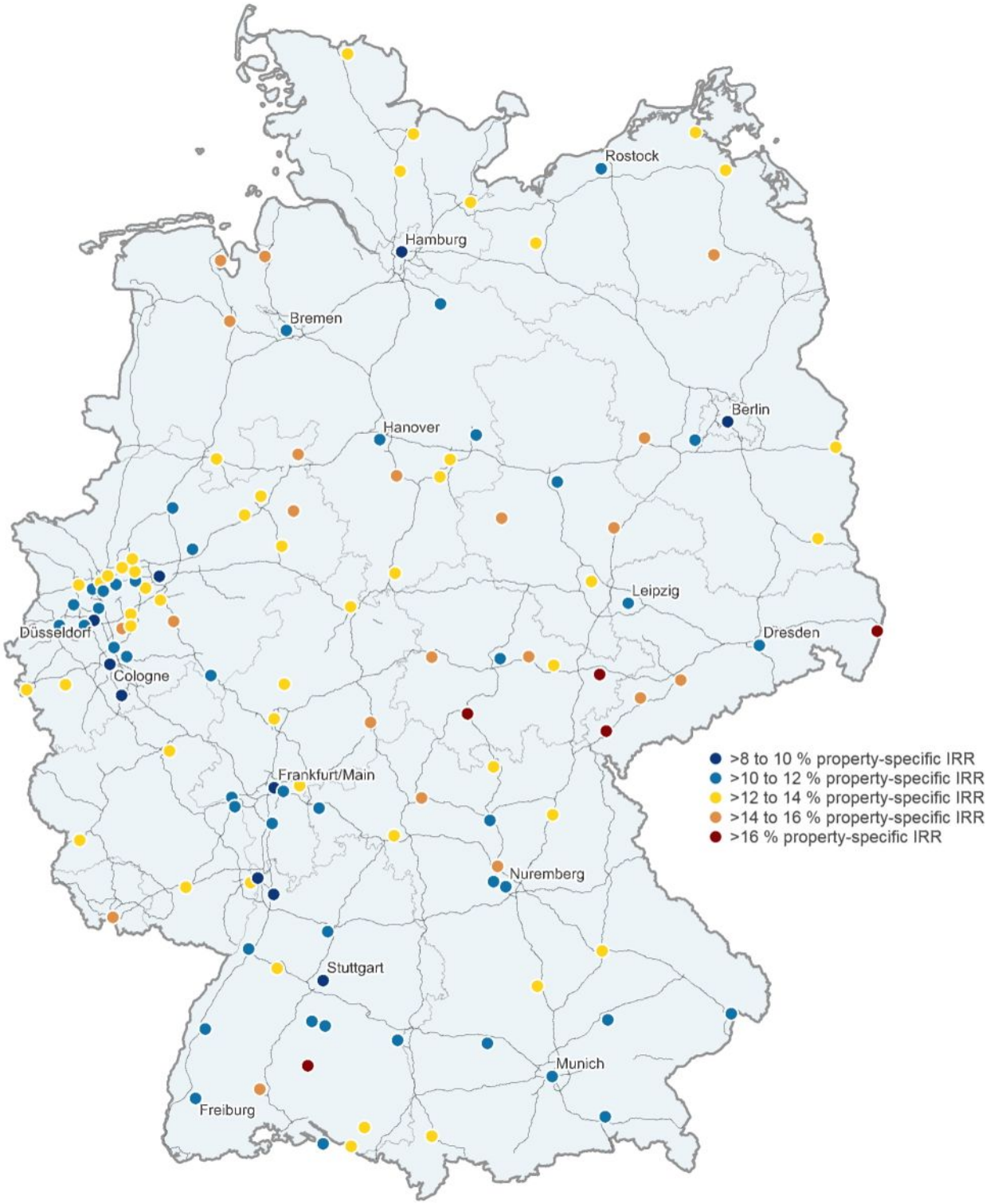
The Office Market

Obtainable Property-Specific IRR for Core-Investors



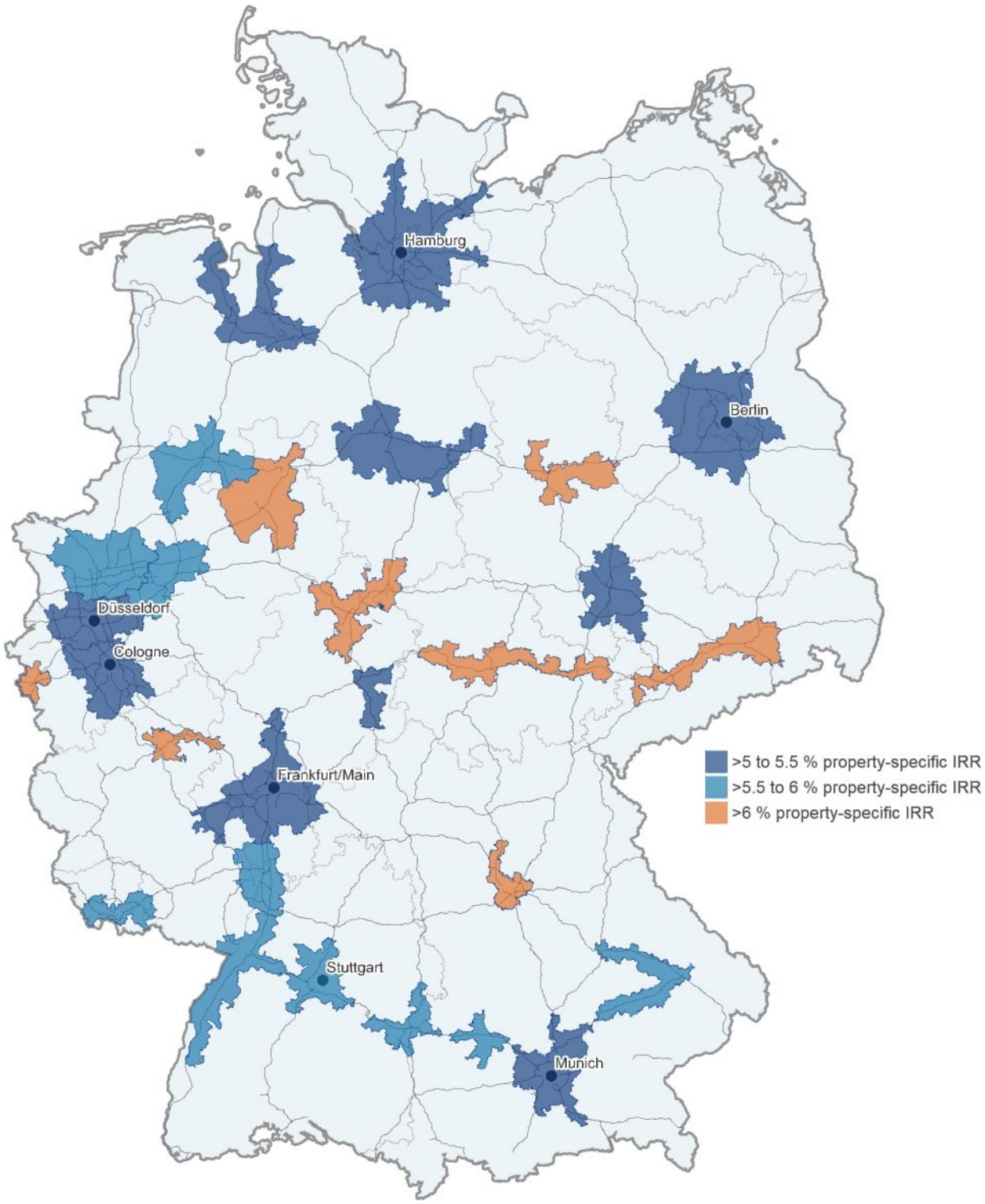
The Office Market

Obtainable Property-Specific IRR for Non-Core-Investors



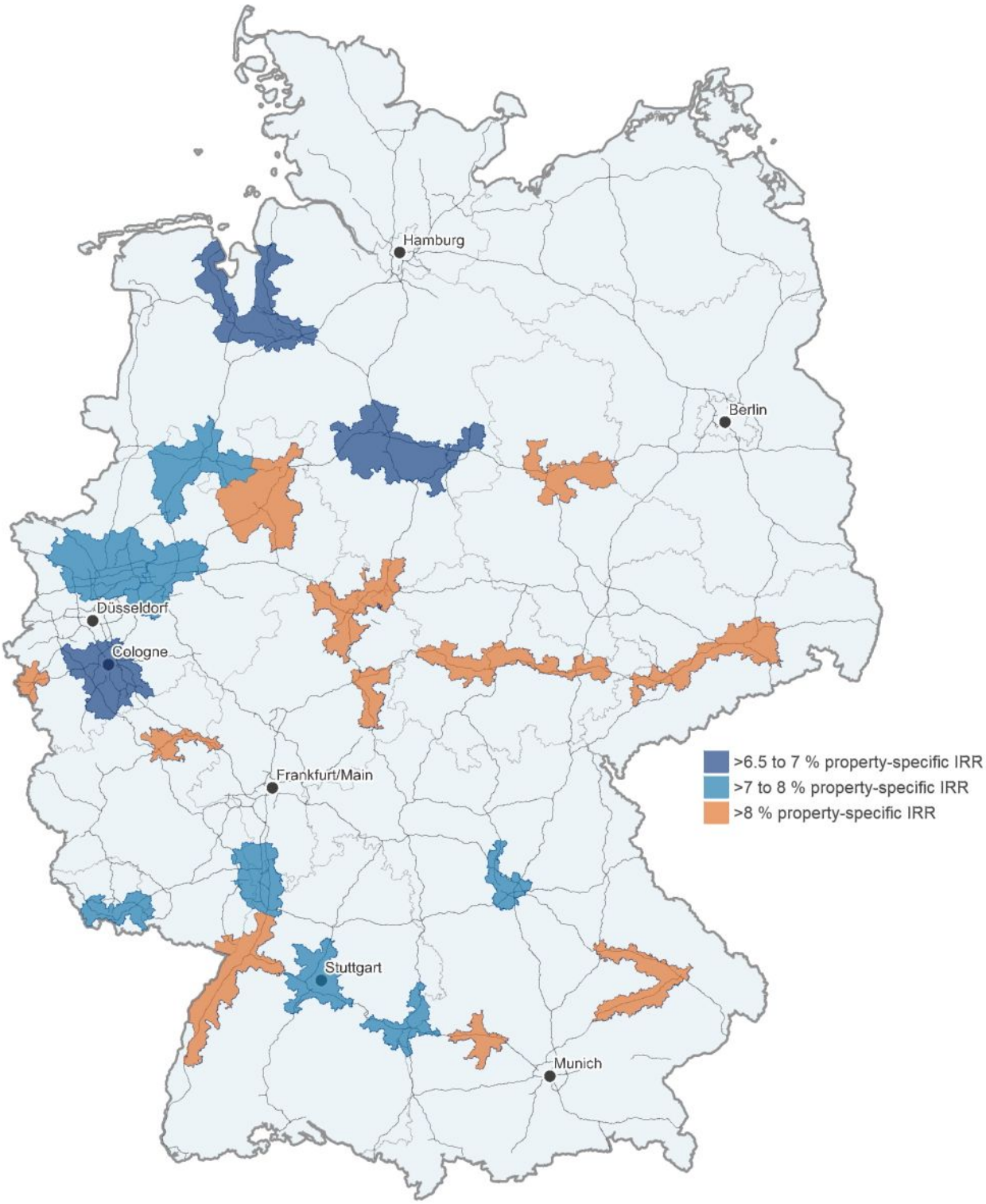
The Market for Logistics

Obtainable Property-Specific IRR for Core-Investors



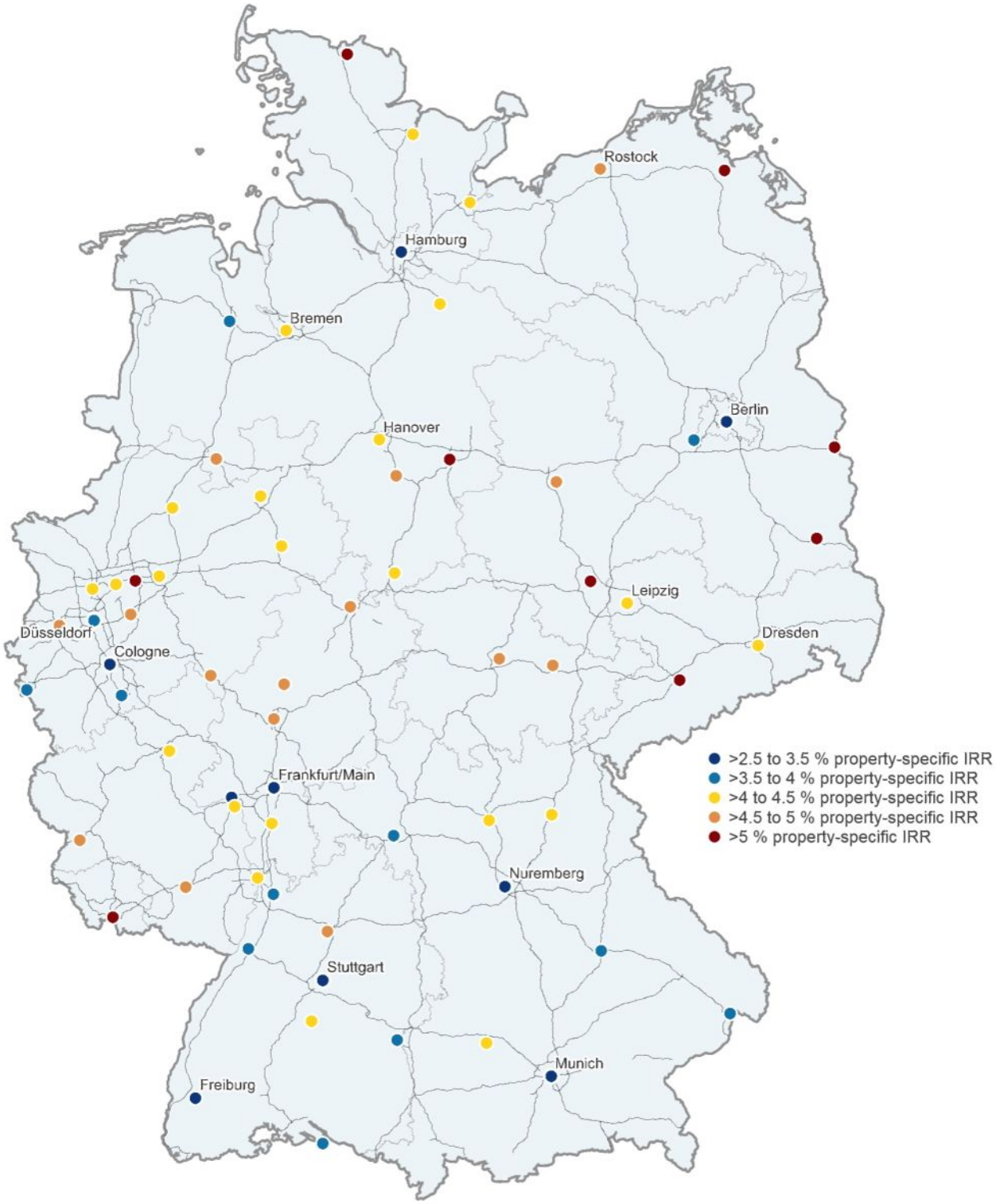
The Market for Logistics

Obtainable Property-Specific IRR for Non-Core-Investors



The Residential Market

Obtainable Property-Specific IRR for Core-Investors



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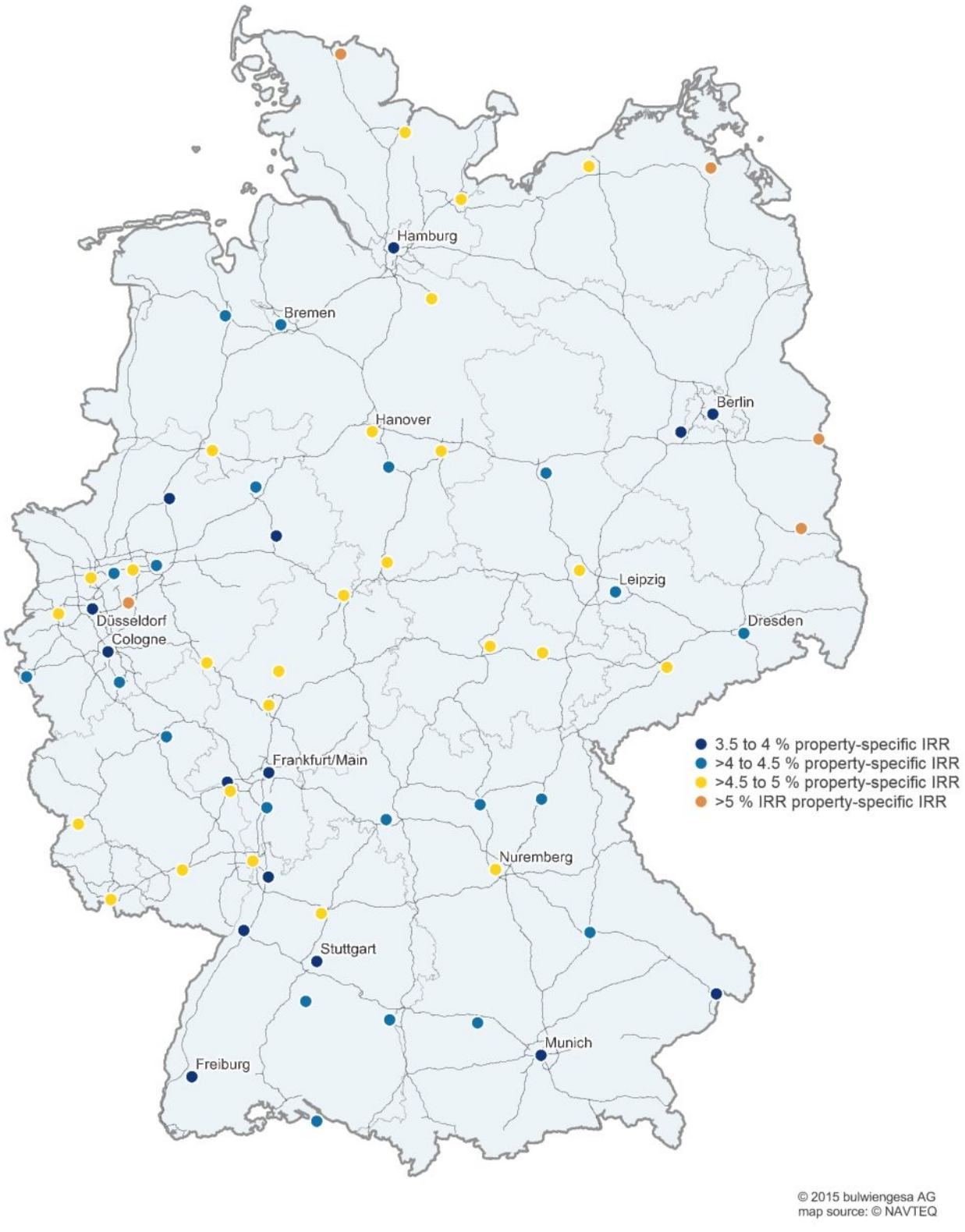
The Market for Micro-Apartments

Obtainable Property-Specific IRR for Core-Investors



Definitions and Comments

General Classification of Cities

Overview A-, B-, C-, D- and University-Cities							
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	D/UC	Oldenburg	D/UC
Hamburg	A	Mülheim (Ruhr)	C	Görlitz	D	Paderborn	D/UC
Munich	A	Offenbach (Main)	C	Göttingen	D/UC	Passau	D/UC
Stuttgart	A	Osnabrück	C	Greifswald	D/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)	D/UC	Recklinghausen	D
Dortmund	B	Wuppertal	C/UC	Hamm	D	Remscheid	D
Dresden	B			Hanau	D	Reutlingen	D
Duisburg	B	Albstadt	D	Heilbronn	D/UC	Rosenheim	D
Essen	B	Aschaffenburg	D	Herne	D	Salzgitter	D
Hanover	B	Bamberg	D/UC	Hildesheim	D/UC	Schweinfurt	D
Karlsruhe	B	Bayreuth	D/UC	Ingolstadt	D	Schwerin	D
Leipzig	B	Bergisch Gladbach	D	Jena	D/UC	Siegen	D/UC
Mannheim	B	Bottrop	D	Kaiserslautern	D/UC	Solingen	D
Münster	B	Brandenburg (Hl.)	D	Kassel	D/UC	Stralsund	D
Nuremberg	B	Bremerhaven	D	Kempten (Allgäu)	D	Suhl	D
Wiesbaden	B	Chemnitz	D/UC	Koblenz	D/UC	Trier	D/UC
		Coburg	D/UC	Krefeld	D	Tübingen	D/UC
Aachen	C/UC	Constance	D/UC	Landshut	D	Ulm	D/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	D/UC	Witten	D
Erfurt	C/UC	Eisenach	D	Marburg	D/UC	Wolfsburg	D
Erlangen	C/UC	Flensburg	D/UC	Minden	D	Würzburg	D/UC
Freiburg	C/UC	Frankfurt (Oder)	D/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 square metre 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 square metre of residential space and ideally apply to an apartment with three rooms, around 65 to 95 square metres 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 square metres, 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 square metres or more
- locations on the city outskirts with good transport connections; 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 retailers 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 square metres.

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. 1 and No. 2. 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/logistics 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 between 20 % and 50 %)
- Usually located on the outskirts of cities and easily accessible

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 purposes such as storage, research, services, wholesale and retail
- Capacity for alternative uses depends primarily on the location

Warehouse properties

- Predominantly existing properties with mainly basic storage facilities and in some cases service space
- Within Unternehmensimmobilien, distinguished from modern logistics halls by a maximum size of 10,000 square metres
- 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 square metres.

Rents for warehouse/logistics space are reported in euros per square metre 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 city alliance Magic Cities e. V., which includes 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 (magic-cities.com).

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.

Completions

The completion figures relate to newly constructed hotels and bed-and-breakfast hotels with at least 40 rooms. Renovations and changes in the operator are not taken into account.

List of abbreviations

List of Abbreviations	
ECB	European Central Bank
GDP	gross domestic product
gif e. V.	gif Gesellschaft für immobilienwirtschaftliche Forschung e. V.
IRR	internal 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	Unternehmensimmobilien
UC	university cities

Comments on the Model

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. With regard to property-specific costs, bulwiengesa was supported by Rotermund Ingenieure (rotermundingenieure.de) and by Treureal and its database immobench.de. 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 square metres of residential space and 55 residential units and with average fixtures and fittings. Annual fluctuation of 200 square metres 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 square metres of residential space and 200 fully furnished residential units of 20 square metres 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 square metres. 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 square metres.

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 square metres. 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 (Unternehmensimmobilie)

An existing business park with rental space of 12,000 square metres 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 Reports No. 1 and No. 2.

Warehouses (Unternehmensimmobilie)

A simple existing warehouse with 10,000 square metres 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 Reports No. 1 and No. 2.

Light manufacturing (Unternehmensimmobilie)

A light manufacturing hall with 10,000 square metres 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 Reports No. 1 and No. 2.

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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