

Management for Professionals

Tobias Just
Wolfgang Maennig
Editors

Understanding German Real Estate Markets

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Foreword

The German economy is the largest economy in Europe and ranks fourth in the world. Property values in Germany reflect that importance: the net fixed assets currently amount to approximately 8 trillion euros, of which approximately 60% is residential property, 25% is commercial and 15% is public real estate and infrastructural construction. This market size ensures liquidity, market access and relevance to investors, analysts and university graduates.

I am convinced that international investors, project developers, financial auditors, bankers, lawyers, tax experts and, last but not least, scientists find it exciting to study German real estate markets, as they are unique in some respects and have changed considerably during the last two decades. At the forefront of this change was the German reunification, which led to investments of trillions of euros. Within 10 years, the real estate markets in the New Länder (Eastern Germany) were integrated into the free market economy system of the Old Länder (Western Germany). This rather difficult integration process is continuing and will have an impact on future developments, e.g., the ongoing decline of the number of residents in Eastern Germany. The experiences gained from the changes in the German real estate sector are of interest to regions in Europe and throughout the world that will be facing similar demographic problems in the next few decades.

It is important to point out that the property markets in Germany were able to escape the problems that affected many other markets in industrialised and non-industrialised countries before and after the financial crisis. Many people inside and outside Germany wondered about the stability of the German real estate sector. Specifically, what were the reasons for this stability, and is it possible to derive conclusions for other property market regulations from them? Investors may ask whether the special development of the German property markets could present a good opportunity to commit financially to this sector. As I said, it is in fact worthwhile to analyse German real estate markets.

I would like to draw your attention to another fact: many building standards in Germany are considered to be pioneering. Moreover, in view of energy efficiency,

German real estate is considered to be of the highest standard, not only for a small group at the top, but also for a broad mass market segment. Such is the case despite the fact that the German Certificate for Sustainable Construction was established relatively recently. It is also true that properties in Germany still have a huge potential for energy-efficient upgrading, which will result in billions of euros in investments and the hope that the renovation of buildings will be an appropriate response to the challenges of climate change. I believe we can also learn from the experiences the Germans gained and will gain in this area.

The characteristics of the German real estate markets, however, have yet to be fully described. Investors must deal with special tax regulations. A look into various asset classes can be surprising: although REITs were introduced in Germany in 2007, this segment still is small. Open-end and closed-end property funds suffer from serious problems. The global convergence of investment vehicles is slower than expected, which is why special national approaches still need to be taken seriously.

This book covers a wide range of topics, as there are economic as well as real estate, legal and tax characteristics. To deal with these topics properly, extensive expertise is required. The two editors have commissioned knowledgeable authors for the particular topics. I do not know another English publication that gives such a profound and simultaneously entertaining overview of German real estate markets.

The book, of course, is mainly addressed to readers abroad, especially to investors, finance and valuation companies, developers and consulting firms. In addition, the book offers numerous new facts that domestic market players and, especially, students may find highly rewarding. Those looking for a quick introduction to German real estate market issues will find answers not only to important questions but also to questions that have not been raised yet.

Last but not least, I wish that all of you will enjoy reading the book.

Prof. Dr. Karl-Werner Schulte
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Acknowledgments

During the economic crisis of 2008 and its aftermath, we developed the idea that there should be a generally intelligible book in English on the German real estate sector. However, it was only in 2010 that it became clear that the German economy was recovering earlier than hoped. We were convinced that in the coming months there would be many more questions abroad about the German property markets than in 2009. Therefore, the project had to be launched and finalised as quickly as possible.

We would like to thank our authors for having dedicated themselves to the project despite their enormous workload. The work on the book also led to some interesting networking connections and discussions beyond the individual chapters. We heard from many sides that our assessment of the growing importance of the German real estate sector in the next few years was shared, and this was an important motivation for this project. Thus, we were able to meet our ambitious schedule.

Furthermore, we would like to thank those who often remain unmentioned even though they allow such projects to be realised in the first place: Sabine Berger supported us by organising and coordinating key tasks; Ulrich Clemens produced a consistent format from many manuscripts, graphics and styles and we are grateful to Christian Rauscher from Springer Verlag who helped us in the concept and preparation phase.

Finally, of course, we thank you, dear reader, now holding this book in your hands, for having been our motivation. Without you, we would have never started the effort of writing it. We would be pleased if you find the book interesting and take it as a starting point for a study of German real estate markets. Perhaps the book will also allow for more rapid networking with market players. We are looking forward to new ideas and impetuses.

Tobias Just
Wolfgang Maennig

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Part I
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Real Estate Data Sources in Germany

Michael Voigtländer

Abstract Market Information are essential for rational property investment decisions. This chapter outlines the range of available data on the property market provided by official sources as well as private enterprises. Data on prices and rents in Germany not only capture different segments of the market but also rely on different calculation methods. Therefore, investors have to check price developments carefully. Fundamental market indicators like the growth rate, the employment development and the demographic change are thus an important complement to price indicators.

Keywords Data • Databanks • Official statistics • Price indices

1 Introduction

National and international property investors depend on information about the real estate market. Those active in the market naturally focus on current price and rent developments, but are also keenly aware that demographic change, economic growth and building completions have an important bearing on the prospects for their investments. In recent years the supply of information about the German property market has improved markedly. While undoubtedly positive, this trend also makes it increasingly difficult to assess the quality and predictive power of the information on offer. The following chapter, which provides an annotated review of official and commercial real estate price statistics in Germany, is an attempt to remedy this.

The review is intended to provide a brief introduction to, rather than a comprehensive synopsis of, this important field. The paper is structured as follows: First, general market sources, such as interest rates and population growth, are presented. Price and rent data are then described. While general market data is mainly provided by government statistics obtainable from official sources, property prices are largely provided by private institutions like market researchers, banks and real

estate agents. The quality of this information must therefore be carefully assessed. Major methodical differences in calculating price indices are thus discussed before the main indices are presented. The chapter concludes with the outlook for future developments.

2 General Market Data

Unsurprisingly, given its size and overall economic importance, the property market is not an isolated phenomenon but inextricably woven into the fabric of the economy (Voigtländer 2009a). For this reason it needs to be analysed in the light of the short- and long-term development of the overall economy. For this, it is possible to draw on a rich set of official statistics. Those most important for the purpose of general market analysis are outlined below. This is preceded, however, by a brief overview of the relevant authorities which provide official statistics.

2.1 Authorities Responsible for Official Statistics

Official statistics are collected, processed, presented and analysed by the Federal Statistical Office (*Statistisches Bundesamt*), by the statistical offices of the 16 states (*Länder*) and by county and municipal administrations. Statistics are also produced by some government ministries, lower level federal bureaux and other official institutions. These include the Federal Employment Agency (*Bundesagentur für Arbeit*), the Bundesbank, the Federal Institute for Research on Building, Urban Affairs and Spatial Development (*Bundesinstitut für Bau-, Stadt- und Raumforschung*, BBSR) and the Federal Institute of Demographic Research (*Bundesinstitut für Bevölkerungsforschung*, BiB).

Official statistics offer a number of advantages:

- The Federal Statistical Office publishes data with no financial or commercial objectives of its own and is bound by law to provide impartial information. This guarantees objective reporting.
- The mandatory disclosure of information to the Federal Statistical Office allows this body to obtain highly representative results for the overall statistical population.
- The Federal Statistical Office is required to apply appropriate statistical methods which are subject to ongoing academic and scientific discussion. The methods and techniques applied, as well as definitions used, are documented in detail in all publications.
- The comparability of data over time is guaranteed by standardised definitions and classifications. Retrospective recalculations are usually performed in the event that definitions are changed.

These characteristics make official statistics highly reliable and credible. However, high quality standards are sometimes achieved at the cost of significant delays in the provision of data.

2.2 General Market Data in Official Statistics

Official statistics provide a plethora of data of relevance both for assessing the market and analysing future trends. The following areas deserve particular attention.

2.2.1 Real Estate Stock and Building Activity

The official statistics provide detailed information about the housing stock. To date, annual figures have merely updated census data from 1987 onwards for western Germany and from 1995 for eastern Germany (the former German Democratic Republic). With the census conducted in 2011, however, data for the housing stock will be completely revised.

Detailed data about the housing stock can be found in the special publications of the microcensus (Statistisches Bundesamt 2008). The microcensus is based on a 1% sample of the housing stock, and this data is used to survey property structures and fittings and their users. This publication is produced by the Federal Statistical Office every 4 years and will next be updated in 2011.

Corresponding data sources are not available for the commercial property market, with detailed information only being provided on building activity. In addition to pure construction figures for residential and commercial properties, the relevant publications also include average estimated construction costs and building owners. The Federal Statistical Office also publishes monthly incoming orders in the commercial building, housing and public building sectors. The Federal Statistical Office's Genesis database is an additional important source of information and provides data on housing stock and building activity at the district level (www.regionalstatistik.de). The declared intention is to continually expand and improve the supply of data.

2.2.2 The Real Estate Industry

The national account system (*Volkswirtschaftliche Gesamtrechnung* VGR) provides information about the real estate industry in terms of the companies operating in the real estate market. The VGR documents economic activity in the overall economy over a particular period of time. By quantifying the domestic product, i.e. the value added to the national economy, the VGR also serves to calculate the volume of labour and the distribution of income. As national accounts

are provided at the sector level, it is possible to compare economic trends in specific branches of industry with the performance of the economy as a whole or with other sectors. In the national accounts real estate is included under 'service undertakings' and then under the generic heading of 'real estate activities'. The latter covers the whole field of renting and letting, the development of land and the buying, selling and management of real estate. Other areas of the real estate industry, such as financing or planning, are assigned to business sectors. The construction industry is listed separately. Service statistics provide a somewhat more detailed view of the real estate industry. In order to reflect the greater importance of the tertiary sector, since 2000 the Federal Statistical Office has published extensive data on service companies. This information includes, in particular, the legal form of companies, the number of employees, sales and investment activity (Statistisches Bundesamt, 2010).

2.2.3 Demographic Trends

The Federal Statistical Office intermittently publishes population projections for Germany as a whole as well as for the 16 federal states. Projections are also made for the number and structure of private households. Forecasts for specific municipalities are supplied by the Bertelsmann Foundation on its website at www.wegweiser-kommune.de. The Bertelsmann Foundation produces its projections in collaboration with the Institute of Development Planning and Structural Research (*Institut für Entwicklungsplanung und Strukturforchung*) at the University of Hanover. This information is not, therefore, part of the official statistics. Drawing on the population and household projections produced by the Federal Statistical Office, the Federal Institute for Research on Building, Urban Affairs and Spatial Development (*Bundesinstitut für Bau-, Stadt- und Raumforschung* BBSR) also publishes forecasts of future residential space usage (BBSR 2010).

2.2.4 Labour Market Data

Labour market data is helpful for monitoring the office property market, since the amount of occupied office space can ultimately be derived from the number of office workers. On its website www.statistik.arbeitsagentur.de the Federal Employment Agency publishes extensive statistics which can be used to calculate office employment trends differentiated by region. Market researchers and research institutes such as the Cologne Institute for Economic Research (*Institut der deutschen Wirtschaft Köln IW*) use this data to produce their office indicators, which depict the development in the demand for office space for Germany as a whole and also for selected states (Voigtländer 2009b).

2.2.5 Interest Rates

The European Central Bank and the Bundesbank publish the key interest rates of the Eurozone, interest rates for government securities, Pfandbriefe and other bonds. This data is published in regular monthly reports. The Bundesbank website (www.bundesbank.de) is a further source of useful data, including interest rate time series.

3 Real Estate Prices and Rents

Information about rents and property prices is, of course, especially relevant for the assessment of the market. Before outlining the sources of data used in public and private statistics in this field, the following section begins by addressing specific problems relating to the measurement of property prices.

3.1 *Methods of Calculating Property Price Indices*

Professionals working in the field frequently complain about the fact that, despite their great significance for the economy, the Federal Statistical Office neglects property price trends. However, these critics overlook the fact that determining the price of real estate is a far more complex task than pricing other types of goods. Given that location, structures and fittings basically make every property unique, the property market is extremely heterogeneous. Even buildings constructed in exactly the same way may be bought and sold at considerably different prices simply owing to their locations. Structures and fittings vary considerably, while buildings may also differ in terms of size, age or energy efficiency. Property prices must therefore be adjusted for these factors before comparable data can be obtained, or, to put it differently, price changes should only be shown after adequate consideration has been given to quality differences. Figure 1 shows what happens if prices are not adjusted for quality differentials. Until very recently the Federal Statistical Office simply recorded average building land prices and failed to take account of different locations. As most land bought and sold between 2003 and 2006 was situated in southern Germany, the prices given for building sites trended upwards simply because land in the rich south is more expensive than in the poorer east and north of Germany. A pilot project (Vorholt 2008) was carried out to adjust the data for the various locations and revealed that building land prices have actually risen at a much lower rate than previous publications suggested. To be fair, it should be noted that the Federal Statistical Office did always stress in earlier publications the difficulties of comparing data over time.

In general there are three ways of adjusting the property price data for qualitative factors:

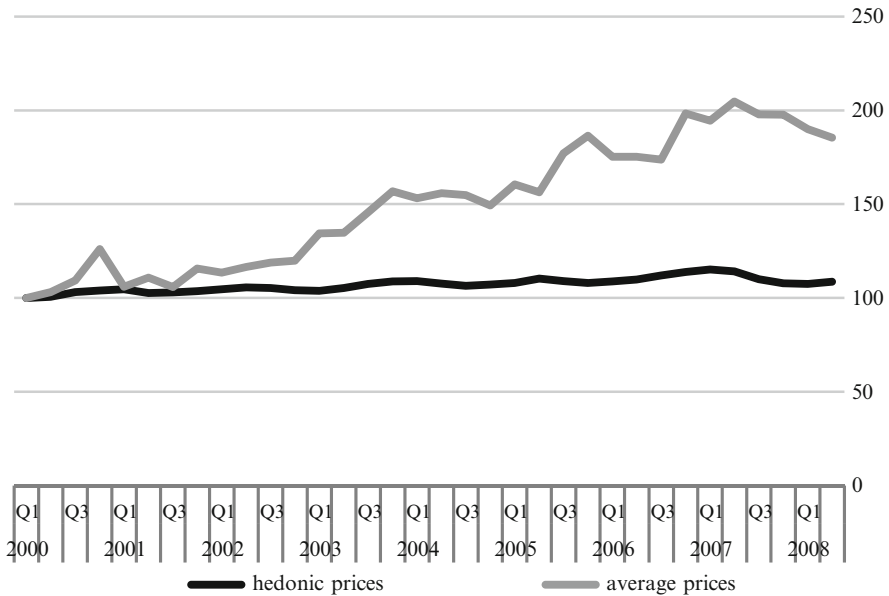


Fig. 1 Hedonic and average price development of building land (Source: Demary et al. [2009])

- The first method calculates the average square metre price of all property transactions over the relevant period, taking account only of typical buildings such as terraced houses or condominiums. The disadvantage of this relatively simple method is that it ignores the varying quality of property and very little account can be taken of different locations. Therefore, quality adjustments are rather incomplete. What is more, the focus on specific types of building can also distort the view of the overall market. Nonetheless, this method continues to be very popular in real estate market research.
- The second method is the so-called “repeated sales method” which only takes account of properties which have been sold at least twice during the survey period. This method guarantees effective quality adjustment of property price data because account is only taken of changes in qualitatively identical properties. The problem, however, is that this selection of properties can be far too small to produce a representative sample for the property market. For this reason this procedure has not yet been used in Germany. In the United States, however, the well-known house price index of the Federal Housing Finance Agency (FHFA) and the Case Shiller indices are calculated in this way.
- The third possibility is to use a hedonic procedure in which the price of a property is broken down into individual price elements with the help of econometric procedures. Average prices can then be determined for specific structures and fittings (balcony, chimney, bathrooms), locations (distance from city centre) or the age of the property. It is then possible to determine prices for typical properties over a period of time. The advantage of this method is that all

available data can be used. Considerable research is currently underway in this area and the approach adopted by the Federal Statistical Office and the Association of German Pfandbriefbanks (*Verband deutscher Pfandbriefbanken vdp*,) for their property price indices are both already based on hedonic price indices for Germany.

3.2 Rents and Prices in the Official Statistics

As part of the process of measuring consumer prices, the Federal Statistical Office conducts surveys of changes in residential rents and running costs. While distinguishing between dwellings in old buildings and those in new buildings it does not provide any regional differentiation or quality adjustments. However, given the size of the sample, quality-based distortions are likely to be relatively small. The Federal Statistical Office has recently begun determining house prices using hedonic methods (Dechent 2008) whereby new properties are differentiated according to the categories ‘owner built’, ‘system building construction’ and ‘turnkey construction’.

While quarterly results are already available for the years 2000–2007 they are of only very limited value for a number of reasons. Firstly, information from the valuation committees is so far only available for seven states. Moreover, because the values for new buildings do not include the price of land, these indices are ultimately construction cost indices. While they provide some information about the costs faced by property owners and the potential impact of prices, it remains unclear what share of the increase in property prices really can be passed on to purchasers.

As yet, however, this house price index is still at the project stage. Since the objective is to provide harmonised reporting across the European Union, the project is being supported by Eurostat and completion is planned for 2012. Since important users, such as the European Central Bank, are strongly interested in obtaining reliable data about property prices, the chances are very good that within a few years it will be possible to publish quarterly house price indices for several regions very shortly after the period under review.

With regard to commercial property the data situation is much more difficult. Since the central banks have not yet asked for additional data, the Federal Statistical Office has yet to propose a suitable pilot project. However, the Federal Institute for Research on Building, Urban Affairs and Spatial Development (*Bundesinstitut für Bau- Stadt- und Raumforschung*, BBSR) has indicated interest in this topic in recent years. Extensive reports are already being produced on the development of commercial property markets, for example (BBSR 2009). What is more, regular monitoring of commercial property markets is planned, and this should result in better information in the future. Official statistics continue to provide data on building land prices, differentiated by state, and construction cost indices.

One particularly important data source for real estate appraisers is the land valuation committees (*Gutachterausschüsse*). Established under the Federal Building Code (*Baugesetzbuch*), these public institutions usually operate under the auspices of the counties and county boroughs and their task is to ensure transparency in the real estate market. To this end, they collect prices from all notarized real estate purchase agreements. They determine and publish standard land values, provide other information needed for determining values and also commission market value reports.

The valuation committees are increasingly interested in working together at the national level and in communicating their findings more effectively. The Higher Valuation Committee in North Rhine-Westphalia, for example, runs an extensive internet portal which also offers electronic access to standard land value maps (www.boris.nrw.de). In 2010 all higher valuation committees issued a joint findings report (Arbeitskreis der Gutachterausschüsse 2010). Many committees regularly publish reports on developments in the property market in their areas. However, the reporting activities of the valuation committees differ widely in terms of both their scope and the detail of their presentation, making it very difficult to compare information. Some of the main advantages of public statistics mentioned above, apply only to a limited degree to the valuation committees.

3.3 Rents and Prices from Private Sources

Relevant market information as well as information on rents and prices is available not only from official statistics but also from a number of real estate associations and private data providers. The following overview does not claim to be comprehensive, especially given that the information offered on the market is constantly growing. It does, however, try to show some of the different data sources available and the types of data survey methods applied and to help users to find suitable ways of using the information available.

3.3.1 Association of German Pfandbrief Banks

The Association of German Pfandbrief Banks (*Verband deutscher Pfandbriefbanken e. V.*, vdp) has founded a subsidiary called vdp research that focuses on the quantitative survey and analysis of property markets from the perspective of the financial and banking industry (www.vdpresearch.de). As these market players are largely interested in assessing market and individual property-related risks, this is also the fundamental perspective adopted by the vdp-subsiidiary.

Of special importance for market participants are property price trends in Germany as a whole as well as price movements in specific regional markets.

In particular, vdp research aims to provide property price indices for the following two purposes:

- Meeting regulatory requirements in the banking industry, such as measuring market fluctuations under Section 20a (6) of the German Banking Act (KWG),
- The calculation of long-term market values for the purpose of determining potential losses in the case of default.

Property price trends are largely determined by means of a transaction database – established in cooperation with the vdp's members – and associated evaluation models. The database was set up in 2004 and by 2010 contained property information on more than 500,000 buildings derived from property valuation reports drawn up for property financing transactions. The data quality is generally very high and, including as it does both current transaction prices and key value-related attributes, of very high predictive power.

Quantitative hedonic models are used to analyse the transaction database, filtering out differences in quality in the specific properties included in the database and measuring pure rent or price trends. Currently, vdp research offers analyses of rent and price trends in German residential and commercial property markets at the national and regional levels. With respect to commercial markets and condominiums, however, only the major office markets and city groups are surveyed. Data on the national level is generally freely available whereas access to regional data is restricted to those banks which supply data.

3.3.2 Association of Real Estate Agents (IVD)

The Association of Real Estate Agents in Germany (*Immobilienverband Deutschland IVD Bundesverband der Immobilienberater, Makler, Verwalter und Sachverständigen e.V.*, IVD) publishes annual property prices for the housing market based on information provided by real estate agents. At present, these cover 390 towns and cities for the housing market and 370 towns and cities for the commercial property market (IVD 2010a, b). Prices are stated for different types of property on the housing market categorised according to size and housing quality (condominiums, detached and semi-detached family homes and terraced houses), for land (categorised by location) and for residential rents according to housing quality and multipliers for investment properties.

Land prices in trading estates and business parks, office rents for various location categories, and retail rents in two location categories are produced for the commercial property market. The data has a long history (albeit not for all towns and cities), going back as far as the 1970s in some cases. The data only takes account of estimates obtained from locally reporting IVD estate agents and, since these change over time, the data is occasionally impaired by structural discontinuities. For this reason IVD does not publish any time series.

3.3.3 Brokers and Banks

Almost all internationally or nationally active brokerage firms issue market reports on specific locations or classes of use. These market reports focus especially on newly let properties and often provide a very detailed picture of local markets. However, they often contain subjective statements and, since they do not always use the same definitions or make the same distinctions, it is difficult to compare the reports of different brokers. Whilst their focus on metropolitan areas additionally limits their analysis, many nonetheless offer an extensive and up-to-date overview.

More and more reports are now being produced by banks. Deutsche Bank, HSH Nordbank, Eurohypo, Dekabank and the Deutsche Hypo all publish regular market assessments which are usually backed up by considerable statistical data. All these reports discuss the overall economic situation and often contain forecasts of future market trends. The reports issued by the HypoVereinsbank are a special case. Covering 1,300 towns, cities and local authorities, these reports detail average rents and prices for residential property in various locations and with a wide range of different structures and fittings. The Landesbausparkassen also publish in-depth regional data on the market for detached family homes and condominiums.

3.3.4 BulwienGesa

The annual property rent and price indices published by BulwienGesa play a very important role in Germany and provide the basic information used since 2003 by the Bundesbank in its own property price surveys. According to BulwienGesa, the indices are based on expert appraisals prepared for location and market analyses complemented by empirical surveys, local surveys, newspaper analyses and test purchases. Data has recently been obtained from online platforms such as ImmobilienScout24.de. BulwienGesa maintains an extensive database of rent and property prices (RIWIS database, www.riwis.de) and publishes an overall indicator for the property market composed, since 1990, of nine equal subindicators which are surveyed in 127 towns and cities. The history of the indicator goes back to 1990 (and back to 1975 for 49 towns and cities in former West Germany). The overall indicator is an average weighted according to the cities' populations in 2005. In addition to the overall and individual indices, BulwienGesa also publishes summary indices for commercial and residential property as well as separate rent and price indices.

BulwienGesa additionally calculates a performance index for the German market (German Property Index – GPI) showing total returns for the office, retail, residential and logistics segments and differentiating between returns on capital growth and on cash flow. The advantage of the data provided by BulwienGesa is its breadth and the regional differentiation it offers. The disadvantage, however, is that it draws on mixed data sources which are not always clearly identified. Moreover, rather than adjusting prices, BulwienGesa states average prices for typical

buildings. This means that the comparability of data from different locations and over time is limited.

3.3.5 GEWOS Institut für Stadt-, Regional- und Wohnforschung

The GEWOS Institute for Urban Regional and Housing Research (*Institut für Stadt-, Regional- und Wohnforschung*) surveys price trends as they affect residential building land, condominiums and detached houses and publishes this information in annual property market analyses. The data is obtained nationally from valuation committees and evaluated according to uniform criteria. Gaps are filled using data from property transfer tax statistics and from the company's own surveys and expert appraisals. Drawing on the GEWOS data the Institute of Urban Planning, Housing Industry and Building Societies (*Institut für Städtebau, Wohnungswirtschaft und Bausparwesen*, ifs) publishes regional indices (the DEIX-Deutscher Eigentums-Immobilien-Index – German Ownership Property Index) on the price trends affecting condominiums and detached single-family homes. Data is available for western Germany since 1989 and for eastern Germany since 1995 in the form of average values which take no account of building age, location, property fittings, etc. The information produced is based on a comparatively large number of observations (184,400 detached homes and 186,800 condominiums in 2007). As a result, differences in the samples at the single property level are at least to some extent evened out. The regional weighting of national or regional indices is determined by the number of regional purchases. However, an average value method or a typical case method with a very rough definition of the underlying case is applied.

3.3.6 Hypoport

Hypoport runs an internet platform (EUROPACE) for brokering mortgage credits. According to Hypoport, an average of roughly 8,000 loans are arranged every month, equivalent to around 10% of private property financing transactions in Germany. This data is then used to compute hedonic indices for new and existing detached and semi-detached family homes and condominiums. The indices are based on sale prices according to the floor area estimated in loan applications.

The hedonic hpx indices are calculated using separate regression models for each index including: variables for micro- and macro-locations (radial rings around urban regions subdivided by the four points of the compass), unit sizes and building age (for existing detached family homes and condominiums) as well as the number of dwelling units per property (in the case of condominiums).

The rough classifications used in traditional property price indices restrict the usability of such indices. The idea of hedonic indices is to overcome these restrictions. However, the methods used are in many cases not made explicit and

there is some doubt about whether the data sets available for a monthly index really are large enough.

3.3.7 Immobilienscout24.de

Immobilienscout24.de is Germany's most important website for private housing transactions. Since sellers have to provide detailed information on their property, the database contains enough information to calculate hedonic price indices on the regional level. In addition, immobilienscout24.de has information not only on the supply but also on the demand side. For example, the number of requests and page views for specific real estate indicate the strength of demand in a distinct area. With the website now counting 150,000 new offers per month, so-called imx indices provided by Immobilienscout24.de have rapidly become popular. The imx measures the development of asking prices adjusted for quality differences using a hedonic approach. That the index is based on asking prices and not transaction prices, however, is a major drawback. Depending on the market situation, the differences between the prices can be very high. Researchers are currently trying to evaluate the relationship between transaction and asking prices in Germany in greater detail.

3.3.8 Investment Property Databank

The Investment Property Databank (IPD) has been publishing annual indices of total return on direct property investments since 1995. In contrast to all other surveys, the data originates from institutional investors. The IPD determines the average total return derived from net revenues from rents and lets as well as capital growth returns for all portfolio investments made by the participating businesses, including separate results for the retail, office, residential, industrial and other/mixed use segments. The 2009 IPD database was produced from information for 4,220 properties: 897 office, 472 retail, 2,306 residential, 193 industrial and 352 other/mixed use properties.

The IPD offers performance indices and a geocoded 'lease intelligence database', which provides information about lease agreements and thus enables rent markets and various types of use to be analysed in highly circumscribed geographical areas. The database is used by IPD to produce an annual DMX (German Office Potential Lease Index). This provides a comparison of average rents under existing contracts and of professionally evaluated sustainable gross incomes from potentially rising or falling rents in the markets.

Thanks to the fact that IPD data is directly collected from the portfolio data of institutional investors and that rigorous standardisation methods are applied, the data quality is very high. As IPD also applies international standards, international comparisons are possible. The disadvantage, however, is that the data set for Germany is relatively small, in contrast to that for the United Kingdom, where

IPD has become the benchmark for commercial property investors. A further drawback is that IPD only has data from appraisals which are typically smoothed compared to transaction data (Fisher et al. 2004)

3.4 Differences Between the Price Indices

To illustrate the general differences between the various price indices presented above, Fig. 2 shows the price developments indicated by the various data providers.

For easier comparison only the change in residential property prices has been calculated. For IPD the capital growth of residential property has been used.

In general, the graph illustrates the spectacular heterogeneity of the price indices. Remarkably, the indices differ not only concerning levels but also with respect to growth rates. Only in 2008 and 2009, and only if BulwienGesa is omitted, can a common trend be detected. Price changes range between 0.2% (vdp) and 4.0% (hpx) in 2006 and between 1.4% (BulwienGesa) and -3.0% (imx) in 2009. One reason for the disparity, of course, is that the indices draw on different databases. IPD measures the performance of property held by institutional investors while the imx captures prices offered for property mainly held by households. Nevertheless, even between the vdp index and the hypoport index, which both refer to data

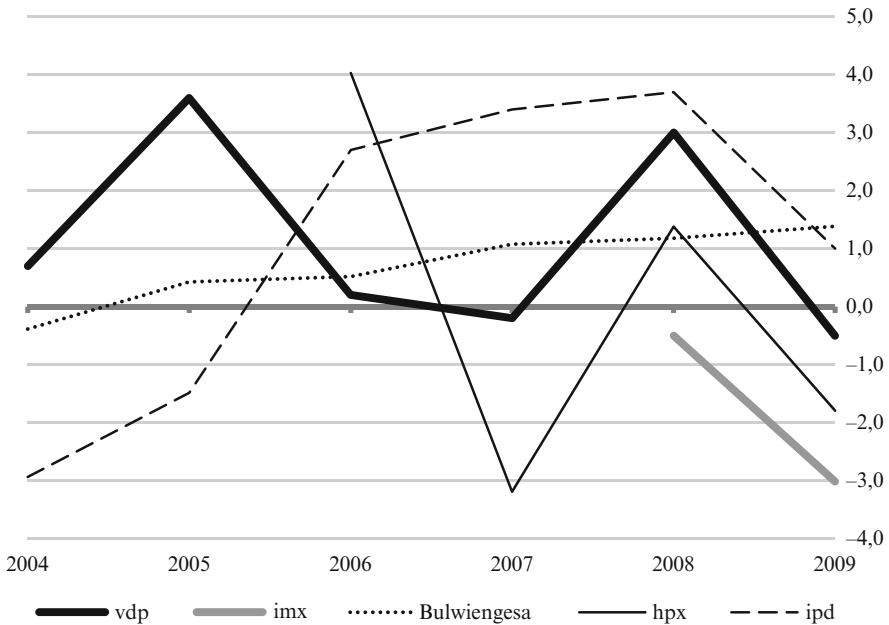


Fig. 2 Price development of residential property (in per cent) (Source: Author’s own calculations)

provided by banks – and to some extent by the same banks – the differences are striking.

Against this background, it is difficult to give investors advice. Since the official price indices are still in an early stage of development, there is as yet no benchmark. The vdp index may well be capable of filling this gap but access to detailed data is only granted to members of the project. Moreover, it is important to understand that the objectives of the indices are different. For instance, the ipd analyses mainly aim at providing a benchmark for institutional investors while the DEIX primarily captures the market for single family houses. Thus, the choice of an index depends strongly on the underlying aim or question. In addition, investors must necessarily be cautious about data and subject information to thorough checks. In view of this, general market data will for some time to come remain an important source of information on the prospects for the property market.

4 Outlook

This survey makes clear that there is a plethora of information available on the real estate market. Yet useful data is sometimes hidden in the official statistics or restricted to certain groups. In addition, there is still a lack of leading indicators for the property market, especially concerning prices and rents. This situation makes it extremely difficult for foreign market participants to evaluate the German market. However, the situation is improving rapidly. With the emergence of new and sophisticated hedonic indices, less professional data providers will gradually be forced off the market. Furthermore, the introduction of an official house price index by the federal statistical offices and the increasing coordination between valuation committees will enhance the transparency of the residential market. For the time being, though, investors will need to treat information from this very heterogeneous market with considerable caution and continue to rely on their own research. Additionally, for a comprehensive overview of the market a cross-check of property market data with business cycle indicators is highly advisable.

References

- Arbeitskreis der Gutachterausschüsse und oberen Gutachterausschüsse (2010). Immobilienmarktbericht 2009. Oldenburg.
- BBSR – Bundesinstitut für Bau-, Stadt- und Raumforschung (2009). Marktentwicklung von Büro- und Einzelhandelsimmobilien aus Akteurssicht. In BBSR-Berichte KOMPAKT 5/2009.
- BBSR – Bundesinstitut für Bau-, Stadt- und Raumforschung (2010). Wohnungsmärkte im Wandel. Zentrale Ergebnisse der Wohnungsmarktprognose 2025. In BBSR-Berichte KOMPAKT 1/2010.
- Dechent, J. (2008). Häuserpreisindex: Projektfortschritt und erste Ergebnisse für bestehende Wohngebäude. In *Wirtschaft und Statistik* 1/2008, pp. 69–81.

- Demary, M., Gans, P., Meng, R., Schmitz-Veltin, A., Voigtländer, M., and Westerheide, P. (2009). Wirtschaftsfaktor Immobilien: Die Immobilienmärkte aus gesamtwirtschaftlicher Perspektive. In *Zeitschrift für Immobilienökonomie*, Sonderausgabe 2009.
- Fisher, J., Geltner, D., & Webb, B. (2004). Value indices of commercial real estate: A comparison of index construction methods. *Journal of Real Estate Finance and Economics*, 9, 137–164.
- IVD. (2010a). IVD Gewerbe-Preisspiegel 2009/2010, Berlin.
- IVD. (2010b). IVD Wohn-Preisspiegel 2009/2010, Berlin.
- Statistisches, Bundesamt. (2008). Mikrozensus Zusatzerhebung 2006 – Bestand und Struktur der Wohneinheiten. Wiesbaden.
- Statistisches, Bundesamt. (2010). Strukturhebung im Dienstleistungsbereich - Grundstücks- und Wohnungswesen, Vermietung beweglicher Sachen, Erbringung von wirtschaftlichen Dienstleistungen, a.n.g. Wiesbaden.
- Voigtländer, M. (2009a). The German property market – structure and trends, Association of German Pfandbriefbanks (ed.), Berlin.
- Voigtländer, M. (2009b). BIBIX – Der Büroimmobilienbedarfsindex des IW Köln. In *IW-Trends*, Heft 2/2009.
- Vorholt, H. (2008). Entwicklung eines Preisindex für Bauland. In *Wirtschaft und Statistik*, pp. 142–147.

Size and Impact of Real Estate Sector and Its Role for Business Cycles and Growth

Wolfgang Maennig

Abstract The real estate industry is one of the most important industrial sectors of Germany. Its development and the development of real estate values are most important to Germany's economic business cycle and the country's long-term growth path. Germany's real estate price trend stagnated for at least a decade and a half and thus deviated from the international pattern. The underlying structural differences include, amongst others, the demographic development, the characteristics of the German real estate finance system, the fiscal policy and a decade-long low and stable general inflation. In return, the real estate sector in Germany – particularly when compared to other countries – serves rather a stabilising function in periods of weaker economic conditions.

Keywords Construction • inflation • market size

1 Housing Markets and the Economy

More than 700,000 German companies are active in the real estate industry and employ around 3.8 million people, which is the equivalent of a 22% share of all businesses and 10% of Germany's workforce. The gross value added of the real estate economy totalled 406 billion € in 2007, which equals a share of 18.7% of Germany's gross value added (Gutachter-Gemeinschaft 2009). This makes it safe to say that the real estate industry is one of the most important industrial sectors, second only to the manufacturing business. The value of real estate assets in the Federal Republic of Germany is estimated to total approx. nine trillion euro, which is triple the German gross domestic product. Around half of all assets held by private households represent real estate. For banks, too, real estate plays a key role, as real estate financings account for 55% of all loans (Gutachtergemeinschaft 2009). Nearly eight in ten Germans consider owner-occupied homes the optimal type of investment, while 54% believe that real estate has an excellent inflation-hedging

capacity. In fact, 87% assume that homeownership will continue to play an important or indeed a more prominent role as retirement scheme.

With these figures in mind, the development of real estate values and of the real estate sector as a whole is as important to Germany as it is to other countries,¹ including for Germany's economic business cycle and the country's long-term growth path: Given its central significance in the capital formation (and retirement schemes) of private households, not just current, but also anticipatory changes in real estate values clearly impact consumers' willingness to spend.

During the global economic crisis of 2007/2008, the real estate sector in Germany – particularly when compared to other countries – served rather a stabilising function. Accordingly, residential rents rose by about 1%, as in previous years, and because of the decline in commodity prices they even slightly outpaced the inflation rate.² Real estate prices stagnated or decreased (only) slightly, the situation being comparable to the time before the economic crisis.³ Nearly all important countries, such as e.g. the United States, Spain, Ireland, the United Kingdom, the Scandinavian as well as many Eastern European and Asian countries⁴ initially reported brisk capital growth during the 1990s and price dips by 2008 at the latest, which triggered or exacerbated the economic dip (cf. Cieleback, in this book).

The deviation of Germany's real estate price trend from the international pattern is explained by the average available real per-capita income – which has stagnated for at least a decade and a half, the relatively high nominal interest rate, and the demographic development.⁵ It is also explained by the characteristics of the German real estate finance system (including relatively long interest fixings of 5–10 years instead of a variable interest rate, relatively low LTVs for first-time buyers, virtually no secondary mortgages during a boom market, among other things) and the fiscal policy (non-deductibility of interest expenditures for owner-occupied homes, high transaction costs, for instance in the form of real estate transfer taxes).⁶ Another price-retardant effect can be traced back to the subsidised construction boom following the country's reunification in 1990, especially in East Germany. The downscaling of many subsidy programs (homeownership subsidy,

¹ On the considerable influence of the real estate economy on the economic situation in general, see Leamer (2008).

² See Wiegand (2010). In 2009, the situation actually resembled a general deflation. The rent increase of previous years always undercut the general inflation rate.

³ Cf. Wiegand (2010), p. 42 and Gutachtergemeinschaft (2009), p. 123. The prices of commercial real estate, however, suffered steeper losses than prices for residential real estate.

⁴ Canada manifested a stagnating price trend that more or less matches the German curve. Japan has been subject to a recessive price trend for some time now.

⁵ See Kholodilin et al. (2008). For the German situation in regard to economy and inflation, the interest rates targeted by the ECB, which had to take fast growing countries like Spain, Ireland, etc. into account, were too high. A higher degree of urbanisation has principally a positive effect on prices. Since it has been on a high level in Germany for an extended period of time, though, it has practically ceased to be the source of positive developments.

⁶ For individual points, see Gutachtergemeinschaft, 2009, p. 152 and Wiegand 2010, p. 42.

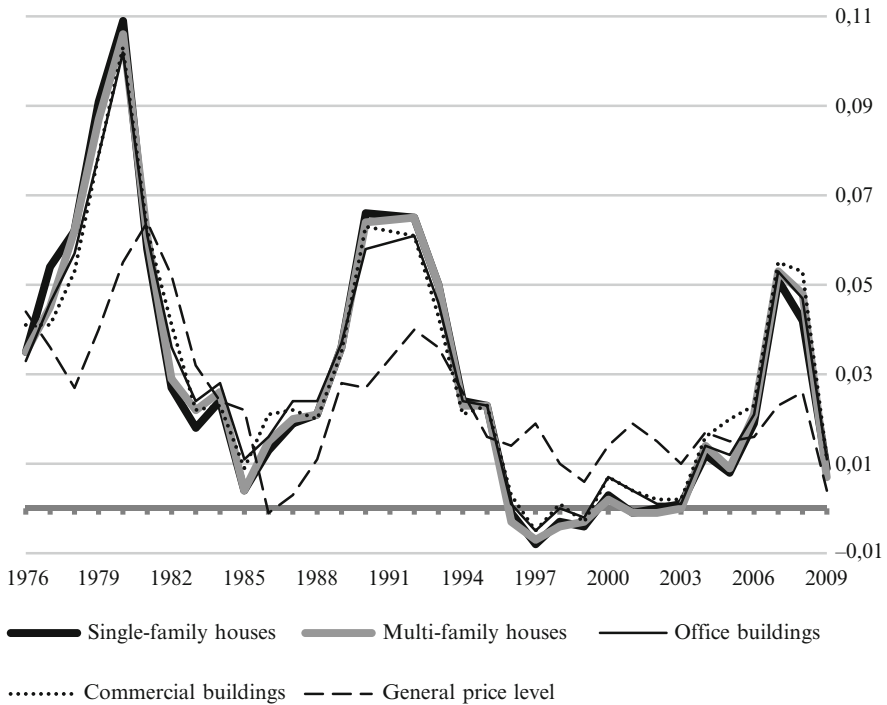


Fig. 1 General inflation rate, price increases for construction services for various building types, 1976–2009 (Source: Destatis)

degressive deduction for depreciation, special deduction for depreciation) since the mid-1990s has put an additional damper on the price trend.

Another reason for the stable price trend of German real estate is the fact that Germany’s inflation rate has, on the whole, been modest over the past decades (Figs. 1 and 2), which was not exactly conducive to getting people to “seek refuge in tangibles.” In the years 1991 through 2009, the general annual inflation rate in Germany averaged around 1.8%. Largely on the same level were the inflation rates for building work in the construction of single- and multi-family homes, operational office and business buildings, where it ranged between 1.6% and 1.9% in the annual mean, thus ensuring a slow growth in replacement costs. The average price increases for the maintenance of multi-family homes equalled 2.2%. Only the mean annual rate of price increases for zoned land was markedly higher at 6.5%, suggesting a bottleneck tendency for building land.⁷

⁷ The stats for the time between 1976 through 2009 (with the year 1990 omitted because of the interruption of the data series during that year) reflect a similar situation: the mean general inflation rate for Germany approximated 2.4%, while the inflation rates for building services in construction for single- and multi-family homes, operational office and business buildings averaged a rate between 2.8% and 2.9%. The average price increase for the maintenance of apartment blocks equalled 3.1%, and the increase for zoned land was 6.9%.

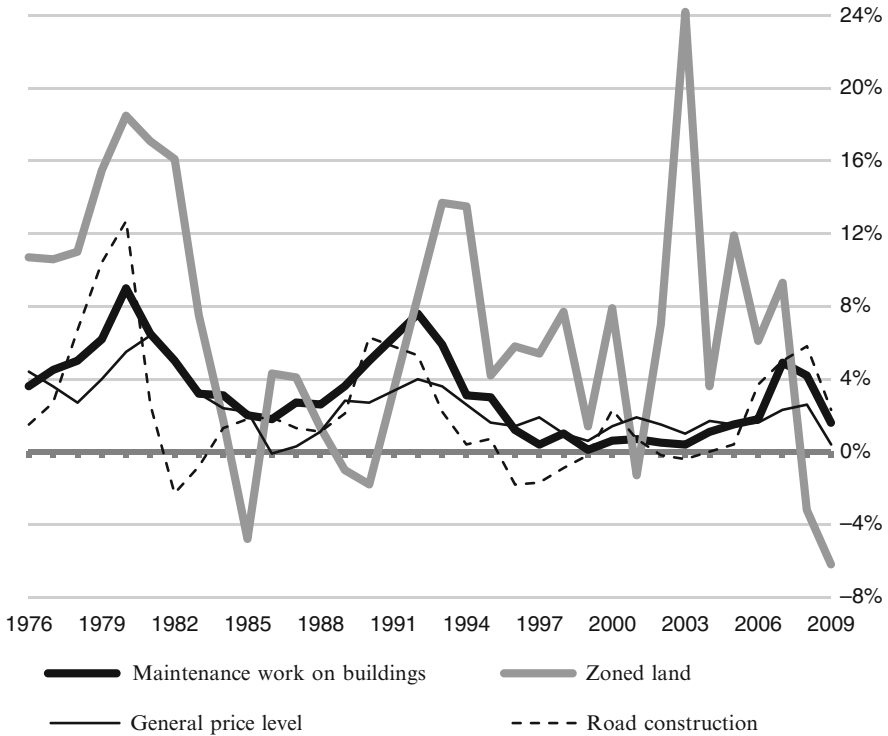


Fig. 2 General inflation rate, price increases for zoned land, maintenance work on apartment buildings and road construction, 1976–2009 (Source: Destatis)

2 Construction Activity in Germany

Before the background of the low price volatility of the real estate, it comes as no surprise that the German investment activity in the real estate area has been relatively stable in turn. Figure 3 illustrates that building investments – not including the historically unique time of the German reunification, which was defined by particularly voluminous investments – have developed at a relatively stable rate. During the period between 1991 and 2001, the housing investment average exceeded the 1970–1988 period by an average of 47%. Since 2002, the investment activity in housing construction flattened out again on, but it did so on a level around 31% above the period of 1970–1988. The average index value for non-residential building investment approximated a score of 90 for the years 1970 through 1988, with 1991 serving as reference year. In the period between 1991 and 2001, the average non-residential building investments rose by around 12% before dropping back to around 8% below the level of 1970–1988 (!) in the years since 2002.

The change in investments activity in housing construction between the 1980s and the time since 2002 compares well to the population increase caused by the

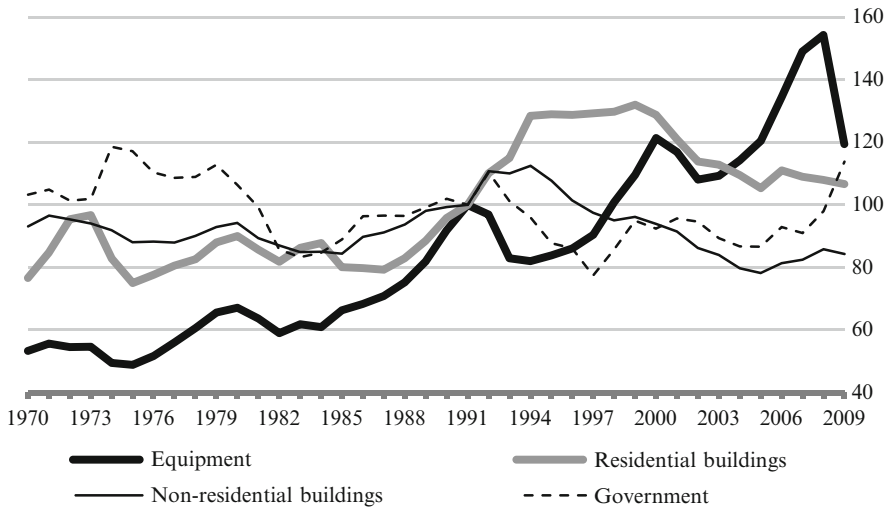


Fig. 3 Investment activity in Germany 1972–2009 (price basis: 1991) (Source: Sachverständigenrat, long-term series, Table 35: gross investments)

country’s reunification (territory of the former Federal Republic until 1990, and expanded to include the East German states since 1991) by around 25%; yet investments in non-residential construction have lagged behind. There are no signs suggesting an exaggerated building boom that would trigger supply-driven pressure in Germany (excepting the tax-induced misallocations in the East German States in the 1990s).

The construction-business turnover of the construction industry, having peaked at approx. 111 billion € in 1996, dropped back to approx. 82 billion € by 2009 (Fig. 3). The German labour market does not fully reflect these relative stable developments. Rather, the number of jobs sank from the high-water mark of around 1.3 million construction industry jobs in 1996 down to just over 700,000 jobs today. This should be blamed less on business cycle impacts, though, but rather on structural ones: One factor that needs mentioning here is the substitution of domestic construction workers by foreign ones. Moreover, labour-intense housing construction lost in significance while capital-intense civil engineering regained in importance. Statistically speaking, this has caused the construction industry to seem more productive (Fig. 4).

3 Future Prospects

According to the expectations of some market participants players, positive future effects for German real estate might result because the performance of a given asset type, such as real estate, is at the same time subject to the (anticipated) performance

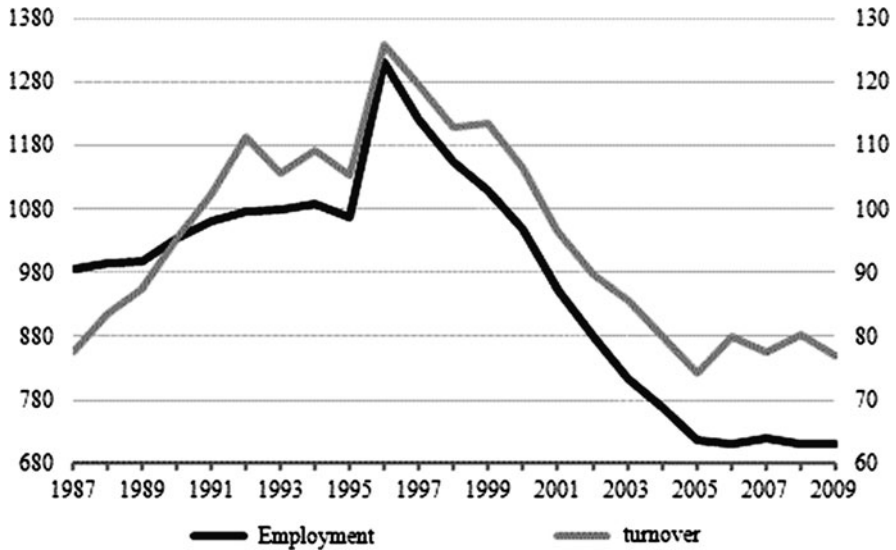


Fig. 4 Jobs (in 1,000, left scale) and turnover (in billion €, price basis: 2005, right scale) in the construction business, 1987–2009 (Sources: Deutsche Bundesbank and Destatis)

of alternative investment options. Government bonds from countries with a good credit rating only offer modest rates of return anymore. And historic precedent has led some market participants to associate the prospectively surging sovereign debt of countries (Standard and Poor's 2010) with the incentives that political decision makers might have for fanning inflationary tendencies.⁸ On the basis of the assumption – to some extent confirmed for the United States⁹ – that real estate has an inflation-hedging effect, this will set off another run on tangible assets. The corresponding price hikes will, at least to some extent and for the early investors, make this assumption a self-fulfilling prophecy, though hardly for all investors (Just 2010).

(Life) insurance companies and international (real estate) investors appear to contemplate reshuffling their portfolios in favour of stable German real estate (Gutachtergemeinschaft 2009, p. 152).¹⁰ This could turn out to be an efficient strategy, if investments succeeded in prospering regions that are less likely to be impacted by demographic contraction processes.

⁸ On the doubts concerning inflationary tendencies in Germany, see Maennig (2010).

⁹ See Huang and Hudson-Wilson (2007) and the literature cited there. On doubts concerning the inflation-hedging capacity of German real estate, see Maennig (2010).

¹⁰ That being said, it should be added here that another solution for debt-ridden public households is to raise taxes. For the sake of efficiency, it is preferred to levy taxes on goods of inelastic demand and/or supply.

References

- Dust, L., & Maennig, W. (2008). Shrinking and growing metropolitan areas – asymmetric real estate price reactions? The case of German single-family houses. *Regional Science and Urban Economics*, 38, 63–69.
- Gutachter-Gemeinschaft (2009). *Wirtschaftsfaktor Immobilien. Die Immobilienmärkte aus gesamtwirtschaftlicher Perspektive*. Zeitschrift für Immobilienökonomie (special edition 2009). Germany: University of Mannheim.
- Huang, H., & Hudson-Wilson, S. (2007). Private commercial real estate equity returns and inflation. *Journal of Portfolio Management*, 33(5), 63–73.
- Jannsen, N. (2009). *National and International Business Cycle Effects of the housing crisis*. Kiel Institute for World Economics Working Paper 1510, April.
- Just, T. (2010). *Immobilien können manchmal (sic!) vor Inflation schützen*. In immoeb's newsletter, vol 19, pp. 14–17.
- Kholodilin, K. A., Menz, J.-O., & Siliverstovs, B. (2008). Immobilienkrise? Warum in Deutschland die Preise seit Jahrzehnten stagnieren. *DIW-Wochenbericht*, 17, 214–220.
- Leamer, E. (2008). *Housing IS the Business Cycle*. In Proceedings, Federal Reserve Bank of Kansas City (pp. 149–233). (Ed.). Housing, housing finance, and monetary policy.
- Maennig, W. (2010). *Zukünftige allgemeine Inflationsentwicklung und Immobilienpreise* (pp. 18–23). Immoeb's Newsletter 1/2010.
- Standard & Poor's (2010). *Global Aging 2010: An Irreversible Truth*. <http://www.standardandpoors.com/products-services/articles/en/us/?assetID=1245229586712>. Accessed 25.01.2011.
- Wiegand, W. (2010). *Gesamtwirtschaftliche Entwicklung*, in: Rat der Immobilienweisen (ed), Frühjahrsgutachten Immobilienwirtschaft 2010, 11–44.

Demographic Outlook and the Implications for Real Estate Markets

Tobias Just

Abstract The fertility rate in Germany has been very low for 40 years at more or less 1.4 children per woman. In the past the resulting deficit of births could be offset with immigration, but this will become increasingly difficult in future on account of the natural population change continuing to decline. The population in Germany has already been shrinking since 2003 by roughly 700,000 people and demographers expect that the coming decades will bring more contractions and a marked ageing of society. This chapter will outline the most important demographic trends for Germany as well as the regional differences in order to discern the most important implications for real estate markets.

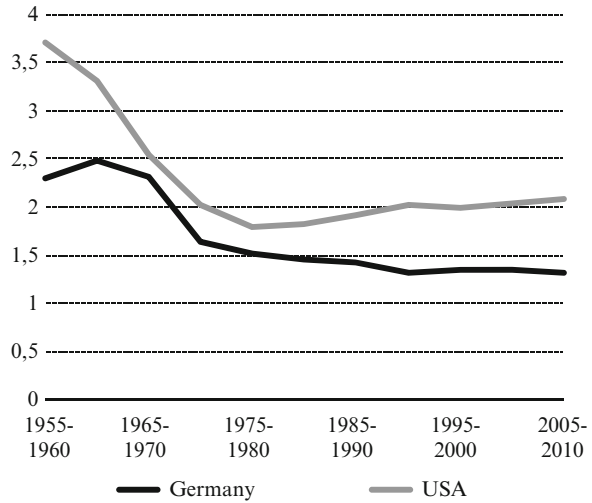
Keywords Ageing • fertility • migration • remanence

1 Demographic Development in Germany

Population changes are among the key parameters that shape real estate demand. *Ceteris paribus*, a growing population requires more living space than a shrinking population, and an ageing society has different requirements of the real estate stock than a younger society. The dependency of demand on population development is not unique to the real estate sector. However, because real estate is tied to a specific location and is built to last decades the demographic burdens can be more onerous than those relating to stocks or bonds, for example: if people migrate from eastern to western Germany this has much less impact on bond markets than on local real estate markets.

More than 20 years ago Mankiw and Weil (1988) were already warning of the price distortions that could occur in real estate markets as a consequence of demographic shifts. Back then they forecast that real house prices in the US would decline by nearly 50% within 20 years because they were concerned that the sharp decline in the birth rate until 1970 would cause a major shift in the population structure and thus in housing demand. Although it has been shown that the Mankiw

Fig. 1 Fertility rates in Germany and the United States. Source: United Nations (2010)



and Weil model was inadequate, investors in Germany in particular should nevertheless pay attention to demographic trends, as the demographic burdens are far more serious in Germany than in the US. For example, the birth rate in Germany, which has now been stuck at about 1.4 children per woman for 40 years, is markedly lower than the fertility rate in the US (Fig. 1).

1.1 Population Shrinking and Ageing

Germany currently has a population of nearly 82 million people – since peaking in 2002 the number of inhabitants has fallen steadily by a total of around 700,000 people. An increase over the next few years is highly unlikely as the birth deficit will widen from about 200,000 people at present to 300,000 people in 2020. In the last 50 years, however, net inward migration into Germany has averaged no more than 200,000 per year, and stripping out the impact of the campaign to attract “guest workers” and reunification the figure comes to only around 100,000 per year. Of late the net migration figure for Germany has in fact been negative in a number of years – more people have left the country than have entered.

In its most recent population projection the Federal Statistical Office developed a total of 12 scenarios for population development until 2060 (Destatis 2009). Two of these scenarios that appear to be very plausible (1-W1 and 1-W2) will now be presented. In both scenarios the birth rate is kept constant at 1.4 children per woman, while life expectancy continues rising slightly. New-born girl’s life expectancy increases by around 6.5 years until 2060, whereas men live for an extra 7.5 years compared with the current situation. In scenario 1-W1 the statisticians assume average net inward migration of 100,000 people per year; this scenario is

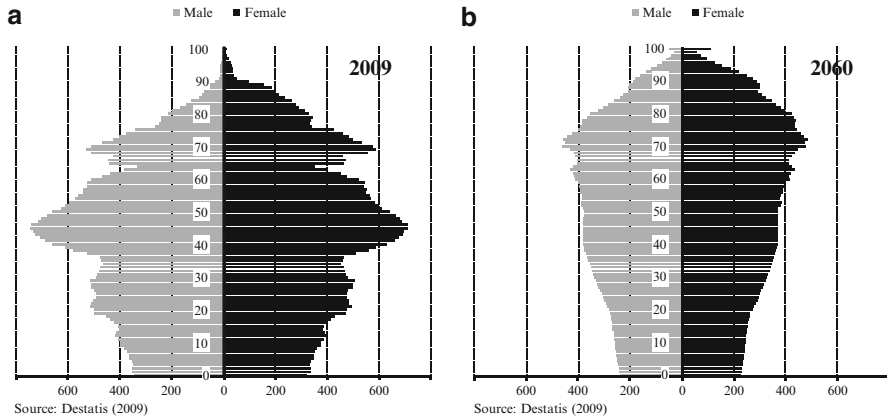


Fig. 2 Population pyramids for Germany (lower migration scenario)

referred to hence as the “lower migration scenario”. In scenario 1-W2 net inward migration is assumed to be 200,000 people per year (the “higher immigration scenario”).

With the aid of these assumptions forecasts can be made about future population development paths. These assumptions can at best be plausible, but not correct or wrong. This also means that probabilities cannot be attributed to the scenarios. In the more favourable scenario with higher immigration the population in Germany falls steadily until 2060 by a total of around 15% to roughly 70.1 million inhabitants. After all, the rate of population decline of 5% until 2030 will be relatively moderate compared to the current level. In the lower migration scenario the process occurs faster: in 2020 the population would already have fallen below the 80 million mark and in 2060 there could be fewer than 65 million people in Germany.

At the same time the age structure is shifting, as the baby boomer generation of people born between 1950 and 1970 is increasingly reaching retirement age. The working-age population that is the number of people aged 16–65, will decline much sooner and faster than the overall population. By the middle of the century the working-age population should decline by between 12 million and 16 million (i.e. 22–30%). At the same time there will also be around 40% more people of retirement age in 2050 than at present, with the number of over 80 year-olds rising by much more than double (Fig. 2).

1.2 Huge Regional Differences

Real estate is immovable, so it would be too simplistic to apply the demographic trends for Germany as a whole to one real estate decision. The decisive criterion is the concrete development of the region in which one would like to invest; and these

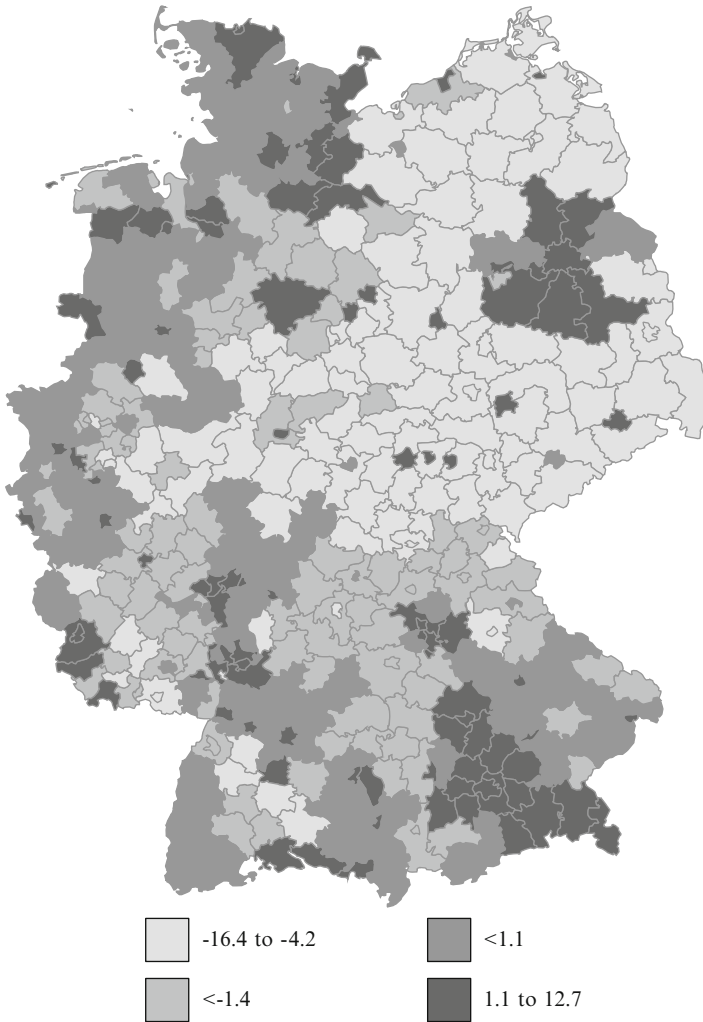


Fig. 3 Net migration per 1,000 inhabitants in 2008. Source: Destatis (2011), own calculations

developments are very mixed in Germany, because birth rates, life expectancy internal migration patterns within Germany vary significantly. Figure 3 shows that in 2008 a large wedge-shaped swathe of migration outflow regions materialised which stretched from eastern Germany to deep into western Germany. The main migration winners are the southern *Länder*, the Hamburg metropolitan area and Berlin along with its environs. The range is striking: whereas in the weakest regions net outward migration exceeded 1% in 2008 (for example in Suhl und Neubrandenburg in east Germany) Potsdam, Leipzig and Flensburg experienced net inward migration of more than 1% within 1 year (Fig. 3).

The map also clearly shows that in addition to the hard-hit regions in eastern Germany there are certainly growth centres in the west and east of the country.

Although there are currently huge differences between those regions experiencing inflows and outflows, compared with the migration flows observed straight after reunification they are, however, relatively small. In the mid-1990s up to 5% of the inhabitants of the weakest regions migrated each year to the (predominantly) west German growth centres. Similarly strong migration flows are unlikely to be repeated in the next few decades, but the resulting dearth of future mothers and fathers will impact population developments for decades to come.

The Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) published its most recent regional population forecast for the nearly 440 districts in Germany in 2009. According to this forecast, the population will have declined in slightly more than 50% of all German districts by 2025. For nearly 100 regions the researchers expect double-digit rates of decline (see Table 1 for the ten most severely-hit regions). All the same, the BBSR forecasts growth rates of between -5% and $+5\%$ for around half of the regions. Table 1 shows the growth projections for the top 10 and the bottom 10 regions in Germany. The top regions are all in southern Germany, while the bottom regions are all in eastern Germany.

Such granular population projections should admittedly be treated with great care. Working-age people are usually a very great deal more mobile than the elderly: the former follow the job offers of successful companies, while the latter focus on the recreational value of a region. Regional population forecasts thus implicitly include assumptions concerning regional economic forecasts. That is why when the BBSR forecasts are updated significant changes regularly have to be made to the outlook assessments as well. Defining the difference between three relatively recent regional population projections as “forecast range”, it is remarkable that almost 70 out of 439 districts show a forecast range of more than 10%-points. For these regions forecasting population trends seems more difficult than for those 50 districts where the forecast range is $<2\%$ -points. In a recent analysis it could be shown that net initial yields of residential property in Germany do not only

Table 1 Population forecast for selected German regions (“Kreise”)

Top 10 regions			Bottom 10 regions		
	2010–2025	2000–2025		2010–2025	2000–2025
Freising	14.3	27.4	Uecker-Randow	−20.3	−34.3
Erding	13.1	26.9	Dessau	−20.6	−31.7
München	12.6	24.1	Suhl	−21.4	−37.3
Landsberg	12.0	24.5	Gera	−21.5	−34.1
Ebersberg	11.8	22.1	Greifswald	−21.6	−28.4
Starnberg	11.2	19.8	Bitterfeld	−22.2	−35.7
Landshut	9.9	18.8	Frankfurt (O.)	−22.2	−38.4
Fürstenfeldb.	9.2	17.1	Neubrandenb.	−22.6	−34.7
Dachau	9.1	16.8	Oberspreew.-L.	−23.3	−37.0
Pfaffenhofen	8.7	16.6	Hoyerswerda	−33.6	−52.0

Source: BBSR (2009)

correlate with regional population forecasts, but also with the forecast range, i.e. with the measure for uncertainty. Investors not only ask for a higher risk premium in those German regions, where the demographic outlook is unfavourable, they also ask for a higher risk premium for regions, where projections needed to be significantly adjusted (see Just 2011a).

It is also right that other demographers arrive at different assessments. It therefore makes sense to consult several (regional) population forecasts (see Just 2009 for a comparative analysis of regional population projections).

Precisely because the elderly are less mobile than younger people the ageing trends are more stable and more uniform across Germany. Looking at ageing there are also significant differences between individual regions, but they are not as striking as in the development of the working-age population (for details see for example the BBSR forecast 2009).

1.3 Comparison with Other European Countries

If Germany becomes increasingly reliant on immigration in future, this immediately raises the question of where these immigrants will come from. Since a growing number of European countries are faced with similar challenges to Germany's, a shift in the migrant structure is likely to occur.

However, Europe is by no means a homogeneous continent with regard to demographic developments. European countries can be grouped into three categories: the first category includes France, Sweden and the UK, for example. In these countries the natural population growth has been negative over the past decades, but it has stabilised at a positive level recently. These countries will almost certainly experience population growth even without immigration in the coming decades. Only in the very long term is (slightly) negative natural population growth to be expected for these countries. The second category comprises countries whose natural population growth is still positive but has fallen so sharply in recent years that a decrease is to be expected very soon. This category includes countries such as Poland (and many other central and eastern European countries) as well as Spain. Although birth rates in central and eastern European countries have risen slightly of late they are still much lower than the replacement rate of 2.1 children per woman (see Goldstein et al. 2009). And to round off, the third category contains those countries whose birth rates already began to decline at an early stage. These countries have already been reliant on inward migration for years to offset their natural population decline. If they do not succeed in doing so, their populations will shrink. This applies especially to Russia and Germany. In Italy the negative population change has only been offset recently by large-scale immigration.

The implications of demographic developments for German real estate markets that are outlined below can thus be applied most readily to the countries in the third category and to a lesser degree to countries in the second category (see Takáts 2010 and Just 2011b for detailed information on this) (Table 2).

Table 2 Population trends in Europe (medium variant)

	Fertility rate 2005–2010, children per woman	Population growth 2010–2050, change (%)	Number of people 80 + years 2010–2050, change (%)
Germany	1.32	–14.08	135.88
France	1.89	8.03	122.05
UK	1.84	16.91	114.85
Spain	1.43	13.11	156.12
Russia	1.37	–17.29	67.60
Southern Europe	1.44	–0.08	132.39
Eastern Europe	1.35	–17.68	75.11
Western Europe	1.59	–1.95	135.13
Northern Europe	1.82	13.77	116.39
Europe	1.50	–5.69	113.90

Source: UN (2009)

2 Implications for Housing Markets

It is a banal observation that a decline in the population has a partially negative impact on housing demand – *ceteris paribus*, a larger number of people have higher demand for living space than a smaller number of people. It is, however, no longer banal what the overall effect is if while the population shrinks it also becomes more prosperous and the age structure shifts at the same time, for as people age their circumstances, income and wealth change, and possibly also their willingness to change where they live. This has far-reaching implications for housing demand.

2.1 *The Number of Households Continues to Increase*

Population size ultimately determines housing demand only indirectly since it is the number of households that is the decisive factor. As already shown, the size of Germany's population has declined since 2003 by 700,000 compared with its peak. Nevertheless the number of households in Germany continued rising almost unchecked also during this period.

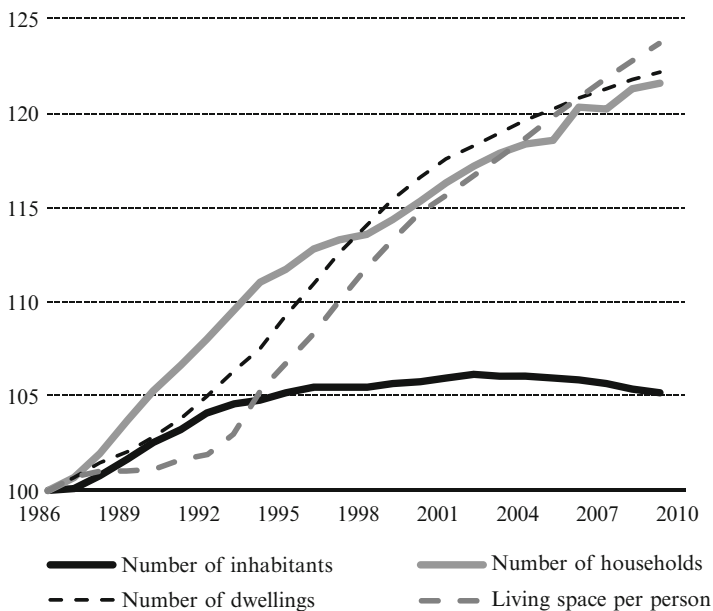
Since reunification the number of households has risen by more than 10% – to around 40.2 million at present. Given the shrinking population this means that the average household size has decreased to just over two persons; in 1991 the average household in Germany still comprised nearly 2.3 people. This trend is the product of social atomisation tendencies and above all societal ageing. The average household size among the elderly is much lower than the average size of a family household with children. Ongoing societal ageing will therefore continue to offset that trend over the next few years: the average household size in Germany is likely to fall in the coming

decades towards 1.9 persons. This impact on the growth in household numbers will counteract population decline. Most demographers expect that household numbers will probably rise for around 10 more years depending on the migration scenario. The growth rates for the number of households of 1.3% and 5.6% respectively for the whole period until 2020 are, however, much lower than in preceding decades.

It should also be noted that the ageing-related increase in the number of single and two-person households will most probably not boost demand to the same extent because health limitations as well as financial capabilities will limit the demand for living space of a large share of elderly people. If in particular the demand for professional care institutions does increase due to ageing, this will negatively impact demand in the “normal” housing market (see Just 2009).

2.2 Demand for Living Space to Grow (Probably)

Figure 4 not only clearly shows that the number of households has risen more sharply than the number of inhabitants over the last few decades, it also illustrates that living space per person has increased significantly: every inhabitant occupied



Annot.: For the period before reunification, the number of households has been calculated on the basis of household development in the former West Germany.

Source: Destatis (2011), DB Research

Fig. 4 Population, households and dwellings, 1986 = 100

an average of 42.5 m², this is over 8 m² more than in the mid-1980s. This increase does have something to do with the growth in disposable incomes, but it is also related to demographic shifts. In order to understand this it makes sense to differentiate between three key effects:

- *Cohort effect*: This effect refers to the difference in demand behaviour between one cohort or age group and another. Depending on income and wealth developments as well as their socialisation today's 70 year-olds demand much more living space than the 70-year-olds 20 years ago. During the next few decades the cohort effect can at the very least be expected to be weaker than in the past, with some researchers predicting that it will become negligible in future.
- *Life cycle effect*: In the course of their lives most people adjust their living space usage to the changes in their income and life situations. The outcome is that statistically speaking living space usage increases on average until about the age of 50.
- *Remanence effect*: This effect is ultimately a part of the life cycle effect. Over recent years it has been noticeable that the space usage of many households over the age of 50 has remained virtually constant for many years. Even if children leave the household or a partner dies, many people remain in their dwelling. The result is a trend that living space per person (not per household) is on the increase.

In eastern Germany a level effect could also be observed. This is ultimately a special case of the cohort effect resulting from the decades-long division of the country. Since the elderly in east Germany also behave predominantly remanently their living space usage even 20 years on from reunification still reflects the scarcity of the socialist era (in some cases). In the coming decades today's generation will gradually be replaced by a new generation of the elderly. The structural differences in demand between eastern and western Germany in this age cohort will disappear, and this means a positive impact on demand in statistical terms.

Overall, demand for living space can be expected to rise even faster and longer than the number of households. In particular the cohort and remanence effects will help to offset the negative shock of population decline. This effect will not last for ever, though. Depending on the migration scenario and the assumed intensity of the remanence and cohort effects living space can be expected to increase by between 5% and 10% until around 2025 (see for example Just 2009).

2.3 *Asymmetric Price Reactions*

Real estate prices react positively to changes in demand. This means real estate is basically no different to other goods. *Ceteris paribus*, a growing population also leads to increasing property prices, while a shrinking population results in falling prices. There are extensive empirical indications of this relationship (e.g. Demary and Voigtländer 2009). It is, however, worth taking a closer look especially at a country like Germany – where there are huge regional differences in population

development – as the short to long-term price reaction differs depending on whether a piece of real estate is located in a region with inward or outward migration.

In a region with inward migration the rising population ensures excess demand because the supply of housing can react only slowly to a growing population. Rising prices induce an increase in construction output over the longer term on account of the usual time lag due to the approval process and the progress of construction work. This gradually reduces the excess demand; prices can slip towards their starting level. If the projection of future demand is too optimistic, prices can even slide below their starting level.

In regions with a shrinking population outward migration initially leads to oversupply. The new vacancies send prices falling. Just like the adjustment reaction, properties then have to be taken off the market in order to establish a new market equilibrium. This is, however, far more difficult for a region experiencing a population outflow than providing additional properties in a region undergoing a population inflow. After all, in this case it is not about potentially making a profit, but simply about preventing losses. In this situation many investors will decide to wait and see. The result is that the markets react very slowly, prices are squeezed more tightly and for longer than they trend upwards in areas with inward migration.

There are empirical indications that this asymmetry exists in Germany: Maennig and Dust (2008) were able to show that among other things the prices of single-family homes in German towns in 2002 were particularly low in regions with

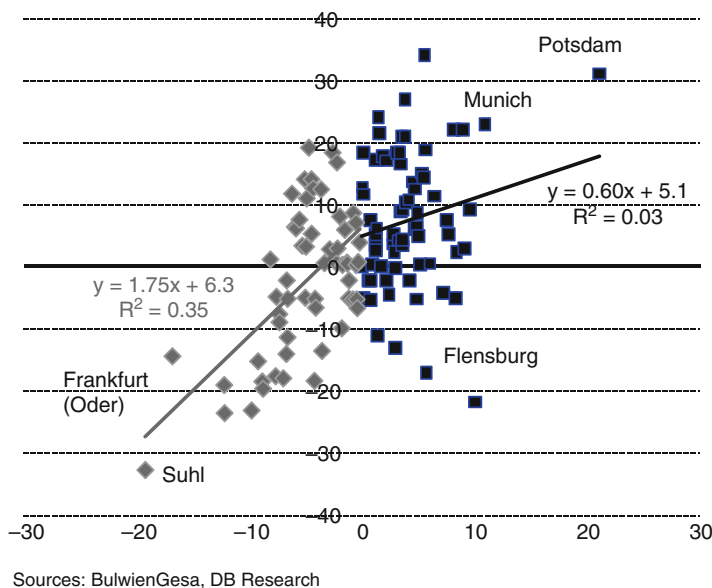


Fig. 5 Asymmetric price reaction for German newbuild housing. Key: x-axis, population growth 2000–2010 (%); y-axis, housing prices 2000–2010 (%)

shrinking populations. The relationship between price level and population growth was, however, not very pronounced.

Figure 5 illustrates this relationship for the price of newbuild dwellings. Population change in the period from 2000 to 2010 is plotted on the x-axis and the price of newbuild dwellings on the y-axis. The coefficient of determination for regions with a positive population trend is extremely poor ($R^2 = 0.03$). On the left-hand side, where the cities with declining populations are plotted, the relationship is not only much stronger, it is also more statistically significant. This suggests that the demographically driven price risks in the outward migration regions will in future also be greater than the opportunities in inward migration regions.

3 Demand for Commercial Real Estate

A great deal more research has been conducted into the demographic impact on residential markets than on commercial property markets. This does not, however, mean that the demographic trends cannot weigh on demand for commercial space. Because the size of the workforce, that is the number of people aged 16–65 years, in an ageing society declines sooner and faster than the overall population the upheavals in commercial real estate could turn out to be even more severe than in residential property.

The working-age population in Germany is projected to decline by at least 25% according to the current baseline scenarios, and even the 35% decline shown in Fig. 6 assumes net inward migration of 100,000 people per year – more than the average inflow to Germany for the last five years.

3.1 Office Property

Assuming no change in any other labour market parameter, the demand for office space would fall by exactly the amount in Fig. 6 until the year 2060. There is, however, a lot to suggest that the jobless total could shrink even further, that the participation rates of working-age women and the elderly could be raised or that the share of people working in offices continues to rise in future as it has in earlier few decades. A large share of the demographic burden on the office markets would then be lifted for at least several decades. If, for example, the unemployment rate drops successively to 4% and the participation rate of the working-age population rises by 7% points by 2030, then demand for office space could increase by nearly 10% in the scenario with higher immigration by 2020 (compared with the base year 2005). If the structural change towards more office work also continues until the middle of the century (increase in office employment ratio by 7% points), an increase in demand of 16% by 2025 would even be realistic.

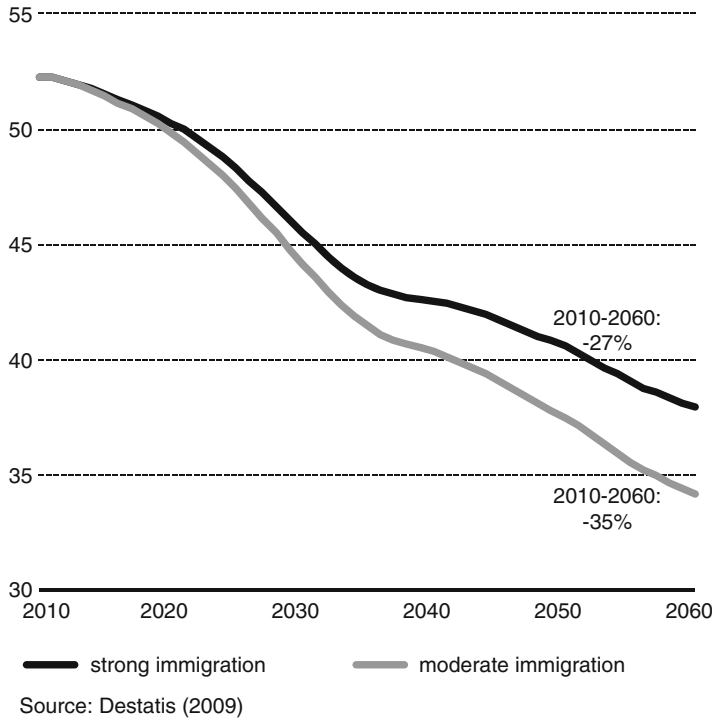


Fig. 6 Working age population (15–65 years) in Germany

However, real estate consultancies often point out that office space per employee is comparatively generous in Germany. International competition is more likely to lead to office tenants using their space more efficiently, that is more sparingly, than in the past. A significant share of the positive demand stimuli could then be absorbed. Moreover, achieving full employment, boosting labour participation and increasing the office employment ratio are by no means guaranteed.

Table 3 summarises scenarios for the office markets (for a detailed description see Just 2009). The particularly striking aspect is the range of the projections. Investors then should demand a higher (demographically related) risk premium on their office investments than on residential investments.

3.2 Retail Property

The German retail property sector could be hit by a triple whammy of demographic change: firstly the decline in the size of the working-age population also reduces the trend growth rate. The disposable income available for consumption purposes will thus grow more slowly than in the past, and this will severely limit the retail sector. Secondly, the shopping basket of an ageing population has different contents to the

Table 3 Scenarios for German office market demand

		Demand for space	
		Change, 2020 vs. 2005 (%)	Change, 2050 vs. 2005 (%)
Scenario: pure demographic effect	Moderate immig.	-2	-27
	Stronger immig.	±0	-20
+ successful labour market policies	Moderate immig.	+7	-15
	Stronger immig.	+9	-6
+ continuous shift towards office jobs	Moderate immig.	+13	+2
	Stronger immig.	+16	+12
+ increased office space efficiency	Moderate immig.	+7	-17
	Stronger immig.	+9	-9

Source: Just (2009)



Fig. 7 Retail property: adaptation to ageing society. Source: Own presentation following Seidel (2007)

basket of a young population. Proportionately, expenditure on accommodation and health is likely to rise, while spending on travel falls. Overall, retail sales as a share of total consumption expenditure are likely to continue declining (somewhat). This trend is, however, only due in small part to societal ageing, the more important factors being saturation tendencies for several typical retail goods. The increased importance of online retailing is intensifying the pressure on bricks-and-mortar retailers.

Thirdly, as the population ages the concept of what constitutes an ideal retail property will probably change: proximity to the customer will become more important on account of possible physical limitations; the stores themselves will have to take these limitations into account more often. This may be reflected in wider aisles or an adapted product mix, for example. And finally, service will become (even) more important.

Figure 7 illustrates the elements of a demography-proof retail property. Of course not every property has to possess all these attributes. In future more

properties will react more often to the specific requirements of an ageing society at these strategic levels. In many cases these concepts can be addressed more easily in shopping centres.

4 Concluding Remarks

The population size in Germany has been declining constantly since as long ago as 2003. At the same time the share of elderly people has been rising. Given the persistently low birth rate in Germany and the increase in life expectancy these trends will also continue in the coming decades. There is much less uncertainty surrounding societal ageing than the total population, as immigration trends can at least be partly managed using appropriate policies. This differing assessment of the probabilities of the trends also has strategic implications for property investors. Risk-averse investors should in particular focus on those real estate formats that bank on societal ageing. These include, for example, living formats designed for the elderly as well as long-term care facilities. According to current forecasts the demand for long-term care places alone could balloon from around 700,000 at present to between 1.3 and 3.0 million by the year 2050 (Just 2009). For opportunistic investors, however, it is precisely those properties that offer opportunities which core investors avoid because of the unfavourable demographic outlook for the catchment area. In many regions with net outward migration initial yields have come under considerable pressure since the mid-1990s. For around 5 years, however, they have settled at a much higher level in many eastern German markets. Evidently a risk reassessment took place there and a new equilibrium was found. Ultimately demographic trends for real estate investments constitute an additional risk factor that can be priced in using a commensurate risk premium. For all real estate formats it is also the case that a large proportion of the demographic risk in real estate markets can be reduced by slowing the increase in supply, since the demand for replacement investment will also rise in Germany going forward.

References

- BBSR (2009). *Raumordnungsprognose 2025/2050*, Band 29, Bonn.
- Brounen, D., & Eichholtz, P. (2004). Demographics and the global office market – Consequences for property portfolios. *Journal of Real Estate Portfolio Management*, 10, 231–242.
- Demary, M., & Voigtländer, M. (2009). *Immobilien 2025. Auswirkungen des demografischen Wandels auf die Wohn- und Büroimmobilienmärkte*. In *IW-Analysen 50*, Cologne.
- Destatis, Statistisches Bundesamt. (2009). *Bevölkerung Deutschlands 2060*. 12. Wiesbaden: koordinierte Bevölkerungsvorausberechnung.
- Destatis, Statistisches Bundesamt (2011). *Regionaldatenbank* auf. www.destatis.de. Accessed 06.01.2011.

- Goldstein, J. R., Sobotka, T., & Jasilioniene, A. (2009). The end of 'Lowest-Low' fertility? *Population and Development Review*, 35(4), 663–699.
- Just, T. (2009). *Demografie und Immobilien*. Munich: Oldenbourg Verlag.
- Just, T. (2011a). *Regionale Bevölkerungsprognosen. Unsicher, instabil, wertvoll*. Frankfurt am Main: Deutsche Bank Research.
- Just, T. (2011b). *Die demografische Entwicklungen in Europa und ihre Implikationen für Immobilienmärkte*. To be published soon. In Francke, H.H., & Rehkugler, H. (Eds.), *Immobilienmärkte und Immobilienbewertung* (2nd ed.). Munich.
- Maennig, W., & Dust, L. (2008). Shrinking and growing metropolitan areas – Asymmetric real estate price reactions? The case of German single-family houses. *Regional Science and Urban Economics*, 38, 63–69.
- Mankiw, G., Weil, D. (1988). *The baby boom, the baby bust, and the housing market*. In NBER Working Paper Series No. 2794. Cambridge.
- Seidel, U. (2007). *Auswirkungen des demografischen Wandels auf den deutschen Einzelhandelsimmobilienmarkt*. Berlin: Vortrag im Rahmen der Berliner Immobilienrunde.
- Takáts, E. (2010). *Ageing and asset prices*. BIS Working Paper 318. Basel.
- United Nations (2009). *World Population Prospects. The 2009 Revision*. New York. <http://esa.un.org/unpp/index.asp>. Accessed 6.1.2011.

Sustainable Buildings

Christine Lemaitre

Abstract The construction and real estate sectors are in a state of change: energy efficiency, resource protection, residential and workplace health, value retention and risk mitigation are now in focus. General conditions and market interests are changing. Therefore, in the future buildings will be planned, built and operated differently, i.e. more sustainably. Sustainable building means to build intelligently: the focus is on a comprehensive quality concept that serves the building and real estate sectors, as well as society in general. Sustainable properties are beneficial to the environment, conserve resources, comfortable and healthy for their users, and fit optimally into their socio-cultural surroundings.

This article is an introduction to the German Sustainable Building Council's quality label (DGNB), which supports planners and construction firms in the realization of sustainable buildings. The DGNB certificate assesses the building's overall performance, not individual actions. Along with precertification, the DGNB criteria can be used to identify efficient, inexpensive steps during the planning phase. Furthermore, the DGNB pre-certificate gives investors the confidence during the early planning stage that the building's performance targets will be reached when it is finished.

Keywords Certification • evaluation • integral planning • sustainability

1 Sustainability

Today sustainability is a central concept that applies different principles of action to a variety of issues and fields.

The term sustainability has its origins in the forestry sector, where it referred to achieving a balance between logging and reforestation. The modern meaning of the word can be traced back to the Brundtland Report, which was presented by the World Commission on Environment and Development (WCED) in 1987. This independent committee of experts, initiated by the United Nations, was tasked with drawing up a concept for long-term, environmentally compatible global

Ecology	Economy	Society/Culture
Environment Natural resources	Economy Financial re-sources	Society Human resources

Fig. 1 The pillars of sustainable development and the areas they protect (Source: Author's own representation)

development that had responsibility for future generations as an explicit objective. Today's society can meet its needs without compromising the ability of future generations to meet their own needs. Every generation must come to terms with its current problems without shifting the burden to the generations to come.

The international definition – and therefore the national definition – of sustainability rest on three pillars (Fig. 1).

The ecology pillar is based on the protection and use of nature and natural resources to the extent that the needs of future generations can still be met. The economy pillar has its focus on shaping economic activity so that earning ability and prosperity are ensured in the long term. Current economic resources cannot be unfairly exploited at the cost of future generations. The society and culture pillar aims at establishing a future-proof society that is worth living in and where social justice prevails. All members are important parts of the community.

These pillars impact on each other. Sustainability cannot be viewed in isolation. This could be the source of conflicts: for example, economical solutions are not always environmentally compatible; social goals sometimes conflict with ecological ones. Acting in a sustainable manner requires one to understand the principles, recognize the contradictions and develop a balanced solution for each situation.

The built environment has a fundamental influence on life on earth and on all three levels of the identified protective goals of sustainability. The figures given below are intended to illustrate the significance of the role played by the construction and real estate sector (Fig. 2).

Even against this briefly sketched backdrop, the relevance of sustainable practices to the construction and real estate industry becomes clear.

Planners and decision makers have claimed sustainability for buildings even when focusing on only one of the pillars during the building process. Ecology and economy frequently have conflicting goals, while social aspects are often seen as incidental. However, awareness of the quality of sustainably planned and constructed buildings is growing steadily. It has been recognized, for example, that sustainable buildings retain their value better than conventionally planned buildings. The international, cross-sector pillars of ecology, economy and society/culture are therefore applicable to buildings as well. They are given concrete expression in the following building-related areas of protection (Fig. 3).

Considerations and decisions during the planning phase as well as the technologies used can have a major impact on these qualities, which has led to

Ecology	
40%	of greenhouse gases result from the construction and use of buildings.
40%	of the total energy in industrialized nations is used for the operation of buildings.
50%	of the materials taken from the earth are used in the construction sector.
Economy	
90%	was the increase in heating costs in the last ten years.
70%	of the total investment capital of developed countries is tied up in their existing buildings.
Society/Culture	
85%	of the lives of people in Western industrialized nations is spent in buildings.
30%	of all newly inhabited buildings cause their users to develop sick building syndrome.

Fig. 2 Figures relating to the construction and real estate industry (Source: Hegger et al. (2008))

Ecology	Natural environment and resources
Economy	Capital and value
Society/ Culture	Health, happiness, functionality, design

Fig. 3 Building-related areas of protection derived from pillars of sustainability (Source: DGNB)

the development of broader applications of engineering and processes. Not only can this model improve the cost-effectiveness of a structure in terms of construction, occupancy and remediation costs, it also sets the stage for an environmentally compatible, resource-efficient, functional, comfortable and healthy building that fits perfectly in its social and cultural surroundings.

2 Integral Planning

Conventional planning processes generally aim only to comply with short term planning goals such as low construction cost and the proper functioning of the building. Since the life span of a building is in general around 30–50 years it is getting more and more important to plan ahead and to design and construct future-proof buildings. These buildings have to be adaptable so they can be adjusted to any changes in usage or performance demand. Therefore an integral planning

process which takes into account all potential future requirements is the basis for sustainable buildings. Integral planning means, that all of the disciplines involved in construction work together, track progress, control quality, and make adjustments where needed in the construction process. Mostly integral planning can lower lifecycle costs and increase user comfort and acceptance, both of which increase the value of a building.

Integral planning therefore has to begin early. At the beginning of the planning process (in the project development phase), the team consisting of the building owner, investors, and planners have the greatest influence on the future building's sustainability. The more the planning process is developed, the more complicated changes that promote sustainability become. Options to tweak the system become narrower, and costs increase.

Good cooperation within a planning team significantly affects a building's quality. The same holds true for all aspects of sustainable building. To achieve optimal building performance in terms of sustainability, planning teams should be informed of sustainability objectives at the very start of their work. Important decisions on building shape, material choice, ventilation concepts, technical equipment, and so on always have consequences for other aspects of planning and construction. These decisions therefore affect a building's ecological and economic quality and, in turn, the result. This process involves regular overarching discussions on the state of planning and further development. Along with such important planning points as functionality, economic considerations, and deadlines, sustainability should be a main focus. For effective cooperation, all involved parties should have access to notes from important conversations.

3 The German Certification System

3.1 Overview

The German Sustainable Building Council's quality label (DGNB) supports planners and construction firms in the realization of sustainable buildings. One important goal is to show how complex sustainable building is so that this complexity can be taken into account in plans for the building.

The DGNB certificate assesses the building's overall performance, not individual actions. Building owners and planners therefore have the greatest possible leeway in reaching those targets. Innovative solutions are promoted. The certification system can be updated thanks to its flexibility. It can be easily adapted to new technical, societal, or international developments. Along with precertification, the DGNB criteria can be used to identify efficient, inexpensive steps during the planning phase. Furthermore, the DGNB precertificate gives investors the confidence during the early planning stage that the building's performance targets will be reached when it is finished (Fig. 4).

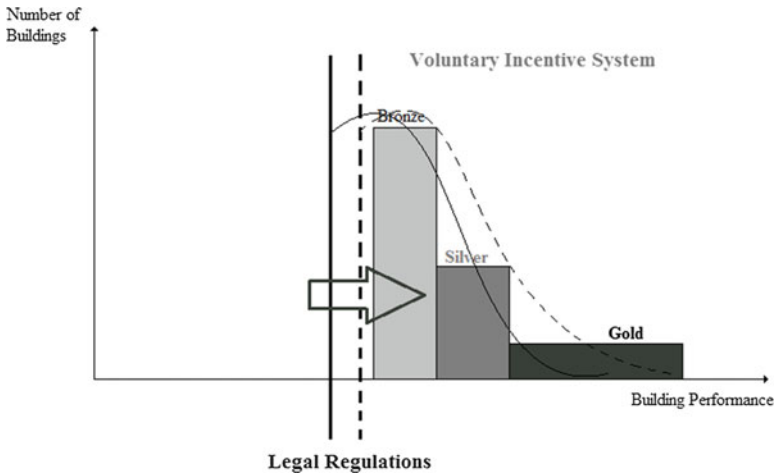


Fig. 4 Certification in relation to legal regulations (Source: DGNB)

The DGNB certificate promotes integral building planning, thereby capping optimization potential for construction, operation, and the end-of-life phase. As a result, the risk of vacant buildings is also reduced. The award increases the chance of selling and renting since it demonstrates a building's holistic high quality to owners and users. Furthermore, the DGNB certificate signals greater quality and workmanship, reduced number of sick days, increased user-friendliness, and improved re-rental ratios. The DGNB certificate offers the right occupancy profile for every type of building. Nonetheless, all buildings are evaluated on the same basis, which reduces training time for auditors and facilitates the application of the system.

3.1.1 Advantages of the Certificate

- *Active contribution to sustainability:* The certificate demonstrates, in a quantifiable way, the positive effects of a building on the environment and on society.
- *Cost- and planning certainty:* The certification process provides, in the early planning stage, a high degree of certainty that the performance goals of a building can be reached at the time of completion. For example, it helps to reduce the energy consumption and costs during operation.
- *Reduces operational risk:* The certification process promotes integral planning during construction. This leads to more transparency and well-defined processes during planning and construction, opens up potentials for optimization, and minimizes the risks during construction, operation, renovations, and removal.
- *Praxis-oriented planning tool:* The certificate was developed by practitioners for practitioners. It supports owners and designers in a goal-oriented way in developing sustainable buildings.

- *Focus on the life cycle*: The certificate is based on the life cycle of a building, which is indispensable for an evaluation of the sustainability.
- *Made in Germany*: The certificate is optimally adapted to the German and European building environment. This includes building codes and norms, as well as long-term market experience with energy efficient buildings etc.
- *Marketing tool*: The certificate serves as a communication tool for investors, owners, and users – it documents their commitment to sustainability. As a sign of quality, it supports export, and it enhances the attractiveness of the German real estate sector for investors.
- *Comprehensive quality of a property*: The certificate enhances the chances for sale and rent. The certification makes the high quality of a building tangible for owners and users. Furthermore, it signals a performance-enhancing work environment as well as high user satisfaction.
- *Performance is key*: The German certificate evaluates the building’s performance and not merely single measures. Owners and designers are given a large leeway to achieve the targets.
- *More than “Green Building”*: The certificate far exceeds the ecologic aspects of “green building” by also equally including the economic performance, as well as socio-cultural and functional aspects of buildings.
- *Flexibility*: The certificate system can flexibly be updated. It can easily be adapted to technical, social, and international developments.

3.2 Evaluation Areas

The system’s foundation was developed for the building type “New office and administrative buildings”. On this basis, other occupancy profiles were developed for completely different types of buildings. As a second-generation certification system, the quality seal features a very high level of flexibility. The foundation of the evaluation consists of a list of focal points developed by broad consensus and their criteria for sustainable building. Depending on the type of building to be evaluated, these criteria are weighted differently according to use-specific factors. Each occupancy profile – that is, each type of building – thus has its own weighting matrix and is optimally adapted to its specific use.

The areas of evaluation are:

- Ecological quality
- Economic quality
- Socio-cultural and functional quality
- Technical quality
- Process quality
- Site quality

The six areas are weighted in the overall evaluation of the building according to importance. Economic quality, ecological quality, and socio-cultural, functional,

Fig. 5 DGNB qualities
(Source: DGNB)



and technical quality each make up 22.5% of a building's total performance index, with process quality contributing 10%. Quality of the location is not included in the total performance index but is evaluated separately (Fig. 5).

Each of the six evaluation areas is divided into several criteria, such as energy demand, acoustic quality, or space demand. For each criterion, measurable target values are defined and measurement methods and documentation required for verification are clearly outlined. A maximum of ten points is given for each criterion. All criteria are weighted for the evaluation in two steps. Independent of the specific occupancy profile, each criterion has a weighting factor and can be counted in its broader category as many as three times. This weighting factor reflects a criterion's societal and political relevance and is the same for all types of use. A building's energy demand is thus more important than acoustic comfort. At the occupancy profile level, the system's methodology allows for further fine tuning. Here, weighting is determined according to a use-specific adaption factor that can increase a criterion's value by as much as threefold. This adaption factor can also be zero to remove criteria – indoor air quality does not matter for highway bridges, for example. Depending on the extent the requirements were fulfilled, the certificate is given in bronze, silver, or gold. The degree of fulfillment is given as a percent and a grade. With an overall degree of fulfillment of at least:

- 50%, a bronze quality seal is awarded
- At least 65%, silver
- At least 80%, gold (Fig. 6)

3.2.1 An Overview of the Criteria

In developing the quality seal, six evaluation areas were defined that consist of around 50 criteria representing the relevant areas of sustainable building. For

Weighting of the aspects

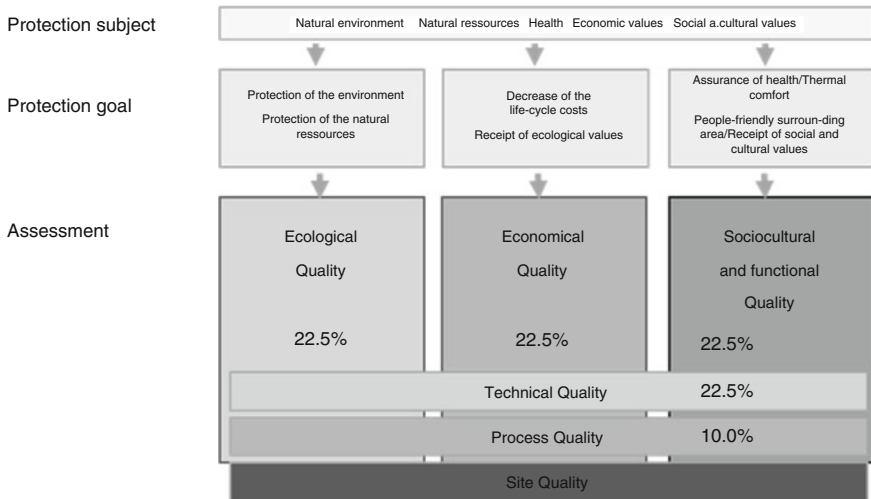


Fig. 6 Weighting of the qualities (Source: DGNB)

version 2009 of “New office and administration buildings,” the quality seal is therefore based on the following 48 criteria. Of those, 42 criteria describe building quality, while six describe site quality, which is evaluated separately.

- Ecological quality
 - Global warming potential
 - Ozone depletion potential
 - Photochemical ozone creation potential
 - Acidification potential
 - Eutrophication potential
 - Risks to the local environment
 - Sustainable use of resources/wood
 - Nonrenewable primary energy demand
 - Total primary energy demand and proportion of renewable primary energy
 - Drinking water demand and volume of waste water
 - Space demand
- Economic quality
 - Building related life-cycle costs
 - Suitability for third-party use
- Socio-cultural and functional quality
 - Thermal comfort in the winter
 - Thermal comfort in the summer
 - Indoor air hygiene
 - Acoustic comfort

- Visual comfort
- User control possibilities
- Exterior quality as affected by the building
- Safety and risk of hazardous incidents
- Handicapped accessibility
- Space efficiency
- Suitability for conversion
- Public access
- Bicycling convenience
- Assurance of design and urban development quality in a competition
- Percent for art/Art on building
- Technical quality
 - Fire safety
 - Sound insulation
 - Quality of building envelope with regard to heat and humidity
 - Ease of building cleaning and maintenance
 - Ease of dismantling and recycling
- Process quality
 - Quality of project preparation
 - Integral planning
 - Optimization and complexity of planning method
 - Evidence of sustainable aspects in call for and awarding of tenders
 - Creation of conditions for optimal use and management
 - Construction site/construction process
 - Quality of contractors/prequalification
 - Quality assurance for construction
 - Commissioning
- Site quality (accounted for separately; does not affect a building's overall appraisal)
 - Risks in the micro-environment
 - Condition in the micro-environment
 - Public image and condition state of site and neighborhood
 - Access to transportation
 - Proximity to use-specific facilities
 - Connections to public services

3.2.2 The Building Owner's Role

A building owner who wants to certify a building must contact an auditor. The latter must be approved by the DGNB for certification. The DGNB website has a comprehensive list of auditors. For all construction projects, it is recommended that the building owner include the auditor in the planning process as early as possible. After all, this early stage is when the planned building can be optimized best for sustainability and/or to receive the DGNB certificate in gold, silver, or bronze.

The auditor's task is to advise the building owner on how to receive the DGNB certificate. The building owner could decide that the auditor only handles documentation, verification, and organizational matters for the certification process. Alternatively, the building owner can assign a more far-reaching range of advising tasks to optimize the planned building in terms of sustainability. The building owner and the auditor must therefore come to an individual agreement about the extent of the advising work. Once the auditor has registered the building for the certification process, the building owner and the DGNB sign a contract that describes the procedures for auditing and certification. The contract also includes a confidentiality provision in which the DGNB pledges not to release the names of the project or the building owner to other parties before the public awarding of certification. As soon as the DGNB pre-certificate or certificate has been awarded, the building owner can use it for marketing and public awareness. The building owner then receives a certificate, a plaque to hang on the building, the rights to the DGNB certificate logo (in gold, silver, or bronze), and the certification evaluation results.

3.2.3 The Auditor's Main Tasks

Auditors support building owners on the path to certification. Thanks to DGNB international training they know the DGNB international system and the basic principles of sustainable building. Auditors are the organizational and content link between the DGNB and the project to be certified. They bring the DGNB system's perspectives into the project and supplement the planning team with advice on certification.

Their core tasks include the following:

- Registering projects with the DGNB
- Inspecting, assessing, and checking for plausibility the documents and evidence created by third parties (building owners, planners, contractors, etc.) that are available at the time of planned precertification/certification
- Compiling required documents and submitting them to the DGNB in compliance with the DGNB's documentation requirements
- Communicating with the DGNB office, answering questions, submitting opinions on evaluations, etc.

3.2.4 Auditors' Optional Advising Tasks

In the planning phase, building owners can ask that auditors complete a farther reaching range of advising tasks than required for DGNB certification. For example, auditors can provide an initial estimate of building performance before the actual certification process begins. They evaluate the building according to the certificate's six areas and analyze to what extent the requirements of the individual criteria are fulfilled and which certification result the building could achieve as a whole.

They then present the results to the building owners and planning teams. They can also support planning teams in highlighting planning variants with consideration of certification results and create concepts for how buildings can achieve a higher certification level. In this process, teams realize how specific, isolated decisions on sustainability aspects can affect other areas of planning. Auditors can moderate the integral planning process in terms of sustainability and the best possible certification result. If everyone is rowing the same boat from the very beginning, a building can be optimized to a greater extent. Auditors can complete the following additional tasks in the planning phase:

- Presenting the certification process to building owners and planning teams and organizing workshops to explain the tasks of planning teams and contractors
- Creating a status report after the end of the draft planning phase (draft planning) and the execution planning phase to align objectives
- Coordinating verification management by planning teams and contractors
- Participating in important planning meetings that have to do with certification
- Providing support for calls for tenders and awarding of contracts

During construction, auditors can complete the following additional tasks:

- Monitoring parts of the construction process and documentation and declarations provided with consideration of DGNB requirements
- Participating in important construction meetings that have to do with certification building owners decide whether auditors only take care of documentation and verification for the DGNB and conduct the certification procedure or whether they also provide a broader range and greater depth of advising support. Building owners and auditors must therefore come to an individual agreement about the extent of the advising work

The DGNB system includes the possibility of pre-certification for projects. In other words, investors, building owners, and other interested parties can ask for gold, silver, or bronze precertification as early as the planning and construction stages. This process has two main advantages:

1. Buildings can be optimized for sustainability from the very beginning.
2. Pre-certification can be used to market buildings as early as the planning and execution stages.

3.2.5 Optimizing a Building

Pre-certification makes it possible for investors and building owners to optimize their projects in the planning stage. The process creates a planning basis for sustainable construction and promotes an integral planning approach. Pre-certification is an excellent instrument to achieve planning goals, increases transparency, ensures clear planning and construction processes, improves risk management, and increases a building's quality. For pre-certification, all main sustainability criteria

must be defined as intentions or goals in an early planning step. Pre-certification therefore supports decision-making while also drawing the attention of those involved in construction to the requirements and is an important medium to communicate planning and construction objectives. In addition, pre-certification increases the likelihood that a building's planned performance goals will be achieved once it is completed. The process also makes it more likely that the completed building will receive certification without problems and the pre-certification's evaluation results will be confirmed. Pre-certification also provides advantages for marketing a building still being planned or built. Because of the system's high level of transparency and credibility, the building's future performance can be substantiated as early as the planning stage, increasing the building's chances of being rented or sold. Precertification can also increase security for financing projects. A certificate with evaluation results is awarded.

3.3 International Development

With the DGNB certification system, the DGNB has developed a second-generation certification system that sets standards even internationally. One of the DGNB system's greatest strengths is its high level of flexibility. It can be adapted to both future technical and societal developments and regional particularities. These points can include climate, structural and legal requirements and cultural factors. Because of these features, the DGNB certification system is being internationalized very quickly. In June 2009, only half a year after the first DGNB certificates were awarded, TOWNTOWN Company Building of Vienna received the first certificate for a building outside of Germany. Other projects in Austria and Luxembourg have already been certified, and the number of inquiries from foreign investors is increasing as well as the number of actual certifications. Investors are interested in using the DGNB system's renown to document their properties' high quality standards. The DGNB also has the goal of optimally adapting the certification system developed in Germany to requirements in other countries with the help of close partnerships with local non-profit and non-governmental organizations. It is very important to ensure the high quality of these adaptations. An international board of representatives of the DGNB and its partner organizations ensures the high quality standard worldwide. The Austrian Green Building Council (OGNI) was the first to adapt the system and awarded the first certificates for the Austrian version of the DGNB system in May 2010. Bulgaria, Switzerland and Thailand have also founded their organizations. And with China the DGNB has entered one of the most promising future markets in the world. Other organizations in Brazil, Italy and Russia have also entered a partnership. Following the rapid internationalization of its highly flexible international certification system the DGNB is offering international training courses in Germany and other countries for DGNB international consultants/auditors in order to promote a common language on sustainability.

3.4 The DGNB International Certification System

The “DGNB International System” was developed in order to provide a certification system based on international codes and standards making it easy to use in various countries while at the same time provide the high quality and transparency based on the DGNB philosophy. The system, available entirely in English, bases each of its criteria on corresponding European Standards and the corresponding DGNB requirements which comply with the principles of the DGNB Core System. As of November 2010 the occupancy profile “New Office and Administrative Buildings” is available for use, and further occupancy profiles are in development.

The DGNB International System is the first, and to date the only system worldwide in which the procedure for adaptation to different countries is an integral part of the system itself. This adaptation takes into account different climatic zones, associated cost-benchmarks, and a specific database for life-cycle assessment, within which the datasets for all European countries are made available. The International System is therefore directly applicable within Europe.

In addition to direct use, further adaptation of the system in the form of country-specific profiles is possible, following the establishment of a corresponding contract. Necessary requirements for such a contract are a sufficiently strong market interest as well as a qualified local working group. This working group has to comprise experts for the following seven areas: ecology, energy, building materials/pollutants, technical quality, socio-cultural quality, processes, location. The core of the individual criteria remains unchanged in the development of such a country-specific profile. The adaptation takes place primarily at the assessment method and evaluation criteria levels.

The DGNB also carries out the associated training courses and conformity inspections. The operational system implementation in a specific country can also be carried out by the local partner, following the establishment of a corresponding contract of cooperation. For this, a full membership in the DGNB Partner Network is necessary, in which all of the requirements for a full membership as specified above must be fulfilled.

4 Added Value of a Certification

The construction and real estate sectors are in a state of change: energy efficiency, resource protection, residential and workplace health, value retention and risk mitigation are now in focus. General conditions and market interests are changing. Therefore, in the future buildings will be planned, built and operated differently, i.e. more sustainably.

First evaluations of certified buildings have shown that the life cycle costs of certified buildings decreases with the certification degree. It shows that gold certified buildings are in general more cost efficient than bronze certified buildings.

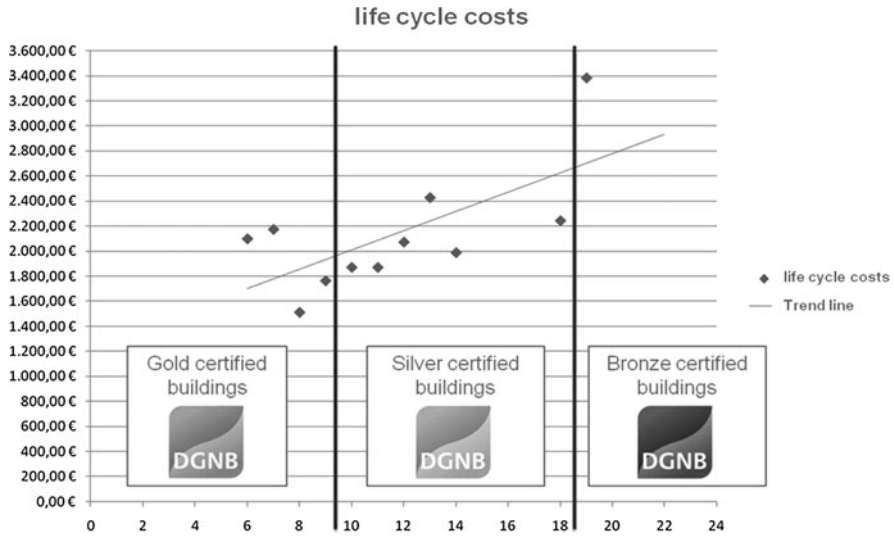


Fig. 7 Relation between the life cycle costs and the certification stage (Source: DGNB)

Therefore the certification e.g. the sustainability of a building results in a more efficient and cost optimized building. This kind of performance can be achieved by using a transparent certification system in order to systematically optimize the buildings in the right way. Only by this level of transparency, bringing it down to measurable values, building performance can be compared, regardless of the location of a building.

Sustainable building means to build intelligently: The focus is on a comprehensive quality concept that serves the building and real estate sectors, as well as society in general. Sustainable properties are beneficial to the environment, conserve resources, comfortable and healthy for their users, and fit optimally into their socio-cultural surroundings.

In the same way, they stand for economic efficiency and long-term value-retention. Sustainable properties are cost efficient due to their lower operation and maintenance costs. The manageable additional planning and construction costs will usually amortize in few years (Fig. 7).

References

- DGNB (Ed.) (2009). *Handbuch Neubau Büro- und Verwaltungsgebäude, Version 2009 (Handbook Office and Administration Buildings, New Construction, Version 2009)*. Stuttgart: Deutsche Gesellschaft für Nachhaltiges Bauen e.V. (German Sustainable Building Council). ISBN: 978-3-942 132-00-8.
- Hegger, M., Stark, T., Fuchs, M., & Zeumer, M. (2008). *Nachhaltigkeitsatlas*. Birkhäuserverlag, Basel.

The German City System

Guido Spars and Inès-Caroline Naismith

Abstract The German city system with its essential structures, founded in the Middle Ages and further developed during the industrialisation, features characteristics that are unique within Europe. Consisting of a polycentric network of cities ranging from 200 to 600,000 inhabitants that is supplemented by a concentration of small and medium-sized towns (<20,000 inhabitants) mainly in the West and Southwest, the German city system is interspersed with evenly distributed large cities that contribute to a functional polycentricity within Germany due to their differing economical specialisation. Based on the assumption that in future cities can be regarded as privileged fields of innovation for knowledge and cultural production, the large and in particular the metropolitan areas like Berlin, Hamburg and Munich can be expected to show a considerable prospective growth owing to their highly diversified knowledge-economical functions. Furthermore, their functional competitiveness and their central position within Europe allow the German cities to be well prepared for the competition amongst European cities and regions.

Keywords City system • metropolises • specialization

1 The Significance of City Systems

The exchange of goods and services across city boundaries was always at the core of the development of cities. Particularly trade and the spatial division of labour between the different settlements contributed to an increase in prosperity. Although the first city foundation in Germany had already occurred in the first century A.D. initiated by the Romans, the actual town foundation phase took place in the High Middle Ages from 1250 to approximately 1400 A.D. The fragmented territorial structure of the Holy Roman Empire of German Nation during this phase was crucial for the multitude of foundations. Whilst wanting to protect their territory, the rulers also had a great interest in the expansion of handicraft and trade in their dominions. Some developed along the trade routes, others originated from the

expansions of former rural settlements due to the settling of craftsmen and merchants, others again grew around the potentates' castles (Kostof 1992).

An increasing improvement of transport technologies for people, their material and later on also digital goods constantly enhanced the possibilities and also the frequency of the exchange between the cities. In this context an urban or city system can be understood as a number of cities within a certain region (of different spatial levels) in mutual entwinement (Knox and Marston 2001). The relations between the cities primarily include material and immaterial streams of goods, but also migration as well as organisational entwinements (Blotevogel 2002).

Urban systems can differ with regards to their level of hierarchy. This may include rural central places supplying the population of their respective hinterland or even larger regional centres with specialised trade, service and job market offers. The national capitals and metropolises of international acclaim equipped with distinctive control and service functions represent another variation (Sassen 2001). In addition to a purely hierarchical order a city systems can also be determined by the functional specialisation of sectors. This refers to a complementary division of labour between cities within an urban system, e.g. City A is a commercial location, city B is an industrial site and city C is an administrative location (Blotevogel 2002).

In order to understand the German property markets and their mode of operation, this chapter will give an insight into the German city system, its previous genesis and the currently discussed ideas concerning its future development.

2 Theories and Models of the Urban Hierarchy

A great part of the literature being concerned with urban systems is dominated by models that are based on urban hierarchies related to size and power and the cities' mutual task sharing and division of work.

Thus, the first works of Auerbach (1913) and Zipf (1949) have posed the question of regularity in the size distribution of cities. An empirical regularity was discovered: the so-called Rank Size Rule. The core of this rule states that within a country there is a statistically significant correlation between the logarithmic number of a city's inhabitants and its rank in a list sorted by size. Just and Stephan (2009) could prove this correlation as well as the estimated coefficient as being stable within Germany in the period from 1700 to today. Furthermore the authors found strong indications for the Zipf law not only being valid on a national level, but also on the level of Federal states and partly even on a deeper (regional) structural level (Just and Stephan 2009, 18ff) (Fig. 1).

The main criticism with regards to the Rank Size Rule as an approach to understand the city system is seen however in the facts that:

- The importance of a city's location within the country is blanked out.
- The suburbanisation processes hamper a statistical external demarcation of the cities (actual population).

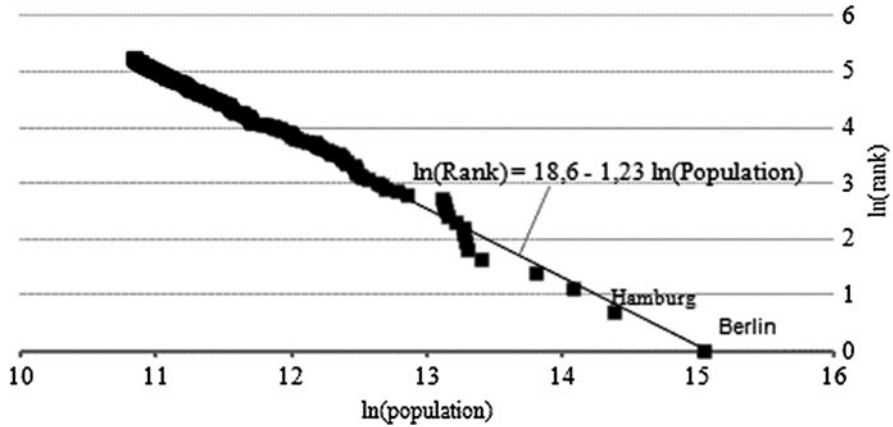


Fig. 1 Estimate of the Zipf-parameters for German cities 2008 (Source: Just and Stephan 2009)

- Due to globalisation and Europeanising a national view of the cities reaches its limit anyway.
- The Rank Size Rule provides an observation but not an explanation.

Theoretical approaches were thus looked for that could also explain the division of labour between the cities and their size ratio. An important theoretical starting point was the Central Place Theory by Christaller (1933) that was first developed for South German cities, but displays up to the present day relevance for the German regional planning policy.

Christaller identified the hierarchy in the offer of central goods as well as that of administrative control and service functions as a substantial reason for the hierarchical order of the German city system and thereby went beyond the thesis of pure size differences.

He correlated the centrality of goods and their corresponding range to the transport costs and the minimum sales volume. Thus, he illustrated how overlapping grids of goods of differing centrality ensure an optimum supply for the population (Christaller 1933). His theoretical Central-Place-Concept is characterised by the following principles:

- The larger the range of a good, the higher the centrality.
- Each central place offers the goods defining its own centrality as well as all the goods of a lower centrality.
- Each central place forms a closed functional system with the places and market areas of lower levels located in its market area.
- All locations of one centrality level offer the same product structure; a specialisation between the locations does not exist.

Central places – transferred from theory to practice – are a basic component of the urban settlement system in Germany. The system of regional and medium (or secondary) centres – being locally concentrated – aims to secure the supply for the

population and economy with infrastructure services within the intertwined area of the central places. Also short and medium-term demand concerning the basic supply with jobs, public and private services should be covered in secondary centres, whereas long-term demand should be met by the regional centres.

3 History of the German Urban System

As described, the basis of the German city system dates back to the town foundation phase in the twelfth and thirteenth century. A close city net had already developed at that time that lasted until the nineteenth century. New impetus from industrialisation was not induced before the end of the nineteenth century. Large urban districts originated from the growth of the raw material-oriented industries at Ruhr, Rhine and Saar. The industrial boom supported a differentiated structure of the city system and led to an intensification of the inter-urban interweavement. The degree of the urbanisation increased continuously, even in a clearly disproportionate way since the foundation of the Reich in 1871.

The decision to make Berlin the capital of the German Reich did not only lead to enormous population growth in Berlin in the 1920s, but also to a concentration of functions of all sorts. This trend was strengthened under the National Socialists, so that in the 1930s the imperial capital temporarily became the dominating primate city. This is also pointed out by Blotevogel's analysis of the German city system on the basis of the employment figures in the service sector at three different times (1939, 1970 and 1995) (Blotevogel 2002). In 1939 the dominant position of Berlin as the only metropolis in Germany was still noticeable, while the later years of the investigation show a diminishing relative importance (Fig. 2).

Following the Second World War ten million refugees were looking for a new home within the Federal Republic. Immigration was not only limited to the severely damaged big cities, but most notably to the medium-sized and small towns that grew due the living conditions they offered.

The division of Berlin changed both the role and the importance of the city. With the establishment of the Federal Republic in 1949, the historically grown, decentralised city system was further strengthened by federal structures. Each of the created federal states was given its own state capital with administrative and governmental functions. As a compensation for the decision to declare Bonn as the new federal capital the Federal Government supported the big cities in Germany in their pursuit of functional specialisation. Thus Hamburg could be established as the city of the print media, Frankfurt with the newly founded federal central bank as the financial centre, Cologne as the insurance and/or later on media and art metropolis and Munich as the city accommodating the film industry. The pronounced functional division between the cities (regional city system) was further promoted with the help of educational policy. Since the 1960s further university cities were added to the traditional ones like Tübingen, Heidelberg or Marburg – e.g. Konstanz, Siegen or different university cities in the Ruhr district. The latter supported the attempt to successfully master the structural change from industry to service location.

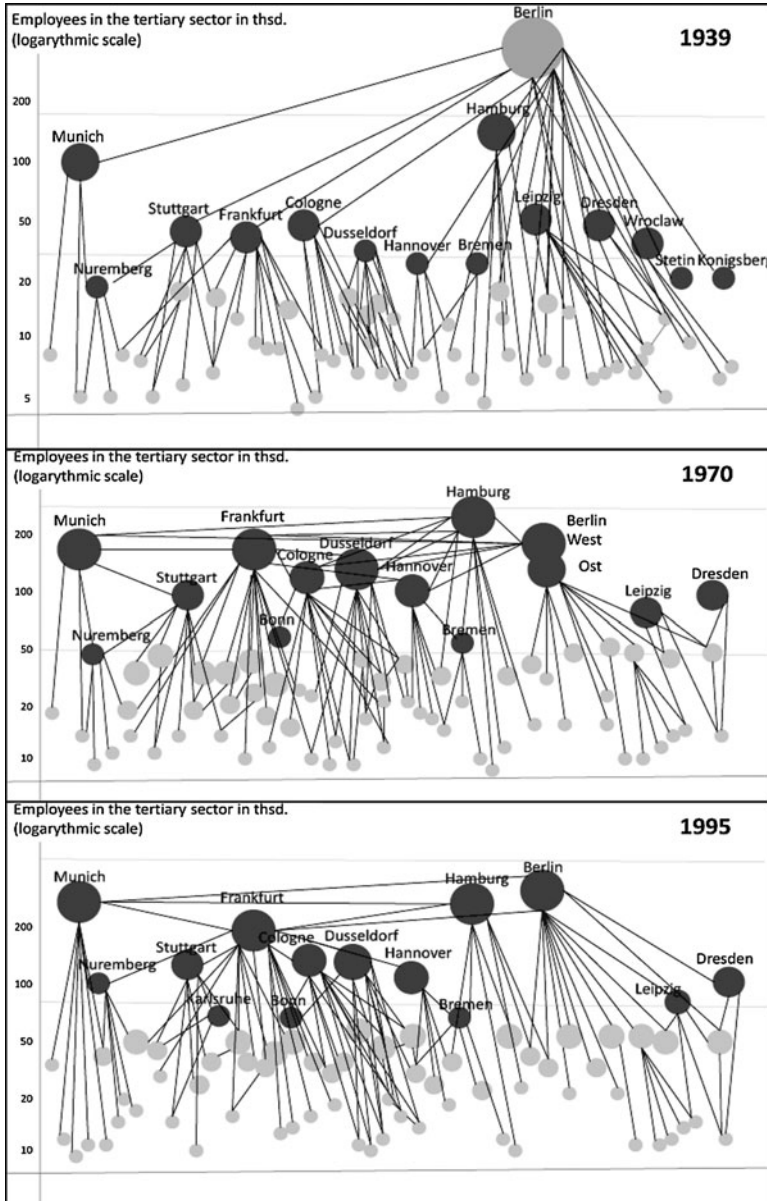


Fig. 2 Urban hierarchy in Germany in 1939, 1970 and 1995 (Source: Blotevogel 2002)

In the 1960s and 1970s changes regarding the spatial structures occurred that required regional planning policy measures (Blotevogel 2002). A distinct south–north gap developed, as the South German regions managed, due to their lesser environmental pollution and their higher innovation capacity, to economically outdistance the old-industrialised and peripheral regions. A second determining process was the

suburbanisation caused by the strong inner-regional population shift in the countryside surrounding the cities. The federal government's and the federal state governments' reactions to this were manifold. On the federal level the regional planning law was enacted in 1965, the most important target being the guarantee of equivalent living conditions in all regions of the Federal Republic. As a result of the federal and regional planning programs different types of cities and city regions have developed up to date. Furthermore the conurbations as well as the peripheral regions – e.g. the German–German border area, the Emsland as well as the low mountain range regions – were strengthened by different supporting measures (e.g. the so-called joint tasks). This space-effective state activity was supplemented at the regional level by comprehensive local and district reforms. They were the answers to the increasing economic interdependencies within the urban regions.

A re-organisation of the traditional administrative borders appeared more than necessary in the light of the daily commuter flows, the financial crisis of the central cities as opposed to the rising tax revenues of the surrounding communities as well as the high administrative costs caused by the multitude of small-sized area units. However, in North Rhine-Westphalia the number of independent municipalities was reduced from 2,300 (1970) to 396 (1978). Similarly, comprehensive regional reorganisations also seized the eastern federal states since 1990.

The urban system of the GDR with its historically founded division into two differently structured regions – the highly industrialised south and the north with only a few cities – was supported by the regional planning policy of the GDR.

Since the new construction activity concentrated primarily on the industrial core cities, the small and medium-sized towns particularly in the north were affected by a constant decrease in population. Unlike in West Germany, the surrounding countryside of the big cities was not affected by comprehensive suburbanisation. Additionally East Berlin as the capital of East Germany maintained its position as primate city. Apart from overcoming the regional disparities within East Germany, reunification turned the coalescence of both city systems into an important desideratum of all-German regional planning. An essential pre-condition to this was the development of the infrastructure. Following the German–German division the city system underwent a substantial change. Mass migrations from the former eastern areas as well as the GDR (and/or the Soviet occupation zone) to West Germany took place. The decision for Berlin as the capital and future seat of an all-German government had far-reaching consequences not only for the German city system.

4 Today's Status

A comparison between the German city system and that of other industrialised countries reveals some specific characteristics. German cities play a substantial role within the European city system, even if they are not always distinguished by their size. Cities such as Berlin, Bremen, Dusseldorf, Frankfurt a. M., Hamburg, Cologne, Munich and Stuttgart are not players in the global premier league like

London or Paris Gloersen (2006). Although Berlin has gained in political significance after the reunification, the German urban system is still lacking a city that is at least twice as large as the next largest city (a so-called primate city) – a circumstance, which can be ascribed to both the German–German division and the federal structure of the Federal Republic, thus preventing a monopoly status of Berlin.

However cities with a size from 200,000 to 600,000 inhabitants are common in Germany, which leads to a slightly convex form of its rank size distribution curve.

The German city net is closely meshed and in comparison with other European cities characterised by the relatively good accessibility both of the large and smaller cities. Only a few of the German cities are to be regarded as peripheral in an inner-European comparison.

While small and medium-sized towns (<20,000 inhabitants) are mainly concentrated in the west and southwest, the large cities show a relatively balanced spatial distribution. With Hamburg and Munich, the second and the third-biggest city are located at opposite ends in the north and the south of Germany, while Berlin and Cologne – the largest and the fourth-largest city are situated in the east and the west.

The Rhine Ruhr, Rhine Main and Rhine Neckar agglomeration stand out as a polycentric conurbation; consisting of coalesced city regions. They contrast the metropolitan areas in the north and northeast with only few cities, as well as the southeast and the entire low mountain range of Germany. Today Germany ranks among the highly urbanised countries of the western world. According to the definition of the Federal Regional Planning Act, 54% of the population today live in agglomeration areas and a further 30% in so-called urbanised regions. The remaining 16% of the inhabitants are allotted to rural areas. However, only 35% of the population live in cities with more than 100,000 inhabitants (BBR 2005).

The decentralised urban settlement structure in Germany consists of 154 regional and 1,086 centres, allowing nearly everyone (97% of the population) to reach a regional centre within 60 min by car, thus offering a high supply quality, even if not all the centres in the sub regions are equipped with comparable standards yet. Until today, the large number of small and middle cities often competing with each other is another typical characteristic of the German city landscape. However, a polarised development has started since the end of the Second World War, favouring certain agglomeration areas such as Munich, Stuttgart, Frankfurt am Main, Berlin. The German regional planning policy is aimed at counteracting these concentration processes – the network of regional centres being an exemplary evidence of this policy. On the other hand, many of the smaller cities have preserved their medieval heritage and utilise it in the competition for tourists, for instance the South German cities Nordlingen or Rothenburg ob der Tauber, which rank among the most well-known tourist destinations.

4.1 The Functional Division of Labour in German Cities

From an economic perspective it is relevant to take a closer look at the different functional specialisations of German cities. The polycentric structure of the German city system is also reflected in the significance of the economical centres.

In a pan-European comparison the German cities rank among the first with regard to their functional division of labour, however without reaching the level of the global economic centres London and Paris. Comparing the branch profiles of the five largest cities on the basis of their quota of employees in the respective industries, distinct profile deviations and thus specialisations are revealed. The following analysis is based on data of the Federal Statistical Office from 2008 concerning the employees subject to social insurance in Berlin, Hamburg and the independent cities Frankfurt am Main, Cologne and Munich (Table 1).¹

A look at Hamburg's branch profile reveals a clear focus on trade, industry and traffic with a share of 29.3% of the overall employment, thus being roughly 10% higher than in Munich. This segment is also strongly pronounced in Cologne and Frankfurt. However, Cologne has the strongest development within the range of the information and communication persons employed (7.4%), followed by Munich (7%), which mirrors the importance of the media economy in both cities.

The by far highest value for the financial and insurance sector in Frankfurt (15% of the employees) reflects the importance of this industry for the city. Furthermore Frankfurt maintains a slight lead regarding the relative occupation (22%) within the collective category scientific and technical as well as other services, which is surely resulting from the high number of employees working in financial advice. The profile of Berlin is characterised by a high portion of public servants. The value of Berlin (27%) is approximately 8–10% higher than that of the other cities. Berlin also shows the highest value (6.44%) regarding the sector art, entertainment and domestic services, followed by Munich with 5.8%. With a value of 16.4% the city of Munich

Table 1 Comparison of the share of employees subject to social insurance in the branches of the five largest cities in Germany

City	Agriculture, forestry, fishery (%)	Construction industry (%)	Manufacturing (%)	Mining and utilities industries (%)	Trade, tourism, transport (%)	Information and communication (%)	Finance and insurance services (%)	Land and housing sector (%)	Self empl., scient., techn. services, etc. (%)	Public services (%)	Art, entertain., domestic services, etc. (%)
Hamburg	0.10	3.6	12.5	1.5	29.3	6.1	6.1	1.2	18.7	16.9	4.0
Cologne	0.04	3.5	12.0	1.8	25.5	7.4	8.9	1.0	17.3	18.2	4.2
Frankfurt	0.05	2.7	6.8	1.2	27.0	5.7	15.0	2.2	22.0	13.3	4.0
Munich	0.09	2.6	16.4	1.8	19.0	7.0	8.4	1.4	18.8	18.8	5.8
Berlin	0.05	4.6	9.8	1.9	21.9	5.2	3.1	2.4	17.3	27.4	6.4

Source: Destatis 2008, own representation

¹ In excess of the employment rates of the land and housing sector being specified here, the values referring to the real estate sector being disclosed by Maennig (2011) within this anthology also cover the employees in the construction industry and in parts of the service segments, which can be assigned to the real estate economy.

Table 2 Comparison of the share of employees subject to social insurance in the branches of the five next largest cities in Germany

City	Agriculture, forestry, fishery (%)	Construction industry (%)	Manufacturing (%)	Mining and utilities industries (%)	Trade, tourism, transport (%)	Information and communication (%)	Finance and insurance services (%)	Land and housing sector (%)	Self empl., scient., techn. services, etc. (%)	Public services (%)	Art, entertain., domestic services, etc. (%)
Bremen	0.07	4.1	21.1	1.8	27.0	3.3	3.3	1.0	14.1	19.2	5.1
Dusseldorf	0.12	3.0	12.0	1.3	25.2	5.7	8.9	1.6	20.5	17.6	4.0
Essen	0.09	6.1	10.2	3.5	22.8	4.9	3.2	1.6	18.8	24.3	4.6
Stuttgart	0.11	3.6	16.2	1.0	16.7	6.4	8.9	1.0	20.4	19.4	6.1
Dortmund	0.05	5.3	12.1	2.7	23.9	4.9	5.8	1.1	15.6	23.9	4.5

Source: Destatis 2008, own representation

is the leader with regards to occupation in the processing industry. The inclusion of the five next largest cities Bremen, Dusseldorf, Essen, Dortmund and Stuttgart in the comparison reveals similarities and differences in the cities' profiles.

With regards to the comparatively low shares of the land and housing sector it is worth noting that this official category must not be mistaken for the overall real estate sector. Real estate finance, construction and many commercial real estate services are counted in other subsegments. The overall real estate sector is significantly larger in all cities. For a detailed assessment of Germany's real estate sector see Maennig (2011) in this book or Voigtländer and Demary (2009) (Table 2).

Similar to Hamburg, Bremen's profile shows a focus on trade, industry and traffic, closely followed by Dusseldorf with a slightly lower value (25.21%). But Bremen also has the highest value in processing industry amongst the five second-largest cities. Dusseldorf – like Stuttgart – shows a high value for financial and insurance industry and it is leading in the second pentad of the cities with regards to business-related services. Furthermore Stuttgart has the highest value regarding information and communication industry as well as the art, entertainment and domestic service sector. Dortmund's and Essen's profile shows – similar to Berlin's in the first pentad of the cities – an emphasis on public services. Both have also the highest values (approx. 6%) for construction industry. In the case of Essen this surely results from the fact that the company headquarters of Hochtief are located in Essen. The ESPON 2006 program (European Observation Network for Territorial Development and Cohesion) of the European Union examined European cities with regard to their different functional importance with a focus on polycentrism working with a European-wide demarcation and characterisation of functional urban areas, the so-called FUA's (Antikainen 2005; Gloersen 2006).

It became apparent that the different specialisations of German cities contribute to a functional polycentrism, which represents a specific characteristic within Europe. Germany ranks among the leading countries with regard to the implementation of the economic dimension of the Lisbon strategy. While the economically strong regions in

Germany are at the vanguard of Europe in terms of competitiveness and innovative ability, parts of North and East Germany, however, can often, at the best, be qualified as European average (ESPON 2009).

Regarding the net infrastructures (traffic and communication) the ESPON program pointed out the following central conclusions with regard to German regions: Germany has a high accessibility level, which is, however, accompanied by equally large disparities. Depending on the respective indicator the European periphery already begins in individual German regions. Germany's economic strength often lags behind its locational potential, the causes being a diminishing marginal utility in regions with high accessibility potential and economic restructuring processes in many eastern and old-industrial regions, which lead to a reduced significance of the factor location. The German regions in particular benefit from the development of the trans-European transportation network, even outside Germany. For example the development of the transportation network in the eastern states neighbouring German regions, especially in the new Federal states, the absolute gain in economic strength in Germany is even higher than in the regions, where the traffic projects are actually carried out.

5 Future Outlook for the German Urban System

A closer look at the prospective challenges for urban development in Germany reveals that the demographic development and the change within the economic structure will be even more crucial in future for the importance and development opportunities of the German cities.

In this context particularly the effects of globalisation on new forms of organising the spatial division of labour at the national, European and global level have been discussed for many years (Friedmann 1986; Sassen 2001; Taylor 2004).

Many German cities also regard intra-regional migration as a key to solving their problems, since in recent years these immigration cities were able to benefit to a greater extent than others from immigration.

The different immigration performance of the cities is closely related to the development of training and job opportunities. Notably the highly qualified work force is of particular interest for urban development and the local or regional economy, since it can be assumed that the significance of the knowledge economy as a driving force of future urban prosperity will continue to increase. Referring to this, cities can be regarded as a privileged field of innovation for knowledge and cultural production (Läpple 2004.; Kujath and Zillmer 2010).

Agglomeration theories assume that it is not only the concentration of human capital in general (functional diversification) but especially also the concentration of specific knowledge workers that is vital for interaction processes and therefore for the attractiveness of urban centres or urban regions, thus allowing to attract more human capital for certain professions (Gertler 1995; Storper 1997). This also implies that the entrepreneurs will increasingly align their choice of location on the basis of the availability of qualified employees. This is yet another indicator for

the importance of an urban and regional planning policy which takes into account the main location factors of the knowledge economy such as quality of life, culture and leisure offers, image, well-differentiated housing markets (Faller et al. 2009).

An investigation by the IAB (Buch et al. 2010) proved that between 2000 and 2007 Munich and Hamburg, in particular, succeeded in attracting qualified and highly qualified workers, resulting in annual net rates of migration² of 1 per mill, thus leaving the other metropolises behind (see Table 3). The same applies for Bremen, at least concerning the group of qualified workers. Berlin, Dresden, Dusseldorf and Cologne at least show positive values of 0.3–0.5 per mill regarding highly qualified employees. Frankfurt, Stuttgart, Essen, Dortmund and Leipzig show negative values regarding the group of highly-qualified workers in the same period and thus display migration surpluses. In Leipzig and Dortmund these annual mean values even are as low as –0.6 and –0.7 per mill.

Acting on the assumption that knowledge economies and therefore the distribution of human capital are of great importance for the successful further development of cities (Park 2000; Krätke 2007), a closer empirical analysis of these interdependencies appears to be of scientific interest.

Adopting a European perspective, the examination of (Winden et al. 2007), which is based on a wide set of indicators (foundation and progress indicators), identifies six European types of cities: “star”, “star nicheplayers”, “pearls”, “metropolises in transition”, “intellectuals” and “nichesplayers in transition”.

Table 3 Average annual net rates of migration for large cities in Germany between 2000 and 2007 by different qualification

	Total	Highly qualified	Qualified	Low-skilled
Average district west	0.2	0.3	0.2	0.2
Munich	1.2	1.8	1.0	0.7
Hamburg	1.1	1.7	1.1	0.4
Cologne	0.4	0.3	0.5	0.1
Nuremberg	0.3	0.2	0.3	0.2
Bremen	0.2	1.1	0.1	0.3
Dusseldorf	0.2	0.4	0.2	0.1
Frankfurt/main	0.2	–0.1	0.3	0.3
Stuttgart	0.1	–0.2	0.2	0.2
Essen	–0.2	–0.1	–0.2	–0.1
Dortmund	–0.4	–0.7	–0.3	–0.5
Average district ost	–0.2	0.2	–0.3	–0.6
Berlin	0.0	0.5	–0.1	–0.2
Dresden	–0.3	0.4	–0.5	–1.7
Leipzig	–0.6	–0.6	–0.6	–1.4

Source: Buch et al. (2010)

²The net rate of migration in this case is calculated as follows: net rate of migration = (immigrants–emigrants)/employees at the place of work × 1.000.

Kujath and Zillmer (2010) partially built on this typology. They adjusted the effects of the knowledge economies for the German urban system to the knowledge economies and the German city system, based on employment figures at different points in time (1998 and 2006) on NUTS 3 level.³ Finally, Growe (2010) studies the spatial concentration and specialisation of human capital in the German urban system and shows that in Germany both an influence of an increasing labour division on the basis of an increasing functional specialisation as well as the existence of functional balanced hubs due to urbanisation externalities can be documented.

Growe shows that the highest increase in spatial concentration occurred in the group of knowledge-based professions with an affinity towards cities. On the other hand, professions with no spatial affinity apparently enhance the spatial de-concentration. Consequently, areas of high density are of great significance for the major part of the knowledge-based professions. Professions tending to a more focussed concentration within cities even show a further increased concentration. Five important functional hubs within the German urban system could be identified based on the data presented by Growe (2010). The most important hub (Munich) shows a balanced inner functional structure. The other four hubs are Frankfurt, Berlin, Hamburg, and Stuttgart. These hubs show complementary functional strengths and their functional specialisation increases over time.

Only Hamburg shows a decrease in specialisation. This development might be caused by the distinctive increase of Berlin's specialisation during this period in the same functional areas. In consequence a further rise in the characteristic labour-division of the German urban system in favour of these agglomerations is to be expected (Table 4).

Kujath and Zillmer (2010) specify the knowledge-based economy on the basis of the four functional areas information and medium industry, high technology industry, transformation oriented service entrepreneurs and transaction-oriented service entrepreneurs and examine their distribution on the spatial levels of the city system. Kujath et al. regard the urban locations of the knowledge-based economy as system elements that result from the enterprises settled on the micro level and their respective spatial patterns. Their choice of location and their interaction patterns (e.g.

Table 4 Profiles of German cities in functional specialisation

	Specialised functional surplus	Balanced functional surplus
High functional importance	Frankfurt, Berlin, Hamburg, Stuttgart	Munich
Small functional importance	Nuremberg, Rhine-Nectar	Rhine-Ruhr, Bremen, Leipzig-Dresden, Bielefeld-Hannover, Saar

Source: Growe 2010⁴

³The NUTS-regions are based on the existing national administrative subdivisions. In countries where there are only one or two regional subdivisions or where the size of the existing subdivisions is too small, a second and/or third level is created.

⁴The Rhine Ruhr agglomeration includes Cologne.

communication and production processes) supply a crucial contribution to the positioning of the cities within a (national) city system.

To begin with, Kujath and Zillmer (2010, 153) state that between 1998 and 2006 the increases in employees within the knowledge-based economies above all occurred in regions with less than 100,000 inhabitants, in particular in South Germany and regions of Northern Germany – thus outside the large cities. However, mainly jobs in the high-tech sector were affected by this growth, jobs that do not exist exclusively in the larger cities. These findings show clearly that not only large agglomerations represent potential growth poles of the knowledge-based economies, but that even the small and middle cities have prospects for a positive development.

The authors assume that the distribution of the knowledge-based economy is following functional specifications. Thus not all cities participate in the same way (qualitative-functionally) and to the same extent (quantitative) in the changes of the economical structures and therefore take different positions within the knowledge-economic city system.

By using a cluster analysis the authors formed seven types of regions and arranged these in three groups, which differed with regard to the knowledge economy's importance for the region (low, average, above-average). A look at the types with above-average significance of the knowledge economy reveals "stable high-technology regions", "growing regions with transaction-oriented service entrepreneurs" and "the metropolitan areas" Berlin, Hamburg and Munich as a type of their own. Concerning the urban system it becomes apparent that

- A high diversity of the knowledge economy as well as high concentration values for the transaction-oriented service entrepreneurs and the information/media segment can only be found in large cities and their environs.
- The knowledge economies in small and middle cities outside the agglomerations develop predominantly on the basis of high technology and thus.
- A size-dependant hierarchy of knowledge-economic functions with only few exceptions becomes visible in the knowledge-economically oriented cities.

A combination of the above-mentioned categories developed by van Winden et al. (2007) and the systematics of Kujath and Zillmer (2010) are shown in the following figure (Fig. 3), giving examples for the different city categories and thus illustrating the interrelation between the importance of the knowledge economy for the city and the city typologies.

Assuming that the knowledge economies will in addition unfold an important influence on the development of the cities in the next decades, it can be expected that the large agglomerations and, in particular, the metropolitan areas (Berlin, Hamburg, Munich) will keep growing considerably due to their high diversity with regards to the knowledge-economic functions.

Whether Munich will be able to utilise its growth potential due to its relatively well-balanced functional specialisation depends on the one hand on the future importance of individual industries and segments for the economic development in general.

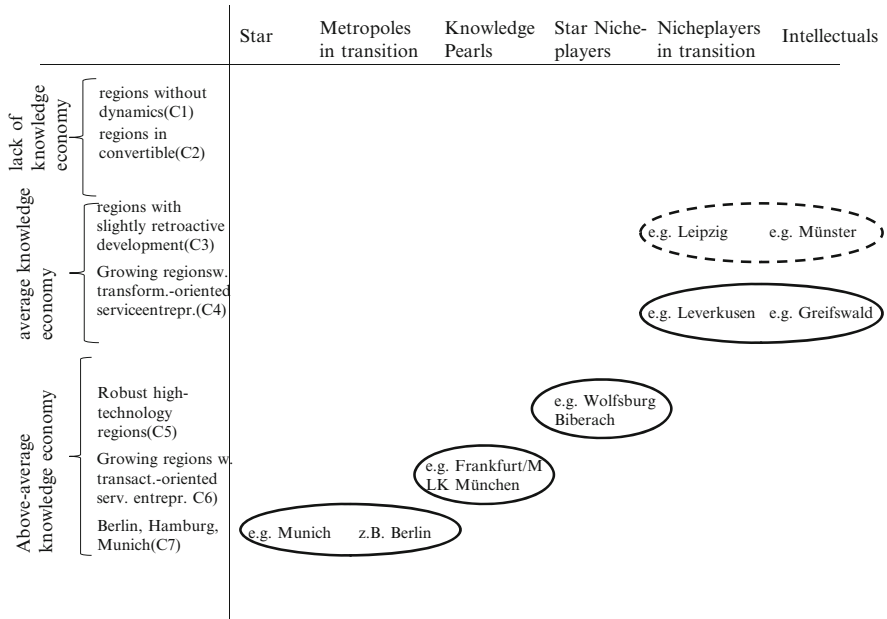


Fig. 3 Comparison of knowledge-economic city typologies (Source: Kujath and Zillmer 2010)

On the other hand, many different aspects, e.g. aiming at location costs and – qualities (infrastructure, surface development, high rents and land prices etc.) or capacity factors also play an important role. It is difficult to assess how exactly these interacting factors will affect Munich’s economic performance in the next few years. It is equally challenging to forecast the development of the competing, partially not complementary, specialised and closely neighbouring metropolises Berlin and Hamburg.

However, apart from the growth prospects of the large agglomerations it is also important to pay attention to the development potential of small and middle cities, in particular if – e.g. like in South Germany – they differentiate themselves as high technology locations.

A further important parameter for the future development of the German urban system is the direction of the spatial policy in Germany. The previous space-effective policy in Germany was – in simple terms – strongly aligned to the so-called “equalising goal” and thus spatial cohesion. This includes the pursuit of the principle of equivalent living conditions (e.g. art. 72 GG, ROG) as well as the political objectives of the joint task aiming at the improvement of regional economic structures and regional funds of the European Union. All of these attempt to support less developed regions in their efforts to catch up. The equalising aim and its significance have been critically discussed both within the regional planning

policy and – research, not merely amid the debate about the evaluation results of spatial convergence in the context of German reunification.⁵

The report on spatial planning of 2005 (BBR) formulates the following developmental expectations for German cities and regions until 2020. Simultaneous and sustainable population and occupation growth is only predicted for the western German regions. Along with the metropolitan regions with metropolises such as Munich, Hamburg, Stuttgart, Cologne, Rhine Main and Rhine Neckar, the larger areas in rather rurally structured regions such as Oldenburg, Emsland, Osnabruck as well as the Upper Rhine and Bodensee show some growth potential. The gap between the regional growth nuclei and stagnating or shrinking regions will widen. Parts of old-industrialised areas as well as the sparsely populated peripheral regions will be particularly adversely affected. The regions being notably affected by a decrease in population and employees will above all be situated in the east. They represent a particular challenge for a balance-oriented regional planning policy (BBR 2005).

It can be assumed for the future development of German cities that a further balanced, polycentric urban system will continue to exist. This is on the one hand based on the strength of German cities and regions, which formed a pronounced profile over the previous decades. The competition between the European regions will indeed intensify especially with regard to the development of the Eastern European countries and their integration into the European Union. However, German cities are well prepared for this competition due to their functional competitiveness and their central position within Europe. A further consolidation in order to promote interregional and inter-communal networking and cooperation nevertheless seems to be advisable.

References

- Antikainen, J. (2005). *The concept of functional urban area. Findings of the ESPON project 1.1.1.* Bonn: Bundesamt für Bauwesen und Raumordnung.
- Auerbach, E. (1913). *Das Gesetz der Bevölkerungskonzentration* (pp. 74–76). In PM 59, 1 Halbband.
- Bathelt, H., & Glückler, J. (2003). *Wirtschaftsgeographie* (2nd ed.). sind in Ordnung Stuttgart: Ulmer.
- BBR (Ed.) (2005). *Raumordnungsbericht 2005*. Bonn, Berlin.
- Blotevogel, H. H. (2002). *Städtesysteme und Metropolregionen*. In IFL (Hg.), *Nationalatlas Bundesrepublik Deutschland* (pp. 40–43). Band 5.
- Buch, T., Hamann, S., & Niebuhr, A. (2010). *Der Wettbewerb um kluge Köpfe nimmt zu*. In IAB (Ed.), *IAB-Kurzbericht 16/2010* (pp. 1–8).

⁵ Thus the future commission of the Bavarian federal state government recently presented a report, demanding a stabilisation of the cities and a clearer break with the spatial planning goal of the equivalence of the living conditions.

- Christaller, W. (1933). *Die zentralen Orte in Süddeutschland. Eine geographisch-ökonomische Untersuchung über die Gesetzmäßigkeiten der Verbreitung und Entwicklung der Siedlungen mit städtischen Funktionen*. Jena: Fischer.
- Faller, B., Jacob, P., & Spars, G. (2009). *Der Wohnungsmarkt Berlin als Standortfaktor Studie im Auftrag der Investitionsbank Berlin*. Berlin: Endbericht.
- Friedmann, J. (1986). The world city hypothesis'. *Development and Change*, 17, 69–83.
- Gertler, M. S. (1995). Being there: Proximity, organization, and culture in the development of advanced manufacturing technologies. *Economic Geography*, 71, 1–26.
- Gloersen, E. (2006). A first step towards an improved understanding of urban profiles and polycentric development potentials. In ESPON (Ed.), *European Territorial Research in Progress, Conference Proceeding of the 1st ESPON Scientific Conference, Brussels*.
- Growe, A. (2010). Human capital in the German urban system – patterns of concentration and specialization. *European Journal of Spatial Development*. pp. 1–23
- Heineberg, H. (2006). *Stadtgeographie* (3rd ed.). Paderborn: Schöningh.
- Just, T., & Stephan, P. (2009). *Die seltsam stabile Größenstruktur deutscher Städte, Das Zipfsche Gesetz und seine Implikationen für urbane Regionen*. In G. Spars & W. Maennig (Eds.), Deutsche Bank Working Paper Series, Research Notes 31, Juni 2009, Frankfurt a.M.
- Knox, P., & Marston, S. (2001). *Humangeographie*. Heidelberg: Spektrum Verlag.
- Kostof, S. (1992). *Die Anatomie der Stadt, Geschichte städtischer Strukturen*. Frankfurt a.M., New York: Campus Verlag.
- Krätke, S. (2007). Metropolisation of the European economic territory as a consequence of increasing specialisation of urban agglomerations in the knowledge economy. *European Planning Studies*, 15(1), 1–27.
- Kujath, H. J., & Zillmer, S. (2010). Räume der Wissensökonomie, Implikationen für das deutsche Städtesystem. In IRS (Ed.), *Stadt- und Regionalwissenschaften* (Vol. 6). Erkner: LIT Verlag.
- Läpple, D. (2004). Thesen zu einer Renaissance der Stadt in der Wissensgesellschaft (Thesis of the cities' renaissance in the knowledge society). In N. Gestring (Ed.), *Jahrbuch StadtRegion. Schwerpunkt Urbane Regionen [Yearbook cityregion. Urban regions]* (pp. 61–78). Opladen: Leske + Budrich).
- Maennig, W. (2011). Size and impact of the real estate sector and its role for business cycles and growth. In T. Just & W. Maennig (Eds.), *Understanding German real estate*. In Ordnung Heidelberg: Springer.
- Park, S.O. (2000). *Knowledge-based industry and regional growth* (IWSG Working Paper, Nr. 02-2000).
- Sassen, S. (2001). *The global city*. New York/London/Tokyo: Princeton University Press.
- Storper, M. (1997). Regional economies as relational assets. In R. Lee & J. Wills (Eds.), *Geographies of economies* (pp. 248–258). London: Arnold.
- Taylor, P. J. (2004). *World city network. A global urban analysis*. London: Routledge.
- Van Winden, W., van den Berg, L., & Pol, P. (2007). European cities in knowledge economy: Towards a typology. *Urban Studies*, 44(3), 525–549.
- Voigtländer, M., & Demary, M. (2009). Wirtschaftsfaktor Immobilien. Die Immobilienmärkte aus gesamtwirtschaftlicher Perspektive. *Zeitschrift für Immobilienökonomie*. Sonderausgabe.
- Zipf, G. (1949). *Human behavior and the principle of least effort*. Cambridge: Addison Wesley.

Part II

Judicial Framework

Regulations and Laws on Real Estate Agents, Notaries and Cadastres

Michael Schick

Abstract This chapter describes the system of cadastres and land registers as well as the characteristics of real estate brokerage and the system of notary publics in Germany and contrasts some of its certain aspects with the situation in other countries in Europe.

Keywords Land register • notarization • real estate agent

1 Introduction

The laws and regulations governing cadastre, land register, notary publics and estate agents in Germany show certain particularities that may or may not have analogies in other European countries. The British and Irish transaction systems, for instance, emphasize private rights more forcefully than the German system. It contains no legal regulations to govern notaries public or land registers. Instead, the deed is negotiated between the commissioned solicitors of either party. Entry in the land register is not compulsory. By contrast, deeds in Germany require notarisation, as it is called. The position of the notary public within the transaction process is therefore a prominent one. Similarly, the role of the estate agent in Germany differs from the one in Sweden, for instance.

This chapter will start by profiling, in Sect. 2 below, the basics of property and plot sales in Germany, that is, the system of cadastres and land registers. Next, Sect. 3 will focus on the parameters of real estate brokerage. Section 4 will briefly outline the German systems of notary publics. The chapter will conclude by comparing, in Sect. 5, certain aspects of German law with the legal situation in other countries in Europe.

2 The German System of Cadastres and Land Registers

2.1 Cadastre

One of the most important formal requirements for any sort of property ownership in German is the land survey register or cadastre (*Liegenschaftskataster*). It represents a comprehensive register of all landed property in Germany in cartographic form as cadastral map (*Liegenschaftskarte*) as well as in text form as cadastral register (*Liegenschaftsbuch*). The map alone includes all definitive data on a given plot and the buildings that may be located on it. The register provides additional information, such as the names of owner, street, and type of use of the respective building and plot. Important to know: A plot is not the smallest independent property unit in a German cadastre. Rather, a plot (*Grundstück*) may subdivide into several land parcels called cadastral units (*Flurstück*). These cadastral units are the smallest units used in the cadastre. Neither do plots, inversely speaking, represent the largest unit of area measurement in the administrative property landscape. Categories subsuming individual plots include, for instance, the cadastral section (*Flur*) and the cadastral district (*Gemarkung*). These consist of a pool of property units from a larger number of – normally adjacent – cadastral units of plots.

The authority in charge of the cadastre is the so-called cadastral office (*Katasteramt*). In addition to the task of managing the cadastre, the cadastral office is also responsible for conducting the necessary land surveys. Accordingly, cadastral offices map all cadastral units, plots and buildings in Germany, stating location, type of use, size, owners (or ground lessees, where applicable) and their topographical characteristics. Moreover, cadastral offices must continuously update their property-related data, for instance to reflect new structures, changes in the floor plan of existing buildings, or demolitions. In the case of plot subdivisions, possible new property boundaries must be defined and secured.

The cadastre data is public only to a limited degree. While the cadastral office must disclose its collected data and issue cadastral excerpts, a so-called legitimate interest to obtain such data must be substantiated (see Sect. 2.2.3 of this chapter). The intention to acquire a given property does generally not suffice to justify such an interest.

In many places in Germany, cadastral offices still keep the maps and data as hard copy. In recent years, however, cadastral offices have started converting their directories into an electronic inventory – with digital data taking the place of paper filings. This is of advantage in two ways: On the one hand, it simplifies the processing of the data records at the cadastral office itself. On the other hand, it facilitates the exchange of data with other government authorities. A case in point would be the so-called land registry (*Grundbuchamt*) which, like the cadastre, keeps records on property ownership.

2.2 *The Land Register*

Together with the cadastre, the land register constitutes the second formal prerequisite that is essential for property ownership in Germany. The land register is the official directory of landed property in which the ownership situation and the rights and encumbrances possibly associated with a given plot are recorded. To this end, each plot is accorded a so-called land register folio (*Grundbuchblatt*).

The land register folio subdivides into the inscription (*Aufschrift*), inventory (*Bestandsverzeichnis*) and three sections (*Abteilung*). The inscription includes information as to which land registry is responsible for which plot and the number under which the respective land register folio is registered. The inventory lists the respective plot. It may actually list more than one plot if the respective owner holds the rights to several plots in the jurisdiction of the same land registry. In this case, the plots are assigned consecutive numbers (the subsequent sections I through III refer to these numbers). The inventory also includes the exact designation of the plot (matching that of the aforesaid cadastre), cadastral district, cadastral unit number, the type of use, and the size of the plot.

Next come the three sections of the land register folio. The first section documents the ownership situation. It captures the owners and ground lessees and – whenever there is more than one owner – the pro-rate share of the entitlement or the legal relationship defining the ownership association. Moreover, it will state the reason for the acquisition. Conceivable reasons include an inheritance or a conveyance under partnership law.

Possibly existing property encumbrances will be listed in the second section. Relevant encumbrances may include easements (possibly including easements of access, i.e. the right to use the plot to cross to another plot), rights of first refusal and ground leases, long-term leases or permanent rights of residence, among other titles. This section will also list priority notices (the announcement of an upcoming acquisition of title in the respective property) or restraints on disposal, where applicable. Such entries may include notices regarding executions of a will or foreclosure sales as well as agreements that were signed into effect between several co-owners as rights *in rem*. By contrast, mortgages or land charges – while factually being encumbrances – are neither considered encumbrances along the lines of Section II of the land register, nor are they posted therein.

Instead, the latter belong in the third section. It covers the so-called mortgage liens: mortgages, land charges and annuity land charges. It lists the type or contents of the each mortgage lien, including the respective amount plus interest, possible fringe benefits, creditors, execution proceedings, and possible joint attachment of other properties. Whenever this section shows more than one land charge, they are ranked in priority depending on the order in which they were posted in the land register. The assumption underlying the priority principle is that earlier entries take precedence over later ones. This does not rule out the option for all stakeholders to consent to another arrangement regarding later entries. Such an agreement would accord the latter a senior ranking.

Pursuant to the German Land Registry Act (*Grundbuchordnung*, GBO), the land registers are kept by the land registries. They are responsible for the properties situated in their sphere of jurisdiction. Accordingly, a land registry's responsibility is defined exclusively by the municipality and location of a given plot, and not by owner or owner's place of residence. In analogy to the cadastre, the land register records are open to the public only to a limited extent. Only persons with a demonstrable interest may view the land register (see Sect. 2.2.3 of this chapter).

2.2.1 The Land Register's Key Role for Transactions

The land register should definitively detail all legal relationships of relevance in regard to a given plot. The same is true for changes in legal relationships. From the perspective of the transaction process, the land register thus attains an even greater significance than the aforementioned cadastre. Indeed, the land register represents the focal point of all legal relationships on the German property and real estate market. The acquisition of ownership in a given property requires the entry of the new owner in the land register (in Germany, the land register defines the time at which the property transfers to the new owner, whereas the land register in certain other countries plays an elaborating, *ex-post-facto* role. As a matter of principal, the new owner is entered into the land register upon application only. This, in turn, presupposes the seller's consent, which is explained by the following provision in the Land Registry Act: An entry in the land register necessitates the approval of any person whose title will be affected by the entry, for instance the property's seller. Whenever the titles of several persons are affected, all of these need to approve the land register entry. The approval must be substantiated in writing, and must be notarised (for more details on the role of the notary public, please see Sect. 4 of this chapter).

2.2.2 Applications to the Land Registry

The above example already showcases one fact: Applications, entries, and requests for information submitted to a land registry and cadastral office (as with any other German authority) are subject to a proper procedure regulated in detail. More or less plausible in this context is the fact that the official language for these procedures is German. This requirement mandates that all documents and certificates be composed in the German language whenever stakeholders of a given transactions state their case before a German land registry or cadastre. As already mentioned, posting, changing or striking¹ an entry from the land register principally requires an

¹ Entries are struck from a land register by colouring the cancellation in red pencil. Together with the annotation confirming the cancellation, this way of marking the cancellation ensures that each change in the land register remains legible and traceable.

application. Yet things get tricky as soon as it comes to the question how exactly an application should be submitted. The application must be submitted in person to the office of the respective land registry. Depositing it in the general mailbox of the land registry building will not do. Rather, the application is not considered received until the person in charge – the judicial officer (*Rechtspfleger*) – has accepted it and confirmed its receipt complete with the exact date. What may at first glance seem like an inordinate amount of red tape actually has a rather sensible explanation: The procedure permits a pinpoint ranking of applications in the event that several applications are submitted simultaneously for one and the same plot. Taking them from a general mailbox would make it impossible – at the time of the mail pickup – to tell which of the applications has seniority.

The judicial officer confirming receipt of the submitted application is also the person reviewing the application. If an application is incomplete, or if other impediments prevent entry in the land register, the officer may grant the applicant a reasonable grace period to remedy the impediments. Theoretically, the officer is also authorised to reject an application, stating the reason for doing so, though this is rarely seen in practice. Even with his or her application rejected, an applicant would still have the option to object to the rejection – the objection being labelled a “reminder” (*Einspruch als Erinnerung*) in official German parlance. In this case, a land registry judge (*Grundbuchrichter*) decides whether to dismiss the judicial officer’s reservations, or whether to dismiss the “reminder” as unfounded.

If the entry is cleared, the judicial officer will have it posted by authorising it in writing. The actual entry is signed in the land register by the judicial officer and by the recording clerk (*Urkundsbeamter*). In the case of a machine-processed land register (for instance when using digital data storage), an entry is secured by electronic signature.

2.2.3 Inspecting the Land Register

As mentioned above, you need to substantiate a legitimate interest in order to be permitted to inspect the land register. Unlike other official registers – such as the commercial register (*Handelsregister*) or the register of associations (*Vereinsregister*) – public access to land registers in Germany is restricted pursuant to Article 12, Land Registry Act. This contrasts with the situation in other countries, Austria being something of a role model in terms of transparency.

In Germany, you need to state objective reasons to demonstrate your legitimate interest. This requires a plausible argument substantiating that you do not wish to inspect the land register for illicit purposes or out of idle curiosity. The reason for such restrictiveness is simply to protect the owner and other entitled parties posted in the register. It is up to the recording clerk to decide whether the reason for wishing to inspect of a land register is sound and legitimate. Being interested in buying a certain property does not represent a legitimate interest. Inversely, the owner or a mortgage creditor, for instance, does have a principally justified

interest – and these may inspect the entries regarding the respective plot any time. The same is true for anyone who has obtained the registered owner’s consent.

In addition, courts, authorities, notary publics, publicly appointed land surveyors, and financial institutes with *in rem* rights to the property tend to have a legitimate interest, and may inspect the land register. Estate agents, too, may do so if they can produce a corresponding written order to sell. In their case, it is actually advisable to inspect the land register, so as to rule out, prior to their brokerage effort, possible surprises (such as previously unknown encumbrances or land charges) that might jeopardise a successful signing.

3 German Brokerage Law

3.1 *The Estate Agent*

The term “brokerage” signifies the mediation of a contract that may involve either an asset or a service. German brokerage law differentiates between mercantile brokers² and estate agents. Mercantile brokers are active in the brokerage of contracts for objects that play a role in the context of commercial intercourse, such as e.g. commodities, securities or insurance policies. By contrast, the estate agent’s area of activity covers the brokering of lease contracts, property deeds, and loan agreements.

Brokers in Germany thus occupy an interstitial realm of several overlapping regulatory frameworks. The specific duties of a broker are codified in public law, civil law, professional codes of conduct, and codes of fair competition. The statutory framework for the broker’s profession is outlined by the German Civil Code (BGB),³ the German Industrial Code (GewO), and the German Brokers’ and Commercial Developers’ Ordinance (MaBV). Also relevant for estate brokers working in the residential segment is the German Rental Property Law (WoVG).

Under German law, brokers are considered as conducting a business.⁴ If for instance, a person pursues estate agency as his or her profession,⁵ he or she requires

² Mercantile brokerage is governed by Articles 93 through 104, German Commercial Code (*Handelsgesetzbuch*, HGB).

³ Articles 652 through 655, German Civil Code, cover the legal provisions governing the estate agent’s rights and duties.

⁴ All persons carrying on a business are subject to the provisions of the codes of fair competition, specifically the German Unfair Competition Act (UWG), the German Price Indication Ordinance (PAngV), and the German Prohibitory Injunctions Law (UKlaG) particularly regarding the warning against impermissible general terms and conditions.

⁵ Except for notary publics, anyone is legally permitted to act as non-professional broker. This means, among other things, that a private individual may broker the sale of houses and plots and, in the event of a successful sale, collect a commission.

a business license from the respective regulatory agency pursuant to Article 34c, German Industrial Code. Anyone operating as a professional broker without having a business licence commits a regulatory offence and is liable to be fined.

For the real estate sector in particular it must be said that the professional label of estate agent is not protected. Anyone can basically register and operate a brokerage business – as is mandated by the principle of economic freedom. Neither is it necessary to substantiate a professional qualification or vocational training to become active as broker. This can make the choice of a qualified estate agent difficult because the degree of technical competence, respectability, and hands-on experience could be located anywhere on a wide spectrum. A first indication in terms of qualification is an agent's membership in a recognised professional organisation such as the IVD German Real Estate Federation. Estate agents also have the option to submit voluntarily to a quality check, and to be certified accordingly. A case in point is the European DIN EN 15733 standard that has been in force in Germany since April 2010. It tests professional minimum requirements and verifies whether a given estate agent regularly engages in continued professional development. The first institution that has started issuing certificates in compliance with DIN EN 15733 to estate agents in Germany is DIA Consulting AG.

3.2 The Estate Agent's Contract

3.2.1 Principles and Deviating Regulations

The legal provisions pertaining to the estate agent's contract are governed by the German Civil Code. According to these provisions, an estate agent's contract represents a unilateral contract. This means, among other things, that the contract contains no obligation to perform. The estate agent him- or herself is not obliged (but has the right) to become active on behalf of the client. Neither is the client obliged to "accept" the services performed by the estate agent. Indeed, the client may withdraw the order placed, call in an additional estate agent, or change the conditions at which a given asset is offered at will.⁶

A contract structure principally takes the following aspects into account: You need to distinguish between the estate agent's contract, on the one hand, and the so-called master-contract, on the other hand, (for instance, the deed or lease contract brokered by the agent). If the estate agent submits a property quote to the client, and the client reviews the quote, the process creates no obligation on the client's part unless a contract is eventually signed. Accordingly, the remuneration of the estate

⁶This makes it impossible for the estate agent to make a reasonable calculation of the costs or the time expended. Estate agents therefore tend to negotiate sole agency contracts instead.

agent – that is, the commission or agent’s fee – depends on whether the agent’s job was actually accomplished through the agent’s efforts.

Then again, the brokerage provisions pursuant to the German Civil Code may be contracted away.⁷ This means that agreements deviating from the law may be made in full awareness of the fact. One exception in this context is the letting of residential space (see Sect. 3.2.2 of this chapter). In the area of commercially used real estate, though, an estate agent’s contract may – in contrast to what was said above – imply a direct or indirect obligation to buy or sell a given property. However, such cases require notarisation of the estate agent’s contract.⁸ If, for instance, a prospective buyer agrees to buy a property presented by an estate agent, such a contract would be void without notarisation.

The background to this is that both seller and buyer are to be safeguarded from rushed signings. The notarised form involves a consultation of the notary public and a briefing on the significance of the property transaction. The situation is similar with estate agent’s contracts that make escape clauses subject to compensation payments. If, for instance, the commissioning seller agrees to pay a considerable compensation to the estate agent in case he withdraws from the assignment, such an estate agent’s contract would also require notarisation. Notarisation is moreover required whenever a reservation agreement is signed which states that the prospective buyer agrees to not just reserve but actually buy the respective property, or to pay – if he steps back from the property purchase – to pay a consideration to the estate agent.

3.2.2 Particularities Regarding the Brokerage of Residential Space

An estate agent’s contract involving the brokerage of residential property is subject to the German Rental Property Law (WoVG). Unlike the non-mandatory brokerage law of the German Civil Code, the Rental Property Law defines largely compulsory provisions. Here, you may not deviate from the legally prescribed provisions by negotiating individual agreements. The sine-qua-non condition for a valid claim to a commission in the residential sector is that the estate agent was actually active in his or her role as broker and that this activity actually precipitated the signing of a lease for residential floor space. In addition, the following principles apply to the brokerage in the residential sector: No commission may be agreed if the estate agent is simultaneously the owner, landlord, manager or tenant of the offered apartment. The same applies if the estate agent is economically or legally associated with the owner, landlord or broker. Equally unlawful are prepaid commissions. The situation changes again if rent-controlled council housing is at issue. In this case, no commission may be claimed from the tenant even if all other preconditions are in place.

⁷The phrase “may be contracted away” refers to legal provisions from which the contractual parties may deviate.

⁸Pursuant to Article 311, Section 1, German Civil Code.

3.3 *The Estate Agent's Fee*

The estate agent's fee or brokerage commission is the remuneration for the successful job of an estate agent. As said before, an entitlement does generally not exist unless the agent's efforts meet with the intended success. The estate agent's claim to the payment of a commission is regulated in Article 652, Section 1, Sentence 1, German Civil Code. In practice, estate agents sometimes already acquire a claim to payment of a commission if the reference to, or brokerage of, a property by an agent terminates in a signing – even if the agent did not facilitate or broker the letting or transaction process any further. Whenever an estate agents claims payment of a commission, he or she has to produce evidence – especially when the claim is disputed.

- that an estate agent's contract was signed that included a promise to pay a commission in case of success,
- that the brokerage activity, meaning brokering of an agreement or substantiation, actually took place,
- that a master contract, such as a deed or lease, was signed into effect,
- that there is a causal relation between the brokerage and the signing.

In the eyes of the legislature, the amount of the going commission is entirely independent of the material and time effort incurred by the estate agent. The commission is freely negotiated. In no case, however, must it be out of proportion with the service performed by the estate agent. An exemption in this regard is once again the brokerage of housing. Here, the legal regulations stipulate that the commission must not exceed 2 months' rent, with VAT to be added. The basis for the calculation of the commission is usually the net rent. That said, service charge components that are not listed separately as recoverable costs in a given lease may by all means enter into the calculation of the commission.

Which share of the commission after the completed transaction is paid by the seller and which by the buyer – or by landlord and tenant, respectively – depends on the case at hand (commercial or residential use of a property, or renting versus buying). Another factor that tends to impact the amount of commission is the market cycle. In times and regions where supply exceeds the specific demand, owners or landlords tend to pay the agent's commission. In times of surging demand, by contrast, tenants or buyers are usually prepared to pay the agent's commission. Since the commercial real estate market in Germany is more volatile than the residential real estate market, the cyclical shifting of the agent's fee from one party to the other tends to be more pronounced for commercially used space than in the German housing segment.

Principally speaking, an estate agent may even be active for the buyer and seller side (or lessor and lessee side) simultaneously, and charge a fee. This scenario is called "dual agency." Since an estate agent normally has to represent the interest of his or her client, the rule in this case is that a person acting as a dual agent should take a neutral position. If the agent breaches the duty of neutrality, he or she will forfeit the claim to a commission from the party thereby put at a disadvantage. Here as elsewhere, though, the fact remains that the going commission is freely negotiable (for commercially used real estate).

4 Regulations and Laws Relating to the Notary Public

4.1 The Notary Public

In Germany, a notary public exercises the function of a so-called preventive legal review. One of the essential purposes of the estate agent's activity is therefore to prevent or at least minimise future litigation (an activity referred to as non-contentious litigation or administration of the law). As already elaborated in Sect. 3.2.1, calling on a notary public will in and of itself constitute a certain impediment preventing precipitate or unreflected (purchase) decisions. In the case of property acquisitions, for instance, the notary public handles the legally required notarisation: Certain contracts must be notarised in order to become legally effective. Rather than being limited to sales contracts, this requirement actually extends to certain brokerage contracts, too (see Sect. 4.2).

4.2 The Notarisation

Aside from contracts for deed and the aforesaid brokerage contracts, notarisation is also required for construction contracts, the execution and registration of a ground lease, as well as for the conveyance of condominium titles. In these cases, the notary public is not responsible for bringing about consensus between the contractual parties – in the case of the contract for deed, for instance, this is normally the estate agent's task. Not until all the contract-related details have been sorted out will the notary public come into the picture. With all the data submitted, the notary will draft the deed and forward it to all the stakeholders for review. It is also part of the role of the notary to brief the contractual parties on the legal consequences of the contemplated transaction. The signature of the parties on the document made out by the notary public confirms that the subject of the contract does reflect the intention of the contracting parties.

The notarised contract of sale may also identify the brokerage commission or estate agent's fee, which is a particularly sensible thing to do from the agent's perspective. For it will secure the agent's commission in addition to the estate agent's contract. A notarised sales contract must principally list all provisions agreed on. Otherwise, it runs the risk of becoming null and void.

The original copy of the notarised document remains principally in the custody of the notary public, whereas the contractual parties receive notarised copies. The copy represents an identical copy of the original, except that it bears the notary's annotation that it matches the original. This attestation clause must state place and date of the issuance, and must bear the notary's seal or stamp and signature.

Once a contract for deed has been notarised, it must be executed. Among other things, payment must be transacted, and the application to the land registry must be filed in order to convey the plot or building into the purchaser's ownership (see Sect. 2.2.1 of this chapter).

5 Conclusion, and the German Situation Compared to that of Other Countries

Proper, organised, meticulous, in some aspects actually pedantic – and highly bureaucratic above all: This is more or less the way Germans are perceived abroad. The above elaborations on German land registry and cadastre regulations and laws as well as on the laws governing German estate agents and notaries public merely outline the subject – as a comprehensive account would clearly go beyond the scope and volume of this anthology. Yet even this fleeting glance at the subject matter suggests that Germany fully deserves its image as an overregulated and excessively bureaucratic country in this as in other respects. This impression needs to be qualified, though. To be sure, the German land register and cadastre system is highly regulated. But you could arguably say as much about the systems of other countries. Not least, this is one of the factors that makes the legal quality of the German land registers comparable with most land registers in continental Europe and Scandinavia.

Germany's notarisation system is admittedly highly regulated, too. After all, the notary public will play a definitive role in three key stages of the transaction process: drafting the deed, conveying the property, and transferring payment. This is legally required, and again, you could say as much about other countries: In France, for instance, the notary public plays a role quite similar.

All things considered, German estate agents are actually less strictly regulated than agents in other countries. The legal impediments for an activity as estate agent are negligible in Germany. Neither are the performance requirements very high. For the sake of comparison: In Sweden, for one, the estate agent has an extremely dominant position during the transaction process. He or she manages virtually the entire process, and actually doubles as notary public. Accordingly, the performance requirements for professional estate agents are rather high in Sweden.

For Germany, it is safe to say: The role and functionality of German brokerage laws and regulations have well withstood the test of time. Better yet, the trade of estate agents has moreover been undergoing a shift toward increasing professionalization in recent years.

References

- Amt für Geoinformation und Vermessung. (2010). Liegenschaftskataster, hyperlink: <http://www.berlin.de/ba-tempelhof-schoeneberg/organisationseinheit/geo-vermessung/kataster.html> [October 21, 2010].
- Breiholdt, J. (2008). Zivilrechtliche Grundlagen für Immobilienberufe. In E. Sailer & L. Hans-Eberhard (Eds.), *Kompendium für Immobilienberufe* (11th fully Rev. ed., pp. 33–62), Stuttgart et al. 2008.

- Bundesamt für Bauwesen und Raumordnung. (2006). Internationaler Vergleich von Kosten und Dienstleistungseffizienz bei der Transaktion von Wohneigentum – Optionen für Deutschland. Forschungen Issue 120, Bonn 2006.
- Bundesnotarkammer, Berlin. (2010). Der Notar. hyperlink: <http://www.bnotk.de/Notar/index.php> [October 24, 2010].
- Dresbach, D., & Kriegel, O. (2007). *Kataster-ABC* (4th rev. and expanded ed.). Heidelberg, 2007.
- Maaß, E. (2004). Grundbuch und Liegenschaftskataster. In W. Usinger & K. Minuth (Eds.), *Immobilien – Recht und Steuern. Handbuch für die Immobilienwirtschaft* (3rd fully rev. and expanded ed., pp. 81–111) 2008.
- Nothhelfer, E. (2008). Vermittlung, Vorbereitung und Abschluss notarieller Kaufverträge. In: E. Sailer & L. Hans-Eberhard (Eds.), *Kompendium für Immobilienberufe* (11th fully Rev. ed., pp. 310–330), Stuttgart et al. 2008. Stuttgart: Boorberg.
- Sailer, E. (2008). Vermittlung, Vorbereitung und Abschluss von Wohn- und Gewerberaummietverträgen. In E. Sailer & L. Hans-Eberhard Langemaack (Eds.), *Kompendium für Immobilienberufe* (11th fully Rev. ed., pp. 331–340), Stuttgart et al. 2008.
- Zentrum für Europäische Rechtspolitik an der Universität Bremen et al. (2007). Zusammenfassung der vergleichenden rechtlichen und ökonomischen Studie zum Dienstleistungsmarkt im Bereich des Grundstücksverkehrs. December 2007.

Legal Framework for Real Estate Asset Classes

Clemens Just

Abstract Investments into real estate in Germany can be basically differentiated between direct and indirect ones. While the former will usually be structured as a straightforward single-object or portfolio transaction, the latter may take a variety of legal shapes. Most importantly, German law offers stock corporations, G-REITs, closed-end and open-end funds as vehicles, which are analysed in some detail below.

Keywords Closed-end funds • open-end funds • REITs • stock corporation act

1 Introduction

An investment into German real estate may take a variety of legal shapes. Although legal literature suggests almost a plethora of different structures, one can easily draw the line between a direct and an indirect investment. The former enables an acquisition of the real estate itself by an asset deal or a share deal (of the holding company). The latter comprises investments into special real estate vehicles which are often tax optimised. Given the complexity and the economic importance of indirect real estate investments, the following article focuses on these investments and their various legal implications (*cf.* under Sect. 3).

However, prior to dealing with different structures of indirect real estate investments, direct investments are briefly outlined (*cf.* under Sect. 2).

2 Direct Investments

The legal structure of a direct investment depends on the underlying asset(s) and the envisaged transaction. If the real estate shall be transferred as such, ownership will be transferred directly by way of a notarized real estate sale and transfer agreement. In addition to the purchase price, the investor needs to factor in costs for the

notarization (pursuant to a statutory fee order depending on the value of the transaction) and further costs which the registration of securities may incur, in particular a priority notice (*Vormerkung*). Ownership of the real estate only passes once the new owner has been registered with the competent land register. In the interim period, a priority notice secures the position of the buyer. The registration procedure will be carried out by the competent notary (see Schick, 2011 in this book). Subject to the workload of the land register, the actual registration may take a few weeks.

As opposed to that, real estate may also be held by a holding company. It may be in the interest of the buyer, e.g. for tax reasons, to acquire this holding company and thus, legally, enter into a share purchase and transfer agreement regarding all shares of the holding company. Depending on the legal form of the holding company, a notarization of such an agreement may be required, e.g. for a German limited liability company (*GmbH*), but not for a German stock corporation (*Aktiengesellschaft*). Once these shares have been effectively transferred, which may be delayed by conditions precedent such as merger control clearances in the underlying agreement, ownership of the real estate passes over to the buyer.

This basic legal structure may become more complex if not one property shall be transferred, but a portfolio comprising several assets. On a time scale, such a portfolio transaction can be more challenging as the usual due diligence requires more time and the assessment of the value can be more complicated including portfolio deductions. In legal practice, both asset deal as well as share deal transactions have a well established market standard in Germany and should not meet major legal problems once the business terms have been agreed.

3 Indirect Investments

For various reasons, an investor may prefer an indirect investment into real estate over a direct one, e.g. to diversify his real estate risk or to optimise the tax structure. Furthermore, a participation in a special real estate vehicle is more fungible, investments can thus be better sold off again. This enhances an investor's flexibility and the chance to react to deteriorating market conditions. It should be noted that an investor is free to make indirect investments also through foreign legal entities, which themselves have German real estate in their portfolio. A Luxemburg, UK or US law governed entity may invest into German real estate, just like a German law governed company is free to focus on foreign real estate.

The following chapters explain the basic structure of indirect investments through entities under German law, namely a German stock corporation (*cf.* under Sect. 3.1), a German Real Estate Investment Trust (*cf.* under Sect. 3.2), a closed-end fund (*cf.* under Sect. 3.3) and an open-end fund (*cf.* under Sect. 3.4).

3.1 German Stock Corporation

Significant real estate is held in Germany by stock corporations (*Aktiengesellschaften – AG*), either by stock corporations dealing exclusively with real estate (*Immobilienaktiengesellschaften*) or general stock corporations with other business objectives which also own real estate. An investor may therefore be interested to invest into an AG. Legally, those entities are primarily governed by the German Stock Corporation Act (*Aktiengesetz*).

3.1.1 General Structure

A German stock corporation may list its shares on a stock exchange, but can also remain a private company and thus be less regulated. A stock corporation requires a registration with the competent commercial register, in particular the statutory capital minimum of 50,000 euro must be paid in. Unlike the structure in the US or the UK, a German stock corporation has two boards, namely a management board (*Vorstand*) and a supervisory board (*Aufsichtsrat*). The supervisory board is elected by the shareholders, but may not manage the company. Basic rights and obligations of the supervisory board are the control of the management, the appointment and dismissal of the management board members and the representation of the company *vis-à-vis* the management board. To be able to fulfil these obligations, the supervisory board has the right to request detailed information and is entitled to inspect all corporate books and records.

The management board, which is appointed and supervised by the supervisory board, manages the corporation with certain discretionary powers. Consequently, the shareholders have no direct influence on the management of the company; the management board plays the most important role in the day-to-day corporate governance of a stock corporation. However, the shareholders can exercise their influence e.g. by having the court review shareholders' resolutions. Furthermore, minority shareholders have information and audit rights and may even cause the management to claim damages from the individual board members in case of negligence.

3.1.2 Investments into Stock Corporations

Since a stock corporation may be listed on a regulated market or may be privately held, an investment into a stock corporation may be either an acquisition of publicly traded shares or of not listed shares. Both ways do not necessitate an involvement of a German notary. In practice, a major real estate stock corporation is a publicly listed one, the investment into which may require more attention than a standardized stock purchase and transfer agreement due to its more intense regulation. If certain thresholds are exceeded or the ownership has fallen below those

thresholds, namely 3%, 5%, 10%, 15%, 20%, 25%, 30%, 50% or 75% of voting rights in the company, a notification to the company must be made. Thus, transparency shall be enhanced for participants on the capital markets. If these requirements of the German Securities Trading Act (*Wertpapierhandelsgesetz*) are not met, the German Federal Supervisory Authority (*BaFin*) may impose a fine and the voting rights of the shares may even be blocked.

If the investment exceeds a threshold of at least 30% of the shares in a publicly listed stock corporation, a takeover offer (*Übernahmeangebot*) pursuant to the provisions of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) is necessary. This takeover offer requires a set of fixed information to enable the shareholder a well-founded decision for accepting or declining the offer, such as further information on the buyer, its strategy or conditions to the offer. The price for the offer is linked to the stock-market price of the target. The management and the supervisory board shall present an opinion regarding the offer to the shareholders. The procedure is intensely regulated and supervised by the *BaFin*. Failure to comply with the provisions may lead to fines and the voting rights becoming blocked.

3.2 Real Estate Investment Trusts (REITs)

After intensive political discussions, Germany has implemented a regime on Real Estate Investment Trusts, also referred to as G-REITs. The German REIT Act dated May 28, 2007 came into effect retrospectively as of January 1, 2007. G-REITs are intended to offer a tax-privileged mobilization of real estate of German companies while improving the equity ratio of real estate holding companies. So far, only a few companies have been registered as G-REITs. This is predominantly related to the financial crisis which coincided with the implementation of the G-REIT legislation and which severely impeded public offerings, while also legislative shortcomings are occasionally mentioned. In the meantime, the legislator has also reconsidered certain legal inconsistencies, such as the extension of the exit tax to enable further G-REITs. It remains to be seen whether G-REITs may increase its popularity in the near future.

3.2.1 General Structure

A G-REIT is basically a German stock corporation with certain legal particularities. Investors can thus indirectly invest into real estate through a REIT, which is exempted from German income tax (*Körperschaftsteuer*) and trade income tax (*Gewerbesteuer*). The German REIT Act states that residential real estate, which is in particular used for private rent and has been built prior to January 1, 2007 is excluded from investments of a G-REIT. In an international context, this is a German anomaly and can only be explained as the result of a political compromise.

Dividends will be subject to tax at the level of the investor, but (generally) not taxed at the level of the G-REIT itself. In order to receive tax privileges the G-REIT has to comply with certain legal requirements, in particular a G-REIT has to distribute at least 90% of its annual profits. Furthermore, a G-REIT must have its business seat in Germany and its shares must be permitted for trading at an organized market of a Member State of the European Union or at an organized market of a Member State of the European Economic Area. The nominal share capital must amount to 15 million euro and all shares must be vested with voting powers. The business object must be related to real estate. Trading of real estate is restricted.

At least 75% of the assets of a G-REIT must consist of real estate at the end of the business year. Furthermore, at the end of the business year at least 75% of the net sales must result from the lease or sale of immovable assets. Non gratuitous secondary business for third parties must not be rendered by G-REITs, but must for tax reasons be rendered by REIT service companies.

At the end of the business year the equity accounted in the individual and consolidated financial statements of the G-REIT respectively must not fall below 45% of the value with which the immovable assets are accounted for in the financial statements. A shortfall below that figure during the business year is, however, not detrimental.

3.2.2 Investments into G-REITs

The German legislator has stipulated that at the time the shares of the G-REIT are permitted for trading at a stock exchange, 25% of the shares must be in free float. Thereafter, there must be a minimum of 15% of the shares in free float. No investor may directly hold more than 10% of the shares in a G-REIT. Shares held for account of third parties count as own shares. The same applies for an investor holding shares which grant him more than 10% of the voting rights in a G-REIT. However, an investor exceeding this threshold will not be deprived of his dividend or voting rights. Neither will the tax advantage cease to apply immediately. Instead, the investor will only be able to exercise his rights in a way an investor holding 10% of the shares would be able to exercise. The tax advantages will only cease to apply if the threshold is exceeded for three successive years.

As a REIT is not taxed on the level of the company but at the shareholders' level, a G-REIT has to distribute at least 90% of its annual profits to its shareholders at the end of each business year. 50% of the capital gains resulting from the sale of real estate may be disregarded in that respect for they may be put into reserves, that have in principle to be dissolved within the next 2 years. In order to determine the annual net profit, scheduled depreciations are permitted in constant annual instalments only.

Notification requirements for an investment into a G-REIT apply as with any listed German stock corporation. Given that an investor may not directly hold more than 10% of the shares in a G-REIT, the thresholds of 3% and 5% are of particular interest.

German REITs are not yet so diversified, such as hotels only or specific commercial real estate, so that their investment object can fall into various real estate categories.

3.2.3 Further Development

Unlike the US REIT market, which was established in 1960 and has become a successful investment opportunity, but similar to the UK-REIT, a G-REIT is still a fairly new vehicle. In the aftermath of the financial crisis, initial public offerings have virtually not been existent and consequently there have not been many floatings of G-REITs. Despite some pessimistic forecasts on this investment segment, a REIT is an internationally accepted and well-known investment vehicle which is expected to become an integral part of real estate investments in Germany too once capital markets pick up again. The German legislator has also tackled certain issues and proposed changes to the current legal REIT regime, such as the extension of the exit tax for tax privileged conversions into a G-REIT or the extension of the pre-REIT status. Thus, from a legal perspective there should not be principal impediments for investments into G-REITs.

3.3 Closed-End Funds

A huge amount of real estate is held in Germany through closed-end funds (see also Knepel, 2011 in this book). Though the name may sound familiar to international investors, who have come across collective investment schemes in the US or the UK under this term, a German closed-end fund is a very specific vehicle. Legally, it cannot be compared with other international investments under this heading.

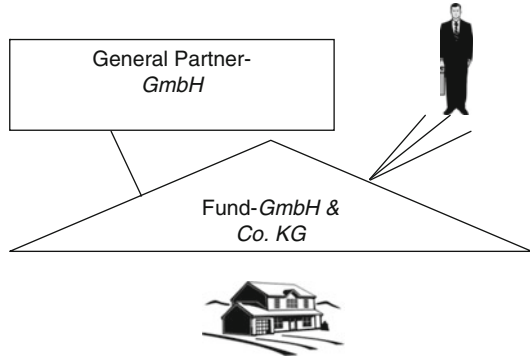
3.3.1 General Structure

A German closed-end fund is usually structured as a German limited partnership with a German limited liability company (*GmbH*) as general partner (*GmbH & Co. KG*). Only in exceptional cases, a partnership under the German Civil Code (*Gesellschaft bürgerlichen Rechts*) may be considered. The real estate can be held by the fund company, which may acquire the real estate or the portfolio of real estate.

A basic structure of a German real estate closed-end fund is exemplified in Fig. 1 below.

In order to spread the risk, the fund may also invest into other funds focusing on real estate (fund-of-fund construction). Such cascade between these funds shall minimize the risk of investments.

Fig. 1 Basic structure of a German real estate closed-end fund (Source: C. Just (2010), management seminar on closed-end funds, euroforum)



By law, the *GmbH & Co KG* shall be represented by its general partner, the *GmbH*. However, to avoid tax disadvantages (*cf.* Krämer, 2011 in this book), the partnership agreement may empower a limited partner to represent the fund. The main decision making body is the assembly of partners, which shall decide on all acts which exceed the ordinary course of business unless a special supervisory board (*Aufsichtsrat* or *Beirat*) has been implemented for this.

As of July 1, 2005, a closed-end fund needs to publish a sales prospectus under the German Sales Prospectus Act (*Verkaufsprospektgesetz*) unless specific exemptions apply. Such a prospectus shall contain all relevant information which are necessary for the investor to reach a solid investment decision. The prospectus itself must be approved by the German Financial Supervisory Authority (*BaFin*). However, *BaFin* only reviews the prospectus insofar as the prospectus comprises all necessary information and whether there were obvious contradictions in it. Unlike the prospectus of a listed stock corporation, the sales prospectus is therefore only reviewed in the light of its coherence, not whether the statements are true, correct or consistent.

Unlike a listed stock corporation, a closed-end fund generally cannot be traded on a market although there have been some efforts to establish a trading market for closed-end funds in the city of Hamburg (*Zweitmarktboerse*).

3.3.2 Investments into Closed-End Funds

Investors can either become limited partners to the fund company or invest via a trustee or there can be a mixture of both structures. The precise investment structure is laid down in the partnership agreement (*Gesellschaftsvertrag*) of the fund and its trustee agreement (*Treuhandvertrag*). To ensure that the investments are only used in compliance with the investment targets of the fund, a special trustee is regularly appointed to supervise and release the investments (*Mittelverwendungskontrolleur*). All three main agreements, the partnership agreement, the trustee agreement and the trustee agreement on investments are made transparent in the sales prospectus so that an investor may assess its legal and economic up- and downsides.

The closed-end fund will also have entered into further service agreements regarding the concept and foundation of the fund. In practice, all relevant obligations and rights that are derived from these service agreements terminate with the finalization of the sales prospectus.

In particular, large issuing houses often have main distribution companies, which themselves have concluded sub-distribution agreements with other companies. The main distribution agreement stipulates the main obligations of the distribution company, the compensation and the protection of customers.

To reduce an investor's risk of insufficient capital being raised, there are often guarantees from companies in the sphere of the fund. Usually, such a guarantee covers the difference between envisaged and the actual raised capital.

3.3.3 Further Development

In the light of implementing European legislation, in particular the MiFID (Markets in Financial Instruments Directive), it was intensely discussed whether German closed-end funds should be regulated more tightly. In particular, the distribution and sale of interests in a fund was heavily discussed, but the discussion left closed-end funds generally untouched. However, in the aftermath of the financial crisis the German and European legislator have not banned this topic completely from their agenda. The legislator is currently discussing a new act on closed-end funds (*Vermögensanlagengesetz*) which will essentially consolidate existing rules. Further details of this act remain to be seen.

The vehicle as such will in all likelihood not be affected. Looking ahead, the distribution of interests in the funds will be stricter regulated and the drafting of a prospectus may change, e.g. costs for investors and commissions must be more transparent. Investors will rather benefit from these envisaged changes as the overall aim is to increase transparency of closed-end funds.

3.4 *Open-End Funds*

Speaking of real estate funds, one has to distinguish between a closed-end and an open-end fund. Although there have been efforts to establish some kind of stock exchange for closed-end funds, it is fair to say that interests in closed-end funds are generally not fungible. In contrast to that, interests in open-end funds are highly liquid investments, which are supervised by *BaFin*. New interests in open-end funds are continuously created also in contrast to a closed-end fund. While closed-end funds usually invest into existing real estate, an open-end fund may buy, erect or sell real estate as part of its ordinary course of business (see also Sebastian and Strohsal, 2011 in this book).

3.4.1 General Structure

As part of a modernisation of the investment and investment tax law, the German Investment Act (*Investmentgesetz*) has come into force on January 1, 2004, replacing and unifying prior German codifications. Under the German Investment Act, an open-end fund (*Kapitalanlagegesellschaft – KAG*) is a specific German investment vehicle and may only be a *GmbH* or an *AG*. Open-end funds generally take the legal form of a *GmbH*. Unlike a normal *GmbH*, an open-end fund operating as a *GmbH* must have a mandatory supervisory board (like every *AG* has). The *KAG* itself is regulated by the *BaFin*. In practice, many *KAGs* are subsidiaries of commercial banks in Germany, which also broker the fund sales and use their network of branches as distribution channel. Assets of a *KAG* may vary, e.g. securities take a prominent role, but also real estate is often chosen.

Given the fact that a substantial amount of money is collected, the statutory share capital amounts to a minimum of 730,000 euro and further equity is required depending on the managed investment amount.

Open-end real estate funds may invest into built and planned real estate and corresponding domestic and foreign rights and participations of real estate companies. The real estate as such is regularly evaluated by an independent experts panel (*Sachverständigenausschuss*). These experts have to be reliable and appropriate persons with long-standing experience and may not work for more than 5 years for the fund. Their expert opinion forms the basis for evaluation of the whole portfolio, which is carried out on a rolling basis every 12 months.

3.4.2 Investments into Open-End Funds

An investment into an open-end funds effectively means buying interests in the fund. Investors can buy interests in the open-end fund at net asset value and may redeem them on a daily basis at the prevailing net asset value. This price may exceed the initial price. The price is quoted once a day on the regular valuations of the properties and liquid assets at that time. Since the regular valuations are done only once a year on a rolling basis for each property, the redemption value of the interests adjusts only slowly to changes in the market price of the underlying properties. Redemption of the interests is backed by a significant liquidity quota (49%) to ensure that investors may redeem their interests even on a large scale. If there is not enough liquidity to meet the redemption of the interests, the open-end fund may restrict the redemption or even temporarily (up to 2 years) suspend it. Investors need to factor in the offering charge (usually 5%) which becomes due on buying interests, which was designated to cover for distribution costs. Effectively, this creates a barrier to reduce the attractiveness of frequent transactions, thus limiting arbitrage opportunities and increasing profitable investment horizons to 1 year on average, although this barrier is reduced for big institutional investors.

3.4.3 Further Development

German open-end real estate funds have been a fairly successful investment vehicle for over 50 years now. Traditionally set up for private investors, institutional investors have more and more resorted to open-end real estate funds. Even specialty funds have been created to attract institutional investors only. This euphoria was slowed down, when in 2005/2006 two open-end real estate funds were closed, thus even attracting different investors with a higher risk profile. For obvious reasons, the financial crisis had a negative impact on the development and evaluation of several open-end fund.

In future, the implementation in particular of the European UCITs-Directive IV (Undertakings for Collective Investments in Transferable Securities) will amend the legal playing-field of open-end real estate funds, e.g. by introducing a key investor document which comprises more condensed and transparent information to the investor, by new rules on the master-feeder structure and by a European passport which will allow funds to travel within the European Union freely. However, this will rather change technical issues, keeping the well-established structure as such.

3.5 Resume

Real estate investments in Germany can be basically differentiated between direct and indirect ones. While direct investments require (usually) the involvement of a German notary and can be structured as portfolio or single-object transactions, German law offers a variety of different indirect real estate investment opportunities. From a legal perspective, such investments differ considerably. While an investor becomes a shareholder of a real estate stock corporation and of a real estate investment stock corporation, an investor may also be free to buy interests in closed-end and open-end funds. Both are rather German specific investments, which are very worth considering. It remains to be seen to what extent the German REITs market may thrive in the near future. Implemented shortly before the financial crisis occurred, the German REITs regime has not yet attracted a lot of companies, but there is some glimmer of hope on the horizon.

Given the abundance and idiosyncrasies of German real estate investments, investors should consider up- and downsides very carefully and factor in potential legal obstacles when making their investment decision.

References

- Assmann, H. -D., & Schütze, R. (2007). *Investment Manual* (Chapter 8, 3rd ed.). C.H. Beck Verlag, Munich.
- Hoffmann-Becking, M. (ed.), (2007). *Munich manual of corporate law* (Vol. 4) (Stock corporations) (3rd ed.). C.H. Beck Verlag, Munich.

- Just, C., & Krämer, J. (2006). Real estate transactions, Chapter IX: *Real Estate Investment Trusts (REITs)*. Erich Schmidt Verlag.
- Lüdicke, J., & Arndt, H. (2009). *Closed-end funds* (5th ed.). C.H. Beck Verlag, Munich.
- Schäfer, J., & Conzen, G. (2010). *Practise manual of real estate investment* (2nd ed.). C.H. Beck Verlag, Munich.
- Schimansky, H., Bunte, H. -J., & Lwowski, H. J. (2007). *Banking manual* (Vol. 2). (Chapter 113, 3rd ed.). C.H. Beck Verlag, Munich.

Valuation of Real Estate in Germany

Dietmar Meister and Kerstin Dressel

Abstract When evaluating real estate in Germany, German valuation experts often apply the German valuation standards. These conform to international valuation practice in many – but not all respects. In this chapter we will identify what is unusual about German valuation standards and introduce the German valuation methods: sales comparison approach, income approach and cost approach. As the main challenge for each valuation is the research, this chapter will also include information on where to find relevant market data.

Keywords International comparison • market value • valuation guidelines

1 German Valuation Standards

Depending on the purpose of the valuation, there are different German valuation standards. The most important standards which are usually applied for determining the market value are presented in this section of the book. These standards comprise the following acts, principles and regulations:

The definition for value is set down in the German Federal Building Code [*Baugesetzbuch* (BauGB)]. In addition, two sets of regulations stipulate how to appraise real estate: the German Property Valuation Ordinance [*Immobilienwertermittlungsverordnung* (ImmoWertV)] is a federal ordinance setting out standardized principles for determining market value of real estate throughout Germany. The German Valuation Guidelines [*Wertermittlungsrichtlinien* (WertR2006)] are a more detailed set of instructions for carrying out real estate valuations in line with the principles of ImmoWertV.

These German valuation standards must be adhered to by municipal “panels of experts” (see Sect. 3, Gutachterausschuss) and in valuations conducted for courts or other public authorities. In all other cases, the German valuation standards are not legally binding, and international valuation standards and methods can be applied.

Nevertheless, the German valuation standards represent common valuation practice in Germany, by German appraisers.

2 Value Definitions

In this subsection, we provide translations of the most commonly used definitions of value.

2.1 Market Value [*Verkehrswert*]

Market value according to § 194 BauGB is defined as follows:

The standardized market value is defined as the price which would have been agreed in the normal course of business at the time the assessment was made, taking into account the existing legal circumstances and actual characteristics, general condition and location of the property or other subject of assessment, without consideration of any extraordinary or personal circumstances.

When determining market value in line with § 194 BauGB, the valuation is subject to the provisions of the ImmoWertV and the WertR. The market value definition is in line with that of the International Valuation Standard Committee.

2.2 Mortgage Lending Value [*Beleihungswert*]

Mortgage lending value is defined in § 16 (2) PfandBG, as:

The mortgage lending value must not exceed the value resulting from a prudent assessment of the future marketability of a property, taking into account the long-term, sustainable characteristics of the property, the normal regional market conditions, as well as the current and possible alternative uses. Speculative elements must not be taken into consideration. The mortgage lending value must not exceed a market value calculated in a transparent manner and in accordance with a recognized valuation method.

Mortgage lending value is determined in accordance with the BelWertV [“Beleihungswertermittlungsverordnung”: Regulation for the Determination of Mortgage Lending Value] dated 12 May 2006. In order to determine the mortgage lending value of a property, the income value and the depreciated replacement cost value of the property shall be calculated separately, pursuant to § 4 BelWertV (“two-pillar principle”). The definition of mortgage lending value reflects a more conservative valuation approach than the definition of market value.

2.3 *Investment Value [Investitionswert]*

Investment value or worth is defined in the International Valuation Standards (IVS 2011) as follows:

Investment value is the value of an asset to the owner or a prospective owner for individual investment or operational objectives.

This is an entity-specific *basis of value*. Although the value of an asset to the owner may be the same as the amount that could be realised from its sale to another party, this *basis of value* reflects the benefits received by an entity from holding the asset and, therefore, does not necessarily involve a hypothetical exchange. *Investment value* reflects the circumstances and financial objectives of the entity for which the valuation is being produced. It is often used for measuring investment performance. Differences between the *investment value* of an asset and its *market value* provide the motivation for buyers or sellers to enter the marketplace.

The investment value may differ from the market value, as special interests of a given investor are reflected in the investment value.

3 Market Transparency Through the Boards of Expert Appraisers

In addition to defining market value, the German Federal Building Code calls for the establishment of a board of expert appraisers to monitor and consolidate data on land prices (§ 192 BauGB). This board of expert valuers is supported by local panels of experts, who are responsible for collecting and analysing data, publishing statistics and carrying out valuations (§ 193 BauGB).

These local panels of experts, called *Gutachterausschuss*, publish consolidated data on real estate transactions in specific cities or regions and are therefore important contacts and sources of data for valuers. Local panels of experts can generally be reached through municipal authorities or cadastral offices. An internet search using the term “Gutachterausschuss” or “Gutachterausschuss für Grundstückswerte” and the name of the town or city usually yields the relevant contact information, see <http://www.gutachterausschuesse-online.de>.

The significance of the *Gutachterausschuss* to appraisers arises from the fact that data on individual transactions in Germany are protected by privacy laws and are not automatically published. Without personal involvement or personal contacts, it can be impossible to obtain critical information about relevant sales.

The local *Gutachterausschuss*, however, has access to all sales contracts in its geographic area and makes anonymous and consolidated data available to the public, thus providing all appraisers with a common, objective basis of information. In practice, most valuations in Germany are based on rather limited information on specific transactions, market reports published by market players (e.g., large brokers) and data from the local *Gutachterausschuss*.

3.1 Collection and Analysis of Data

The Gutachterausschuss receives copies of all sale and purchase agreements in its geographic area and sends out questionnaires on the underlying transaction details. By analysing the resulting data, the Gutachterausschuss is able to provide the following information:

- Average land values per sqm of undeveloped land for different uses (as zoned) and locations
- Conversion factors for land values with different density or plot ratios;
- Gross property yields for different usage types, especially for multi-family houses, mixed-use buildings and commercial buildings
- Comparable factors based on rental income (*e.g.* multipliers) or sqm-prcies.

When analyzing the information included in the sale and purchase agreements and in the questionnaires, the Gutachterausschuss usually applies the valuation methodologies described in ImmoWertV and WertR to derive the parameters listed above. Hence, these data can be used for appraising properties according to German valuation standards, though.

3.2 Publications

The findings of the board of expert appraisers are usually published annually in market reports of the respective board and can be purchased. In some cases, mid-year developments will also be published. In line with privacy laws, information on individual transactions can be purchased in anonymized form – that is, without revealing the specific address, seller or buyer. It is difficult to draw conclusions from this information regarding specific transactions (see also Voigtländer, 2011, in this book).

The information available from the Gutachterausschuss may differ in quantity and quality from one locality to another, as market activity and the number of current transactions in specific real estate markets varies.

3.3 Valuation

According to § 193 of the BauGB, the panel of experts performs real estate valuations as required by public authorities – for example to determine compensation payments arising from compulsory sale for purposes of public utility. As this is not the main focus of the book, we will not explore this aspect in more detail.

4 Valuations in Line with the German Federal Ordinance for Property Valuation

4.1 Introduction

All valuations refer to a certain valuation date and reflect the market situation as at the valuation date. They may, however, also consider likely developments in the foreseeable future. The valuation date may differ from but is usually identical with the “quality date” – the quality date being the date when the state of the property was assessed. According to § 4 (2) ImmoWertV (Immobilienwertermittlungsverordnung), the main characteristics of a property which are relevant for valuation are:

- Location of the property
- State of development
- Property type (information provided in zoning plan)
- Land use intensity (information provided in zoning plan)
- Title and encumbrances (information provided in land registry, registry of public land charges or contracts/agreements)
- Tax obligations of duties (information provided by public authorities)
- Others (*e.g.* current usage, land area, constructional systems, building age etc.)

Most of these characteristics are not peculiar to the German market. In the following, we will therefore focus on the German valuation approaches and the market data needed to conduct valuations in Germany.

In order to carry out a valuation, it is necessary to have access to the relevant market data. Consequently, appraisers should use the valuation methodology for which they have the most reliable market data. In the following, we will describe the accessibility of market data necessary for carrying out valuations in accordance with the ImmoWertV. In addition, we will introduce the German valuation approaches.

4.2 Data Required

As already mentioned above, we will focus on the required market data. Some of the relevant market data for a property valuation in line with German standards is available from the respective *Gutachterausschuss*. The information published by these panels of experts is based on analysis of sales contracts. Further guidance is included in the WertR.

The information in the WertR is very general and is not updated regularly. Therefore, market data made available by the local panels of experts or other market players is preferred when applying the income approach. Nevertheless,

the WertR includes information on standard construction costs which are commonly used when applying the cost approach and to determine depreciated replacement cost values.

As the data provided by local panels of experts is usually published only once a year, market information provided by other market players is quite useful to determine current market developments. Furthermore, other market players often provide information which is otherwise only published in exceptional cases (e.g. information on market rents, residential rent tables) by the panel of experts.

The table below shows, where to find the respective market information. While market data are available from many different market players, the table focuses only on major sources. For further details see also Voigtländer (2011) in this book (Fig. 1).

Research data required			
Source	Comparison approach	Income approach	Cost approach
Gutachterausschuss (panel of experts)	Average land values	Property yield	Market adjustment
	Conversion factors (e.g. due to differing plot ratio or plot size)		
	Indices (e.g. for land values, condos, single family houses)		
	Comparable factors (based on rental income or square meter space)		
German regulations for valuation	Conversion factor (due to differing plot ratios)	Non - recoverable costs (standardized costs)	Standard construction costs
		Total useful life	Total useful life
Others - Brokers/Banks - Research institutes - Cities/Chamber of commerce/Economic Development - Statistical office	Further Transaction data/sales offers	Further market data	Indices
		Market rents	Analysis of construction costs published by the chamber of architects
		Turnover to analyze lease-up periods	
		Vacancy rate to determine void risk allowance	

Fig. 1 Resources for relevant market data (Source: Ernst & Young)

4.3 Valuation Methodologies

Chapter 3 of ImmoWertV comprises three different valuation methodologies:

- Sales comparison approach
- Income approach
- Cost approach

The structure of the valuation is stipulated in the ImmoWertV; the WertR states which valuation approach is appropriate (see also Sect. 5.2).

4.3.1 Sales Comparison Approach

The Sales comparison approach is based on actual sales of properties which can be compared to the subject property in terms of its main attributes (*e.g.* location, type of use, size, and building age).

Normally, adjustments are necessary when carrying out valuations based on sales comparables, to account for differences in, for example, the size of the land. These adjustments should be based on the information provided by the panel of experts (*e.g.* indices or conversion factors, see Sect. 0).

In Germany, the sales comparison approach is typically used to determine land values. From our perspective it can also be used for condominiums and town houses. Other comparable market factors can also be used in the valuation of developed properties instead of sales comparables (*e.g.* rental income multipliers).

4.3.2 Income Approach

The income approach is usually based on market rents (general approach). If the in-place rental income differs significantly from market rents, the income approach can be based on a dynamic cash flow model (dynamic income approach), which considers the specific, existing lease terms (rent roll) only until contracts expire. Thereafter, market rents are assumed.

General Approach

The German income approach is based on the idea that a property can be divided into land and buildings. It is assumed that the land lasts for eternity, whereas the buildings have a certain useful or economic life. ImmoWertV identifies two different static income approaches: In the standard income approach, income is split and allocated to land and buildings. In the simplified income approach, no such differentiation is made during the life of the building. At the end of the building's useful life the value of the land is discounted for the following years and this land value is then added to the value of the building. The following flow chart shows the income approach based on market rents without any adjustments for differences in location and market rents:

The income value does not necessarily reflect the market value of the property. According to § 8 (2) of ImmoWertV, the market situation must be considered when applying the different valuation methods. In addition, according to § 8 (3) ImmoWertV, the following property-specific characteristics must be considered:

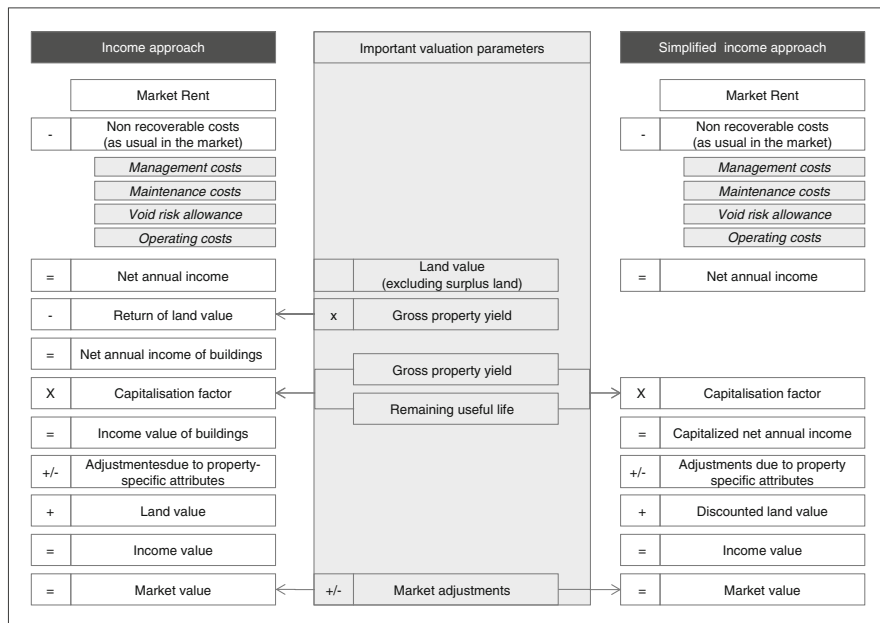


Fig. 2 Income approach (Source: Ernst & Young on the basis of ImmoWertV)

- Condition of the property above or below average
- Maintenance backlogs
- Differences between market rents and existing rental agreements

We usually consider any deductions or additions before adding the (discounted) land value, with the exception of market adjustments, which are considered on the basis of the calculated income value. Surplus land is valued separately and added to the valuation result (Fig. 2).

Dynamic Income Approach

The dynamic income approach is based on lease contracts and may be applied when the income is expected to change in the future and/or market rents are deviating from contractual rents. The valuation is then split into a detailed planning period and a terminal value. Current rents (Vertragsmieten) form the starting point for the detailed planning period. The dynamic income approach considers the same non-recoverable costs as the static income approach (see Chap. 4.3.2).

The dynamic income approach was not considered in the previous version of the German federal Ordinance for Property Valuation (“WertV” – valid until July 1, 2010). The ImmoWertV (effective since 1 July 2010) does not provide more detailed information on how to apply a dynamic income approach. This missing

guideline will be an obstacle to the roll out of the dynamic income approach in Germany.

4.3.3 Cost Approach

Published standard construction costs form the starting point for the cost approach. As standard construction costs are not updated on a daily basis, published data must be indexed in order to reflect costs at the valuation date. Standard construction costs also contain secondary costs, e.g. costs for planning and permits. Secondary construction costs are usually expressed as a percentage of direct construction costs. Exterior features which are not yet included in the land value, must, like all other features, be considered separately.

Consequently, the cost approach includes construction costs for buildings, exterior features and other features as well as the land value.

The chart below gives an overview of the cost approach according to § 21 et seqq. § 14 (2) and § 8 of the ImmoWertV (Fig. 3).

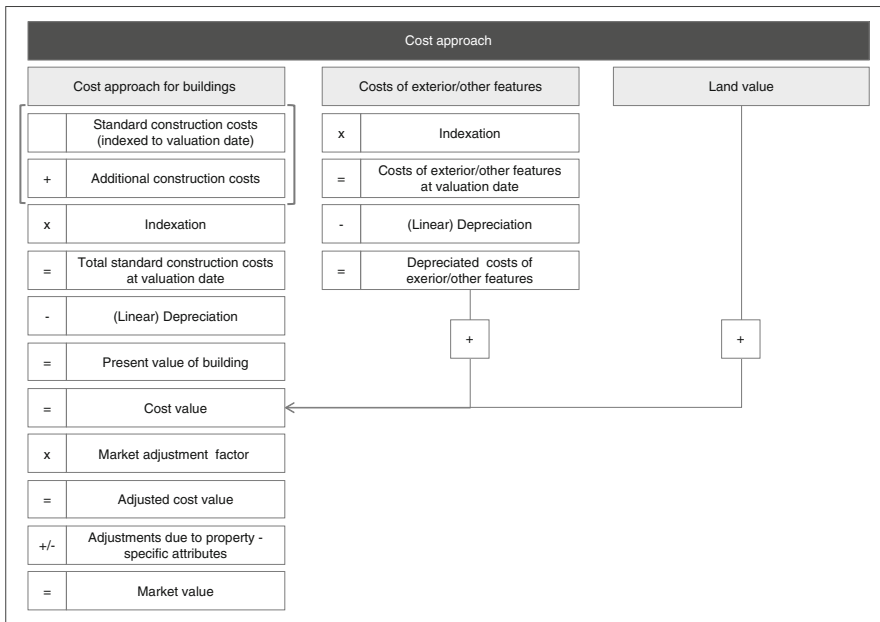


Fig. 3 Cost approach (Source: Ernst & Young on the basis of ImmoWertV)

5 Selected Aspects of German Valuation Guidelines

5.1 Introduction

The WertR (Wertermittlungsrichtlinien) provide a more detailed set of guidelines and instructions for carrying out real estate valuations in accordance with the principles of ImmoWertV.

The WertR, for example, contain information on how to evaluate properties (developed/undeveloped) when applying the different valuation approaches and give background information on special property attributes.

The ImmoWertV was updated in 2010. The WertR have not been updated since 2006 and therefore refer to the older version of the German federal Ordinance for Property Valuation. They may nevertheless be applied together with the updated version of the ImmoWertV.

In this section, we explore several aspects of the valuation guidelines which we consider particularly relevant to property valuation in Germany.

5.2 Selection of Valuation Approach

According to the WertR, the valuation approach is not limited to the valuation approaches presented in the ImmoWertV. Other approaches may be applied in these cases where they would result in appropriate values.

The *sales comparison approach* is used when the property market is geared to sales comparables. Consequently, it is commonly used to determine land values for developed and undeveloped properties. In practice, it is also used to evaluate condominiums or town houses as these property types may easily be compared on a square meter or unit basis. In addition, a solid data base is available for these property types.

The *income approach* is the most important valuation approach for developed investment or income-producing-properties. It is mainly used for multi-family housing and all types of commercial properties, if these properties are rented. The income approach may also be applied to condominiums and single-family houses.

For single-family houses, the *cost approach* is also a very common valuation method. The decision to buy a single-family house is commonly based on a comparison of land values and construction costs (buy or build).

5.3 Ground Leases

The valuation of ground leases (Erbbaupacht) according to German standards differs slightly from the international approach, as German valuation approaches

split properties into land and building. As a consequence, ground lease is not considered as a non-recoverable expense.

According to WertR, the preferred valuation method for ground leases is the sales comparison approach for land value. In practice, however, sufficient market data are rarely available to support the sales comparison approach for ground leases. Therefore, most appraisers use an approach based on financial mathematics for estimating missing data.

When applying an income based valuation approach, the return on the land (see Sect. 4.3.2) is based on the land value ignoring the ground lease payment to arrive at the value of the buildings. The value of the buildings is then added to the advantage/disadvantage of the leasehold. This advantage/disadvantage can be determined as illustrated below. Please note that Fig. 4 shows the valuation of a ground lease right assuming that the remaining useful life is in line with the remaining term of the ground lease or that the compensation at the expiry date of the ground lease is 100% of the market value of the building.

The appropriate ground lease payment is not necessarily in line with the return on land value, and ground lease payments [expressed as % of land value] frequently differ from the property yield. If no market data on common ground lease payments are available, then the appropriate ground lease equals the return on land value. Local adjustments can be made on the basis of market data for ground leases published by the local Gutachterausschuss, and leaseholds may warrant further

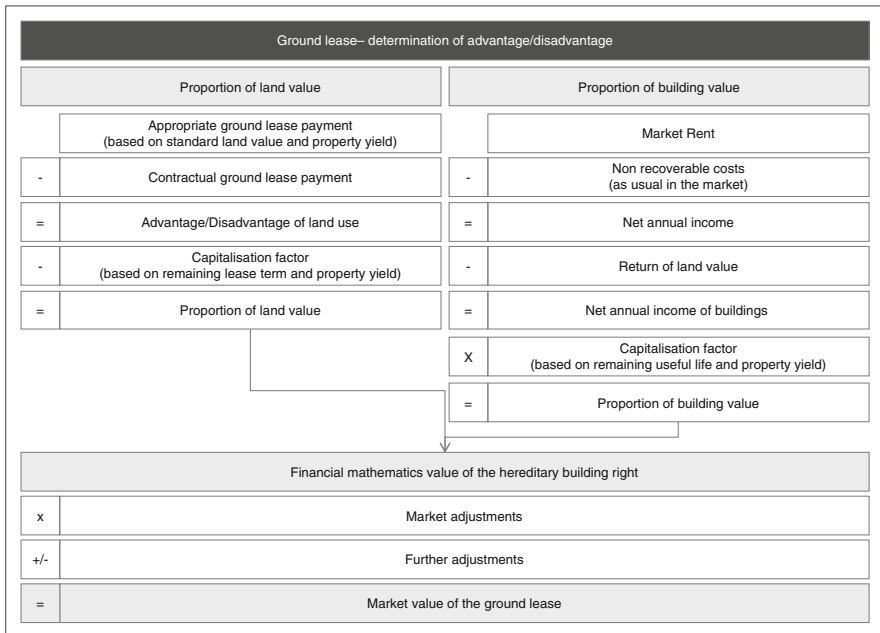


Fig. 4 Ground lease valuation (Source: Ernst & Young on the basis of WertR)

adjustments in comparison to freehold properties. When no market data are available for the property type in question, we apply a market factor of 1, which means that no adjustments are made.

A site encumbered by a ground lease is valued by discounting the land value over the remaining term of the ground lease and by capitalizing the ground lease payments. In this valuation, a market adjustment must also be considered. According to WertR, the market factor for adjusting the value of the encumbered land (from the owner's point of view) must be at least 1. Hence, we conclude that the market factor for the ground lease (point of view of the lessee) may not exceed 1.

5.4 Valuation Parameters

The WertR contain definitions for the main valuation parameters such as gross annual rent, nonrecoverable expenses, net annual rent, property yield, useful life, and standard construction costs (see Sect. 4.2). They also provide tables with depreciation and capitalization factors.

6 Methodological Differences Between German and International Income-Related Valuation Approaches

The main difference between German and international income-related valuation methods is the split between land value and building value in the German valuations. In the German approach, land value is assumed to last for eternity, whereas buildings have a finite useful life. According to international valuation standards, land and buildings are treated as one unit with one single, total value.

Another difference lies in the standard assumptions regarding rental income. While the German income approach typically starts with market rents, contractual rents usually form the basis of the international income approach. It is possible to consider contractual rents in the German approach, and the updated ImmoWertV contains a kind of DCF-model (Discounted Cashflow-Model) in which contractual rents are the starting point.

All other differences between German and international valuation standards relate to the nature and sources of data, rather than valuation methodology as such. One example is purchase costs: The German Gutachterausschuss derives property yields by analyzing sales contracts. Therefore, when applying the German income approach, the valuation result is the net market value. In contrast, most international valuation approaches calculate gross market values, and purchase costs are considered separately, as the valuations are based on net initial yields or all risk yields.

7 Summary

Property valuations should always result in market values which are achievable at the date of valuation. The applied valuation method must reflect the local market environment, including the specifics of supply and demand.

The regulation of valuation practice in Germany comprises guidelines on how to evaluate real estate and is governed by the federal ordinance (ImmoWertV).

Compared to international valuation practice, the framework in Germany is more detailed in terms of guidelines and instructions for performing valuations in accordance with the ImmoWertV. The transparency of the real estate market, however, is severely limited by privacy laws. Local panels of experts (Gutachter-ausschuss) collect, analyze and publish consolidated data for local real estate markets and are an important source of information for appraisers. Nevertheless, an accurate valuation depends in large measure on the local market knowledge of the appraiser.

References

- Bundesministerium für Verkehr, Bau und Stadtentwicklung (2006). Richtlinie für die Ermittlung der Verkehrswerte (Marktwerte) von Grundstücken (Wertermittlungsrichtlinien – WertR 2006).
- Bundesministerium für Verkehr, Bau und Stadtentwicklung (2010). Verordnung über die Grundsätze für die Ermittlung der Verkehrswerte von Grundstücken (Immobilienwertermittlungsverordnung – ImmoWertV 2010).
- Kleiber, W. (2010). Verkehrswertermittlung von Grundstücken. Kommentar und Handbuch zur Ermittlung von Marktwerten (Verkehrswerten), Versicherungs- und Beleihungswerten unter Berücksichtigung der ImmoWertV. Bundesanzeiger Verlag, 2010.
- International Valuation Standards Council (2011). International Valuation Standards 2011, London.

Rental Law

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Abstract This contribution describes the formal requirements for lease contracts, the possibilities of rent reviews, Lessor’s option for VAT, the special provisions for registered leases and the possibilities of diverging from certain legal regulations for lease contracts in the German Civil Code (“*Bürgerliches Gesetzbuch – BGB*”) esp. concerning operating costs, obligations for maintenance and repair/ decorative repairs, security, subletting. Such diversions are restricted in residential tenancy law by special provisions for the protection of tenants and in addition for all types of lease contracts by the law on general terms and conditions of business.

Keywords Formal requirements • lease-back • market rent

1 Introduction

Under German law, leases do not constitute real encumbrances of the real estate, but are instead merely contracts under the law of obligations.

The German Civil Code (“*Bürgerliches Gesetzbuch – BGB*”) contains statutory regulations regarding these contracts in Sections 535 ff. These can be contracted away by contractual agreements to the extent to which they are not mandatory statutory provisions. The possibility of diverging from the statutory regulations in lease contracts is restricted in residential tenancy law by special provisions for the protection of tenants (see 14. below) and in addition for all types of lease contract by the law on general terms and conditions of business (“*Recht der allgemeinen Geschäftsbedingungen*” – see Sections 305 ff. BGB).

Generally, usual market lease contracts are the general terms and conditions of business of the lessor – exceptions to this are often found in the retail sphere; retail chains as lessees frequently attempt to achieve the use of their own lease contract sample.

Several samples for standard lease contracts are available on the retail market, whereas others are issued by regional land owners’ associations. These samples

frequently contain numerous breaches of the provisions of Sections 305 ff. BGB regarding the law on general terms and conditions of business, and are usually not suitable for use in letting properties which are still currently under development.

In the discussions which follow in 2. to 13. below, we mainly restrict ourselves to commercial lease contracts; this cannot be unrestrictedly transferred to residential tenancy agreements unless something different is expressly stated.

2 Duration

The maximum term for lease contracts is 30 years. If a lease contract is concluded for a period longer than 30 years, it can be terminated by the lessor and the lessee after the expiry of the 30th year with the statutory period of notice for termination (Section 544 BGB). The statutory period of notice for termination for commercial lease contracts is 6 months (less 3 working days) to the end of each calendar quarter. If the contractual parties agree a term of the contract longer than 30 years, this is not possible on the basis of a lease contract. Instead of a lease contract, the parties must conclude a registered lease (*“Dauernutzungsrecht”* – see No. 12 below). Registered leases are not subject to any time-limits.

Commercial lease contracts usual in trade are normally concluded for 5 or 10 years. In case of a fixed term of the lease for just 5 years, the lessee is usually granted an extension option for a further 5 years in order to enable an automatic indexation of the rent (see 5.1 below).

3 Provisions Regarding Formal Requirements

3.1 Requirement of Written Form (*“Schriftformerfordernis”*)

Lease contracts which are concluded for a term of more than 1 year must be in written form. In practice, many lease contracts failed to meet this requirement, which is why the examination of compliance with written form requirements is of significant importance in the lease contract due diligence for the purchase of leased real estate.

If the written form requirements are not complied with for lease contracts with a fixed term of more than 1 year, the lease contract is not invalid, but is deemed to have been concluded for indefinite period. This means that the lease contract can be terminated with the statutory period of notice for termination regardless of any fixed term which may have been agreed. Ultimately, compliance with written form requirements also has significant effects on the calculation of the intrinsic value of the real estate involved, if the market value of the real estate is based on its being leased.

In order to meet the requirements of written form, it is necessary for the lease contract deed to contain the important contractual conditions and a “single deed” must be created. The “single-deed nature” of the deed is created in an expedient way by attaching all parts of the lease contract to one another in a fixed way. This fixed connection can be waived if the “single” nature of the deed is evident from other circumstances, like, for example, sequential page numeration or continuous content of the text. The written form requirement in principle applies to all agreements which are intended to constitute the lease contract, i.e. the entire contract content, including all side agreements which are intended to form part of the lease contract, is subject to the written form requirement. Therefore, if for example a shop is let before it is completed, plans and building specifications and a description of the fit-out will usually form part of the contract. For this reason, plans and the building and fit-out description must either be attached to the lease contract to form one single deed or the lease contract must at least contain an express reference to the plans and the building specifications and the fit-out description so that the annexes can clearly be identified.

The written form requirement also applies to supplementary and additional contracts, which is frequently overlooked in practice at the conclusion of lease contracts. If the written form requirement is not complied with for a supplementary or additional contract, this has the unpleasant legal consequence that the defect in written form of the supplementary or additional contract “infects” the entire contract, regardless of whether the main contract fulfils the written form requirement or not; in other words, a written form defect in a supplementary contract leads to the entire lease contract being susceptible to termination with the statutory period of notice for termination regardless of the contractually agreed term of the contract.

The written form requirement for lease contracts with a term of more than 1 year also applies to residential lease contracts.

3.2 Other Requirements

Occasionally, it is agreed in commercial lease contracts that, in case of the sale of the leased premises, the lessee has a right of pre-emption or a right of purchase under certain circumstances. Such agreements are not infrequently found in lease contracts for properties which only have one sole lessee. They are also usually included in financial leasing contracts (“*Leasingverträgen*”), in which the lessee usually is granted the right to acquire the leasing property after the expiry of the minimum leasing period (“*Ankaufsrecht des Leasingnehmers*”), frequently at a purchase price corresponding to the book value of the real estate. If the lease contract contains such rights to purchase/sale obligations, this leads to the lease contract as a whole requiring notarisation. If the contract is not notarised, the agreement concerning the right to purchase by the lessee/the sale obligation of the lessor is null and void. This does not necessarily mean that the entire lease contract is to be considered null and void: it is decisive whether the parties to the

lease contract would still have concluded the lease contract even without the right of purchase/sale obligation. If this is the case, the lease contract remains valid in spite of the invalidity of the right of acquisition/sale obligation (BGH, decision of 17 December 2008, NZM 2009, 198). With a leasing contract, it can usually be assumed that it is not concluded without the lessee having a right to purchase after the expiry of the minimum leasing period, because the lessee *de facto* provides advance finance for the purchase price through the leasing instalment which exceeds the usual rent (the purchase price, at book value, is far below the market value of the real estate). In these cases, it can be assumed that the failure to notarise the right of purchase of the lessee leads to the invalidity of the entire contract.

4 Security for the Lease Contract *in rem*

In Germany, lease contracts are not registered in the Land Register. This constitutes a certain risk for the lessee because the lessor has the right to terminate the lease contract – regardless of the contractual term of the contract – early with the statutory period of notice for termination in three cases:

- (a) In case of compulsory auction of the leased premises:
The successful bidder can terminate all lease contracts for the auctioned property to the first possible statutory date for termination after the court order conferring title to the real estate on the purchaser has been pronounced in the compulsory auction procedure (Section 57a Compulsory Auction Act – ZVG).
- (b) In case of sale of the leased premises by the lessor’s insolvency administrator:
If insolvency proceedings have been opened over the lessor’s assets, if the insolvency administrator sells the leased premises and if the purchaser enters into the lease relationship (which usually is the case pursuant to Section 566 BGB – see 11. below), the purchaser can terminate the lease relationship to the first possible statutory date for termination after entering into the lease relationship (Section 111 Insolvency Code – InsO).
- (c) In case of the conclusion of the lease contract with the holder of a heritable building right as lessor:
If the heritable building right expires through lapse of time, the site owner is entitled to terminate the lease relationship to one of the two first possible dates after the expiry of the heritable building right contract.

If the first possible dates resulting from a. to c. above are not observed, then in case of a. the successful bidder, in case of b. the purchaser and in case of c. the owner in each case remains bound by the lease contract for the contractually agreed term of the lease.

The lessee can avoid the risk of termination pursuant to a. and b. above by obtaining from the lessor the grant of a right of use which is secured by a restricted personal easement which is registered in the Land Register, subject to the proviso

that cancellation of the easements cannot be required in the cases specified in a. and b. above. Relief from termination pursuant to c. above can only be obtained by an agreement with the owner concerning the continuation of the lease relationship with it after the expiry of the heritable building rights.

From the lessee's point of view, the agreement of a lessee's easement is in particular advisable if the lessee itself has made a considerable investment in the leased premises and has concluded the lease contract for a long term. Lessors are extremely unwilling to grant lessee's easements. In practice, lessee's easements therefore usually are only found in lease contracts with key tenants in the retail sphere in case of lease/leasehold agreements for hotels or leases for office space to major tenants, such as, for example, banks and insurance companies.

5 Rent/Rent Review/Operating Costs

5.1 *Stable Value Clauses/Other Adjustment Clauses*

According to the Price Clause Act, automatic adjustment clauses are permissible and usual in commercial lease contracts:

- (a) The lessee has a claim to a minimum term of the lease of 10 years. This is often realised in such a way that the lease contract provides for a fixed term of 5 years and an extension option for the lessee for 5 years; an extension option is the power to extend a lease relationship by a certain period through unilateral (usually written) declaration.
- (b) The adjustment clause must be equally favourable to the lessor and the lessee, i.e. permit upward and downward rent changes – rent adjustments “upwards only” are not permissible. The agreement of floors or caps is only permissible if they are equally favourable/unfavourable to both parties.
- (c) The rent adjustment may not be greater than the change of the index to which the rent adjustment is connected.
- (d) The rent adjustment is connected to the consumer price index (“*Verbraucherpreisindex*”) published by the Federal Statistics Office or a comparable index published by the Statistics Office of the European Community. Alternatively, the rent can be connected to the index for goods which are manufactured or sold in the leased premises; use is seldom made of this possibility.

In practice, there are usually clauses which either provide that the rent is adjusted to 1 January of each calendar year in proportion to the adjustment of the consumer price index in the last calendar year or which provide for the respective adjustment of the rent when the consumer price index changes by a certain percentage or a certain number of points, whereas, depending on the market situation and negotiating position of the lessee, the rent alteration can occasionally be lower than the index adjustment.

If the criteria listed in a. to d. above are not complied with, this does not, however, lead to the automatic invalidity of the adjustment clause; instead, it only becomes invalid if this is found in a court decision and the court decision has become final and legally binding (Section 8 Price Clause Act).

In this context, it must be noted that a lease contract which fails to fulfil the written form requirement (see 3.1 above) results in this lease contract being capable of termination with the statutory period of notice for termination, with the consequence that the precondition specified in a. above is not fulfilled and the validity of the automatic adjustment clause is also threatened.

Subject to certain restrictions, adjustment clauses are also permissible in residential lease contracts.

In lease contracts which do not fulfil the preconditions specified in a. above, we often find reservation clauses ("*Leistungsvorbehalte*") which do not provide for an automatic rent adjustment, but instead regulate that the rent must be renegotiated if certain preconditions (e.g. the consumer price index) have changed. Alternatively, a graduated rent can be agreed in such cases (rent increase in amounts fixed for the entire term of the contract).

5.2 Market Rent Review

As the market rent does not always change parallel to the consumer price index (changes here were in any case extremely moderate in recent years), lessors (and sometimes lessees as well) occasionally attempt to agree clauses which provide for an adjustment of the rent to the so-called market rent at regular intervals (usually every 5 years). Market rent refers to the rent obtained for properties which are comparable to the leased premises as regards purpose of use, age, size, location, equipment and transport connections. If the parties are unable to agree on the amount of the market rent, it is frequently agreed that this market rent will be fixed by an adjudicator ("*Schiedsgutachter*").

Market rent clauses can also be combined with an automatic adjustment clause if it is equally favourable to the lessor and the lessee.

5.3 Sales-Related Rent/Profit-Related Rent

It is usual in retail lease contracts to agree rents which depend on the sales achieved by the lessee in the leased premises. Sales-related rent agreements are usually combined with minimum rent agreements, i.e. the sales-related rent is usually not permitted to be lower than a certain minimum rent. The minimum rent is mostly combined with an automatic adjustment clause (see 5.1 above).

It is also possible to agree a rent which depends on the profit generated by the lessee in the leased premises. In practice, the agreement of a profit-related payment

for use is almost exclusively found only in hotel leasehold contracts; the point of reference here is usually the GOP (gross operating profit), to be calculated on the basis of the Uniform System of Accounts for the Lodging Industry. A profit-related rent is usually combined with the agreement of an indexed minimum rent.

5.4 Operating Costs

Usually, the lessee pays the operating costs for the leased premises. These operating costs are defined in the Operating Costs Ordinance (*“Betriebskostenverordnung”*). In residential lease contracts, only the operating costs defined in the Operating Costs Ordinance can be apportioned to the lessee, whereas operating costs which are not listed in the Operating Costs Ordinance can also be included in commercial lease contracts. Important: The lessee is only obliged to pay the operating costs which are precisely defined in the lease contract. Reference to the Operating Costs Ordinance is sufficient for the definition. To the extent to which the lessee is also intended to pay operating costs which are not listed in the Operating Costs Ordinance, these must be specifically enumerated in the lease contract.

Heating and hot water costs are also regulated in the Heating Costs Ordinance (*“Heizkostenverordnung”*), pursuant to which at least 50% but at most 70% of the costs must be apportioned according to consumption. The proportion apportioned according to consumption can be increased to 100% by contract. All remaining operating costs are normally apportioned to the lessees on the basis of the area ratio.

5.5 Value Added Tax

If the lessor has opted for value added tax for the construction of the building or the purchase of the built site, it must also agree in the lease contracts that value added tax is payable in addition to the rent and the operating costs. However, a corresponding agreement is only possible to the extent to which the lessee (in case of subletting; the sublessee) uses the leased premises exclusively for turnover (or intends to do so) which does not exclude the deduction of input tax (Section 9(2) Value Added Tax Act – UStG); in other words, letting with value added tax is only possible if the lessee generates turnover in the leased premises which is subject to value added tax. This is, for example, not the case with banks, insurance companies and public-law corporations. If the lessor has opted for value added tax for newly constructed leased premises and has been reimbursed on the basis of this for the value added tax on the planning and construction services by the tax authorities, and if it then leases the leased premises to a bank, it must repay to the tax authorities the value added tax for the leased premises; this results in an increase of its planning and construction costs by the amount of the value added tax which has to be repaid to the tax authorities. This increase in costs must be taken into consideration in the

calculation of the rent for the bank. Residential premises cannot be let subject to value added tax.

6 Maintenance and Repair

According to Section 535(1) BGB, the lessor must provide the lessee with possession of the leased premises in a condition suitable for the contractually agreed use and must maintain them in this condition during the term of the lease. The lessor is responsible for the maintenance and repair of the leased premises by law. This statutory regulation is usually contracted away in commercial lease contracts: the obligation to maintain and repair the leased premises can be transferred by the lessor to the lessee in a commercial lease by the lessor's general terms and conditions of business to the extent to which this affects maintenance and repair requirements which are caused by the use of the leased premises or are to be attributed to the risk sphere of the lessee (BGH, decision of 25 February 1987, NJW-RR 1987, 906).

In addition, the lease contract can impose on the lessee the obligation to share the maintenance and repair costs of parts of the building which do not belong to the leased premises used exclusively by the lessee, but which serve the use of all or several lessees (e.g. maintenance and repair costs of lifts, lift lobbies, rooms for heating installations, etc.). However, the apportionment of these costs to the lessee must take into consideration that such an agreement is only valid if the relevant amount is restricted to a specific amount per year (BGH, decision of 6 April 2005 – NZM 2005, 863), a restriction which is often disregarded.

7 Decorative Repairs (“*Schönheitsreparaturen*”)

According to the regulations of the BGB, decorative repairs are the responsibility of the lessor. However, these are usually transferred to the lessee in the lease contract which is also permissible in general terms and conditions of business of the lessor, subject to certain restrictions.

8 Security

It is usually agreed that the lessee must provide a rent deposit (usually by a directly liable guarantee of a bank). Depending on the credit-worthiness of the lessee and the market situation, this deposit ranges between 3 and 6 months' rent for commercial lease contracts. Higher security is usually only found in case of a lease of special real estate which is leased to one single lessee, such as, for example, hotels.

Security of up to 2 years' rent is occasionally agreed here. In case of such high security, a bank guarantee is also frequently replaced in many cases by a – hard – letter of comfort by a parent company of the lessee. The transfer of possession of the leased premises to the lessee can be made dependant on the lessee first providing the rent deposit.

9 Subletting

According to German law, the lessee is not entitled to transfer its rights and duties out of the lease contract to a third party. The power of transfer can be agreed in the lease contract in a permissible way, but this is usually not the case because lessors do not accept this rule.

If the lessee no longer requires the leased premises and if it has no possibility of terminating the lease contract, it will attempt to sublet the leased premises. Subletting is only permissible with the consent of the lessor (Section 540(1) BGB). If the lessor's consent is however refused without any important cause for such refusal, the lessee is entitled to extraordinary termination of the lease contract with the statutory period of notice for termination. This right of termination cannot be excluded in the general terms and conditions of business of the lessor. As regards the conclusion of the lease contract, it is recommended in practice to define in the lease contract what is to be considered important cause for the refusal of consent to subletting.

10 Sale and Lease Back

Increasingly frequently, the sale of a site/building is combined with the agreement that the vendor leases back the building as a whole or in part. As these cases usually involve a legal connection between the purchase contract and the lease contract, the lease contract must be notarised together with the purchase contract. If this does not take place, the lease contract and the purchase contract are invalid. The invalidity is healed by the transcription of title to the leased site in the Land Register to the purchaser (Section 311 b. Sentence 2 BGB) but can until this point in time be asserted by either party, even after the payment of the purchase price.

11 Lease Contract in Case of the Sale of the Site

If the leased site is sold, then from the time of transfer of ownership (i.e. with effect from the day of the transcription of title in the Land Register) the purchaser enters into all rights and duties out of the lease contract (Section 566(1) BGB), without

a separate agreement being required for this. However, this only applies to lessees who have already taken possession of the leased premises on the day of sale (day of transfer of ownership). To the extent to which this is not the case (frequently: in the case of properties under development), transfer of the lease contract to the purchaser only takes place if this is agreed on the one hand in the purchase contract and on the other hand in the lease contract. This must be checked at the time of conclusion of the lease contract.

In case of sale of the leased premises, the vendor is also liable to the lessee like a guarantor if the purchaser does not fulfil the obligations out of the lease relationship which has been transferred to it (Section 566(2) BGB). The vendor is only released from this obligation if the lessee, having obtained knowledge of the sale, terminates the lease contract to the first date possible according to the contract, which may only be the case after the expiry of many years in case of a long-term commercial lease contract. This liability cannot be excluded by general terms and conditions of business.

11.1 Registered Lease (“Dauernutzungsvertrag”)

If a term of the lease of longer than 30 years is desired for the transfer of use, the only alternatives to a lease contract are the conclusion of a heritable building right contract or a registered lease. The conclusion of a heritable building right contract is often undesirable for tax reasons because the holder of the heritable building right is/becomes owner of the building constructed or to be constructed on the basis of the heritable building right. For this reason, the registered lease is an alternative.

In practice, we occasionally find registered lease contracts as hotel contracts or contracts for the transfer of use for other special real estate which is only used by a sole user. They occasionally also replace a lease contract for large scale retail leases. Registered leases are seldom found for the transfer of office space.

11.2 Advantages of a Registered Lease Contract

- (a) The registered lease contract is one of the most flexible legal instruments at all: it can be structured like a purchase contract (purchase of the registered lease right) or like a lease contract. It usually replaces a lease contract.
- (b) All significant elements of a lease contract can also be included in a registered lease contract, i.e. the registered lease contract can be contractually structured to a significant extent like the lease contract.
- (c) There are no written form difficulties (see 3.1 above) with a registered lease contract. There is therefore no risk of early termination of the contract for failure to comply with written form.

- (d) There are no provisions about the permitted duration of the registered lease contract. It can be created for “eternity,” but period of more than 99 years is unusual.
- (e) If the registered lease contract is structured in a similar way to a lease contract, the rent is replaced by payment for use to be paid on a permanent basis, which can also be indexed in a fully automatic way as with a lease contract.
- (f) There are no special rights of termination by the purchaser in case of the purchase of the leased premises through compulsory auction or the purchase from an insolvency administrator.

11.3 Disadvantages of the Registered Lease Contract

The registered lease is registered as an encumbrance on the site in Section II of the Land Register. It can be sold and inherited. Pursuant to Section 35 of the Residential Ownership Act, it can be regulated that the sale of the registered lease depends on the consent of the site owner. However, such consent can only be refused for important cause. A complete sale prohibition in favour of the owner is excluded.

11.4 Form of the Registered Lease Right

As the registered lease is registered in the Land Register, the signatures under the registered lease contract must be certified by a notary. In addition, registration of the registered lease is only possible with a certificate of self-containment with an allocation plan (Section 32 Residential Ownership Act). This certificate is issued by the competent building supervisory authority. If the registered lease is connected with a right of pre-emption or a right of purchase by the entitled party under the registered lease, notarisation is necessary (see 3.2. above).

11.5 Reversion

Contrary to the position with a lease contract, there is no possibility of termination for important cause of the registered lease contract (e.g. due to delay with payment by the entitled party under the registered lease). In case of the registered lease contract, the possibility of termination for important cause is replaced by the so-called right of reversion. This is the right of the site owner to require that in case of the occurrence of certain preconditions (breaches of contract), the registered lease must be transferred to itself or to a third party specified by the site owner.

In contrast to the position with a lease contract, the registered lease contract can also provide that the commencement of insolvency proceedings over the assets of

the entitled party under the registered lease contract is a reason for reversion. In the context of reversion, it must be regulated whether and for what amount compensation must be paid to the entitled party under the registered lease contract in case of reversion. In case of long-term registered leases (more than 10 years) the duty to pay compensation pursuant to Section 41(3) of the Residential Ownership Act cannot be contracted away, but the compensation can be reduced to nil in cases in which the registered lease replaces a lease contract.

11.6 Relationship Between the Registered Lease and Liens

The registered lease is registered in the Land Register ranking either above encumbrances in Section III of the Land Register or, in case the financing bank requires the withdrawal to lower rank of the registered lease, below the financing lien, together with a so-called “agreement to leave.” This is an agreement between the site owner, the entitled party under the registered lease and the site owner’s bank in accordance with which the registered lease withdraws to lower rank below the financing lien, but is not lost in case of compulsory auction out of the financing lien. This agreement is registered in the Land Register, therefore has effect *in rem* and thus also secures the registered lease in case of compulsory auction of the lien with higher rank and in case the financing lien creditor assign their claims out of the loan contract and the lien to third parties (Section 39 Residential Ownership Act).

12 Hotel Contracts

A hotel contract is usually either a leasehold (“*Pachtvertrag*”) or a management contract. We occasionally also find a hotel contract which is structured as a registered lease contract similar to a leasehold contract. The law regarding leasehold contracts is regulated in the BGB in Sections 581 ff. BGB. It mainly corresponds to the rental law regulated in the BGB, but in particular differs from statutory rental law by termination regulations which diverge from rental law and because the leaseholder has an obligation to maintain inventory which is included in the leasehold and to replace such inventory within the framework of proper management of the leasehold premises.

With the intention of minimising their own capital commitment and their own entrepreneurial risk as far as possible, the major international hotel groups have long since established the practice of concluding pure hotel management contracts. The swift worldwide expansion of the major hotel groups is predominantly based on management contracts. The number of pure management agreements probably by far exceeds the worldwide number of leasehold contracts. However, this does not apply to Germany, where there is persistent resistance by owners to management contracts, not least because hotel real estate which is operated on the basis of a

management contract is significantly more difficult to sell than a hotel which is managed on the basis of a leasehold contract. This in particular applies if the management contract makes no provision for minimum earnings for the site owner, which can lead to the real estate being incapable of sale. In order to avoid this incapacity for sale, we find so-called “hybrid contracts” relatively frequently. These are either leasehold contracts which contain elements of a management contract because part of the leasehold rent is dependent on the result (GOP) of the hotel operation, or they are management contracts in which the owner is guaranteed certain minimum earnings, similar to rent. From a tax point of view, the hotel leasehold contract (like the registered lease contract) provides the site owner with income from leases and leaseholds. Management contract income constitutes income from the operation of a trade. A detailed description of the problems of hotel leasehold contracts and hotel management contracts would exceed the scope of this discussion. As far as hotel management contracts are concerned, it must be pointed out that according to the case-law of the Federal Supreme Court it is unreasonable to expect the site owner to adhere to such a contract if the hotel manager permanently generates negative results or if the results are so low that they are insufficient to generate a reasonable yield on the committed equity capital. In this case, the case-law permits an extraordinary right of termination by the owner. However, as there are no generally applicable regulations in this context from which we could deduce the level of the yield which must at least be produced, it is urgently recommended to specify in detail in the management contract the circumstances under which the owner is granted a right of termination. Case-law states that the maximum permissible duration of a management contract is 20 years.

13 Residential Tenancy Agreements

When compared to commercial lease contracts, residential tenancy agreements have numerous special regulations designed to protect residential lessees. A detailed discussion of these special features is not possible here. In summary, the provisions for tenant protection mainly affect the following areas, whereas the list below is not conclusive:

- (a) Special provisions for protection from termination in favour of the residential tenant;
- (b) Restriction of the amount of the rent deposit and conditions under which it falls due;
- (c) Various restrictions on agreements for rent adjustment (indexation is in principle possible if the rent remains unchanged for at least 1 year);
- (d) Tenant’s right to reduce the rent cannot be contracted away;
- (e) Prohibition of “excessive rents” in Section 5 of the Economic Crime Act (regulatory offence punishable by a fine) and prohibition of “exorbitant rents” pursuant to Section 291 Criminal Code (criminal offence punishable by a fine or

- a term of imprisonment); there is an excessive rent increase if the rent is 20% above the comparable rents usual in the locality and a rent is considered exorbitant if it is 50% higher than comparable rents usual in the locality;
- (f) Restriction of the rent in case of publically subsidised residential accommodation;
 - (g) Restriction of the apportionment of operating costs to those listed in the Operating Costs Ordinance;
 - (h) No possibility of placing an obligation on the tenant to carry out repair work; Restriction of the possibility of requiring the tenant to contribute to the costs of this.

The lessee protection provisions outlined above cannot be contracted away to the disadvantage of the tenant.

References

- Blank, H., & Börstinghaus, U. P. (2008). *Miete – das gesamte BGB-Mietrecht* (3rd ed.). Munich: Verlag C. H. Beck.
- Lindner-Figura, J., Oprée, F., Stellmann, F., Barholomäi, R. (2008). *Geschäftsraummiete* 2nd edition. C.H. Beck. Munich.
- Usinger, W., & Minuth, K. (2004). *Immobilien – Recht und Steuern – Handbuch für die Immobilienwirtschaft* (3rd ed.). Köln: Rudolf Müller GmbH & Co. KG. see especially: Chapter 20, Lease Contracts and Chapter 21, Hotel Contracts.
- Usinger, W., & Schneider, H.-J. (2009). *Real property in Germany – Legal and tax aspects of development and investment* (7th ed.). Frankfurt am Main: Fritz Knapp Verlag GmbH. see especially: Chapter IX: Lease Contracts.
- Wolf, E., Eckert, H.-G., & Ball, W. (2009). *Handbuch des gewerblichen Miet-, Pacht- und Leasingrechts*. Köln: RWS-Verlag.

Planning and Building Law

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Abstract This article describes the urban land-use planning which comprises the preparatory land-use plan and the binding land-use plan, the content, the procedures, legal effects and the responsibility of the municipalities for the preparation of these plans, and the permissibility of development projects. In addition, the article contains the requirements concerning the building permission and the building permission procedure.

Keywords Building regulation • spatial Planning Act • Urban land-use

1 Introduction

The legal bases in the field of planning comprise the categories general planning law (planning and building law [Planungs- und Baurecht]) and sectoral planning law [Fachplanungsrecht]. The planning and building law regulates both cross-sectoral and mostly coordinating planning and building while the sectoral planning law focuses on the preparation and execution of measures within a special sector of public responsibilities. A sectoral planning is regionally significant where space is occupied and the spatial development or the function of an area is influenced. Special laws regulate in particular regionally significant sectoral planning for transport, energy, water – and waste management and for public infrastructure (e.g. airports, roads, lines for power- and water supply). Central instrument of sectoral planning is the planning approval procedure [Planfeststellungsverfahren] to determine a legally binding decision in form of a planning approval decision [Planfeststellungsbeschluss] regulated in Sect. 72 ff. VwVfG of the *Bund* or the *Länder*. In certain cases the competent authority may grant a planning permission [Plangenehmigung] instead of a planning approval decision (Sect. 74 para. 6 VwVfG). In insignificant cases the planning approval and a planning permission are omitted (Sect. 74 para. 7 VwVfG). Sectoral planning may also set designations of protected areas to safeguard public interests (e.g. nature reserves). The relationship

of sectoral planning and of the requirements of spatial planning is determined by so-called spatial planning clauses [Raumordnungsklausel].

Planning and building law comprises the spatial planning law and the public building law. The traditional term “Raumordnung” describes the comprehensive, supra-local and super-ordinate stage of planning the structure and development of space. Sustainable spatial development is a substantive vision for spatial planning in Germany.

Spatial planning is laid down in the Federal Spatial Planning Act [Raumordnungsgesetz – ROG] and the state spatial planning acts, as far as they contain additional regulations. The spatial planning law contains spatial structure plans at the federal, state and regional levels. The spatial structure plans stipulate the spatial ideas on developing the space in form of goals of spatial planning and principles of spatial planning. There are spatial plans for the entire Federation for concretion of principles of spatial planning (Sect. 17 para. 1 ROG), for designation of cross-border site concepts for harbours and airports in coordination with the traffic planning of the *Länder* (Sect. 17 para. 2 ROG), a spatial plan for Germany’s Exclusive Economic Zones in the North Sea and the Baltic Sea (Sect. 17 para. 3 ROG), and spatial plans for the entire territory of a state (Sect. 8 para. 1 No. 1 ROG) and regional plans for defined regions within a state (Sect. 8 para. 1 No. 2 ROG). The “Concepts and Strategies for Spatial Development in Germany” adopted by the Federal Government and federal state ministers responsible for spatial planning in 2006 and the “Territorial Agenda of the European Union”, adopted by the ministers responsible for Spatial Development in EU Member States in 2007 are important for the German and European spatial development.

Public building law is divided into planning law [Bauplanungsrecht], also referred to as urban development law [Städtebaurecht], the building regulations law [Bauplanungsrecht] and additional laws and regulations [Baunebenrecht], e.g. regulations for conservation of historic monuments or for conservation of nature.

There is no standard legislative competence for the public building law. The territorial validity of federal law [Bundesrecht] is the entire territory of the federation while state law [Landesrecht] is only valid for that state [*Land*]. The legislative competencies of the Federation and the *Länder* are regulated by the Basic law [Grundgesetz – GG] (constitution of the Federal Republic of Germany). Legislative powers for public building law are divided between the Federation and the *Länder*. In the field of urban development law the Federation shall have the legislative powers (Art. 74 para. 1 No. 18 GG). Land law is a part of concurrent legislation. Although “on matters within the concurrent legislative power, the *Länder* shall have power to legislate as long as and to the extent that the Federation has not exercised its legislative by enacting a law” (Art. 72 para. 1 GG, but the Federation has exercised its legislative).

In contrast, the *Länder* shall have the right to legislate the building regulations law (Article 70 GG).

Depending on the legislation competencies, the additional laws and regulations may be regulated by the Federation or the *Länder*.

2 Urban Development Law

2.1 Legal Framework

The most important regulation of urban development law is the Federal Building Code [Baugesetzbuch – BauGB¹]. The BauGB is supplemented by the Federal Land Utilisation Ordinance [Baunutzungsverordnung – BauNVO], Plan Notation Ordinance [Planzeichenverordnung – PlanzV], Real Estate Valuation Ordinance [Immobilienwertermittlungsverordnung – ImmoWertV]. These regulations are valid for the entire territory of the Federation.

2.2 Urban Land-Use Planning

The function of urban land-use planning [Bauleitplanung] “is to prepare and control the use of land within a municipality, for buildings or for other purposes” (Sect. 1 para. 1 BauGB²). The municipalities (in smaller municipalities often an administrative association of those) regulate urban development and the structure of their territories by means of urban land-use planning in their own responsibility (Sect. 2 para. 1). Urban land-use planning is one of the self-government tasks of the municipalities guaranteed by Article 28 para. 2 GG. The municipalities shall prepare land-use plans [Bauleitpläne] “as soon as and to the extent that these are required for urban development and order” (Sect. 1 para. 3).

There is a link between regional and urban land-use planning: Land-use plans shall be brought into line with the goals of spatial planning (Sect. 1 para. 4).

Land-use plans for neighbouring municipalities must be coordinated (Sect. 2 para. 2).

The goals and principles of urban land-use planning are regulated in the form of planning guidelines in Sect. 1 para. 5. They are defined in detail in Sect. 1 para. 6. This regulation contains a non-exclusive catalogue of planning requirements (e.g. healthy housing and working conditions, building culture, protection of environment).

The consideration of public and private interests is particularly important for the planning process (Sect. 1 para. 7).

The BauGB contains regulations for safeguarding land-use planning. These safeguards are described in Sects. 14–28.

¹ There is no translation of the current BauGB. Used unofficial translation based on a translation of an earlier wording of this act, published by the Federal Ministry for Regional Planning, Building and Urban Development, Oldenburg 12/1993.

² All sec. without mention of the law are sec. of the BauGB.

Urban land-use plans comprise the preparatory land-use plan [Flächennutzungsplan – F-Plan] and the legally binding land-use plan [Bebauungsplan – B-Plan] (Sect. 1 para. 2).

2.2.1 Preparatory Land-Use Plan

The preparatory land-use plan is a planning instrument for the entire territory of the municipality. It shall represent in basic form the type of land uses according to the intended urban development which is proposed to correspond to the anticipated needs of the municipality (Sect. 5 para. 1 s. 1).

The local council adopts the preparatory land-use plan as a special type of government measure. It is internally binding for local authorities but not for the public. Public bodies, charged with the planning tasks and involved in the planning process must adapt their planning proposals to the preparatory land-use plan (Sect. 7).

In the end binding land-use plans are to be developed from the preparatory land-use plan (Sect. 8 para. 2).

The preparatory land-use plan is not subject to judicial review pursuant to Sect. 47 Code of Administrative Court Procedure [Verwaltungsgerichtsordnung – VwGO], except for representations with legal effects of Sect. 35 para. 3.

Contents of a preparatory land-use plan may be:

- Non-exclusive catalogue of possible representations (Sect. 5 para. 2, 2a), e.g.:
 - General land-use types, specific land-use types, general level of use for building coverage;
 - Facilities and infrastructure for public and private provision of goods and services;
 - Spaces for supra-local transport and main local communications routes;
 - Spaces for public utility use;
 - Green and open spaces, sports and recreation;
 - Water bodies, docks and areas of water designated for supply and distribution purposes;
 - Agricultural land and woodland;
 - Spaces for measures for the protection, preservation and development of the natural environment and the landscape;
- Several markings, e.g. spaces, designated for building where the ground has been severely contaminated by hazardous materials (Sect. 5 para. 3 No. 3),
- Designations or notes of plans or other arrangements for use which have been determined under other statutory provision, e.g. nature reserves, appointed flooded area or assembles of physical structures protected as monuments under federal state law (Sect. 5 para. 4–4a).

The representations of a preparatory land-use plan may be given in graphic or textual form. The PlanzV lays down the symbols for graphic representations. The municipalities are obliged to employ the symbols as set out in this Ordinance.

The BauNVO details the potential content of preparatory and binding land-use plans. The preparatory land-use plan may distinguish the general types of land-use or the specific types of land-use, in the binding land-use plan only the specific types of land-use. As a rule, the preparatory land-use plan represents general types of land-use while the binding land-use plan designates specific types of land-use; see also . Sect. 2.2.2.

As a rule, the preparatory land-use plan is a planning instrument for the entire territory of the municipality, but the local planning authorities are able to exclude spaces and representations of other kinds in certain cases. In very small municipalities preparatory land-use plans usually do not exist (Sect. 8 para. 2).

A partial preparatory land-use plan (Sect. 5 para. 2a) allows the municipality to concentrate privileged development projects regulated in Sect. 35 para. 1 No. 2–6 in specific locations. The specific locations may be defined as concentration zones by a (partial) preparatory land-use plan. These concentration zones may be also defined by a spatial development plan (Sect. 35 para. 3).

Adjoining municipalities have also the possibility to prepare a joint preparatory land-use plan, “where their urban development is determined largely by common conditions and requirements, or where a joint preparatory land-use plan would facilitate an equitable balance between their various concerns” (Sect. 204 para. 1).

There is also a regional land-use plan. It has the function both of a regional plan and of a joint preparatory land-use plan. The regional land-use plan may be prepared in conurbations or where the spatial structure is characterized by other interdependencies (Sect. 8 para. 4 ROG). This plan must meet the requirements both of the ROG and of the BauGB.

2.2.2 Binding Land-Use Plan

The binding land-use plan is a planning instrument for a part of a municipality territory. It contains the legally-binding arrangements for urban development. It forms the basis for further measures required for the implementation of the BauGB (Sect. 8 para. 1).

The local council adopts the binding land-use plan as a statute [Satzung] (Sect. 10).

The binding land-use plan is subject to abstract judicial review by the Higher Administrative Court in which the validity of the plan is examined independent from a specific case [abstrakte Normenkontrolle] (Sect. 47 VwGO). There is also a particular judicial review by the Administrative Court in which the court rules on the validity of the norm in examining of the case [inzidente Normenkontrolle].

Contents of a binding land-use plan may be:

- Exclusive catalogue of possible representations (Sect. 9 para. 1–4), e.g.
 - Type and degree of building and land use;
 - Coverage type, plot area which may or may not be built on and the location of physical structures;

- Special uses for sites arising out of specific urban-development requirements;
- Public thoroughfares for specific purposes spaces for local public infrastructure;
- Spaces for waste disposal and sewage treatment;
- Public and private green spaces;
- The setting of time-limits and conditions for designations on special urban development grounds;
- Regulations based on *Landesrecht* (e.g. local building regulations for design and appearance) may be included in the binding land-use plan as designations (Sect. 9 para. 4);
- Several markings, e.g. spaces where the ground has been severely contaminated by hazardous materials (Sect. 9 para. 5);
- Designations made in accordance with other statutory regulations, and monuments as defined in *Landesrecht* (Sect. 9 para. 6);
- Designations or notes of appointed flooded areas (Sect. 9 para. 6a).

Detailed information on the type and degree of building and land use, coverage type and plot areas are to be found in the BauNVO.

Types of building and land use are regulated in Sects. 1–15 BauNVO. The following general and specific types of land-use are possible:

- General residential building areas: small residential estate areas, residential-only areas, general residential areas, special residential areas;
- General mixed building areas: village areas, mixed use areas, core areas;
- General commercial building areas: commercial and industrial areas;
- Special building areas: special areas. Special areas (SO) (Sects. 10 and 11).

The degree of the building coverage (Sects. 16–21a BauNVO) may be prescribed within a legally binding land-use plan:

- Site occupancy index [Grundflächenzahl] or the size of the area to be covered by physical structures [Größe der Grundfläche];
- Floor-space index [Geschossflächenzahl] or the floor-space [Größe der Geschossfläche], the cubic index [Baumassenzahl] or cubic capacity permitted for the physical structures [Baumasse];
- Number of storeys proper;
- Height of the physical structures.

In determining the permitted level of building coverage the municipalities may only exceed the upper limits under certain conditions (Sect. 17 BauNVO).

In the binding land-use plan the coverage type may be prescribed as open, closed or deviating (Sect. 22 BauNVO).

In the binding land-use plan the plot area to be built on may be determined by fixing building limiting lines, required set-back lines or coverage depths (Sect. 23 BauNVO). There are exceptions for secondary structures and physical structures, where these are or may be permitted in distance spaces under federal state law.

The binding regulations may be determined in graphic or textual form. The Plan Notation Ordinance lays down the symbols for graphic designations. The municipalities are obliged to employ these symbols. The binding land-use plan shall be accompanied by an explanatory statement, setting out the aims, purposes and most significant aspects of the plan.

There are three types of binding land-use plans (see Sect. 2.3.1).

The distinction of these plans is important for the permissibility of development projects within the area covered by a legally binding land-use plan. More information is to be found in Sect. 2.3.1.

2.2.3 Informal Plans

In addition to the preparatory land-use plan and the binding land-use plan regulated in the Federal Building Code several other types of plans are to be found in German urban development practice, e.g. urban development concepts [Stadtentwicklungskonzepte], sectoral development concepts [sektorale Entwicklungskonzepte], urban development framework plans [städtebaulicher Rahmenplan], urban development designs [städtebauliche Entwürfe]. These plans are the basics for the preparation of future plans or for the concretion of former plans. Plans of these types are called “informal plans”. There is no regulated a procedure for the preparation of informal plans.

Informal plans are internally binding for local authorities, but not legally binding externally. Informal plans may not establish the right to the development of land. In the preparation of land-use plans, attention is to be paid in particular to informal plans adopted by the municipality (Sect. 1 para. 6 No. 11).

2.2.4 Procedure of Urban Land-Use Planning

The BauGB regulates the procedures of the preparatory land-use plan and the binding land-use plan in Sect. 3 ff. The provisions of the BauGB on the adoption of land-use plans are also applicable in respect of amendments, supplements and cancellation (Sect. 1 para. 8). There are the standard procedure, the simplified procedure and the accelerated procedure. The procedure of urban land-use planning is required for the preparation of the preparatory land-use plan and the binding land-use plans. It requires the same necessary stages of the standard procedure for the preparatory- and binding land-use plan. Only after resolution on adopting the plans deviations exist between both plans. The following scheme shows the standard procedure of urban land-use planning (standard procedure) (Table 1).

Throughout the standard procedure, an environmental assessment is carried out. As part of the environmental assessment the impact mitigation regulation [Eingriffsregelung] and the fauna-flora-habitat impact assessment [FFH-

Table 1 Standard procedure of urban land-use planning

Preliminary stage
 Resolution on the preparation of a preparatory or binding land-use plan
 Public notice of the resolution on the preparation
 Preparation of the preliminary draft

First phase of participation – Early public participation and preliminary coordination with authorities and other public agencies – simultaneously or successively
 Preparation of the draft and of the explanatory statement including the environmental report
 Resolution on the public display
 Public notice of location and duration of public display (at least 1 week before)

Second phase of participation – Public Display (1 month) and participation of authorities and other public agencies (1 month) – simultaneously or successively – in certain cases: preclusion
 If necessary: cross-border participation
 Modification of the draft – once again public participation and participation of authorities and public agencies (in certain cases: restriction to parts of the draft and period of participation)
 Resolution by municipality on adopting the preparatory or binding land-use plan
 Preparatory land-use plan: approval of the higher administrative authority
 Public notice of the approval
 Effective date
 Preparation of the summary statement
 Binding land-use plans: (only certain binding land-use plans: approval of the higher administrative authority)
 Public notice
 Plan comes into force as local statute
 Preparation of the summary statement

Verträglichkeitsprüfung] under Sects. 34 and 35 BNatSchG (Federal Nature Conservation Act – FNCA) are to be processed.

The preconditions for the simplified procedure are regulated in Sect. 13 para. 1:

- Amendment or supplement to an urban land-use plan does not affect its basic intention *or*
- Preparation of a binding land-use plan in built-up areas does not substantially modify the standard of permissibility *or*
- Preparation of a binding land-use plan with designations in accordance with Sect. 9 para. 2a *and*
- No obligation for carrying out an environmental impact assessment *and*
- No conflict with protective goods regulated in Sect. 1 para. 6 No. 7b.

In the simplified procedure it is permissible:

- To dispense with the requirement to provide information and to enter into discussion pursuant to Sect. 3 para. 1 s. 1
- To provide public concerned with the opportunity to comment within an appropriate period, or alternatively to make use of the public display procedure as provided under Sect. 3 para. 2,

- To provide affected authorities and other public agencies with the opportunity to comment within an appropriate period, or alternatively to make use of the participation procedure as provided under Sect. 4 (Sect. 13 para. 2).

No application in the simplified procedure:

- Environmental assessment,
- Environmental report,
- Details of types of environmental information,
- Summary statement,
- Monitoring (Sect. 13 para. 3).

The preconditions for the accelerated procedure are regulated in Sect. 13a para. 1. This procedure is valid only for binding land-use plans with the following objectives:

- Rehabilitation of areas,
- Redensification *or*
- Other measures of internal development *and*
- 20,000 m area to less than 70,000 m *and* no requirement to carry out an environmental assessment in the result of preliminary testing of the individual case *and*
- No obligation for carrying out an environmental impact assessment *and*
- No conflict with protective goods regulated in Sect. 1 para. 6 No. 7b.

In the accelerated procedure:

- Regulations of the simplified procedure shall apply *mutatis mutandis*;
- The preparatory land-use plan may be corrected without a special procedure;
- Preservation, safeguarding and creating jobs, supply with housing and infrastructure are adequately taken into account;
- No impact mitigation regulation in case of binding land-use plan with less than 20,000 m² area.

As the preparatory land-use plan is at higher level of planning than the binding land-use plan, it is usually first prepared, amended or supplemented. But on behalf of the effective use of planning resources “preparation, amending, supplementation and revocation of a binding land-use plan may take place simultaneously with the ... preparatory land-use plan” (Sect. 8 para. 3 s. 1). This is called parallel procedure.

The municipality may also prepare an advanced binding land-use plan [vorzeitiger Bebauungsplan], if there is no preparatory land-use plan so far. Precondition is that “prior to the completion of the preparatory land-use plan where urgent grounds for this exist, or where the binding land-use plan will not be in conflict with proposed urban development within the territory of the municipality” (Sect. 8 para. 4).

2.2.5 Reallocation of Property Rights

Land reallocation comprises the reallocation of property rights (Sects. 45–79) and the simplified reallocation of property rights (Sects. 80–84). In accordance with Sect. 45 para. 1 the procedure of reallocation of property rights is intended “for the purpose of reorganizing or opening up specific new areas for development . . . to create plots suitable in terms of location, shape and size for built development or for other uses”. The procedure is applied within the area covered by a binding land-use (Sect. 30) and also within built-up areas (Sect. 34) where the character of the immediate environs provides satisfactory criteria for reorganization (Sect. 45). This procedure facilitates to reorganize or to open up specific new areas for development and to provide land for public infrastructure e.g. local thoroughfares, spaces for parking, public green spaces, children’s playgrounds.

The municipality also may carry out a simplified reallocation of property rights under the following preconditions:

- The municipality shall occur the reallocation where and as soon as this is required to implement the binding land-use plan or the ordered urban development in built-up areas;
- Immediate adjoining or close proximity plots or parts of plots will be exchanged among themselves or
- Plots, in particular splinter of plots or parts of plots will be allocated to one party;
- These plots or parts of plots may not be capable of independent development.
- The allocation to one party is in the public interest.

2.2.6 Provision of Local Public Infrastructure

Regulations of first-time provision of local public infrastructure are found in Sects. 123–135. Here, local public infrastructure are public roads, paths and public spaces scheduled for development, public thoroughfares, collecting roads, parks and green spaces, physical structure to provide protection in specific land-use area against harmful environmental influences.

If the provision of local public infrastructure is regulated by the *Länder* these regulations apply.

Any construction is only permitted where the provision of local infrastructure has been secured. The provision of local public infrastructure is inseparably connected to land-use planning. The municipality is responsible “for the improvement of land by the provision of local infrastructure and road access rests . . . unless this duty is incumbent on some other body under other statutory provisions or other obligations under public law” (Sect. 123 para. 1).

In accordance with Sect. 123 para. 3, “no legal claim exists to provision of local public infrastructure.” But in some cases the municipality may be bound to establish the provision of local public infrastructure.

The municipalities shall collect charges for the recoupment of otherwise unrecoverable public expenditure on local public infrastructure (Sect. 127 para. 1). The legal bases for the collection of charges are to be found in Sects. 127–135. In accordance with Sect. 132, “the municipalities shall regulate by statute

1. The type and extent of local public infrastructure within the meaning of Sect. 129,
2. The manner of assessment and allocation or recoupment charges and the level of the standard rate,
3. Cost-splitting (Sect. 127 para. 3), and
4. The characteristics for the final construction of a public infrastructure facility.”

In accordance with Sect. 133 para. 1, “the duty to make recoupment charges applies in respect of land designated for use for building or for commercial purposes from the point when this land is permissible for it to be either built on or put to commercial use.” The municipality covers at least 10% of the legitimate recoupment charges (Sect. 129 para. 1 s. 3). All other costs are covered by the property owners. Special regulations apply for urban redevelopment measures and urban development measures.

In accordance with Sect. 124, the municipality may stipulate the provision of local infrastructure to a third party by contract [Erschließungsvertrag]. The subject of the land improvement contract includes the infrastructure installations within a specified area. The third party may commit himself by contract to bear the costs of providing infrastructure either wholly or in part. These regulations shall apply irrespective of whether these infrastructure installations qualify under federal or state law for the collection of recoupment charges.

The construction of child day-care facilities, schools and gyms is not a subject of provision of local public infrastructure. In these cases the municipality may enter into urban development contracts [städtebaulicher Vertrag]. The non-exclusive subjects of an urban development contract are regulated in Sect. 11 para. 1.

The agreed obligations of both the land improvement contract and the urban development contract must be commensurate with the overall circumstances. There are also regulations for improvement, extension or renewal of public roads, paths and public spaces, but they are regulated by the respective *Land* and are only valid in this *Land*.

2.3 Permissibility of Development Projects

The regulations for the permissibility of development projects are essential for planning and building. The BauGB distinguishes between three types of zones, in which the permissibility is differently regulated:

- The permissibility of development projects within the area covered by a legally binding land-use plan;

- The permissibility of development projects within built-up areas;
- Building in the undeveloped outskirts area.

2.3.1 The Permissibility of Development Projects within the Area Covered by a Legally Binding Land-Use Plan

Section 30 regulates the permissibility of development projects within the area covered by a legally binding land-use plan. This regulation includes three different types of legally binding land-use plans:

- Qualified building land-use plan [qualifizierter Bebauungsplan],
- Non-qualified binding land-use plan [einfacher Bebauungsplan] and
- Project-based binding land-use plan [vorhabenbezogener Bebauungsplan].

A development project is permissible where it does not contradict the designations of a qualified binding land-use plan and the provision of local public infrastructure has been secured. The qualified binding land-use plan must include as minimum designations:

- Types of building and land use;
- Degree of building coverage;
- Plot area to be built on;
- Local thoroughfares.

Within the area covered by a non-qualified binding land-use plan, the permissibility is determined in other respects by Sect. 34 (Permissibility of development projects within built-up areas) or Sect. 35 (Building in the undeveloped outskirts area).

Within the area covered by a project-based binding land-use plan a development project is permissible when it does not contradict the designations of the project-based binding land-use plan and the provision of local public infrastructure has been secured. The project-based binding land-use plan is one of three parts of the project and infrastructure plan [Vorhaben- und Erschließungsplan] (Sect. 12). The project and infrastructure plan is a special instrument of public private partnership in the field of urban development. The project and development plan is prepared by the project developer. It includes a description of the planned project and the associated infrastructure.

Under certain conditions a building permission may already be issued during the preparation of the plan. The constellations and conditions are regulated in Sect. 33.

Where a development project contradicts the designations of the binding land-use plan or a land-use plan during preparation there is the possibility to apply exceptions (Sect. 31 para. 1) or dispensations (Sect. 31 para 2). No person has the right to require an exception or a dispensation.

2.3.2 The Permissibility of Development Projects within Built-up Areas

Section 34 regulates the permissibility of development projects within the inner zone, also referred to as built-up area.

This regulation is used for areas without a binding land-use plan, which are already substantially built-up, or for areas with a non-qualified binding land-use plan in accordance with Sect. 30 para. 3 (see also Sect. 2.3.1). For an area or a plot to be counted as part of the inner zone or built-up area it must display a pattern of connected development [Bebauungszusammenhang] and be part of a community [Ortsteil]. “Within built-up areas a development project is only permissible where, in terms of the type and degree of building coverage, the coverage type and the plot area to be built on, the building proposal blends with the characteristic features of its immediate environment” [Einfügungsklausel] and the provision of local public infrastructure has been secured (Sect. 34 para. 1 s. 1). In addition, the requirements of healthy living and working conditions must be satisfied and the overall appearance of the locality may not be impaired (Sect. 34 para. 1 s. 2). There is a special regulation for the type of building coverage. In accordance with Sect. 34 para. 2, where the characteristic features of the immediate environment “correspond to one of the specific land-use areas contained in the” BauNVO “the permissibility of the development project is determined solely with reference to type and to whether it would in general be permissible under the ordinance within the specific land-use area; in respect of building developments permitted under the ordinance as exceptional cases Sect. 31 para. 1 applies, in other cases Sect. 31 para. 2 applies *mutatis mutandis*” (Sect. 34 para. 2).

Development projects must not have harmful effects on central supply areas within the municipality or within other municipalities (Sect. 34 para. 3).

Deviations to the requirements of fitting in of its immediate environs (Sect. 34 para. 3a) may be permitted as exceptional cases, where

1. Extension, alteration, changes of use or renewal of a building with craft, commercial or residential use which were erected with permission,
2. This is justifiable in terms of urban development and
3. Also under due account of the interests of neighbours is compatible.

This regulation shall not apply for retail operations which may affect consumer-oriented supply for the population or may have harmful effects on central supply area in the municipality or in other municipalities.

The municipality has the option to prepare inner zone statutes [Innenbereichssatzungen]. The municipality may designate the boundaries of built-up areas [Abgrenzungssatzung], may designate built-up spaces in the undeveloped outskirts areas [Außenbereich] as built-up areas [Entwicklungssatzung], may incorporate individual plots located in the undeveloped outskirts area in the built-up area [Ergänzungssatzung]. The objective of these statutes is the use of the permissibility of development projects within built-up areas. The types of statutes may be

conjoined. During the preparation of a statute the simplified procedure for the land-use planning applies *mutatis mutandis*.

2.3.3 Building in the Undeveloped Outskirts Area

As a principle, it is not permitted to build in outskirts areas. Exceptions are regulated in Sect. 35.

Section 35 para. 1 regulates privileged development projects. Such a project is only permissible where there are no conflicting public interests (the non-exclusive catalogue of public interests is regulated in Sect. 35 para. 3), ample public infrastructure provision can be secured and where it serves one of seven development projects:

- Agricultural or forestry activities;
- Horticultural production;
- Public supply of electricity, gas, telecommunications, heat and water, sewage management or a commercial operation which is bound to its existing location;
- Projects which are bound to the outskirts area because of the specific requirements, its harmful effect on its surroundings or because of its special function;
- Research, development and use of wind – and water energy;
- Energy uses of biomass plants;
- Research, development and use of nuclear energy for peaceful purposes or treatment of radioactive waste.

Section 35 para. 4 regulates beneficiary development projects. These projects are linked to existing developments. In case of beneficiary development projects “it cannot be objected that they are in conflict with the representations of a preparatory land-use plan or a landscape plan, detract from the natural character of the landscape or provide reason to suppose that they may lead to the creation, consolidation or expansion of a splinter settlement”, so far it is outskirts compatible. These are the following projects:

- Change to a previous use of a building within the meaning of Sect. 35 para. 1 No. 1;
- Rebuilding of a permitted residential building with deficits or defects, of the same type and in the same position;
- Rebuilding of a permitted building, where this building has been destroyed by fire, natural phenomena or any other extraordinary circumstances;
- Alteration or change of use of building which contribute significantly to the appearance of the cultural landscape and warrant preservation;
- Extension of a permitted residential building;
- Physical extension of a permitted building with commercial use.

Other development projects may be permitted as exceptional cases provided that this does not conflict with public interests (Sect. 35 para. 2).

Development projects permitted under para. 1–4 “are to be realized in a manner which makes economical use of land, limiting the amount of land sealed by development to a minimum, and shows due consideration for unallocated in the outskirts area”(Sect. 35 para. 5). For development projects in accordance with Sect. 35 para. 1 No. 2–6 there are additional conditions of authorization.

The permissibility of development projects for the purpose of creating housing or smaller craft and commercial uses in the territorial validity of this statute complies with Sect. 35. The following public interests (conflict with the representations of the preparatory land-use plan on spaces for agricultural use or for woodland and creation, consolidation or expansion of a splinter settlement) have not relevance. During the preparation of a statute the simplified procedure for the land-use plan applies *mutatis mutandis*.

2.4 Instruments of the Special Urban Development Legislation

The special urban development legislation provides instruments for special situations in urban development. The measures are in particular Urban Redevelopment Measures [städtebauliche Sanierungsmaßnahmen], Development Measures [städtebauliche Entwicklungsmaßnahmen], Urban Redevelopment [Stadtumbau] and Socially Integrative City [Soziale Stadt].

Urban redevelopment measures are “those measures by means of which an area is substantially improved or transformed with the purpose of alleviating urban deficits” (Sect. 136 para. 2). This may be structural or functional deficits, often a combination of both. Urban redevelopment measures are undertaken in the interests of public welfare and where the public interest requires consistent preparation and speedy execution. This instrument and its procedure is regulated in Sect. 136 ff. Important stages of the procedure are: preparatory investigations, social planning, formally designation of the redevelopment area as a statute (redevelopment statute) by the municipality, implementation of regulatory and constructional measures and completion of redevelopment. The period for redevelopment must be determined by a resolution. It should take no longer than 15 years. The municipality must determine the type of redevelopment procedure (simplified or standard procedure). Within a formally designated redevelopment area certain development projects and legal procedures require a written permission. Subsidies and grants [urban development grants] are often available to cover the costs of preparation and implementation of the urban redevelopment measure. In the standard procedure, owners of property within a formally designated redevelopment area are required to contribute to financing through a financial settlement [Ausgleichsbetrag].

The purpose of urban development measures (Sect. 165 ff.) is “to subject local districts or other parts of the municipal territory to development for the first time in a manner which is in keeping with their particular significance for urban development within the municipality, or which is in accordance with the desired development of the federal state district or the region, or to make such areas available for

new development within the framework of urban reorganization” (Sect. 165 para. 2). They are undertaken where the public interest requires consistent preparation and speedy execution. The municipality may formally designate an area in which an urban development measure is to be implemented as an urban development zone by a statute. The most precondition: the urban development measure must be required “in the public interest, in particular in order to meet an increased demand for housing and places of employment, for the construction of public facilities or consequential developments, or in order to return derelict land to productive use” (Sect. 165 para. 3 No. 2). The municipality is required to prepare without undue delay binding land-use plans and to implement the proposed development in the urban development zone. With only few exceptions the municipality shall acquire the properties located in the development zone (Sect. 166 para. 3). It is obliged to dispose of those properties after implementation of the measures. Where the municipality does not acquire a property, the owner is obliged to make a financial settlement to the municipality.

Urban redevelopment is the adaptation of parts of the municipality or of the entire community to urban shrinkages due to structural changes and population decrease. The programme “Urban Redevelopment East” [Stadtumbau Ost] and the programme “Urban Redevelopment West” [Stadtumbau West] were launched by the federal and state governments in 2002 and 2004, respectively. The goals of urban redevelopment lie in particular in the adaptation of urban structures to the development of the population and economy, the strengthening of urban areas and the demolition of permanent unused buildings. Urban Redevelopment is regulated in Sect. 171a–f. The municipalities may designate areas for urban redevelopment by a simple resolution. Basis for this resolution is an urban development concept prepared by the municipality assisted by affected persons, authorities and other public agencies. This concept must constitute the aims and measures for the development of this area.

The programme “Socially Integrative City” was launched by the federal and state governments in 1999 to remove social evils in deprived urban districts or in other areas of the municipal territory with special development needs. The goal is the stabilization and upgrading of the living conditions in districts with social, economic or structural deprivation, the bundling of human and material resources, the activation and participation of the local residents and the establishment of new management systems and organizational structures. With this programme in particular local initiatives in the fields of employment, cultural and social work are founded. Here the neighbourhood management has achieved a special importance. The “Socially Integrative City” is regulated in Sect. 171e. The municipalities may designate areas for “Socially Integrative City” by a simple resolution. Basis for this resolution is an urban development concept prepared by the municipality assisted by affected persons, public authorities and other public agencies. This concept must constitute the goals and measures for the development of this area.

3 Building Regulations Law

The *Länder* shall have the right to legislate the building regulations law (Article 70 GG). Therefore all *Länder* regulate their own building regulations law. In the field of building regulations law the respective building regulations [Landesbauordnung] is the most important law supplemented by various regulations such as ordinances and technical rules. The building regulations of the *Länder* are based on the Model Building Regulations [Musterbauordnung]. They are similar in content and structure, although some regulations differ considerably (e.g. building permission procedures). Therefore it is important to use the building regulations of the respective Land, where the property is located. Here, the building regulations for Berlin (BauO Berlin –BauO Bln) are used.

The building regulations law contains procedural and substantive provisions.

3.1 Procedural Building Regulations Law

The procedural provisions regulate in particular the organization and competencies of the building control authorities [Bauaufsichtsbehörden], the building permission procedure and rights and duties of involved parties (e.g. clients, architects, building companies, engineers).

The enforcement of building regulations law as other regulations under public law governing the building activities falls within the competence of the lower building control authority unless otherwise provided. To carry out these duties the building control authorities have several preventive like permission procedure and repressive instruments such as monitoring, suspension of construction or interdiction of any use.

Unless otherwise provided Construction, modification and change of use of structures require the permission. Whether the following provisions apply must be ascertained for each project:

- Priority of other permission proceedings (Sect. 61 BauO Bln):

Listed development projects are required to other permission proceedings e.g. structures are required to permission regarding to commercial law except permissions for restaurants.

- Building projects not subject to permission procedure, demolition of structures (Sect. 62 BauO Bln):

Listed development projects with little impact and limited difficulty are not subject to permission procedure e.g. single-storey building with a gross plot area up to 10 m, except in outskirts areas. All public regulations must be taken.

- Exemption from permission (Sect. 63 BauO Bln):

This procedure covers projects which provide for building activities for buildings which are no physical structures and areas of special types or with special uses [Sonderbauten] under the follow preconditions:

- Development project lays in an area covered by a binding land-use plan as defined by Sect. 30 para. 1 or Sects 12, 30 para. 2 BauGB;
- It does not conflict with the designations of the binding land-use plan or exceptions and deviations in accordance with 31 BauGB are approved or no conflict with planning law has been found in a preliminary decision regarding urban development law;
- Provision of local public infrastructure has been secured;
- The local authority does not want to carry out a simplified building permission procedure or to pass a temporary interdiction according to Sect. 15 para. 1 s. 2 BauGB.

The client must notify this development project with the required documentation to the building control authority. One month after arrival to the building control authority or in cases of prior information the client may start with this project. He may realize this project within 3 years. Otherwise a new procedure is required.

- Authorization of moveable structures (Sect. 75 BauO Bln):

The most moveable structures require a model approval prior their first assembly for use.

- Building authority approval (Sect. 76 BauO Bln):

This procedure is used in cases of public buildings under responsibility of a federal or federal state building agency.

If none of these regulations is relevant, building permission proceedings are required. Depending on the preconditions, the BauO Bln differentiates between simplified building permission procedure (Sect. 64 BauO Bln), the building permission procedure for advertising structures (Sect. 64a BauO Bln) and building permission procedure (Sect. 65 BauO Bln). The building application is to be submitted in writing to the building control authority. It is to be accompanied by the complete documentation required for an appraisal of the building proposal (required documentation)³ and for the building application to be processed. Consent may be given for individual documents to be submitted at a later date. The required building technology certificates and their control are regulated in Sect. 67 BauO Bln. A survey of dealing with building application is to be found in Sect. 70 BauO Bln. The building control authority decides on the building application within a

³ An exclusive list of required documentation is to be found in Ordinance on required documentation, building technology certificates and the procedure in detail [Bauverfahrensverordnung (BauVerfVO)].

month. The beginning of a period of time is where the complete documentation is present by the building control authority. Only for the simplified building procedure a fiction of permission under certain preconditions [Genehmigungsfiktion] is regulated.

- **Simplified building permission procedure:**
This procedure is used for construction, modification and change of use of structures except physical structures and areas of special types or with special uses [Sonderbauten].
The building control authority investigates:
 - The accord with regulations on permissibility of development projects in accordance with Sects. 29–38 BauGB;
 - Proposed and required deviations according to Sect. 68 para. 1 and 2 sentence 2 BauO Bln as well as the accord with the requirements of Sects. 4–6 BauGB and
 - Other public law requirements so far as due to the building permission a decision according to other public law regulations is omitted or replaced.
- **Building permission procedure:**
This procedure is used for physical structures and areas of special types or with special uses [Sonderbauten]. The building control authority investigates:
 - The accord with regulations on permissibility of development projects in accordance with Sects. 29–38 BauGB;
 - The requirements regarding to or on the basis of this Act and
 - Other public law requirements so far as due to the building permission a decision according to other public law regulations is omitted or replaced.

The building permission is to be granted unless the building proposal is in contravention under public law regulations which are controlled in the building permission procedure. The building permission must be in written form. The building permission expires within a period of 3 years from permission being granted, or if construction work is interrupted for a period of 1 year. On written application extensions respectively of up to 1 year may be permitted. The preliminary decision and the planning law preliminary decision are valid for 3 years. Extensions are also possible respectively of up to 1 year.

3.2 Substantive Building Regulations Law

Section 3 BauO Bln contains the general requirements regarding structures and buildings. Structures “shall be arranged, constructed, altered and maintained in such a way as to ensure that no risk is posed to public safety and order, and in particular to life, health and natural resources” (Sect. 3 para. 1 BauO Bln).

The removal of structures and change to their use are governed by paras. 1–3 as appropriate.

In addition to the building regulations and ordinances technical rules are very important for the construction of physical structures and buildings. These are in particular the technical rules introduced by the supreme building control authority by public notice as Technical Building Regulations [Technische Baubestimmungen] (Sect. 3 para. 3 BauO Bln). Deviations from the technical building regulations may be made in cases where the general requirements contained in para. 1 may be satisfied to the same extent by means of some other solution; nothing here shall affect Sect. 17 para. 3 and Sect. 21 (Sect. 3 para. 3 BauO Bln).

The BauO Bln contains the following substantive requirements concerning:

- General regulations (terms such as physical structures, building, building classes, general requirements);
- Building land and buildings (e.g. construction of buildings, pedestrian and vehicle access to plots, distance spaces);
- Physical structures (e.g. design and appearance), general requirements regarding building construction, building products and building techniques, walls, ceilings, roofs, emergency exits, openings, guarding and other safety measures, building services, usage requirements).

The building control authority is empowered to permit deviations from the requirements within this Act or based upon this Act (Sect. 68 BauO Bln).

References

- Lau, P., Schäfer, R. (2010). Bauplanungsrecht. in: Henckel, D. et al. [ed.]. Planen - Bauen - Umwelt, VS Verlag für Sozialwissenschaften, Wiesbaden, p. 64–66.
- Lau, P., Schäfer, R. (2010). Bauordnungsrecht. in: Henckel, D. et al. [ed.]. Planen - Bauen - Umwelt, VS Verlag für Sozialwissenschaften, Wiesbaden, p. 66–71.

Part III
Tax and Subsidy Framework

Tax Framework for Investing by Asset Classes

Joachim Krämer

Abstract There is no standard structure for foreign real estate investments in Germany. The different investment vehicles may have various advantages and disadvantages for different investors. Obviously, tax consequences must also be taken into consideration when an investor considers the investment vehicle that best fits his individual circumstances and special needs.

Keywords Capital gains taxation • taxation of dividends • trade tax

1 Introduction

The tax regimes governing the different investment vehicles that can be used for real estate investments in Germany vary quite significantly (see Schäfer & Conzen 2010). In addition, there are some German particularities with respect to the structure and the taxation of some investment vehicles (e.g., closed-end funds).

Therefore, investors must carefully choose the investment vehicle they want to use for real estate investments in Germany. To get a fair view of the overall tax burden in connection with a German real estate investment, one must consider both, the taxation at the level of the investment vehicle and at the investor's level.

With respect to real estate investments in Germany, two tax particularities must always be taken into consideration: German trade tax, on the one hand, and German real estate transfer tax, on the other, in addition to the internationally known income and withholding tax issues (see also Farle 2011, in this book).

2 German Stock Corporation

In general, taxation of investments in German real estate through a German stock corporation is not significantly different at the entity level or the shareholder level from taxation of any other German stock corporation.

2.1 Entity Level Taxation

The profits of German corporations are generally subject to corporate income tax. The corporate income tax rate is uniformly 15% for profits distributed and retained earnings plus the solidarity surcharge in the amount of 5.5% on the corporate income tax liability (i.e., a total of 15.825%).

In addition, German corporations are generally subject to trade tax (*Gewerbesteuer*) on the trade income generated by a permanent establishment in Germany. However, a corporation that exclusively holds and manages real estate can be effectively exempt from German trade tax (cf. under 3.2). Thus, it is possible that a German stock corporation that exclusively holds and manages (German) real estate is in effect only subject to German corporate income tax. This is to keep real estate holding companies from being subject to double taxation with trade tax and land tax.

When the taxable income of a German stock corporation is determined, the German interest barrier rules (which limit the tax deductibility of interest expenses) and the German special tax loss carry forward restriction apply.

2.2 Shareholder Level Taxation

2.2.1 Taxation of Dividends

When distributing dividends, a German stock corporation must generally withhold taxes for the account of the shareholders in the amount of 25% plus the solidarity surcharge of 5.5% thereon (i.e., a total of 26.375%) and remit the withheld amount to the competent tax authority. The basis for the withholding tax is the dividend resolved by the general shareholders' meeting.

The withholding tax must generally be deducted regardless of whether and to what extent the dividend is exempt from taxation at the shareholder level and whether the shareholder is a person residing in Germany or in a foreign country.

When dividends are distributed to a parent company within the meaning of the EU Parent Subsidiary Directive domiciled in another member state of the European Union, an exemption from withholding tax will be granted upon request if further prerequisites are satisfied (*Freistellung im Steuerabzugsverfahren*). The key prerequisite for the application of the EU Parent Subsidiary Directive is that the shareholder must have held a direct participation in the share capital of the distributing stock corporation of at least 10% for at least 1 year.

The withholding tax on distributions to other foreign resident shareholders is reduced in accordance with a double taxation treaty, in case Germany has concluded such a double taxation treaty with the shareholder's country of residence. Under most German double taxation treaties, the German withholding tax on dividends is limited to 15% for portfolio investments and 5% for qualified

investments (i.e., 10% or 15% in the share capital or more). The reduction of the withholding tax is generally granted in such a manner that the German tax authorities refund the difference between the withheld total amount, including the solidarity surcharge, and the tax liability determined on the basis of the tax rate in the double taxation treaty, upon request.

When dividends are received by corporations whose statutory seat and effective place of management are not located in Germany and which are therefore not tax resident in Germany, generally 2/5 of the withholding tax deducted and remitted can be refunded without the need to fulfill all prerequisites required for such refund under the EU Parent Subsidiary Directive or under a double taxation treaty.

The exemption from withholding tax in accordance with the EU Parent Subsidiary Directive and the aforementioned options for a refund of the withholding tax depend on whether certain additional prerequisites (in particular the “substance requirements”) are met.

Shareholders who are not tax resident in Germany and who hold their shares through a permanent establishment or a fixed place of business in Germany, or as business assets for which a permanent representative has been appointed in Germany, are subject to German resident taxation in Germany in respect of that dividend income.

In all other cases, the German tax liability is satisfied for the dividends through the deduction of withholding tax by the distributing stock corporation.

2.2.2 Taxation of Capital Gains

Capital gains obtained by non-German tax resident shareholders are subject to German taxation only if the selling shareholder holds a qualified participation in the stock corporation or holds the shares through a permanent German establishment or fixed place of business or as business assets for which a permanent representative is appointed in Germany.

In the case of a qualified participation, i.e., a participation of at least 1% in the share capital of the stock corporation, 5% of the gains from the sale of shares are generally subject to corporate income tax, plus the solidarity surcharge if the shareholder is a corporation. If the shareholder is an individual, only 60% of the gains from the sale of such shares are subject to the individual, progressive personal income tax plus the solidarity surcharge (this is known as the “partial income taxation” method). The tax is levied by way of tax assessment.

Regardless of the foregoing, under most German double taxation treaties, capital gains from the disposal of shares in a German stock corporation are exempt from German capital gains taxation. A few German double taxation treaties provide special treatments for German stock corporations which derive more than 50% of their value directly or indirectly from immovable property situated in Germany. Capital gains from the disposal of shares in such companies are subject to German capital gains taxation even if the shareholder is a tax resident of the other contracting state.

In general, the transfer of shares in a German stock corporation that owns German real estate only triggers German real estate transfer tax if 95% or more of the company's share capital are unified in the hands of one single shareholder.

3 Real Estate Investment Trusts (REITs)

3.1 General Structure

As in almost every other REIT regime in the world, the main tax feature of the German REIT is that its profits are entirely tax exempt at the company level, but are fully taxable at the level of the shareholders (see Just & Krämer 2006). Adequate taxation of foreign shareholders in Germany was therefore one of the most important issues to be resolved before a REIT regime could be established. That has been achieved by restricting the maximum direct shareholding to less than 10%. Under most German double taxation treaties, the dividend participation exemption is only available for shareholders who directly hold at least 10% of the total share capital. Thus, REIT shareholders cannot benefit from such dividend participation exemption.

3.2 Entity Level Taxation

As a regular German stock corporation, a German REIT would be subject to both corporate income tax and trade tax. However, as mentioned above, a REIT is completely tax-exempt if it meets the criteria set out by Clemens Just (2011, in this book). Once the REIT has satisfied those criteria and is exempt from taxation, failure to comply with the criteria on an ongoing basis is penalized in various ways. A REIT's tax exempt status will be revoked retroactively as of the beginning of the calendar year in which the REIT is delisted.

A REIT may not sell more than 50% of its average real estate portfolio within any given 5 year period, otherwise it immediately loses its tax-exempt status. To determine whether the REIT meets the 50% test, its real estate and the real estate of its subsidiary real estate partnerships and foreign real estate corporations is evaluated at fair value in accordance with IAS 40.

The tax exemption for a REIT may also end if less than 15% of the REIT's shares are in free float for three consecutive fiscal years, or a single investor holds 10% or more of the REIT corporation's shares for three consecutive fiscal years. However, once the REIT has become aware of its failure to comply with either the free floats or the maximum shareholding requirement, it must ensure that it is in compliance with these requirements by the end of the business year that follows the business year in which it became aware of its noncompliance. The REIT will only lose its tax exemption if it misses this deadline (see also Clemens Just 2011, in this book).

A REIT's equity must amount to at least the equivalent of 45% of its real estate measured at fair value in accordance with IAS 40. If a REIT fails to comply with the limitation on debt financing in three consecutive years, it loses its tax exemption.

To be applicable for the tax exempt status a REIT must meet certain composition of assets, composition of gross revenue and minimum distribution requirements (see Clemens Just 2011, in this book). If a REIT fails to comply with these requirements, the tax authorities may impose penalty payments. For ongoing failures, the REIT's tax exempt status may be revoked.

It is worth noting that the REIT is only exempt from corporate income and trade tax. By contrast, the REIT remains subject to real estate transfer tax, land tax and VAT (see also Farle, 2011, in this book).

3.3 Shareholder-Level Taxation

Since the profits of a German REIT are not taxed at the company level, all of its profits distributions must be taxed at the shareholder level. To ensure adequate taxation, the REIT must distribute at least 90% of its annual distributable profits (the minimum distribution). Since the profits are not taxed at the level of the REIT, the effective taxation of non-resident shareholders becomes even more important.

3.3.1 Profit Distributions

A REIT's profit distributions to non-residents shareholders are subject to German non-resident taxation.

As with resident shareholders, profit distributions to non-resident shareholders are subject to a regular dividend withholding tax at a rate of 25%, plus a 5.5% solidarity surcharge. Dividend withholding tax on profit distributions to non-resident shareholders is a definitive tax. Such shareholders are not subject to tax assessment in Germany.

The withholding tax rate on distributions to shareholders that are not German tax residents may be reduced under an applicable double taxation treaty (normally 15%). In such this case, the reduction of the withholding tax is generally granted in such a manner that the difference between the total amount withheld, including the solidarity surcharge, and the tax liability determined on the basis of the tax rate in the applicable double taxation treaty is refunded by the German tax administration upon request.

Under most German tax treaties, the withholding tax rate is even further reduced if the shareholder in question directly holds 10% or more of the company's share capital (this is known as the "treaty participation" exemption). The statutory rule restricting direct participation in a REIT to less than 10% ensures that REIT profit distributions to non-resident shareholders can never become eligible for such treaty participation exemptions. If a shareholder holds 10% or more of a REIT's share

capital, he may not claim any more rights than a shareholder holding less than 10% (except for voting and profit participation rights). Such a shareholder is thus not eligible for the participation exemption under an otherwise applicable treaty.

However, the rule restricting the maximum shareholding to less than 10% does not prevent investors from indirectly holding 10% or more of the share capital of a REIT, since this rule only applies to direct shareholdings. Therefore, an investor may even hold all the shares of the REIT indirectly, through at least 11 subsidiaries. The treaty participation exemptions remain inapplicable, since they require a direct shareholding of at least 10%.

The EU Parent Subsidiary Directive participation exemption is not applicable to a REIT's profit distribution. That is because REITs are tax-exempt entities to which the directive is not generally applicable.

In the case of non-German tax resident corporate shareholders, 2/5 of the withheld and remitted dividend withholding tax will be refunded by the German tax authorities upon request.

In particular, this 2/5 refund of withholding tax for non-resident corporate shareholders and the refund of withholding tax in accordance with a double taxation treaty depends on whether the German "substance requirements" are fulfilled. Under the German substance requirements a corporation that claims not to be tax resident in Germany must demonstrate that it maintains business premises and personnel and is engaged in business activities in its alleged country of residence.

3.3.2 Capital Gains Taxation

Capital gains realized by a non-German tax resident investor on the disposal of shares in a German REIT are subject to German non-resident taxation only if the shareholder holds at least 1% of the REIT's share capital. It is worth noting that in this case the so-called "partial" or "zero income" taxation method – whereby only 5% or 60% of income is subject to tax – is not applicable to capital gains from REIT-shares.

However, the general liability for German capital gains tax is eliminated under most German text treaties. Only very few German tax treaties have special provisions for real estate companies under which capital gains on the disposal of shares in those companies can be taxed in the company's country of residence rather than the seller's.

4 Closed-End Funds

As a closed-end German real estate fund is essentially a German limited partnership, its taxation follows the same principles as the taxation of German limited partnerships (see Lüdicke & Arndt 2009).

4.1 Fund Level Taxation

With the exception of VAT and German trade tax, which is directly imposed on the fund if it carries on a trade or business, the fund is tax transparent. Thus, the individual investors are the taxable entities rather than the fund itself. Rental income from German real estate and capital gains from the sale of German real estate and any other income received are all exempt from income tax at the level of the fund.

In general, closed-end German real estate funds are structured in a way that they are not subject to German trade tax. This can be achieved by (1) making use of the German special trade tax regime for real estate holding companies, or (2) ensuring that the fund is not deemed to be engaged in a trade or business for German trade tax purposes so that it is in principle not subject to German trade tax, or (3) ensuring that the effective place of management of the fund is not in Germany so that the fund is not a German trade taxable entity. However, a trade tax efficient structure of a German closed-end real estate fund admittedly requires some careful structuring, and alternatives (1) and (2) above put some restrictions on the fund's business activities. Under these restrictions, the fund may not for example engage in real estate trading or project development. In addition the fund may not lease operating facilities or provide any extra services such as facility management, etc.

4.2 Investor Level Taxation

4.2.1 Rental Income and Capital Gains from Disposal of Real Estate

For tax purposes, investors are deemed to receive their income from the fund in proportion to their participation, regardless of its actual distribution policy. The income is subject to German taxation according to the individual circumstances of the investor (i.e., corporate investors are subject to German corporate income tax, whereas individual investors are subject to German personal income tax). Thus, non-German tax resident investors are subject to German non-resident taxation on the income from the fund to the extent it consists of rental income from German real estate. This applies irrespective of whether the fund maintains a permanent establishment in Germany or not. In addition, foreign investors are also generally subject to German non-resident taxation on the income from the fund to the extent it consists of capital gains from the disposal of real estate located in Germany. However, some exceptions may apply for non-corporate investors in a closed-end real estate fund that is not engaged in trade or business if the period between the acquisition and the disposal of the respective real estate exceeds 10 years.

It is worth noting that the fund's income that is subject to German non-resident taxation at the level of the funds foreign investors is determined in accordance with

the general German tax accounting rules. Thus, in particular the “interest barrier” rules apply, limiting the tax deductibility of interest expenses.

Income taxes at the level of the foreign investors are levied by way of tax assessment in Germany. There is no withholding tax on income that non-German tax resident investors derive from closed-end German real estate funds. The taxable income is uniformly and separately determined at the fund level by the German tax authorities and subsequently allocated to the individual investors on a pro rata basis.

4.2.2 Capital Gains from the Disposal of Fund Interests

In general, capital gains realized by a non-German tax resident investor upon the disposal of its interests in a German closed-end real estate fund are subject to German non-resident income taxation at the investor level. Again, some exceptions may apply when non-corporate investors sell interests in German closed-end real estate funds that are not engaged in trade or business. In the case of corporate investors, capital gains from the sale of fund interests may also be subject to German trade tax at the fund level depending on the individual circumstances (in particular whether the fund is a trade taxable entity in Germany). Like German non-resident income tax on the fund income, German non-resident income tax on capital gains from the disposal of fund interests are levied by way of tax assessment in Germany.

It is worth noting that in some particular circumstances the transfer of interests in a German closed-end real estate fund may trigger real estate transfer tax at the fund level. Real estate transfer tax is triggered in particular if more than 95% of the total fund interests are transferred to new investors within any given 5 years period.

5 Open-End Funds

For German tax purposes, a distinction is made between public and special open-end real estate funds. Like a public open-end real estate fund, a special open-end real estate fund has no legal personality and is managed by a German management company. A special open-end real estate fund is not a separate class of funds, but a regime that allows an open-end real estate fund to avoid certain regulatory requirements under the German Investment Act (*Investmentgesetz*). This is because only non-individual investors may invest in a special open-end real estate fund and the number of investors is limited to 100 for tax purposes. In principle, special open-end real estate funds are tailored for a small number of institutional investors who typically have some influence on the investment strategy and the fund’s operations. No sales prospectus and no license are required under German regulatory law for a special open-end real estate fund.

5.1 Fund Level Taxation

Both public and special open-end real estate funds are exempt from German corporate income tax and German trade tax. The fact that the investment management company, which nominally owns the fund's assets, is subject to German income tax in its own capacity does not affect the tax treatment of the fund. Thus, there is no income taxation at the fund level on rental income from real estate in Germany and income from the sale of such real estate by the fund (see Feyerabend 2009).

It is worth noting that the acquisition and sale of real estate is subject to real estate transfer tax, which is owed at the fund level. However, given the legal structure of German open-end real estate funds where in general the investment management company is the legal owner of the properties, no real estate transfer tax is owed if the fund units are sold, redeemed or otherwise transferred.

5.2 Investor Level Taxation

5.2.1 Rental Income and Capital Gains from Disposal of Real Estate

In the case of special open-end real estate funds, rental income of the fund from real estate in Germany and capital gains on the sale of real estate located in Germany within a period of 10 years of the acquisition are subject to tax in Germany at the foreign investor level. This is true irrespective of whether the rental income or the profits from the sale of the real estate are distributed to the investors or are retained at the fund level. Distributed profits and the fund's retained earnings are subject to German withholding tax at a rate of 25% plus the 5.5% solidarity surcharge (i.e., 26.375% in total). However, in the case of special open-end real estate funds, such withholding tax is not a definitive tax, but is credited against the foreign investor's corporate or personal German income tax liability in the subsequent tax assessment in Germany.

Until recently, income from real estate in Germany and income from the sale of such real estate held by a German public open-end fund were not subject to tax in the hands of non-German tax resident investors. This very favorable tax treatment has been changed by the German Annual Tax Act 2010 (*Jahressteuergesetz 2010*) with effect for all business years of public open-end funds starting after December 31, 2010. As in the case of special open-end funds, rental income from real estate in Germany and income from the sale of such real estate held by a German public open-end fund will be subject to tax at the level of non-German tax resident investors, irrespective of whether such income is distributed or retained by the fund. The fund's rental income and any income from the sale of German real estate will be subject to German withholding tax at a rate of 25% plus the 5.5% solidarity surcharge (i.e., 26.375% in total). Unlike in the case of the special open-end real estate funds, the withholding tax for public open-end real estate funds is a definitive

tax for non-German tax resident investors. Thus, foreign investors in public open-end real estate funds will not be subject to tax assessment in Germany.

Only in the case of public open-end real estate funds the withholding tax rate on distributed and retained earnings may be reduced under an applicable double taxation treaty if all further prerequisites are fulfilled (in particular the “substance requirements”).

If a corporate investor whose statutory seat and effective place of management are not located in Germany, and who is therefore not tax resident in Germany invests in a German public open-end real estate fund, generally 2/5 of the withholding tax deducted and remitted can be refunded without having to meet any further prerequisites except for the “substance requirements”. Thus, in this case the effective withholding tax rate is 15% plus the 5.5% solidarity surcharge (i.e., 15.825% in total).

5.2.2 Capital Gains from the Disposal of Fund Interests

As in the case of an investment in German real estate via a foreign corporate entity, or a German corporate entity if the shareholder is eligible for treaty protection, capital gains realized by a non-German tax resident investor upon the disposal of its interests in a special or public open-end German real estate fund are not subject to German taxation. As mentioned above, the transfer of interests in a German public or special open-end real estate fund does not trigger German real estate transfer tax. Thus, the divestment of German public or special open-end fund interests can be realized without triggering German income tax or real estate transfer tax.

6 Summary

The taxation of real estate investments in Germany depends heavily on the investment vehicle chosen by the foreign investor. Thus, it is obvious that choosing the adequate investment vehicle requires thorough advanced planning by the investor. When doing that planning, an investor must take all of its individual circumstances into account, such as investment strategy, risk aversion and so on as the different investment vehicles match different investor backgrounds and strategies. There is not one single-best vehicle for all real estate investors. To the extent the investment vehicle is regulated by German law (e.g., REITs or open-end funds), the regulatory framework must obviously be also taken into account when choosing the investment vehicle.

Last but not least, the selection of an investment vehicle must obviously be made on the basis of up-to-date information since, as always in tax matters, the tax regime for real estate investments is subject to frequent changes. However, in the recent past, the German legislation has intended to make the tax regime for German real estate investments attractive for foreign investors.

References

- Feyerabend, H.-J. A. (2009). *Taxation of private capital investments*. Verlag C.H. Beck, Munich.
- Just, C., & Krämer, J. (2006). Real estate Investment trusts (REITs). In *Real estate transactions*, van Kann, J. (ed.) (Chapter IX). Berlin, Erich Schmidt Verlag.
- Lüdicke, J., & Arndt, J.-H. (2009). *Closed-end funds* (5th ed.). Verlag C.H. Beck, Munich.
- Schäfer, J., & Conzen, G. (2010). *Practise manual of real estate investment* (2nd ed.). Verlag C.H. Beck, Munich.

German Taxation of Real Estate Investments

Valentina Farle

Abstract This chapter gives an overview of the main aspects of the German principles of taxation relevant for inbound German real estate investments. Such investments are as a rule subject to German (corporate) income tax and solidarity surcharge. The tax structuring usually focuses on mitigating German trade tax and German real estate transfer tax. In the course of the transaction itself, German value added tax issues play a significant role.

Keywords Income tax • tax liability • trade tax • transfer tax • VAT

1 Introduction

With respect to inbound real estate investments Germany may currently be regarded as a low taxation country. The effective income tax rate applicable to inbound real estate investments by foreign corporations that are not resident in Germany for German income tax purposes may be as low as 15.825%: the German corporate income tax (*Körperschaftsteuer*, “CIT”) rate currently amounts to 15%. A so-called solidarity surcharge (*Solidaritätszuschlag*, “SolSur”) of 5.5% introduced in the aftermath of the German unification still applies to all German income tax charges, resulting in a combined CIT rate of 15.825% including SolSur. Compared to other European countries (such as France or Italy), where the respective income tax rates are above 30%, Germany offers a very competitive income taxation environment and thus high returns of investment to foreign corporate investors. However, the effective CIT and SolSur can be increased due to the applicability of provisions regarding the non-deductibility of expenses, in particular the so-called interest barrier (*Zinsschranke*) introduced in 2008, which was also used as a legislative model in Italy. CIT and SolSur aspects of real estate investments are described in more detail under Sect. 2.1.

The aforementioned CIT and SolSur rate of 15.825% is only achieved in cases where German trade tax (*Gewerbesteuer*, “TT”) is not due on the investment.

The TT rates are determined by the German municipalities and vary from municipality to municipality. In 2010, they ranged from 7% to approx. 19%. Therefore, the TT burden may well be higher than the CIT and SolSur burden. In addition, TT law contains extraordinarily extensive provisions restricting the deductibility of expenses, for example expenses for debt-financing, leasing, renting, etc. As a consequence, TT payers with non-deductible expenses effectively incur TT on these expenses, increasing their costs. The German tax structuring of German real estate investments thus concentrates *inter alia* on TT aspects: TT is only applicable to defined trading income attributable to a German tax permanent establishment (*Betriebsstätte*, “PE”). Furthermore, there is a specific TT exemption for real estate investments (the so-called extended trade tax exemption, *erweiterte Kürzung*). TT aspects of real estate investments are further discussed under Sect. 2.2.

A potential solution to the above-mentioned German income taxation issues regarding the non-deductibility of expenses and the applicability of TT may be the investment through a German collective investment vehicle, a German open-ended real estate investment fund (*Investmentsondervermögen*, “GOREF”), or a special German real estate investment company (*REIT-Aktiengesellschaften*, “G-REIT”). GOREFs and G-REITs are exempt from German income taxation including CIT, SolSur and TT. German (corporate) income taxation, SolSur and TT may apply at the level of the respective investors under rules which are specific to the relevant collective investment vehicle. GOREFs and G-REITs are subject to special regulatory, legal and tax frameworks.

The involvement of German collective investment vehicles triggers, as a rule, considerable additional costs in comparison to the utilization of a simple corporate structure. Further, the establishment of the GOREF or G-REIT may take time. The costs of the establishment and maintenance of the structure over the intended investment cycle must be taken into account. In addition, German collective investment vehicles are subject to investment restrictions, e.g. regarding leverage, business model, eligible assets, etc. The frameworks for GOREFs and G-REITs are still under review and subject to frequent changes. However, the use of a GOREF, in particular, may offer substantial advantages and should be considered for any major German real estate investment. GOREFs and G-REITs are described in more detail by Krämer, 2011, in this book.

Germany levies a real estate transfer tax (*Grunderwerbsteuer*, “RETT”) which may be triggered upon the transfer of real estate and also upon the direct or indirect transfer of participations in real estate vehicles. The RETT rules are highly complex and at the same time also widely unknown to international investors considering an investment in German real estate. There is no RETT rate applicable to the whole of Germany; instead, the respective rates are determined by the German federal states (*Bundesländer*) ranging currently from 3.5% to 5%. A number of federal states have recently increased or announced plans to increase the RETT rates applicable to real estate located in their area. Since RETT is a considerable burden on German real estate investments, a major concern of the German tax structuring of German real estate investments is mitigating RETT. An overview of the relevant RETT principles is given under Sect. 2.3.

Although it is not generally hugely important in German tax structuring of German real estate investments, German value added tax (*Umsatzsteuer*, “VAT”) aspects regularly play a significant role in the course of the transaction, for example during the negotiations regarding purchase, lease and sale agreements. They constitute a major concern with respect to any German real estate due diligence exercise. Such VAT issues and their economic consequences should be addressed in the course of the pricing of the investment and in the respective business plan since the economic importance of VAT on the returns of investment may be considerable. International investors into German real estate thus need a good understanding of the relevant VAT rules, and VAT aspects should be taken into account at an early stage when considering a German real estate investment, as these may have an impact on the performance of the investment and need to be dealt with in the relevant agreements concerning the investment. VAT aspects are discussed under Sect. 2.4.

German real estate tax (*Grundsteuer*, “RET”) applies on all German real estate investments and is briefly touched upon under Sect. 2.5. Under certain circumstances, the purchaser of real estate may become liable for German tax obligations relating to the time period prior to the transfer. A brief summary of the tax liability risk is given under Sect. 2.6.

German gift and inheritance tax may also be relevant for a particular German real estate investment. This can be the case not only with respect to investments made by individuals, but also for example regarding transactions involving foundations or trusts. However, since these cases are rather seldom in practice, German gift and inheritance tax aspects have been left outside the scope of this overview.

2 German Taxation of Real Estate Investments

2.1 German Corporate Income Tax and Solidarity Surcharge

2.1.1 Overview

German income taxation differentiates between German income tax and CIT. German income tax is in principle charged at a progressive rate of up to 45% (TT, if any, may be totally or partially creditable) and concerns only individuals. CIT is levied at a rate of 15% (TT, if any, is triggered in addition) and is charged to entities such as limited liability companies, stock corporations, foundations, associations, states, municipalities, etc. Both, income tax and CIT are increased by SolSur at a rate of 5.5% on the income tax or CIT amount. The regular depreciation rates for real estate assets are between 2% and 3%, depending on the specific features of the real estate investment in question.

2.1.2 Foreign Vehicles

Foreign vehicles have to be compared with German vehicles on a case-by-case basis considering all relevant circumstances in order to determine how these should be treated for German tax purposes. With respect to certain foreign vehicles it is quite clear how these have to be dealt with under German tax law. For example, S.à r.l.s under Luxembourg law or B.V.s under Dutch law are comparable to German limited liability companies, GmbHs, and may therefore be subject to CIT. However, the classification may be difficult with respect to other foreign vehicles.

2.1.3 Partnerships

Partnerships are as such not subject to German income tax or CIT. Instead, the partners may be taxed with respect to their partnership interest. However, although partnerships are in principle transparent for German income tax and CIT purposes, they are not fully disregarded in this respect. Rather, a number of special rules may apply where an investment is made using a partnership structure. The utilization of partnerships may be advantageous or disadvantageous from a German tax point of view, as the case may be. For example, if several German real estate investments are intended to be made, a structure with limited liability partnerships (German *Kommanditgesellschaften*, KGs, or comparable foreign vehicles) holding the assets and one limited liability company (German GmbH or a comparable foreign vehicle) serving as their sole limited partner may be considered. Such a structure can offer from a German tax point of view a pooling for CIT/SolSur purposes with respect to all investments. Furthermore, such a structure also allows for full deductibility of interest expenses under the interest barrier rules (due to the splitting up of the portfolio into different vehicles, the so-called *de minimis* threshold (*Freigrenze*) may be applicable, see below for details of the interest barrier rules). It provides for a risk ring-fencing around the single investment for legal and possibly also for TT purposes. However, such a structure may be costlier than a single-entity structure due to the number of vehicles to be administered and also more difficult to handle from a RETT perspective due to certain rules only being applicable to partnerships (see below under Sect. 2.3). It may also be problematic from a German tax point of view regarding certain exit scenarios.

2.1.4 Interest Deductibility

There are a number of provisions which may restrict the interest deductibility for German (corporate) income tax purposes, but the interest barrier is by far the most important one regarding the German tax structuring. The interest barrier rules can be briefly transacted: there is no restriction on interest deductibility to the extent

that the interest expenses are covered by interest proceeds. Only the deductibility of interest expenses exceeding the interest proceeds (net interest expenses) is restricted. Under the interest barrier rules, the deductibility of the net interest expenses is in principle restricted to the relevant EBITDA of the business in question. The abbreviation “*EBITDA*” is specifically defined in the German tax provisions regarding the interest barrier. As in a business or broader economic context, for German interest barrier purposes it means Earnings Before Interest Tax Depreciation Amortization, but all only as determined in the interest barrier rules. The relevant EBITDA is 30% of profits plus interest expenses minus interest proceeds plus ordinary depreciation and transaction amounts of the business, all under German income tax laws. Non-deductible net interest expenses are carried forward, resulting in a so-called interest carry forward (*Zinsvortrag*), which increases the future interest expenses, but not the future relevant EBITDA. Amounts of relevant EBITDA not used up can also be carried forward for up to five business years, resulting in a so-called EBITDA carry forward (*EBITDA-Vortrag*). The applicability of the interest barrier to foreign investors is currently in several respects not quite clear and both in general and in detail highly disputed. However, the tax authorities clearly assume the applicability, so that the rules should be taken into account for the German tax structuring of inbound real estate investments. There are certain exceptions to the applicability of the interest barrier: according to the most important one, the *de minimis* threshold rule, the interest barrier does not apply if the net interest expenses of the business in question in that year amount to less than three million euro. If the *de minimis* threshold is intended to be used with respect to a particular investment and the net interest expenses are expected to be volatile, for example due to a floating rate facility being used (a respective swap might not be relevant in this respect, depending on the circumstances), it might be advisable to plan with a considerable buffer. If the *de minimis* threshold of three million euro is reached, the interest barrier in principle applies to the total net interest expenses. Furthermore, since an interest carry forward increases the interest expenses of future years, the applicability of the interest barrier in one particular year resulting in an interest carry forward might already exclude the *de minimis* threshold for subsequent years. In the case of corporations and trading partnerships (see considerations below under Sect. 2.2 regarding trading income), the *de minimis* threshold applies to each vehicle. Therefore, the distribution of real estate portfolios and even real estate assets to different vehicles which each have a *de minimis* threshold might be a way to achieve the non-applicability of the interest barrier. There are further exceptions to the interest barrier rule, namely if the business is not or only partially part of a group, or if the equity ratio of the business is at least the same as the equity ratio of the group. The rules regarding these exceptions are complex and with respect to companies there are further requirements for these exceptions. In practice, these exceptions are rarely relied on with respect to inbound German real estate investments.

2.1.5 Shareholders

Dividends by German limited liability companies (GmbHs) and stock corporations (AGs) with a corporate seat or centre of management in Germany are subject to German tax liability under German national income tax laws, even if generated by a foreign shareholder. In principle, a German withholding tax rate of 26.375% applies. In the case of foreign corporate shareholders a refund of two fifths, resulting in a reduction to 15.825%, might be available. Further reductions or refunds of the withholding tax might be available under applicable double tax treaties or the European parent subsidiary directive, otherwise the withholding tax in principle becomes definitive. However, German national income tax laws currently contain extensive anti-abuse provisions restricting such reduction or refund possibilities with respect to foreign shareholders. It is questionable whether these provisions are in line with European laws, but it must be taken into account that reductions or refunds of withholding tax amounts might not be granted unless such provisions are fulfilled. The withholding tax requirement does not apply to partnerships as investment vehicles, or corporations not having their seat or centre of management in Germany. Therefore, the use of a foreign vehicle for the investment might avoid any issues with respect to an exemption from or a refund of German withholding taxes.

2.1.6 Lenders

Under German national income tax laws interest on debt finance may be subject to German tax liability, even if generated by a foreign lender. This applies for example if the principal is directly or indirectly secured with German real estate (even if the borrower is a foreign vehicle), or if the borrower has either a seat or centre of management in Germany and the debt finance has a profit-participating remuneration component. If there is a German tax liability on the lender under German national income tax laws with respect to the interest on the debt finance, a German income tax charge may nevertheless be avoidable or at least reduced if the lender is protected under a double taxation agreement with Germany which provides that such interest cannot be taxed, or can be taxed only to a limited extent, in the country of source. There is no German withholding tax requirement regarding the interest in the case of regular German limited liability companies as borrowers that are not classified as financial institutions, rather the lender has to file (corporate) income tax returns regarding the interest. However, the German tax authorities may order the borrower to withhold tax from the interest if this is justified to ensure collection of the German (corporate) income tax charge on the interest. In particular loan agreements with foreign lenders based on international standards often provide for so-called tax gross-up and tax indemnity clauses which burden the borrower of the debt finance with the risk of any tax charges occurring in jurisdictions other than the home jurisdiction of the lender with respect to the debt finance. In cases where

the lender is, for example, located in the Cayman Islands or the British Virgin Islands (or another country without a double taxation agreement with Germany) or in Japan or Italy (or another country with a double taxation agreement with Germany providing for a potential interest taxation in the country of source), the borrower may have to indemnify the lender for any German income tax amounts triggered. Such tax indemnity amounts increase the financing costs of the borrower. In practice there are mainly two ways to deal with this issue from a borrower's perspective: either in the respective facility agreement the tax gross up and tax indemnity clauses are excluded in case a German income tax charge arises for a lender on the basis that the facility is secured with German real estate. Alternatively, it may be agreed that a lender, at least at the point in time of becoming a lender under the facility, must be fully protected under an applicable double taxation agreement against any German income taxation regarding the interest. In the latter case, however, the borrower still bears the risk of any changes occurring later, for example due to a change of the double taxation agreement.

2.2 German Trade Tax

2.2.1 Overview

TT is only applicable to defined trading income attributable to a German tax permanent establishment (*Betriebsstätte*, "PE"). Furthermore, there is the extended trade tax exemption specifically for real estate vehicles, which does not result in a full exemption from TT but rather in the carving out of defined real estate income from the TT base. TT structuring of inbound real estate investments by international investors as a rule focuses on all these three aspects (trading income, German PE, extended trade tax exemption) with a view to having at least one, better more, respective lines of defence against a TT burden on the investment. The requirements for not having relevant trading income, for not maintaining a German PE to which such trading income may be attributed, and/or for meeting the requirements for the extended trade tax exemption may – depending on the investment at hand – impose restrictions on the investment model, the management of the investment and on exit strategies. Nevertheless, the mitigation of a German TT charge on the investment may result in considerable economic advantages and may therefore justify the respective costs and efforts required to achieve this. It is also worth noting that inbound real estate investments seem to have come under the scrutiny of the German tax authorities, with large portfolio investments made within the last 5 years being confronted with TT assessments on the grounds that the TT strategies initially envisaged for such investments have not been followed through in practice over the whole course of the investments. It is thus essential that the asset managers of inbound real estate investments fully understand the requirements which the TT strategy imposes. Furthermore, it is vital that respective

proof of the implementation of the TT strategy is kept and can be produced at any time.

2.2.2 Economic Importance of German Trade Tax

German TT is levied by the German municipalities which effectively determine the TT rate applicable to Pes within their area by specifying a respective TT multiplier on an annual basis. The applicable TT multiplier is multiplied by 0.035, which results in the relevant nominal TT rate. The minimum TT multiplier is 200, resulting in a nominal TT rate of 7%. Most municipalities currently have TT multipliers between 400 and 450, resulting in respective nominal TT rates between 14% and 15.75%. In some municipalities the current TT multiplier may be as high as 540 with a resulting nominal TT rate of approx. 19%. The TT base is determined by taking the respective income for (corporate) income tax purposes and adjusting it according to a number of TT provisions, *inter alia* regarding the (partial) non-deductibility of certain expenses (so-called trade tax add-back provisions) and the carving out of eligible real estate investment income upon application (extended trade tax exemption). In order to understand the full economic importance of German TT on an intended investment it is necessary to look not only at the nominal TT rate applicable, but to also take into account the trade tax add-backs. Under the trade tax add-back provisions, expenses for non-equity capital, *inter alia*, may in part or in full be non-deductible. This in principle concerns, for example, 25% of all interest expenses for debt finance and economic equivalents such as discounts in the case of factoring. There is a *de minimis* exemption to the extent the respective expenses do not exceed 100,000 euro. The trade tax add-back provisions therefore result in an increase of the overall costs of debt finance in the amount of the TT charge triggered on the respective expenses. The potential German TT burden on a certain investment may well be higher than the respective German CIT/SolSur burden thereon, and TT may even be triggered if the vehicle is in an economic loss position.

2.2.3 Trading Income

Trading income subject to German TT may be generated on the basis of either the activity performed or of the legal structure of the vehicle. Certain vehicles *per se* generate trading income subject to German TT. This applies *inter alia* to German limited liability companies and stock corporations as well as to foreign vehicles comparable to these. Luxembourg S.à r.l.s or Dutch B.V.s therefore always have trading income for German TT purposes. This may also apply to domestic and foreign partnerships depending on their legal structure: if all partners with unlimited liability are domestic or foreign limited liability companies or stock corporations and under the articles of the partnership only these or non-partners have management authority regarding the partnership, the partnership generates *per*

se trading income. Since with respect to a German limited liability partnership (*Kommanditgesellschaft*, KG) it is possible to confer management authority regarding the partnership on a limited partner, the generation by such partnership of trading income on the basis of the legal structure can easily be avoided. However, with respect to certain foreign partnerships, for example Dutch C.V.s, in case of interference with the partnership management a limited partner is automatically converted by law into a general partner with unlimited liability. Therefore, it needs to be checked in each particular case whether a foreign partnership generates trading income due to its legal structure. In the case of individuals and vehicles not *per se* generating trading income, trading income may nevertheless be generated on the basis of a trading activity being performed. In the case of partnerships a trading activity in principle affects all income of the partnership. There is no clear-cut definition as to what constitutes a trading activity for German TT purposes, rather the German tax authorities and tax courts decide on a case-by-case basis, taking all relevant circumstances at hand into account. Therefore, it is not possible to give a full and complete description of the facts that may lead to a trading activity. A trading activity with respect to real estate investments is *inter alia* present if a real estate project is developed and marketed, if real estate assets are traded, or if real estate is used to render not only mere letting or leasing services but services of another economic nature, as for example is the case with respect to hotels and pensions, and may be the case with respect to boarding houses, holiday apartments, student and old age accommodation facilities as well as shopping centres. Regarding the question as to whether transacts performed go beyond mere letting or leasing services it is decisive whether only spaces are offered or some kind of more complete service. A boarding house may be a trading activity if it is run comparably to a hotel, offering a number of transacts to changing guests like cleaning, eating, washing or shopping. A shopping centre may result in a trading activity of the lessor if for example marketing, security, cleaning, or food court servicing are centrally provided for and organized by the lessor with a view to furthering the tenants' respective businesses and turnovers.

2.2.4 German Permanent Establishment

A German PE is in principle defined as a fixed asset used for conducting the business. An asset is fixed for this purpose if over a certain period of time, as a rule more than 6 months, it relates to a certain place. A real estate asset fully rented out is, therefore, a fixed asset. However, it is not used for conducting the business of the lessor, but rather of the lessee, and therefore, as a rule, does not result in a PE of the lessor. With respect to vacant spaces, if these are intended to be let and the lessor does not make any use of them until a respective tenant is found, such spaces also should not result in a PE of the lessor. However, if for example the lessor maintains an office to be contacted by present or future tenants, such office may result in a PE of the lessor. Even if there is no fixed asset used for conducting the business in Germany, a German PE may still be present. This applies for example if

the centre of management of the business is in Germany. The centre of management is the place where decisions of some importance regarding the day-to-day management of the business are regularly made. With respect to real estate investments such decisions may include decisions regarding the purchasing, the financing, the developing, the renting, the refurbishing and the selling. In this respect it is not decisive who has the legal capacity to act for the business and to represent it, but who actually makes the decisions. This can be a service provider or a shareholder. For example, if a German property and asset manager acts as a German platform for the investment and actually takes all decisions regarding the day-to-day management of the investment, the foreign vehicle making the investment may have its centre of management in Germany. Likewise, if the German shareholder of a foreign vehicle actually manages its affairs from Germany, the foreign vehicle may also have its centre of management in Germany. In the event of a German real estate investment being made through a foreign vehicle, a German centre of management of the vehicle will in most cases result in all income generated from the investment being allocated to a German PE. The German tax authorities examine the location of the centre of management of foreign vehicles holding German real estate. Therefore, in cases where a German PE is to be avoided, it is vital to properly implement respective decision-making processes and produce and keep respective proof thereof, for example in the form of meeting minutes, travel tickets, catering bills and hotel invoices. The centre of management of a foreign vehicle is furthermore likely to be challenged if the vehicle is provided by a foreign service provider acting for a number of foreign vehicles. Therefore, it is also essential that the vehicle making the German real estate investment has sufficient substance including its own office space and equipment, communication lines and personnel, in particular a management based outside Germany and having the expertise, qualification and experience to take relevant decisions regarding the investments.

2.2.5 Extended Trade Tax Exemption

In the case of trading income attributable to a German PE, German TT in principle applies. However, if the activity performed is exclusively the use and management of one's own real estate (and may also in addition be the use and management of one's own capital), upon application the income generated from the real estate may be carved out of the German TT base. The requirements for the extended trade tax exemption are strict, and there are also a number of exclusions. Therefore, it needs to be examined in each particular case whether a certain intended real estate investment may be eligible for the extended trade tax exemption or not. The extended trade tax exemption as a rule only applies to vehicles which generate trading income exclusively due to their legal structure. The performance of any trading activity whatsoever will normally fully exclude the extended trade tax exemption for the vehicle. Consequently, the extended trade tax exemption is not available to vehicles which acquire real estate assets with a view to marketing them

in the course of a trading activity. This applies for example to a project development in case the exit shall be effected by the vehicle through an asset deal. Real estate trading activities are not eligible, either. Furthermore, the extended trade tax exemption does not apply in cases where the leasing or letting constitutes part of a trading activity, which is the case for example with respect to hotels, pensions, certain shopping centres, etc. (see the transactive considerations above regarding trading income due to a trading activity). A vehicle is therefore in principle only eligible for the extended trade tax exemption if its activity is confined to the mere long-term letting or leasing of spaces owned by it. If the vehicle holds the real estate asset for more than 10 years, the German tax authorities and courts will as a rule consider the requirement of a long-term investment horizon as being met. A share deal regarding the vehicle (as opposed to an asset deal by the vehicle) should as such not be harmful in this respect if the real estate vehicle is a corporation; with respect to partnerships holding the real estate, this is not entirely clear. The vehicle's activity must furthermore exclusively concern real estate; any leasing or letting of assets not being real estate for German tax purposes may in principle exclude the extended trade tax exemption. Harmful assets may be for example the inventory of hotels, the furniture in apartments, machines as well as so-called business fixtures (*Betriebsvorrichtungen*). Business fixtures do not serve the building as such, but rather a certain business carried out in the building. It is irrelevant whether the business fixture is an integral and permanent part of the building. For example, an elevator for people serves the building, an elevator for goods the business, the air conditioning serves the building, special heating and cooling devices for server rooms serve the business, an escalator for people serves the building, a conveyor belt for goods the business, etc. The letting or leasing of business fixtures is as a rule harmful for the extended trade tax exemption, except if the business fixtures are part of the real estate leasing and letting, their value is absolutely and relatively low and the business fixtures are essential to an economically viable use of the real estate as such. It may be a solution to have potentially harmful activities being performed by a sister corporation. The extended trade tax exemption is furthermore fully excluded if the real estate is in whole or in part used for the business of a shareholder in the case of corporations or a direct or indirect partner in the case of partnerships. There is no *de minimis* threshold in this respect. A tenant may therefore never, neither directly nor indirectly through partnerships, acquire a stake in the real estate vehicle intended to use the extended trade tax exemption. The extended trade tax exemption is for example also excluded if the real estate serves as policy reserve fund (*Deckungsstock*) of an insurance company as shareholder or partner, since this also constitutes a use of the real estate for the partner's or shareholder's business. There are further partial exclusions *inter alia* for real estate partnerships having contractual relationships with partners and for income from the sale of a partner's interests.

2.3 German Real Estate Transfer Tax

German RETT may be triggered by asset deals and share deals. It only applies with respect to real estate located in Germany and certain comparable rights. The RETT rate depends on the German federal state (*Bundesland*), in which the real estate in question is located. The minimum rate is 3.5%, but many federal states raised their rates in the recent past or plan to do so, in most cases to 4.5% or 5%. German RETT applies to each and every taxable event and is in principle a non-recoverable cost. Although in most cases, purchaser and seller are both liable to pay the RETT, they usually agree that it should economically be borne by the purchaser alone.

2.3.1 Asset Deals

The entering into of a binding agreement regarding the transfer of German real estate triggers RETT, which therefore may become payable before the closing of the transaction. If no such prior agreement regarding the transfer exists, the transfer itself will trigger RETT, for example in the case of mergers, spin-offs, etc. Furthermore, there are other events resulting in RETT becoming payable, including agreements concerning the transfer of positions under purchase agreements and sales offers and also respective transfers. If a binding purchase agreement regarding German real estate is entered into and the purchaser agrees to transfer the rights under the purchase agreement to a third party, RETT may be triggered twice. Finally, RETT is also triggered with respect to transactions not as such resulting in a full transfer of German real estate but legally or economically permitting the realization of and disposition over the German real estate value for one's own account. The tax base is as a rule the consideration agreed for the (intended) transfer. In most cases of purchases the relevant consideration will be the purchase price. The purchase price is taken into account for RETT purposes even if it is too low and does not reflect the proper value of the real estate. In the case of transactions between related parties, it may therefore be possible to reduce the RETT burden by stipulating a low purchase price in the purchase agreement. However, a merely symbolic purchase price will be disregarded. If the purchaser assumes any other obligations with respect to the transfer, the value of such obligations will also form part of the relevant consideration; this applies for example if the purchaser takes over from the seller a financing with worse conditions than are available to the purchaser at the time of the purchase. The same may apply *inter alia* in certain cases of the taking over or establishment of certain encumbrances, of the seller retaining rights to use the real estate, etc. With respect to cases where no consideration can be determined and certain other cases of transactions between vehicles and their partners or shareholders, the tax base will be an especially determined real estate tax value. Debtors of the RETT are seller and purchasers, but the tax authorities will usually follow a stipulation in the

purchase agreement as to who shall bear the RETT, provided a prompt collection of the tax can be expected.

2.3.2 Share Deals

The rules governing RETT in case of share deals are complex and cannot be described here in detail. Only a short overview can be given. However, as a rule of thumb, if a share transfer is intended and German real estate is held anywhere in the structure below the considered share transfer, German RETT aspects should be examined. It is not decisive in this respect whether the vehicle is a partnership or a corporation, domestic or foreign, holds itself German real estate or only a (minority or majority) stake in another entity with some direct or indirect stake in German real estate. With respect to share deals there are two main rules under which German RETT may be triggered. According to the first rule, the direct or indirect transfer of 95% or more of the interest in the assets of a German real estate partnership to new partners within 5 years will trigger German RETT upon the last relevant transfer. In this case, a transfer of German real estate from the partnership with the old partners to a partnership with the new partners is deemed to have happened for RETT purposes. For example, if a German real estate partnership is held by two (corporate) partners and in the first year the first partner transfers its interest in the partnership (direct transfer) and in the fourth year the shares in the second partner are transferred (indirect transfer), German RETT will be triggered upon the second transfer. The respective tax has to be paid by the partnership itself. Therefore, any potential investor in a German real estate partnership should determine the respective RETT position beforehand. Purchase agreements concerning partnership interests and also partnership articles may contain clauses dealing with German RETT issues. According to the second rule, the direct or indirect concentration of 95% or more of the shares or interests in a German real estate vehicle in one hand will trigger German RETT. The same applies if concentrated shares or interests are transferred to one hand. One hand for this purpose may be a single person or entity, but also a group forming a fiscal unity for German RETT purposes. The RETT due to a concentration will have to be paid by the person(s) or vehicle(s) in whose hands the concentration occurs. The RETT due to a transfer of concentrated shares or interests will have to be paid by the person(s) or vehicle(s) involved in the transfer (for example seller and purchaser). Therefore, it is advisable to implement in appropriate cases provisions in any transfer agreement dealing with potential German RETT consequences. With respect to share deals the RETT base will under current law always be the especially determined real estate tax value.

2.3.3 Exemptions

There are several exemptions from RETT. These concern *inter alia* certain intra-group transfers, taxable events involving partnerships, certain re-transfers, transfers

subject to gift or inheritance tax as well as transfers between certain relatives, transfers between spouses and certain transfers involving foreign states and state authorities. For tax structuring purposes, the exemptions regarding transfers involving partnerships are of particular importance. If real estate is for RETT purposes transferred to a partnership, RETT will not be levied in accordance with the interest that the transferor holds in the partnership uninterrupted for a period of a further 5 years. If real estate is transferred by a partnership to one of its partners the RETT will not be levied in accordance with the interest that the transferee has uninterrupted held in the partnership for a period of 5 years preceding the transfer. Finally, if real estate is transferred from one partnership to another partnership, the RETT will not be levied if the proportionate interests of the partners in both partnerships are identical and they have held their interests in the transferor partnership uninterrupted for 5 years preceding the transfer and hold their interests in the transferee partnership uninterrupted for 5 years following the transfer.

2.4 German Value Added Tax

2.4.1 Overview

The German regular VAT rate is currently 19%. Supplies with respect to German real estate are usually within the scope of VAT in Germany, but VAT-exempt. In certain cases there is a possibility to exercise an option for VAT regarding outgoing supplies in order to obtain the possibility to recover input VAT with respect to ingoing supplies.

2.4.2 Real Estate Letting

The letting of German real estate is within the scope of German VAT, but it is a VAT-exempt supply of services. Due to the VAT exemption, the landlord does not have to declare and pay German VAT on the rent, but is also not entitled to German input VAT amounts on supplies received with respect to the letting services, in particular regarding the construction and maintenance of the real estate assets let. Not VAT-exempt are the letting of parking spaces and the letting of movable assets, in particular inventory, furniture and business fixtures. However, if the parking spaces or, as the case may be, the movable assets are let in connection with, and are only auxiliary supplies to, a VAT-exempt letting as main supply, these may also be VAT-exempt.

2.4.3 VAT Option for Real Estate Letting

Under certain circumstances the landlord may be able to opt for VAT regarding the letting. In the case of a valid VAT option by the landlord, the landlord has to declare and pay VAT on the rent, but is also entitled to input VAT amounts regarding the letting. A VAT option is only possible if the letting services are rendered to another VAT entrepreneur acting within the VAT enterprise. With respect to real estate letting regarding so-called new buildings, there are further requirements for the VAT option, namely that the tenant must use, or intend to use, the spaces exclusively for the rendering of services for which the recovery of input VAT is not excluded. In the case of new buildings, therefore, the VAT option of the landlord for the letting is as a rule economically neutral for the tenant, since the tenant is entitled to a respective input VAT deduction or refund. However, *inter alia* regarding banks, insurance companies, medical practitioners, hospitals, schools, state authorities and residents a VAT option is as a rule not possible in the case of new buildings due to these tenants either not being entrepreneurs acting within their enterprises for VAT purposes or rendering VAT-exempt supplies without entitlement to input VAT. New buildings are all buildings with construction termination date after 31 December 1997. If a building has a construction termination date prior to 1 January 1998, it may still be classified as a new building, depending on the dates and circumstances of the building construction. If an old building is extensively modernized it may afterwards have to be classified as a new building. In the event of a VAT option, the landlord furthermore has to provide proof to the tax authorities that the requirements for the VAT option are met. The VAT option is an election right exclusively of the landlord. However, it depends on the contractual arrangements between the tenant and the landlord whether the agreed rent is a gross rent not to be increased by applicable VAT amounts, or a net rent in respect of which applicable VAT amounts have to be paid in addition. Since the possibility of the landlord to opt for VAT depends on the actual use that the tenant makes regarding the spaces let and also on the ability of the landlord to provide proof thereof, real estate letting agreements usually contain VAT clauses, which from the perspective of the landlord should ideally contain for example the following provisions: rent to be paid plus applicable VAT, right of the landlord to opt for VAT, obligation of the tenant to use the spaces let exclusively for supplies in respect of which the entitlement for input VAT is not excluded, obligation of the tenant to give the landlord all information and documents required to provide proof of the requirements for the VAT option towards the tax authorities, obligation of the tenant to agree with any subtenant on an equivalent VAT clause, which, however, must provide for direct claims of the landlord towards the subtenant and a guarantee by the tenant towards the landlord that the subtenant will fulfill the respective obligations, and finally a provision establishing an automatic increase of the rent to the extent that the letting should not be subject to VAT for whatever reasons.

2.4.4 Input VAT and Input VAT Corrections

With respect to VAT on incoming supplies, an input VAT entitlement (*Vorsteuerberechtigung*) in principle exists, if at the point in time at which such incoming supplies are received these are intended to be used for outgoing supplies that are subject to VAT. This means that for the input VAT entitlement it is decisive what the recipient intends to do with the incoming supplies at the moment the supplies are received. However, depending on the nature of the incoming supplies an input VAT correction (*Vorsteuerberichtigung*) might apply at a later date if after the receipt of the incoming supply it is in fact not used for the purpose initially intended, but for a purpose resulting in a different input VAT entitlement. Depending on the circumstances of the case at hand, the input VAT correction may result in a partial or total payback obligation of the input VAT deduction or refund initially taken, but it may also result in further input VAT amounts becoming deductible or refundable. With respect to real estate assets (for VAT purposes including business fixtures) in principle an input VAT correction period (*Vorsteuerberichtigungszeitraum*) of 10 years applies, beginning when the asset is used for VAT purposes for the first time. The input VAT correction rules do not only apply to supplies regarding the acquisition or construction of assets, but also to supplies regarding the maintenance of assets. In general, they apply to all supplies which are not fully used up at the point in time these are received. For example, the cleaning of the façade of a building may result in a so-called input VAT correction object (*Vorsteuerberichtigungsobjekt*). The input VAT correction is as a rule *pro rata temporis* regarding the total input VAT amount on the incoming supply over the course of the applicable input VAT correction period. Therefore, even if initially the full input VAT is taken with respect to a certain incoming supply and then such supply is used to render fully VAT-exempt supplies without any input VAT entitlement so that the input VAT has to be corrected in full, the taxpayer nevertheless retains a liquidity advantage, since the input VAT is received in one sum upon receipt of the supply while the input VAT correction applies only over a period of time. This liquidity advantage may be substantial. With respect to foreign entrepreneurs, for example foreign vehicles used for German real estate investments, under certain circumstances it may not be possible to claim German input VAT amounts in the normal VAT return and respective assessment procedure, but rather in a special input VAT refund procedure (*Vorsteuervergütungsverfahren*). This needs to be examined in each particular case since the input VAT refund procedure for foreign entrepreneurs is more time-consuming, costly and can in general be quite cumbersome, potentially resulting in a liquidity disadvantage or even in VAT amounts in practice not being recovered.

2.4.5 Asset Deals

The sale of German real estate by a VAT entrepreneur within the VAT enterprise may constitute a non-VATable supply in the course of a transfer of a business or of

a separable part of a business as a whole (so-called non-VATable business transfer, *nicht umsatzsteuerbare Geschäftsveräußerung im Ganzen*) or a VATable delivery (*umsatzsteuerbare Lieferung*), which is in principle VAT-exempt. A non-VATable business transfer exists if the seller transfers to the buyer all that is necessary for the purchaser to be able to continue the business activity of the seller without having to incur considerable further expenses or efforts. Whether a transfer has to be classified as a non-VATable business transfer is determined on the basis of all circumstances of the relevant case. There is still some uncertainty regarding the applicable criteria so that real estate transfer agreements usually provide for clauses dealing with the two alternatives, the non-VATable business transfer and the VATable delivery. The transfer of real estate in conjunction with respective lease agreements and lease documentation constitutes a non-VATable business transfer if the transferor has performed a letting activity regarding the real estate that the transferee intends to continue after the transfer. However, if for example the transferor is a project developer having constructed a building on the real estate and having let it to tenants, this transfer will not constitute a non-VATable business transfer, since the activity of the transferor (project developing) is not continued by the transferee (letting). The same applies in cases of a sale of the real estate to a tenant, since the tenant as transferee may not continue the leasing activity of the transferor which falls away due to the transfer. In the case of a non-VATable business transfer, the following applies: the transfer is not VATable so that there is no VAT on the transfer. However, the transferee steps into the shoes of the transferor for VAT purposes and continues the VAT position of the transferor regarding the real estate, in particular the input correction objects and periods triggered prior to the transfer. This means that the transferee may have to correct and pay back past input VAT amounts recovered by the transferor or further predecessors. In order to be able to do this, the transferee needs the respective information, and the transferor is in principle obliged by law to give such information. The further details of such VAT succession are not absolutely clear. There is for example a risk that the transferee has to pay VAT or input VAT amounts resulting from changes to the VAT base regarding past supplies. Transfer agreements as a rule contain clauses with respect to a non-VATable business transfer which deal with potential future input VAT corrections by the transferee, respective purchase price adjustments for the real estate, an obligation of the transferor to indemnify the transferee from any other possible negative consequences of the VAT succession as well as from any potential tax liability (see below under Sect. 2.6) and details regarding the transferor's obligation to provide information and documentation relevant for tax purposes. In case of a VATable delivery, the following applies: the VAT-exemption concerns supplies subject to RETT. If there are still input VAT correction periods running with respect to the real estate (see above regarding the general rules for input VAT corrections), a VAT-exempt supply of the real estate may trigger input VAT correction amounts to be paid back by the seller to the tax authorities. In order to avoid input VAT corrections, the seller may opt for VAT regarding the sale if the supply is to an entrepreneur for the respective enterprise. In the case of a valid VAT

option, the reverse charge procedure applies. This means that the VAT triggered by the VAT option has to be declared and paid by the purchaser directly to the tax authorities. Since the purchaser has to pay the VAT on the sale, for the protection of the purchaser the VAT option regarding the supply of real estate may only be validly declared by the seller in the deed regarding the sale and therefore with the consent of the purchaser. To the extent the real estate is to be used to render supplies which are subject to VAT, the purchaser may receive a respective input VAT deduction. However, since the sale also triggers new input VAT correction objects and periods, the purchaser may have to correct in total or in part the input VAT taken with respect to the purchase if during the input VAT correction period of the following 10 years the real estate is not used subject to VAT as initially anticipated. Therefore, a purchaser will normally only agree to a VAT option by the seller if the purchaser receives a full input VAT deduction regarding the VAT on the purchase and it is likely that the input VAT does not have to be corrected in the future or if the risk of input VAT corrections is reflected in the purchase price for the real estate asset. Depending on the circumstances of the case at hand, if the purchaser continues the use of the real estate that the seller has made the seller might be requested by the purchaser to guarantee that the VAT option in the purchase agreement only concerns spaces which are used fully subject to VAT and in respect of which the purchaser will receive the full input VAT deduction. This applies in particular if the existing lease agreements regarding the real estate do not contain detailed VAT clauses.

2.4.6 Share Deals

For VAT purposes share deals may be non-VATable or VAT-exempt with the seller's option for VAT in the case of a share deal to a VAT entrepreneur acting within the VAT enterprise. In practice, it is in most cases not examined in detail which alternative applies. From the perspective of the purchaser purchase agreements may contain a clause that the purchase price is gross and not to be increased by any VAT amounts and that the seller may not exercise any potential VAT option right. This means that VAT on the transfer as a rule does not apply and that the seller may not take any input VAT amounts regarding the sale, for example with respect to the VAT on the costs for a vendor due diligence.

2.5 *German Real Estate Tax*

RET is levied in principle on all German real estate. The RET rates vary between municipalities since each municipality determines on an annual basis its RET multipliers applicable to the real estate located in its area. Due to financial problems, numerous municipalities have recently increased their RET multipliers. The RET burden with respect to a particular real estate asset is also dependent on

the type of the real estate asset, its use and other factors. In many cases, RET aspects are not of particular relevance to German real estate investors since it is usually passed on to the tenants as an ancillary charge. However, especially with respect to commercial real estate, the amount of ancillary charges is often capped, or a lump sum payment with respect to ancillary charges is agreed on. Furthermore, the ability and/or willingness of tenants to pay such ancillary charges in addition to the net rent may be limited, in particular as many costs constituting ancillary charges were considerably increased in the recent past. In such cases, and also with respect to vacant spaces and project developments, the RET is economically in part or in total borne by the investor. Therefore, RET aspects should be taken into account in any German real estate investment business plan. RET is charged on the basis of the circumstances present at the beginning of the calendar year. This means that any changes with respect to the German real estate that are relevant for the RET (change of owner of real estate, changes to buildings, construction and use) are only taken into account as of the beginning of the next calendar year. If for example the real estate is transferred on January 15 the RET for that calendar year will still be charged to the seller and only as of the next calendar year to the purchaser. Furthermore, many tax authorities take years to issue new assessment notices regarding relevant changes. The real estate as such is liable for the payment of the RET thereon. Furthermore, the transferee of German real estate is also liable for the RET on the real estate triggered since the beginning of the last calendar year before the transfer. Therefore, German real estate transfer agreements usually contain provisions as to the economic allocation of any RET amounts to seller and purchaser in the event that the RET is still charged to the seller even for periods after the transfer or in the event that the purchaser has to pay RET amounts relating to periods prior to the transfer.

2.6 German Tax Liability

The purchaser of German real estate may become liable for taxes of the seller or even earlier predecessors. With respect to RET, see above under Sect. 2.5. In addition to such RET liability, in the case of a business transfer the tax liability of the purchaser might also concern amounts with respect to so-called business taxes (*Betriebssteuern*) and withholding tax amounts (*Steuerabzugsbeträge*). As a rule, if for VAT purposes a non-VATable business transfer is present (see above under Sect. 2.4), this constitutes also a business transfer for tax liability purposes. Business taxes and withholding taxes for which a tax liability may occur are for example VAT, TT, wage tax, construction withholding tax, etc. The business transfer tax liability is limited as to time: the purchaser becomes liable for business taxes and withholding tax amounts corresponding to the time period beginning at the start of the calendar year preceding the transfer and ending upon the transfer. Furthermore, such tax amounts have to be assessed within the time period of 1 year after the purchaser has given notice to the tax authorities of the business transfer.

However, the tax assessment has to be issued to the seller or earlier predecessors within the 1-year period, not to the purchaser. The purchaser, however, might be able to receive information from the tax authorities as to the total open tax amount for which a tax liability may be applicable. Usually, real estate transfer agreements contain provisions dealing with such potential tax liability of the purchaser.

3 Conclusion

The German tax environment for inbound German real estate investments offers considerable opportunities for international investors. A cautious tax structuring of the investment, detailed negotiations of tax clauses in transfer and lease agreements, appropriate provisions in the business plan, asset and property management manuals for dealing with the investment on a day-to-day basis as well as having an exit-planning strategy on entry, help realize and retain such upsides and therefore effectively increase the returns of investment. Since inbound German real estate investments have recently come under the particular scrutiny of the German tax authorities, international investors unfamiliar with the German tax concepts relevant for the particular investment may in turn be surprised by unexpected and material tax charges at a late stage of the investment cycle. It is therefore vital that German tax aspects of the investment are dealt with by the managers of the investment throughout. Procedures should be implemented ensuring that, even if the people dealing with the investment change, the German tax structure considerations are still observed.

Monument Protection and Zoning: Regulations and Public Support from an International Perspective

Wolfgang Maennig

Abstract Restrictions on new constructions and modernisations occur in almost all countries and numerous regulations apply in Germany. This article outlines regulations regarding the protection of historical buildings, restoration law and preservation statutes and describes compensatory subsidies available in the form of tax benefits and/or grants. The article evaluates German regulations and public supports available for monument protection and modernisation from an international perspective.

Keywords Modernisation • preservation • redevelopment

1 Monument Protection

According to data, the number of monuments in Germany varies between 850,000 (IFO 2005, p. 97) and 1.2 million – predominantly private – properties, which corresponds to 5–7% of all buildings in the country.¹ The numbers differ because German states use different classifications (e.g., single monument, monument area, ensembles, constitutive part of a monument area, etc.).

The recording of historical properties has largely been completed, even though modern buildings will gradually be listed as they reach the typical age limit of 25–30 years. Currently, only some of the *Länder* in Germany apply formalised proceedings for registration of protected monuments and the rest provide an informal and solely informative listing only. In the latter case, objects that meet the legal definitions of cultural monuments are deemed worthy of preservation *ipso jure* and therefore are listed automatically. Hence, owners and investors are increasingly confronted with administrative preservation requirements applied unexpectedly by the soaring inclusion of modern buildings in listings.

¹ I thank Bernhard Haass for critical comments on this chapter.

While divergent in detail, the state laws on monument protection specify protected objects as assets, multiple of assets and parts of assets, the preservation and use of which are in the public interest. This requirement applies when the protected assets are crucial to the history of mankind, cities and settlements, or for the development of working and production conditions, as well as when there are historical, artistic, scientific, ethnological or urban design reasons for their preservation and use (Haspel et al. 2008). Furthermore, clarification of the significance of previous achievements for the present day (Deutsches Nationalkomitee für Denkmalschutz 2004, p. 16) and expression of the wealth and diversity of European culture are also viewed as objectives (Deutsches Nationalkomitee für Denkmalschutz 2004). Finally, monument protection enhances the quality of a regional location, which may result, for example, in a boost to tourism (Deutsches Nationalkomitee für Denkmalschutz 2004, pp. 18, 22). Aesthetics, artistic dimensions and visible traces of former uses thus play an important role in the selection process. However, authorities claim that more prominent locations or higher market values do not influence their decisions.

Jurisdiction over preservation matters is regulated in the monument protection laws of the various states, with the top protection authority being the responsible ministry; each of the states has a Monument Protection Office, which acts as the central authority. Independent cities and counties act as lower conservation authorities and are the first point of contact for investors and owners. They check and verify whether the expected expenditure for preservation and repair requires grants and subsidies from federal funds (Deutsches Nationalkomitee für Denkmalschutz 2004, p. 13).

The primary legal consequence of designation of a building as a monument is that the owner has an obligation to preserve and maintain his/her properties. A secondary obligation dictates that owners must obtain permits under monument protection laws for modifications, removals, repairs, restorations and modified uses (cf. Haass 2008). If such measures are initiated without the requisite permits or if the owner is in breach of secondary provisions contained in permits, an injunction may be issued against the person in charge of the building measures to cease. If owners or investors refuse to comply with their obligations or neglect to do so, an injunction may be issued, ordering them to take specific maintenance or repair measures necessary for the monument in question. If the recipient of such an injunction fails to comply, the necessary measures can be taken by way of substitute performance, in which case the recipient is held responsible for the resulting costs. Expropriations are also possible, although such cases are rare.

The only essential limitation to preservation requirements is the general necessity of the reasonability of any public measures (Basty et al. 2008, p. 179). According to the basic liberties set out in the German constitution, preservation requirements may be ineligible if operating expenses for such requirements cannot be covered now or in the future by the revenue of the property itself. However, since the burden of proof rests with the investor and the usual duration of court proceedings is often measured in years, investors almost always seek to negotiate

with the public preservation authorities. In such negotiations, investors tend to have a weak bargaining position.

Owing to such ownership restrictions, according to civil law, monument protection of a building may itself be considered a defect in the quality of the property and therefore may have to be disclosed by the vendor without being asked (Basty et al. 2008, p. 139).

However, building operations in accordance with the regulations are eligible for tax deductions and financial assistance in the form of loans and subsidies. The number of funding opportunities in the field of heritage protection is so extensive that only an overview can be given.² In many states, depending on the importance of the object, the urgency of action to be performed and the expected tax benefits, (interest) subsidies and loans can be granted. If a monument is located in a redevelopment area (“Sanierungsgebiete”), funds can be allocated as part of the (federally funded) Urban Development programme (“Städtebauförderung”). The same applies to agricultural, village renewal and economic development programmes (“Landwirtschafts-, Dorferneuerungs- und Wirtschaftsförderungsprogramme”). The Programme for the conservation of cultural monuments of national importance (“Programm zur Erhaltung von Kulturdenkmälern von nationaler Bedeutung” and the Special Programme “BKM Sonderprogramm”) also subsidise heritage buildings (Haspel et al. 2008, p. 300f). Under certain circumstances, EU funds may be available. Finally, private and public foundations also provide funds (Martin and Krautzberger 2006, H 151).

Quite often, such grants are not as important for investment decisions as the possibility of obtaining tax benefits with respect to inheritance, gift and property taxes, particularly in connection with income tax under sections 7i and 11b of the Income Tax Act (EStG) (regarding real estate leased to a third party) and under sections 10f (for owner-occupied real estate) and 10 g (for real estate that is used neither for income purposes nor for the owner’s own residential purposes). The owner/investor can claim increased deductions for the historical costs from the time that work is completed, provided that before work commenced agreement was reached on costs with the competent conservation authority (Basty et al. 2008, p. 1). The purchase price and ancillary and financing costs cannot be deducted. Following an inspection, the conservation authority will issue a certificate to be submitted to the tax office. For properties leased to a third party, 9% of the maintenance and/or modernisation costs can be written off in the first 8 years and 7% in each of the following 4 years. The subsidy under EStG section 10f for owner-occupier is a 9% deduction that can be claimed annually for a period of 10 years.

EStG section 7h regulates possible increased deductions for buildings in redevelopment areas but is not linked directly to monuments. However, for monuments located in a redevelopment or urban development area, section 7h is the preferred

² For a more detailed description, see Beck (2008).

provision to be applied because the share of the confirmed costs is generally higher in this case.

2 Redevelopment Law (“Sanierungsrecht”)

The material rights of investors may be materially affected by urban redevelopment law, which is governed by sections 136–164b of the Building Code (BauGB). In the states of former West Germany, redevelopment areas have been set up in many cities and villages since 1960, particularly in old towns and city centres. In the states of the former East Germany, most old towns and city centres have been designated as redevelopment areas since 1991.

According to BauGB section 136, such redevelopment measures should benefit the general public by reducing urban design nuisances. According to BauGB section 136 IV 3, public and private interests must be weighed up (Erbguth 2009, section 9, recital 6). The preparatory phase of the redevelopment procedure includes preliminary investigations pursuant to BauGB section 141, formal definition of the redevelopment area, and description of the redevelopment objectives and purposes according to BauGB section 142. Section 147 I sets out regulatory measures for the implementation phase and addresses issues such as acquisition of real estate and relocation of residents and companies. The measures affected by redevelopment law under BauGB section 148 II 1 include modernisation, repairs and new and replacement buildings, which are all subject to written approval by the municipality.

Once a redevelopment area has been designated officially, these measures are subject to comprehensive disposition and development restraints under BauGB section 144. All projects conducted without legal redevelopment approval are at risk of being stopped by the building control authority. According to BauGB section 144 I–II, all intended projects and legal transactions (including divisions) are subject to approval. Even the purchase contract for real estates in redevelopment area is object of inspection. If, after examination of the cost and financial overview to be submitted under BauGB section 149, the competent administrative authority concludes that the investment property has been purchased at such a high price that restoration is compromised for financial reasons, the purchase may be blocked.

The second major impact of BauGB sections 153 ff. is the so-called land value compensation. This is used as a levy on owners of properties in the redevelopment area for any redevelopment-related increases in land value. This also applies to owners whose properties are not redeveloped directly, but who may potentially experience an increase in value as a result of measures taken in the redevelopment area. Such countervailing charges for conventional buildings usually range from four to five figure euro amounts and must be paid by the owner. This can be important for investors who acquire a property after redevelopment. As a rule, the value increase is already factored into the purchase price. If the redevelopment area

is then declassified after a few years, they will still be obligated to pay any countervailing charge.

Charges stemming from redevelopment that may be hard to anticipate in some cases are offset by public grants under BauGB section 137. Thus, affected parties may be advised, supported or, if necessary, aided financially during the implementation (Battis et al. 2009, §137, no. 8). The grants listed in BauGB section 164a–b can be used in preparation of redevelopment measures, in the implementation of regulatory measures without a permanent countervalue, in the implementation of building measures, for the remuneration of redevelopment officers, and for expenditure in connection with a social compensation plan and hardship relief for tenants. Applicants do not have a vested claim to urban design grants (Stüer 2009, no. 2189).

As in the area of monument protection, EStG sections 7h, 10f and 11a also provide for tax breaks for investors and owners, according to which the costs for measures to be taken can be claimed as deductible expenditure. Section 7h is subject to similar regulations as section 7i for monuments. In the year of construction and in the following 7 years, it is possible to claim increased deductions of 9% of the construction costs, and then 7% in each of the subsequent 4 years. The increased write-offs can be applied to costs for construction, modernisation and repair, as well as to measures related to the conservation, restoration and functional use of buildings. Conservation expenditure can also be spread across up to 5 years if the requirements under EStG section 7h are met. Construction costs for new buildings are generally not covered under section 7h, but they may be assessed as being eligible for grants by the redevelopment administration agency. Grants from redevelopment or development subvention funds must be offset.

It is recommended that international investors hire specialists to prepare applications for the implementation of measures and procurement of grants. Redevelopment administration agencies and authorities have considerable discretionary leeway.

3 Preservation Statutes and Social Environment Protection ("Erhaltungs- und Milieuschutzsatzung")

The objective of the individual measures defined in BauGB sections 172–179 (preservation statutes) is preservation of the urban design character of an area and/or composition of the local population. Displacement of the local population (which should be prevented) may for example occur if rented flats are converted to owner-occupied flats, if buildings with cheap housing space are removed and replaced by executive living space, or if structural changes are made to set up second homes or holiday apartments. The building code does not define uniform structural requirements regarding what composition of the population should be protected; instead, this is determined on a case-by-case basis.

The objective of preventing a change in population composition is permissible if negative effects on the urban design are expected if such a change occurs. Such urban design effects may manifest as the municipal infrastructure being unsuitable for new residents after the local population has been displaced. One example cited is if a population with low income and little mobility is replaced by groups with higher income, this could result in substantial restructuring measures to adapt the area to the higher level of motorisation of the new residents. An adverse effect on urban design, however, could also stem from out-migration of low-income groups to other residential areas if this also creates negative consequences for other city neighbourhoods (Battis et al. 2009, section 172, recital 46).

In areas designated by municipalities as protected social environments, demolition measures, modifications or changes in use in relation to building structures require approval. However, such approval cannot be withheld, for example, for building measures in a residential area if such measures will only achieve an average equipment standard, rather than so-called luxury restoration (Schmidt-Eichstaedt 2005, p. 491).

The demolition of a building is permitted if its preservation would entail costs that cannot be covered from current income (Stüer 2009, no. 1993). In such cases, if the municipality rules out demolition of a building, owner expropriation becomes possible under BauGB section 85 I 6.

These restrictions can create considerable limitations for investors, because they are forced to realise less profitable investment options or may be locked into the status quo, for the most part, in terms of apartment equipment and rent amounts. These restrictions for investors are not offset by tax breaks, in contrast to the situation for redevelopment areas (Geßner 2008, p. 126). Only in exceptional cases in states of the former East Germany does an option for subvention exist, which is via the monument protection route to conserve historical city centres. Subsidies are available only for projects in areas that have an urban design conservation ordinance in place under BauGB section 172, which provides for broad-based measures to protect and preserve historical city centres with heritage-value building stock whose structure and function are at risk (Haspel et al. 2008, p. 303).

4 Evaluating Regulations and Public Supports for Monument Protection and Modernisation from an International Perspective

The objectives of the zoning instruments described have one thing in common: they aim to prevent changes to the cityscape that are perceived as negative, while promoting those that are seen as being positive. These measures, when properly designed, can contribute to the positive development of a specific area or region.

The value of cultural heritage to society is recognised worldwide and is acknowledged in urban redevelopment strategies, especially in terms of attraction

to tourists, employees, and firms (Listokin et al. 1998; Noonan 2007). In the case of Berlin Ahlfeldt and Maennig (2010), stress that the totality of the built environment – and not just proximity to a single monument – constitutes the amenity recognised by real estate markets. According to their estimates, an additional landmark in close proximity can have a marginal price effect on neighbouring properties of up to 2.8% within a sphere of influence of approximately 600 m, with the strength of the price impact halving every 90 m.³

Such positive externalities of historical building stock can generally result in an unregulated market that does not adequately assess and/or develop areas or buildings of historical, cultural or urban design value. Against the backdrop of the war-related substantial loss of historical building stock in Germany, limiting property rights and granting some public benefits by way of compensation is justified. Protection of the historical building stock in Germany seems to be in too low supply in parts. As part of the currently planned energy-efficient restorations, the country risks redeveloping many historical, carefully structured façades, windows and roofs that are not protected to such an extent that they will no longer exist.⁴

Many German authorities have recognised the appeal of well-preserved historical building stock. They have also recognised that historical buildings can sometimes be rendered even more appealing through careful modernisation, even including modern additions to structures. In other regions, however, investors face inflexible monument protection offices that dictate an obligation to conserve the current status quo. To some degree this is related to political objectives to conserve even the most unfortunate failures in modifications to historical building stock, because they happen to have been realised at the “proper” time (for some, that would have been the time of East Germany). Experienced investors are aware of the view, widespread in international monument protection circles, that demolitions and additions are worthy of protection when seen in the context of time, even if they destroyed the original beauty of the buildings. According to one view widely held by some in monument protection, restoration or recreation of the original building stock is merely “historicist” and must therefore be rejected. Experienced investors also know that the authorities have considerable freedom in their decisions, depending less on facts than on “soft” (some might even call it “corruptive”) factors. However, it is particularly difficult for international investors to identify such factors. It is possible to take legal action on building applications that are rejected on account of monument protection. However, such proceedings in the administrative courts can take years.

Explanations regarding monument protection also generally apply to redevelopment law and the preservation statutes. The approach itself is generally efficient and

³ For similar results in other countries around the world, see Coulson and Leichenko (2001) and Noonan (2007).

⁴ For an illustration of such harmful restorations in the 1960s and 1970s, see Siedler and Niggemeyer (1993).

legitimate, but this is not always true of the manner in which some authorities handle these matters. Sometimes decisions are taken that make sense only in light of institution-specific and/or local (political party) political objectives that are difficult to understand for local residents, and even more so for international investors.

Thus, there are cases in which permit applications to mount balconies on apartments were rejected because such “luxury modernisations” would displace the local population and thus jeopardise redevelopment and social environment protection objectives. The courts seem to be arriving at the realisation that balconies are part of the contemporary standard of an average apartment and should be approved, but the situation is still unclear regarding lifts. Dividing or merging of apartments is still considered problematic. Frequently, such measures are approved only on condition of upper rent limits (Dyroff 2009).

Another problem arises for investors in the lifting of a redevelopment area designation. The countervailing charges that are then applied are set on the basis of (valuation) reports sometimes prepared by the same agencies that were responsible for the redevelopment areas for many years. In this respect it is not surprising that the value increases calculated tend to be high. The underlying valuation techniques do not generally meet scientific requirements or the rules of general assessment practices. For example, when calculating the diminution in value, a grade between 1 and 5 is applied to characteristics that are difficult to operationalise and quantify, such as “cityscape” and “amenity and design quality of the street space”, which are then weighted arbitrarily and condensed into an overall assessment. The valuation methods typically used in the real estate industry, which are based on objective comparisons of purchase price trends in the redevelopment area and comparable other neighbourhoods, are not applied, particularly when this would reveal that the situation in a redevelopment area had deteriorated in relative terms (Haass 2010).

To compensate for disadvantages stemming from regulations on monument protection, restoration and social environment protection, some public grants are available, particularly tax breaks. As for listed facilities or properties in redevelopment areas, limits on property rights and/or the increased financial burden are largely compensated by financial concessions, mostly in the form of tax deductions, depending on an investor’s fiscal arrangements.

Tax deductibility of historical or acquisition costs in redevelopment areas or for monuments is highly appealing for investors (Haag et al. 2007, no. 266) and results in positive effects for the regional construction industry that can more than compensate for the economic costs of such loss of tax revenue (Maennig 2006, p. 30). Investors with a relatively high tax burden sometimes tend to limit their view to the tax savings and ignore the overall calculation, which also includes increased costs for the buildings and/or limited marketability, as well as any decreases in sales proceeds.

It is true that facilities in listed buildings and redevelopment areas are financially lucrative in individual cases, not only according to the plans, but also subsequently. However, the market mechanisms must also be borne in mind. If such (fiscal or

other pecuniary) advantages existed, the market would quickly offset these through corresponding increases in the real estate price (Looman 2009). It is small wonder, then, that for listed properties in Berlin and for other value-affecting characteristics, slightly significant negative price discounts at best are observed for protected properties (Ahlfeldt and Maennig 2010), an indication that in this case the disadvantages stemming from restrictions on property rights are largely balanced by tax breaks.⁵

Whether or not the urban economic objectives of regulations are achieved depends on the individual case. In many cases, the objectives may have been achieved. However, a discussion has commenced that tends to be sceptical in nature at times. In some instances, the objectives defined in the statutes on restoration and/or social environment protection have clearly not been achieved, while in others, the exact opposite seems to have occurred. Zoning-induced (not zoning-intended) deterioration in the quality of life in one area, for example, can be observed despite improvements in the equipment features of apartments, where redevelopment administration agencies, with the best of intentions but not enough foresight, used the occupancy rights⁶ partially related to public redevelopment subsidies to settle large families with a migration background. Some redevelopment areas subsequently saw a strong increase in the share of residents with a migration background. In some primary school classes, 100% of the children come from a migration background. Such developments would not have occurred in these areas had it not been for the redevelopment measures. The use of occupancy rights shows that unregulated renting would hardly have resulted in such stratification effects.

Even when using a fundamentally different line of argument, regulatory zoning instruments can systematically lead to the missing of targets and/or deterioration of the situation. The redevelopment areas of Berlin Prenzlauer Berg are cited as an example. In the early 1990s, five areas with a total of over 30,000 housing units came under the purview of redevelopment statutes. Obligated to apply the principles of careful urban renewal, conservation of the composition of the social structure was adapted as a redevelopment goal as well (Holm 2011). According to a recent social study (Büro für Stadtplanung, -forschung und -erneuerung 2008) on the occasion of abolition of redevelopment areas, the population structure has changed completely in spite of, or especially because of, massive deployment of public funds. The formerly mixed neighbourhood of Kollwitzplatz was replaced by a largely homogeneous West-German middle-class environment. Similar trends

⁵ These results are in line with previous international studies that found mixed or negative heritage policy effects, including Asabere and Huffman (1994), Schaeffer and Millerick (1991) and Creigh-Tyte (1998). By contrast, premium prices for historical building design quality have previously been identified by Penfold (1994), Shipley (2000) and Deodhar (2004).

⁶ Occupancy right: the right of the competent administration agency to demand that the property owner makes available an occupancy-based apartment to specific people seeking accommodation (section 26.2 of the law on promoting social housing, WoFG), generally those who experience particular difficulties in finding housing.

have been observed in the redevelopment areas of Winsstrasse and Spandauer Vorstadt in Berlin-Mitte. What is striking is the dominance of younger adults (18–45 years of age), who account for around 60% of the influence on the shaping of the Prenzlauer Berg area. In the rest of Berlin, the corresponding percentage is only half as high. Radical changes have also been noted in the educational status of residents. The proportion of graduates and of students of universities and of universities of applied sciences among those older than 18 years has increased to 66% in Kollwitzplatz. In the Winsstrasse redevelopment area the share is almost 77%, compared to 17.5% in 1992. The average household income shows corresponding trends. In 1993 (at the start of the urban renewal measures) they were at 75% of the reference value for Berlin, while they are currently 140%. Within the last 20 years, the redevelopment areas in Prenzlauer Berg have evolved from being the poorest neighbourhoods of the city to being wealthy.

This change in social structure, paradoxical with respect to the redevelopment objectives, can be explained less by the upward mobility of existing residents than by massive replacement of the population. In the Winsstrasse redevelopment area, only 16% of those who had lived there since 1990 still lived there in the mid-2000s. State-subsidised modernisation work, in this critical line of argument, contributed to area gentrification, which attracted new residents.

The allegation of zoning-induced “deterioration”, however, is correct only if these (or any other) changes to the population structure are considered problematic. Anyone reluctant to accord local people primacy for a specific area will have a problem with this line of reasoning. Incidentally, the same “milieu” that wants to grant such neighbourhood primacy, or wishes to have such primacy granted, typically exhibits a wholly different (i.e. liberal) attitude to international migration.

Regardless of how change is assessed, the first step is to determine whether zoning-induced changes have in fact occurred. Reasoning on the urban economic efficiency of zoning instruments regularly lacks the necessary conjectural evaluation (“with and without” comparison), as indicated previously. However, to the best of the author’s knowledge, no correct isolating multivariate and geo-referenced analysis of zoning in Germany exists (e.g., despite all the countervailing charges imposed). The above-mentioned statistical descriptive statements and valuation reports by redevelopment administration agencies do not meet the requirements from an economic perspective.

The substantial restorations, gentrification and real estate value appreciation in Prenzlauer Berg, for example, were foreseeable in the early 1990s and probably would have occurred even without public redevelopment measures. The statutes on redevelopment and social environment protection drawn up at the time, therefore, can be interpreted as a “picking the winners” strategy on the part of the regulatory authorities (Noonan and Krupka 2011) to give themselves employment and legitimacy. In the case of Berlin-Neukölln, where a gentrification process has just begun, the current intentions to set up redevelopment statutes on a massive scale seem to be a repeat of the legitimacy strategy among city planners.

For potential investors, such existing zoning-induced (rather than zoning-intended) structural changes do not constitute an argument against redevelopment

areas. However, the inefficiencies described for conditions and countervailing charges, as well as the long processing times, can contribute to a perception that the granting of permits for modernisation and redevelopment measures may be subject to some lack of regulatory transparency, if not outright arbitrariness. Qualified experts who know the regulatory mechanisms and local idiosyncrasies are difficult to identify, and even then come at a considerable cost. Overall, zoning and listed properties may be less attractive for international investors in view of the rather complex regulatory practices in Germany.

References

- Ahlfeldt, G., & Maennig, W. (2010). Substitutability and complementarity of urban amenities: External effects of built heritage in Berlin. *Real Estate Economics*, 38(2), 285–323.
- Asabere, P. K., & Huffman, F. E. (1994). Historic designation and residential market values. *The Appraisal Journal*, 62(3), 396–401.
- Basty, G., Beck, H.J., & Haaß, B. (Eds.) (2008). Denkmalschutz und Sanierung. Rechtshandbuch: Mit Musterverträgen zum Kaufvertrag, Bauträgervertrag, Bestandsaufnahmevertrag, Architektenvertrag und Bauvertrag (2nd ed.). lexxon-Verlag, Berlin.
- Battis, U., Krautzberger, M., & Löhr, R.-P. (2009). *Baugesetzbuch, BauGB* (11th ed.). München: C.H. Beck.
- Beck, H. J. (2008). Steuerliche Vorteile. In G. Basty, H. J. Beck, B. Haaß (Eds.), Part A and B. Büro für Stadtplanung, -forschung und -erneuerung (2008). Studie zur abschließenden Überprüfung der sozialen Sanierungsziele (Bevölkerungsstruktur/Mietenentwicklung) “Sanierungsgebiet Kollwitzplatz” im Bezirk Pankow von Berlin. Berlin.
- Coulson, N. E., & Leichenko, R. M. (2001). The internal and external impact of historical designation on property values. *Journal of Real Estate Finance and Economics*, 23(1), 113.
- Creigh-Tyte, S. W. (1998). The built heritage in England: The history and development of government policy. *Cultural Trends*, 8(32), 25–36.
- Deodhar, V. (2004). *Does the housing market value heritage? Some empirical evidence*. In: Macquarie economics research papers 403.
- Deutsches Nationalkomitee für Denkmalschutz. (2004). *Kursbuch Denkmalschutz* (5th ed.). Bonn: Deutsches Nationalkomitee für Denkmalschutz beim Beauftragten der Bundesregierung für Angelegenheiten der Kultur und der Medien.
- Dyroff, A. (2009). Was in Milieuschutzgebieten geht und was nicht. *Das Grundeigentum* (5), 302–306.
- Erbguth, W. (2009). *Öffentliches Baurecht Mit Bezügen zum Umwelt- und Raumplanungsrecht* (5th ed.). München: C.H. Beck.
- Gebner, M. (2008). *Leistungsfähigkeit des städtebaulichen Instruments Milieuschutz für die Stadtentwicklung in Berlin*. Berlin: Technische Universität.
- Haag, T., Menzel, P., & Katz, J. (2007). *Städtebauliche Sanierungs- und Entwicklungsmaßnahmen. Ein Handbuch für die Praxis mit zahlreichen Mustern, Beispielen, Schemata und Übersichten*. Stuttgart: Verlag W. Kohlhammer.
- Haass, B. (2008). Öffentlich-rechtliches Genehmigungsverfahren. In G. Basty, H. J. Beck, B. Haaß (Eds.), Part C.
- Haass, B. (2010). Sanierungsrechtlicher Ausgleichsbetrag nach “Zielbaumethode”. *Grundeigentum*, p. 244.
- Haspel, J., Martin, D. J., Wenz, J., & Drewes, H. (2008). *Denkmalschutzrecht in Berlin. Gesetz zum Schutz von Denkmälern in Berlin, Kommentar mit Hinweisen zum Steuerrecht und zu den Förderungsmöglichkeiten*. Berlin: Kulturbuch-Verlag GmbH.

- Holm, A. (2011). Berlin: Auf dem Weg in die Zitadellenökonomie. Gentrification Blog. <http://gentrificationblog.wordpress.com/2010/08/06/berlin-auf-dem-weg-in-die-zitadellenokonomie/> vom 17.03.2011.
- IFO (2005). Die volkswirtschaftliche Bedeutung der Immobilienwirtschaft. Zeitschrift für Immobilienökonomie, Sonderausgabe.
- Listokin, D., Listokin, B., & Lahr, M. (1998). The contributions of historic preservation to housing and economic development. *Housing Policy Debate*, 9(3), 431–478.
- Looman, V. (2009). Die Vermögensfrage: Eigenheime unter Denkmalschutz sind oft überbeuert. Frankfurter Allgemeine Zeitung, Artikel vom 27.09.2009, loaded October 12th, 2010.
- Maennig, W. (2006). Denkmalsubvention oder Wirtschaftsförderung. Analyse gesamt- und einzelwirtschaftlicher Effekte möglicher Änderungen steuerlicher Rahmenbedingungen Denkmalinvestitionen und angedachte Änderungen der §§ 7h/i, 10f, 15b, 23 EStG. Gutachten im Auftrag des Arbeitskreises Denkmalschutz des BFW Hamburg, BFW.
- Martin, D. J., & Krautzberger, M. (2006). *Handbuch Denkmalschutz und Denkmalpflege-Einschließlich Archäologie – Recht – fachliche Grundsätze – Verfahren – Finanzierung* (2nd ed.). München: C.H. Beck.
- Noonan, D. S. (2007). Finding an impact of preservation policies: price effects of historic landmarks on attached homes in Chicago, 1990–1999. *Economic Development Quarterly*, 21(1), 17–33.
- Noonan, D. S., & Krupka, D. J. (2011). Making- or picking-winners: Evidence of internal and external price effects in historic preservation policies. *Real Estate Economics*, 39(2), 379.
- Penfold, V. (1994). *Heritage controls and property values: A study of four Sydney conservation areas*. Sydney: University of New South Wales.
- Schaeffer, P. V., & Millerick, C. A. (1991). The impact of historic district designation on property values: An empirical study. *Economic Development Quarterly*, 5(4), 301–312.
- Schmidt-Eichstaedt, G. (2005). *Städtebaurecht, Einführung und Handbuch, Mit allen Neuerungen des Europarechtsanpassungsgesetzes EAG Bau 2004 sowie des Gesetzes zur Verbesserung des vorbeugenden Hochwasserschutzes* (4th ed.). Stuttgart: Verlag W. Kohlhammer. vom 3. Mai 2005.
- Shiple, R. (2000). Heritage designation and property values: Is there an effect? *International Journal of Heritage Studies*, 6(1), 83–100.
- Siedler, W. J., Niggemeyer, E. (1993). Die gemordete Stadt. Abgesang auf Putte und Straße, Platz und Baum. München: Siedler Verlag.
- Stürer, B. (2009). *Handbuch des Bau- und Fachplanungsrechts, Planung – Genehmigung – Rechtsschutz* (4th ed.). München: C.H. Beck.

Part IV

Financing

Commercial Property Financing After the Crisis

Frank Nickel

Abstract Since the beginning of the financial crisis in 2007 capital markets worldwide were in shock. While initially only markets in the United States were affected, during the summer of 2007 the European securitization market, which is essential for the refinancing of commercial real estate debt in Europe, was seized. Even though there were no major real estate bubbles in Germany compared to most European and US markets, the financing of commercial real estate as well as the refinancing of existing debt has become notably more difficult. This chapter shows the differences between Mortgage Pfandbrief and securitization through the issuance of CMBS, analyses the market developments during the last few years and gives a short introduction to real estate finance.

Keywords CMBS • Due diligence • financial crisis • Pfandbrief

1 Market Changes in Recent Years

1.1 Market Changes due to Internationalisation

Since the abolition of national currencies and the introduction of the euro, property investment and property financing concepts have undergone extensive internationalisation.

Until the 1990s, property investment tended to have a strong national focus, not least due to the prevailing legal restrictions. Until 1992, the business activities of German mortgage banks were restricted to Germany, with the same restriction applying to the activities of open-ended real estate funds until 1996. In 2005, the specialist banking system was abolished and the national restrictions on the property market were thus completely lifted. This saw the beginning of internationalisation of the sector and a move away from predominantly regional practices not only in Germany, but right across Europe.

The definition of what constitutes “typical” national property financing has continued to evolve since this time. The influence of Anglo-American financing methodology on national forms of financing became dominant in this time, with the result that the English language is now commonly used and recognised in loan and collateral agreements alongside the respective national language. Along with financing agreements based on LMA (Loan Market Association) standards, Anglo-American evaluation methods have made a significant contribution towards the harmonisation of international financing markets. Furthermore, international pressure has led to professionalisation and extensive specialisation – in specific asset classes, for example – in the property sector.

In Germany, the importance of a term sheet before a financing commitment has increased significantly since early 2000. Having previously served merely as written confirmation of the as yet non-binding credit terms, the term sheet became indispensable on account of the growing number of property sales in bidding processes. The term sheet provided the seller with sufficient proof in relation to the availability of secure financing for the transaction, at least for the early bidding rounds. Binding bank commitments were therefore not required until later bidding rounds.

1.2 Market Changes due to the Financial Crisis

In early 2007, the US subprime crisis began to unsettle the capital markets. Initially only US markets were affected, but by the summer of 2007 the crisis had also reached European securitisation markets.

Four years on, structured credit products have become almost impossible to sell on both sides of the Atlantic. The reasons for this can be seen primarily in the lack of transparency, the complex structure of the products and the sustained loss of confidence among investors in this product category. Given that product valuations by rating agencies have tended historically to be overly optimistic, investors continue to distrust the forecast value and stability of these valuations.

However, the fourth quarter of 2010 saw the first signs of recovery in the CBMS market in the USA. Right now, in early 2011, it is too early to predict when this recovery will reach Europe and Germany. The mixed performance of CMBS spreads since Q4 2010 shows that they are not developing in parallel, at least not from a time perspective (see Sect. 7.2.)

2 Types of Financing

A distinction is still made between asset financing and financing of the construction phases. The only difference between individual property financing and portfolio financing lies in the number of properties financed.

2.1 *Asset Financing*

With asset financing, the property is only financed when a certain value added is reached (completion, letting and transfer to tenant(s)), taking long-term investment considerations into account. The profitability of the property can thus be demonstrated by a stable cash flow from the payment flows secured by rental agreements. This property is, however, subject to a permanent reduction in its remaining useful life; positive changes in its value can only be achieved by rent increases or by significant interest in real estate comparison with alternative assets. For these reasons, asset financing is generally subject to a repayment agreement.

2.2 *Project Financing*

Project financing, often referred to as construction financing, is the riskiest form of property financing for banks. Here, the site purchase is often already financed. All additional value added such as planning, building rights, construction of the property, letting and transfer holds permanent risks and can lead to failure of the entire project and defaulting on the financing. Professional monitoring of the progress of the project and risk-related equity capital participation on the part of the developer are therefore essential.

3 Documentation and Risk Hedging

3.1 *Due Diligence*

The term ‘due diligence’ has its origins in US investor protection legislation. Within the context of a financing review, the due diligence process aims to identify all risk potential of the transaction. This method of reducing the risk associated with property financing has established itself as the standard in Europe.

Financial due diligence: Primarily market and location analysis and review of profitability, particularly of the rental situation, the tenant analysis as well as recoverable and non-recoverable costs.

Legal due diligence: Primarily clarification of the situation regarding ownership and administrative law for the investment, land register, cadastral map and environmental issues, review of the tenant and lease situation and of service agreements.

Tax due diligence: Primarily effects on real estate transfer tax, VAT and land tax, depending on whether the transaction was executed as an asset deal (purchase of the property) or share deal (purchase of the property company).

Technical due diligence: Primarily assessment of the condition, quality of fittings, functional checking of the architecture and the technical systems of the property.

3.2 *Loan Agreement*

Until the beginning of internationalisation in the mid-1990s, loan agreements for property financing in Germany consisted mainly of form agreements. These agreements, which ran from 4 up to a maximum of 20 pages, regulated the individual conditions – typically the credit terms and collateral definitions – agreed between the customer and the bank with reference to the German Civil Code (BGB).

The Anglo-American influence resulted in demand for bi-lingual loan agreements on the one hand and the incorporation of Anglo-American practices on the other. This in turn led to freely negotiated loan agreements, which often contained more than 200 pages. These extensive agreements were demanded with a view to subsequent securitisation. Although securitisation is now virtually meaningless, this individual documentation based on the Anglo-American model has survived along with the form agreement.

With regard to repayment requirements, a balance must be found between the collateral interests of the financial institutions (reduction of the riskier loan-to-value ratios as quickly as possible) and the liquidity interests of investors. Commercial loans usually demand higher repayments than home loans. This is due to increased wear and tear and more rapid changes in the requirements of tenants. In the case of loans for commercial property, repayments of 2.0% p.a. are thus standard. Depending on the loan-to-value ratio and the general risk assessment, repayment rates of 0.5% p.a. until the cash sweep (all surpluses after the interest payment and administration costs are used for repayment of the loan) can be agreed.

3.3 *Collateral*

A basic distinction is made between recourse and non-recourse loans. In the case of non-recourse loans, only the property with its value and cash flow is used as collateral. With this type of loan, the financing can be handed over to a virtually creditless special purpose vehicle. In the case of recourse loans, additional collateral such as assignments of mortgageable financial assets, land charges on additional assets and guarantees and sureties on the part of the borrower and his principle shareholders are accepted.

Financing is usually provided against land register collateral. A distinction is made here between a mortgage and a land charge. Whereas a mortgage establishes

a unique link between the loan and the personal debt to the debtor (accessoriness), the land charge is not linked to a single debt and can be assigned and transferred. Land charges are thus abstract security interests and are increasingly being given preference over mortgages as collateralisation for debts.

In order to establish a clear relationship between the flexible land charge and the collateralisation of a specific loan, a purpose statement is concluded between the borrower and the financing institution. This can be amended and adapted to the changing needs of both parties.

3.4 Covenants

The financial covenants that are typically used in Anglo-American countries are subsidiary agreements to the loan agreements, under which the borrower is subject to legally binding obligations during the term of the loan. As the internationalisation of financing markets has progressed, covenants have become increasingly popular in the German property financing business. They have become a necessity primarily on account of the increasingly non-recourse structure of loans in recent years as well as the growing trend towards reducing the amount of equity capital. Having access to the latest information should facilitate earlier identification of deterioration in collateral and then set a catalogue of measures in motion. Whereas the LTV covenant has been common in Germany for some time, ICR and DSCR covenants only began to be included in German loan agreements in around 2004.

3.4.1 Loan-to-Value Covenant (LTV)

With this property value-based covenant, the equity capital is defined during the purchase and during the term of the loan. It refers to the ratio between the loan amount and the current market value of the property is usually reviewed annually. In order to avoid having to take immediate action in the event of minor deteriorations in value, buffers or recovery periods are built in, in case this covenant is not fulfilled. With redemption loans, the relationship between market value and remaining value is taken into account.

3.4.2 Interest Coverage Ratio (ICR)

With this type of covenant, the ratio of the net cash flow of the property – after deduction of all property-specific costs – to the interest is calculated. Depending on the investment risk, the financing banks require a defined ratio between coverage of the net earnings of the property to the interest owed to the bank. When

calculating the net cash flow, emphasis must be placed on a realistic calculation of costs (management costs, vacancy periods, all costs associated with changes of tenant and capital expenditure (CapEx)).

From the banks' perspective, particular attention must be paid to quality assurance with the ICR covenant to ensure that cash flow improvements are not made at the expense of tenant credit ratings or by exchanging long-term for short-term rental agreements.

3.4.3 Debt Service Coverage Ratio Covenant (DSCR)

Unlike the ICR covenant, with the DSCR covenant the repayment is included (debt service coverage). Otherwise the same calculation basis applies as for the ICR covenant.

3.4.4 Non-Financial Covenants

This includes:

- Requirement for originator approval in the event of a change in the composition of the shareholders on the part of the borrower
- Requirement for approval for additional debt financing
- Disposal options for transferred credit balances
- Reporting requirements
- Regulation of possible outflows of shareholder capital during the term of the loan
- Minimum rating of anchor tenants

The corresponding legal consequences must be negotiated individually between the borrower and the financing bank and documented in the loan agreement.

3.4.5 Sanctions for Covenant Breaches

The covenants constitute part of the loan agreement and are thus agreed before the start of the credit relationship with all legal consequences arising from possible breaches. For one-off or minor breaches (e.g. slightly exceeding the LTV), risk premiums for the credit terms and subsequent security are the norm, while in the case of construction financing, rights of retention are also agreed for credit tranches that have not yet been disbursed.

Continued or serious breaches of the agreement (e.g. missing interest or redemption payments) can lead to complete absorption of the cash flow (cash sweep) and to immediate extraordinary termination of loan agreements (event of default) and the realisation of collateral.

3.5 Interest Rate and Currency Risks

The influence of the Anglo-American perspective has led to an optimisation of earnings with an individual interest strategy. This is part of the optimisation strategy for reducing the investment costs and increasing earnings. Starting points exist primarily in the selection of fixed interest periods and, where applicable, in financing in a foreign currency. These optimisation options are, however, associated with additional risk potential and in the context of property financing are hedged against by derivatives, essentially through interest rate and currency swaps.

3.5.1 Interest Rate Swaps

An interest-rate fluctuation risk only exists for long-term agreed fixed interest at the time of extension of the loan or upon conclusion of follow-up financing. Depending on the current interest curve, short-term loans can be a lot less expensive than long-term loans that are matched to the actual purpose of the investment and the term of the loan. However, in this case there is a permanent risk of rising interest rates both in the short term and in the long term during the term of the loan. The benefits of a short-term fixed interest period for the borrower must therefore be balanced with the security needs of the bank, as the interest-rate fluctuation risk lies with the borrower during the term of the loan.

Interest-rate fluctuation risks are generally hedged against by an interest rate swap. This involves offsetting the risk with a second, compensatory risk (hedging). This risk-compensating swap must be purchased by the borrower on the banking market and is available through the financing banking institution or specialised banks at current prices.

- The interest rate payable on the variable loan is the valid 3-month Euribor plus credit margin
- From the swap, the 3-month Euribor is obtained from the bank
- In the swap, the customer pays the agreed swap fixed interest

As a result, the agreed swap fixed interest plus credit margin is paid.

3.5.2 Currency Swaps

If the financing is to be provided in a foreign currency, there is a further securitisation requirement. With a currency swap, a possible exchange rate risk is hedged against if the rental income and servicing of borrowed funds are in different currencies. Both the interest rates and the exchange rates of the two currencies can be swapped. An interest rate/currency swap is concluded with the bank on the basis of variable or fixed euro financing. A foreign currency interest rate is paid to the bank and in return a congruent variable interest rate based on the Euribor or congruent fixed interest in euro is received.

4 Development from Pfandbrief Through CMBS Back to Pfandbrief

For the refinancing of commercial loans, financial institutions can issue bonds – usually in the form of mortgage Pfandbriefe – on the capital market or securitise the loans.

4.1 *What is a Pfandbrief?*

Pfandbriefe (covered bonds) are special loans that are hedged against the issuer's insolvency. They are issued in accordance with the Pfandbrief Act (PfandBG). The issuing bank must have a Pfandbrief licence. Both the issuing institution and the mortgage Pfandbriefe are under the supervision of the Federal Financial Supervisory Authority (BaFin). The loans assigned to an individual Pfandbrief as collateral are referred to as the cover pool. This cover pool contains debts, which are backed by property financing in accordance with stringent legal requirements and are separate from the issuer's insolvency. The cover pool is thus a special asset, from which the debts of the Pfandbrief creditor are served until the Pfandbrief matures. In the event of insolvency, a court-appointed manager separates the cover pool from the insolvency assets and manages it on behalf of the creditors.

In order to be able to allocate financing to the cover pool for Pfandbriefe, the lending value of the property to be financed must be determined by an independent expert. This involves making statements regarding the property itself, its future saleability and the sustainability of earnings (rental and cost analysis). The lending value should reflect the price at which the property would also be marketable at any time in the long term (cf. Meister and Dressel, 2011, in this book). The lowest value principle applies here. Therefore, should the purchase price of the property lie below the defined lending value, this purchase price is accepted as the lending value. Furthermore, the property must be suitable for alternate use, which means that it must be usable for another user or another purpose. Note that in comparison to the normal market value analysis for securitisations, the lending value must be subject to virtually no fluctuations.

A first-priority lien on property, which is entered in the relevant land register or in the mortgage register, is an essential requirement for a loan with Pfandbrief capacity. For foreign financing, the local lien must be comparable with the German lien on property. The lien on property is generally the amount of the loan plus interest and costs for realisation. The Pfandbrief Act demands adequate insurance for the property, at least in the amount of the building value. Claims arising from this insurance must be transferred to the financing bank.

Over the last 100 years in Germany, not one Pfandbrief-issuing institution has become insolvent. Investors have become more critical and sensitive in relation to the credit rating of the issuing institution, the quality of the cover pool and the entire issue. More detailed questions are being asked about issuance prospectuses.

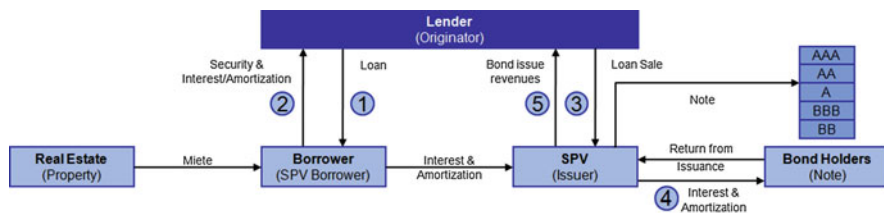
Because of this, the volume of Pfandbriefe on the market is still significantly smaller than it was before the Lehman crisis (see Sect. 4.2.)

4.2 What are CMBS?

Securities backed with CMBS (Commercial Mortgage Backed Securities) are similar to Pfandbriefe, as the interest and repayments to investors are securitised by a loan portfolio assigned to the individual CMBS transaction. Pfandbriefe are subject to stringent statutory regulations with respect to the security requirements for the cover pool (Pfandbrief Act), while CMBS are civil law contracts, which are not subject to any directly assigned legal framework (Lauer 2008).

In a CMBS transaction, non-securitised, illiquid assets are converted into securities suitable for the capital market and are thus oriented to the practices of the capital market. In a CMBS transaction, the property portfolio to be securitised is sold by the lending institution (originator) to a special purpose vehicle (SPV), which finances the purchase through the issuing of bonds (Commercial Mortgage Backed Securities). The procedure for a CMBS transaction is represented schematically in Fig. 1.

Given that securitisations are exclusively regulated by individual agreements, any property-backed debts can be added to the portfolio of a CMBS transaction. The underlying collateral values are limited only by the estimates of the rating agencies and the expected response of the investors. The conservatively applied lending value is therefore not used for the structuring of securitisations; the current market value provides the calculation basis in this case. The loans assigned to a CMBS are generally referred to as the “collateral pool”. Changes can no longer be made to the underlying collateral pool following conclusion of the transaction. CMBS structures are thus much more static than Pfandbrief issues. With CMBS, reserves are formed either by storing liquid assets or by means of over-collateralisation.



Commercial mortgage-backed securities (CMBS) are a type of securitization that is backed by mortgages on commercial rather than residential real estate.

1. Lender provides a loan to the Borrower
2. Borrower grants securities to the Lender (property, etc.)
3. Lender sells loan including securities to the SPV Issuer. Through this process the SPV Issuer becomes the new Lender
4. SPV Issuer refinances itself through the Note issuance at the capital market (different tranches – AAA, AA, etc.)
5. Service of the bonds through interest and amortization of the loan.

Fig. 1 Excursus: chart securitization (Source: Deutsche Bank)

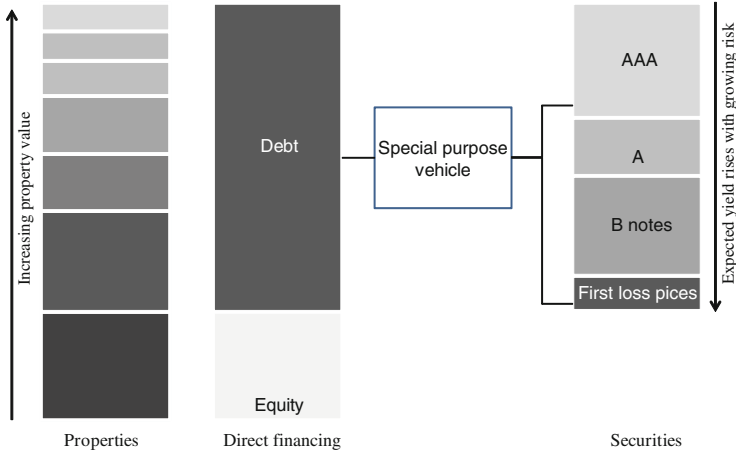


Fig. 2 Structuring real estate finance (Source: Own presentation)

A significant difference between mortgage Pfandbriefe and CMBS lies in the typical tranching of the debts for securitisation. This means the creation of orders of priorities for risk classification and the distribution of the payment flows. The interest for the respective tranche is based on the risk and loss potential (Fig. 2).

Given the fact that the individual tranches can be sold independently of one another to different investors, this clear division of risk and return on the capital market is an important aspect of the sale of CMBS transactions. The individual tranches are distinguished from one another using the ratings AAA (probability of default very low), AA, A, B up as far as the risk-bearing equity capital. The majority of CMBS loans are bullet loans, which means that the ongoing redemption is deferred and the loan is paid back in full on the date of maturity. A securitisation is structured by an arranger; this is generally the original lending bank. The arranger is responsible for the contractual document and for coordination and communication with the rating agencies. The rating agencies assess the quality of the securities by checking the asset values and the sustainability of the underlying cash flow. They are also responsible for tranching the transaction collateral. The debts are basically sold without recourse within the framework of a securitisation.

After placement of the securitisation, the master servicer acts as a contact. In Germany, this task is generally undertaken by the arranging bank for customer retention reasons. The primary function of the master servicer is monitoring and distribution of the payment flows. His work, particularly in relation to proper debt management, is in turn monitored by the trustee. As soon as a loan deviates from the planned payment flows as a result of defaults, for example, the master servicer transfers this loan to a special servicer. The special servicer has greater scope contractually with respect to decision-making, adjustment of the credit terms, enforcement measures and realisation of collateral (Fig. 3).

The first securitisation was created in the United States at the beginning of the 1970s and since then it has been a major component of the US refinancing market.

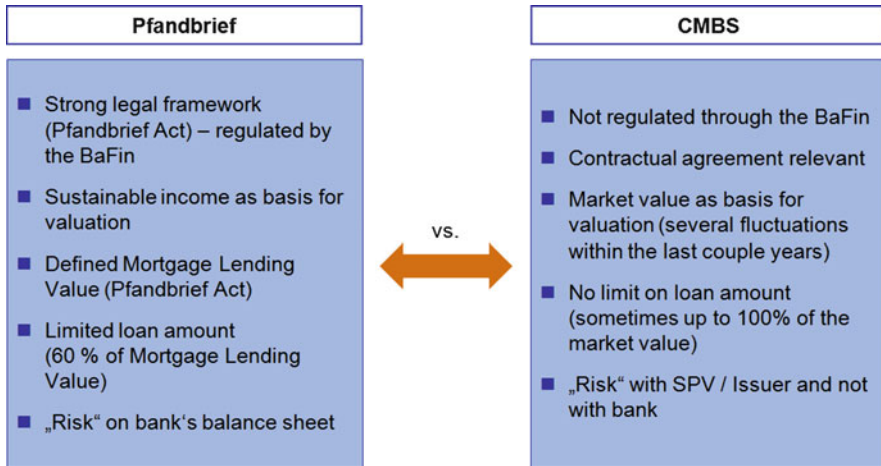


Fig. 3 Differences between CMBS and Pfandbrief (Source: author’s own representation)

This financial product first reached Germany in the 1990s. Local regulatory authorities were critical of the product for a long time and were concerned that the special purpose vehicles (SPVs) could escape regulatory supervision. Significant volumes only began to be placed after 2002. The onset of the financial crisis in the summer of 2007 and the collapse of US bank Lehman Brothers in the autumn of 2008 had a major impact on operation of the interbank market. Securitisation markets also began to lose value in the late summer of 2007. This was particularly true of the CMBS, whose worldwide issue volume fell from 455 billion euro in 2007 to 80 billion euro in 2008.

The spreads agreed with customers were no longer adequate from a risk perspective. Credit institutions could no longer sell loans intended for securitisation and had to keep them. As the crisis persisted, the problem of how to value securities for which there is no liquid market arose for the first time at the end of 2007 (year-end valuation) (Fig. 4).

5 Changes in the Lending Environment

Although Germany didn’t experience a property bubble like most European and American markets, it has become a lot more difficult to finance property and refinance existing loans since 2007. Furthermore, the risk of default for CMBS has been increasing steadily since 2008. Many of the assumptions and business plans that underpin financing arrangements have proven to be over-optimistic on account of the continuing crisis. Expected rent increases and increased sales multipliers could not be realised as planned, which is now resulting in cash flow problems for financing. There are no signs of a reversal of this trend as of yet (Fig. 5).

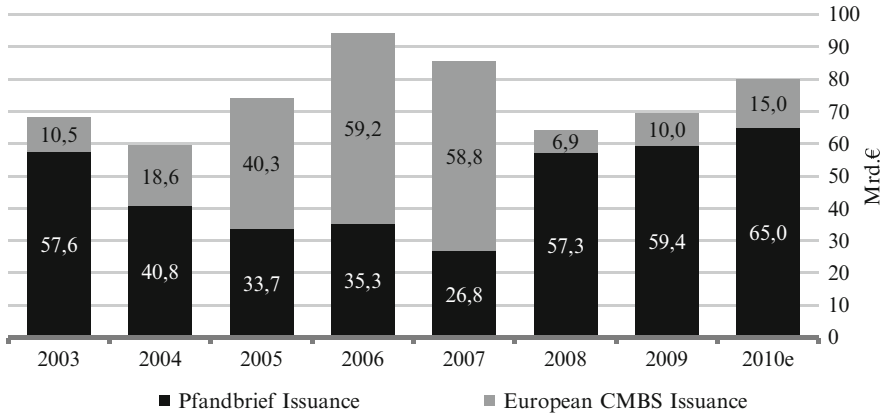


Fig. 4 CMBS and Mortgage-Pfandbrief issuance volumes 2003 – 2010 (Source: Deutsche Bank (2011), VDP (2011))

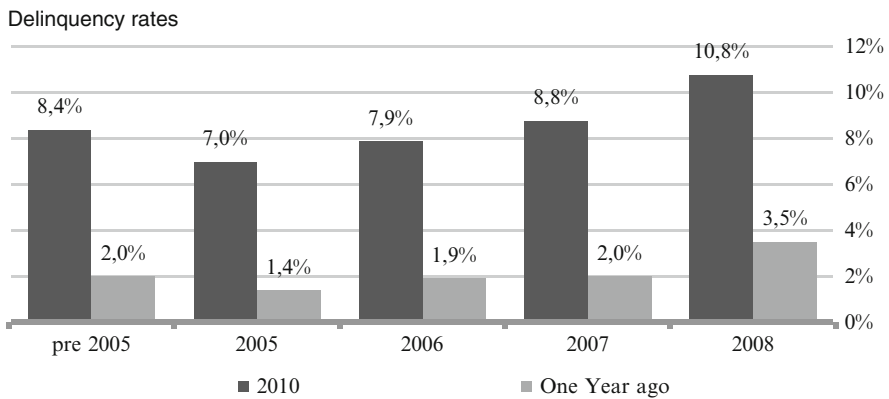


Fig. 5 Delinquency rates have increased (Source: Deutsche Bank (2011))

Consequently, the proportion of loans being submitted to a special servicer has also increased significantly. For European CMBS, rating agency Fitch estimates that this figure is in excess of 5%. Both during and after the financial crisis, it was a conservative and traditional product – the Pfandbrief – that proved itself best able to weather the storm. Even now, in 2011, demand for new products such as CMBS has almost completely dried up. These products have not played any significant part in the European property financing market since 2008. Conversely, it could be said that banks have been forced to choose the Pfandbrief as the only remaining refinancing instrument due to a lack of alternatives.

The internationalisation referred to earlier has led to alignment of the property and financing markets worldwide. The international banking market was therefore

unable to provide assistance to alleviate the crisis, as almost every local market was in the same situation. The situation in financial markets remains difficult. However, there are signs of a recovery. The first, albeit very conservative and specific, CMBS transactions have been placed in the United States. Bank mergers and the impending new capital accords (Basel II and Basel III) are leading not only to continued difficulties in relation to the refinancing base for banks, but also to a credit supply bottleneck and thus to new developments in the property financing market.

5.1 The Renaissance of Club Deals

The individual amounts being financed are at a much lower level than they were before the crisis. Individual loans amounting to billions of euro are a thing of the past. These days, bank consortiums have to be formed for significantly lower amounts than before, and ideally before the granting of credit. Until mid-2010, a limit of 100 million euro per bank for individual risks was observed on the market. Since then, individual loans of 250 million euro are once again being granted for exceptionally good risks.

5.2 Margin Adjustments

In the years 2008 to 2010, the big question when submitting financing applications was no longer about the terms of the financing, but whether the loan would be granted at all. Due to the value adjustments on own lending portfolios and the reduced supply, traditional loans were almost impossible to get. Margins in the Pfandbrief sector (max 60% of the lending value) increased from 50 bps to over 200 bps. Nevertheless, at the end of the year 2010, there was a noticeable margin reduction to two-digit spreads in individual cases. In general, however, it can be assumed that interest margins and fees will remain at a higher level than before the crisis. As a result of the Basel III guidelines, this will lead to higher refinancing costs for existing loans and a higher return on investment for future property projects.

5.3 Mezzanine and Equity Capital Pre-financing

During the boom years of 2004–2007, the capital resources required for investors were consistently reduced. Along with mezzanine financing, which covered the loan-to-value ratio from 80% to approx. 95%, equity capital pre-financing for the loan range from 95% to 110% of the market value was also issued. The basis for this

financing was the expected revenues from other projects or the planned private placement of the equity capital in the future. All of this took place under the assumption of continued positive development of the overall market. This type of risk assumption by financing institutions is no longer available on account of the losses that have been incurred. The mezzanine tranche is currently put at approx. 75%–85% LTV by private equity funds. While many investors may be toying with the idea of mezzanine funds, this market has not yet been revitalised with the exception of individual transactions. Equity capital pre-financing is currently only available in exceptional cases for well established companies, specifically in the closed-ended real estate funds segment. However, additional collateral and recourse structures are being used.

6 Changes in Due Diligence and Adjustment of Loan Agreements

The expansion of the shares of German banks and the renaissance of Pfandbrief financing have led to a move back towards German-language, form loan agreements. The argument citing the need for more extensive Anglo-American documentation could in times of CMBS financing be negated by high loan-to-value ratios and non-recourse structures. As a result of the general change in the refinancing options of banks and concentration on the Pfandbrief market, there is currently no need for German-speaking investors to accept Anglo-American contractual documentation, which frequently runs to more than 200 pages. Nevertheless, this type of loan documentation continues to be the standard for banks from Anglo-American countries or banking institutions with a strong Anglo-American influence. Given the credit supply bottleneck, a borrower will thus accept this option in case of doubt.

6.1 *Due Diligence*

In the boom years, the respective tranchings of the rating agencies frequently took over part of the due diligence or partially replaced the necessary review of the property and its parameters. Banks and investors took over risk classification without any detailed assessment of their own. This has led to far too many unpleasant surprises in recent years. Today, banks are once again attaching a great deal of importance to carefully executed due diligence, which is normally carried out by bank employees, with assistance from service providers in the technical, fiscal and legal areas where required.

The short evaluation of the property is currently carried out or commissioned in the term sheet creation phase; the final evaluation of the property must be available by the time of the credit decision at the very latest.

6.2 LTV

While Pfandbrief financing is subject to stringent regulatory requirements with respect to the maximum loan amount (max. 60% of the mortgage lending value), loan-to-value ratios close to or even in excess of the purchase price were common for CMBS financing in the boom years. As the market began to recover in 2009, maximum financing of 65%–70% of the purchase price was available. This restrictive position has somewhat softened since. Loan-to-value ratios of 70%–75% of the purchase price have become the standard once more, and the number of applications for loans of up to 80% of the purchase price is on the increase again.

Despite this, the LTVs available are still nowhere near reaching the heights witnessed during the boom years. The portion of the loan in excess of the Pfandbrief portion is being viewed critically by credit institutions from an economic perspective. The market for the sale or syndication of these loan portions is very limited. A major calming is not expected before recovery of the CMBS market.

6.3 Covenants

The covenants for current financing had to be adapted to the prevailing loan conditions. In the case of calculated covenants such as ICR and DSCR, the ratios required for credit approval were increased significantly due to the reduced risk propensity of banks. During the boom, ICR covenants had ratios of just over 1.00, while DSCR covenants were just above this value depending on the repayment agreement. At present, ICR agreements are in the range of 1.25. Due to the ever more frequently demanded repayment components, DSCR requirements have increased to around 1.70. With these covenants, there is a noticeable return to risk-adequate sizes; renewed softening is neither necessary nor desirable.

Because of the lower loan-to-value ratios after the crisis, the standards of LTV covenants had to be adapted to the new conditions. Now, however, increasing importance is being attached on the side of the borrower to detailed agreements in the event of covenant breaches. Whereas the benchmarks for cash sweeps or defaults agreed in the loan agreements had more of a documentary function during the boom, they are now the subject of lengthy negotiations between banks and borrowers.

6.4 Formal Requirements for Rental Agreements

In the retail property asset class (supermarkets, retail warehouses), the increasingly strict legislation of the last 10 years has created considerable uncertainty, which affects the holding of written rental agreements. Definition problems with respect to exact identification of the property that is the subject of the rental agreement or too

great a time gap between the signing of the agreement by the tenant and landlord have led to difficulties from a legal perspective. The resulting difficulties with financing and the need for frequent renegotiation between tenants and the new investors have led to loss of confidence in this asset class as well. This restrictive position of the courts now seems to be softening.

7 Special Topic – Refinancing Existing Loans

The ability to redeem a loan upon maturity with the taking up of a new loan or to refinance without any problems depends mainly on the quality of the property, the structure of the loan and the general conditions in the financing market. The capital-intensive property sector depends on the permanent availability of a financing market. In the United States, almost half of the loans to be refinanced have a redemption amount that is higher than the current market value.

7.1 Pfandbriefe

The Bundesbank estimates the commercial property loans of credit institutions active in Germany to be worth around 250 billion euro. With an average fixed interest period of 7 years, this gives an annual refinancing volume of approx. 35 billion euro. When securitisation activity was at its peak, the Pfandbrief volume was declining slightly. For this reason, no exceptional increase in refinancing volumes is anticipated in these years. Institutions are prepared for annual refinancing, not least thanks to continuous repayment of the Pfandbrief loans, and are taking up this volume in accordance with the legally prescribed loan-to-value ratios (Fig. 6).

Although refinancing margins have at least doubled since 2009 in comparison with the boom years, entries to the refinancing market have declined significantly, which means that the overall burden for the customer has remained roughly at the same level.

7.2 CMBS

The majority of European CMBS were issued in the years 2005–2008 and are thus due to mature between 2013 and 2018 depending on the fixed interest period (Fig. 7).

When redeeming/refinancing CMBS loans, you must basically assume that the Pfandbrief is only considered to a limited extent as a refinancing instrument due to the normally higher loan-to-value ratios and aggressive credit terms. Therefore, (theoretical) refinancing through a new CMBS issue is currently the only alternative to use of additional equity capital to reduce the loan-to-value ratio and adaptation of

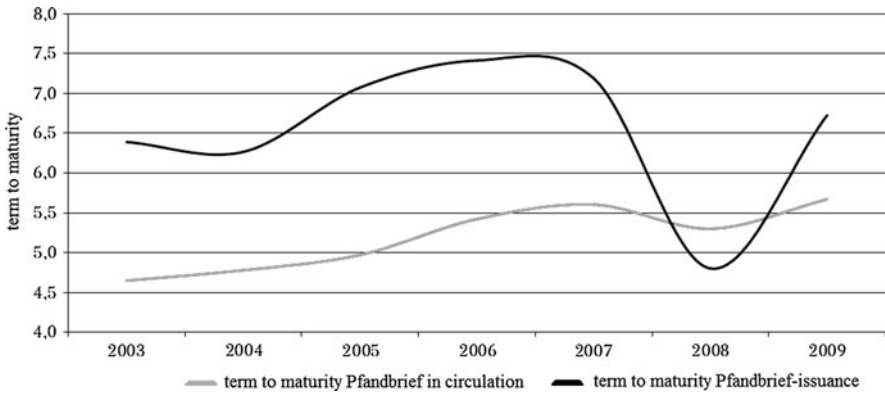


Fig. 6 Pfandbrief-circulation and issuance (Source: VDP (2010))

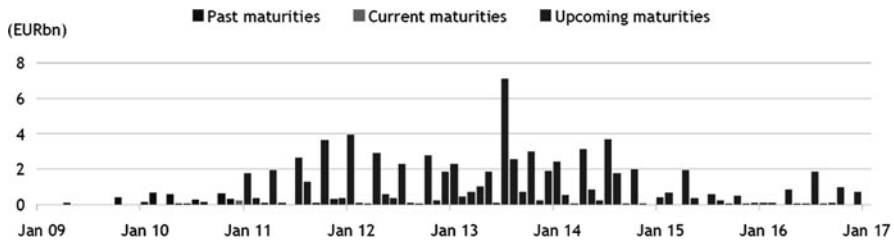


Fig. 7 European CMBS maturity profile, by current loan balance (Source: Bloomberg (2011))

the credit terms to the market conditions. The high loan-to-value ratios would only allow partial refinancing through the Pfandbrief market. Given the fact that banks have to act more and more restrictively in the assignment of secondary loans, the resulting gap must be closed with equity capital. However, this is not available to many investors.

In the area of CMBS, loans were assigned with very small margins during the boom despite the higher loan-to-value ratios, comparable with the Pfandbrief market. However, the low swap rates, which keep the Pfandbrief market stable, do not (yet) apply to CMBS. Due to the structural problems associated with the product, current spreads are multiples of the original spreads and do not allow economically viable refinancing through the CMBS market, even if it were active under these terms.

In the current circumstances, a significant increase in the mortgage Pfandbrief volume to include the CMBS redemptions that cannot be refinanced appears to be unfeasible. The way towards increased volume could only be prepared by capital increases by the Pfandbrief banks, which is not possible in the current market environment. Within the context of part payments due, the banks can, of course, issue new loans. However, this volume is nowhere near enough to be able to offset

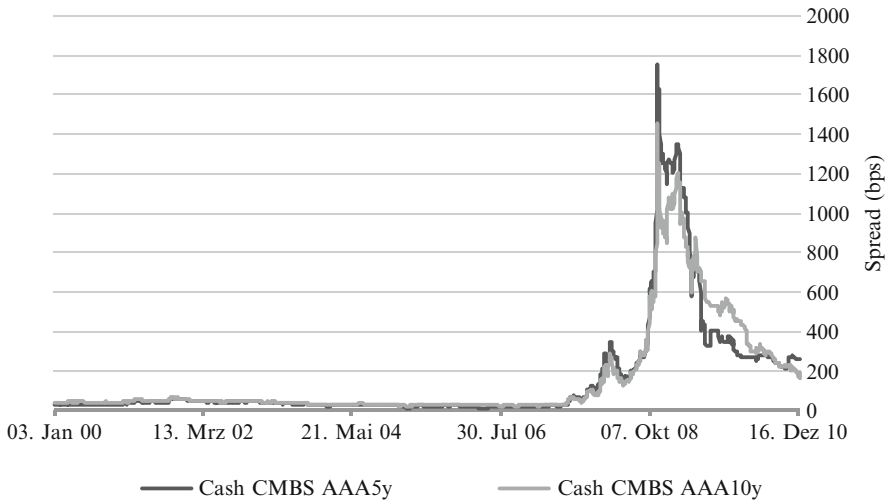


Fig. 8 Spreads of CMBS, indicating growing risk (Source: Bloomberg (2011))

the specific requirements of the market for refinancing of the issued CMBS loans. In any case, the taking up of CMBS redemptions will be offset against the budgeted new loan issue and further restrict the options for the assignment of new loans. Recovery of the CMBS market must therefore be viewed as absolutely essential, including the taking up of loan redemptions (Fig. 8).

The granting of loans on a non-recourse basis leads to other problems. Identification of the borrower with the loan ends at the very latest when he views the equity capital originally used as lost in the long term. This is the time at which he normally “returns the key” to the original financing bank (arranger) and does not bring any further activities or capital to the investment. Given the fact that the bank has resold the loan, including the loan risk, in the majority of cases, there is little interest in restructuring the loan without corresponding compensation.

The buyers of these loans are now the only people who still have an interest in minimal damage from a restructuring of the loan or realisation of the collateral. As the individual loan tranches were sold independently of one another to different investors, an overview of the entire investor group must first be created. Only the servicer, to whom this demanding task falls in reality, has the necessary information. In the event of a loan being terminated, the investors must ultimately come to an arrangement with the special servicer in order to keep their loss from the transaction as low as possible.

7.2.1 Extension Options

The majority of CMBS loans since 2005 have had the option, in specific situations such as deterioration of the general economic situation and of the investment, of

extending the term of the loan by a predefined period. The basis for this extension is generally predefined in the loan agreements. The decision is made by special servicers, usually together with the bond investors, on the basis of the loan documentation. Given the fact that the individual CMBS transactions are not subject to reporting and publication requirements, reliable data on the volume of agreed term extensions is not available.

7.2.2 Incorrect Documentation

Borrowers who wish to refinance or repay their CMBS loans early frequently come up against restrictions in their loan agreements. Before the crisis began, this type of repayment before the agreed date was not desired by lenders and bond investors and considered unlikely by the borrower. However, the reason for surprise among the borrowers is due in part to incomplete documentation.

8 Outlook

The Basel Committee of the Bank for International Settlements is currently discussing new equity capital rules for financial institutions (Basel III), which may have a major influence on the future property financing business. In future, the balance sheet total of a bank should only be 33 times greater than the core capital of the bank (Ahlsvede and Just 2010). This should be independent of the risk class in which the banking institution invests. Pfandbrief banks in particular would suffer under implementation of these rules, as they would either have to increase their core capital to maintain the current credit volumes or look for higher-margin business with a reduced volume in order to maintain profitability. This would favour risky transactions and debtors and possibly lead to a significantly more expensive credit market.

However, the final maturity of CMBS loans leaves borrowers and banks with little time. Waiting in the hope that future maturities will face an improved market is just as risky as hoping for short-term stabilisation of the securitisation markets or for a sustained revitalisation of commercial property markets as part of the economic recovery. For investors, a way out of this situation can mean simply strengthening of the equity capital basis in good time through the acquisition of additional funds.

In the years 2011–2014, CMBS refinancing of multiple portfolios to the tune of over 1 billion euro will be scheduled. If individual refinancing does not take place due to the size of these transactions, this will have a sustained negative influence on the entire market in Germany. Falling property prices in the respective asset class as well as higher sales pressure right up to fire sales are foreseeable. This would require the drafting of new sales strategies, as leads for the complete packages are not available at present due to the high capital resources required.

References

- Ahlsweide, S., & Just, T. (2010). Commercial Real Estate loans facing refinancing risks: CMBS only part of a growing problem, Deutsche Bank Research, Current Issues, Frankfurt.
- Bloomberg (2011). Market data systems. Access 19.09.2011.
- Bothur, J. (2009): Securitisation Immobilienfinanzierung durch Verbriefung, Hamburg: Diplomica.
- Deutsche Bank CRE (2011). Commercial Real Estate Outlook, Frankfurt, Deutsche Bank.
- Lauer, J. (2008). Strukturierte Immobilienfinanzierung. 2. Aufl. Frankfurt. Knapp-Verlag.
- Rottke, N. (2010). Dunkle Wolken am US-Markt für Gewerbeimmobilienfinanzierungen: Droht ein ähnliches Szenario in Deutschland?, Wiesbaden: EBS Diskussionspapiere zur Immobilienwirtschaft.
- Vset, M. Die klassische immobilienfinanzierung in: BDO Deutsche Warentreuhand AG (Hrsg.) (2005): Praxishandbuch Real Estate Management. Stuttgart: Schäffer-Poeschel.
- Verband Deutscher Pfandbriefbanken (2010). Der Pfandbrief 2009/2010. Fakten und Daten zu Europas führendem Covered Bond. Berlin.

Going Public and M&A in the German Real Estate Market

Klaus Elmendorff

Abstract This chapter examines the German real estate market focussing on two main topics, the public market and the M&A market. Initially an overview and the specific characteristics of the public real estate market are described, including requirements from an investor's point of view regarding listed real estate companies. Furthermore, the process and prerequisites of becoming a listed company in Germany are specified. The second part focuses on the real estate M&A market in Germany. Following an overview of the market development over the last years, the current environment and investors are described. The chapter concludes with an outline of a typical M&A process including relevant issues for real estate companies.

Keywords IPO • merger and acquisitions • public real estate markets

1 Going Public

1.1 *Public Real Estate Market Overview*

Compared to other European real estate markets until now only a small number of companies has turned to the publicly listed market in Germany. According to the Deutsche Börse RX Real Estate Index that includes real estate companies in the Prime Standard only four companies fulfil the requirement of more than 1 m euro trading volume per day.¹ Companies included in the index are Deutsche Euroshop, Deutsche Wohnen, Gagfah and IVG Immobilien. Further indices are the Ellwanger & Geiger Deutsche Immobilienaktienindex (E&G DIMAX) which is published by the German private bank Ellwanger & Geiger² and the EPRA Germany Index

¹ Deutsche Börse (2011).

² Ellwanger & Geiger (2011).

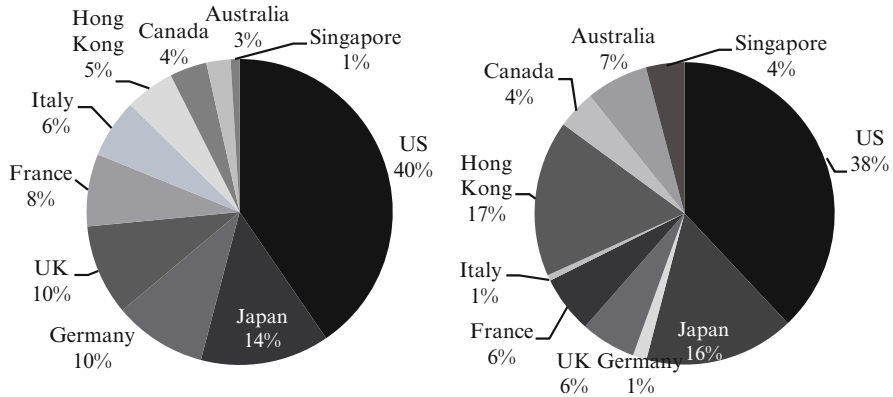


Fig. 1 Overview of the private and public real estate market (Source: EPRA global real estate market, 2010)

published by the European Public Real Estate Association (EPRA).³ Due to the rather broad definition of constituents the DIMAX⁴ does not fully reflect the German listed real estate market. To our view, the EPRA index can be considered the most relevant index for the German public real estate market, particularly as a benchmark for an international comparison. The EPRA Germany index consists of eight companies including alstria office REIT-AG, Colonia Real Estate AG, Deutsche Euroshop, Deutsche Wohnen AG, DIC Asset AG, Gagfah S.A., PATRIZIA Immobilien AG and TAG Immobilien AG.⁵ One of the major companies not included in the EPRA Index is IVG Immobilien AG; due to its additional asset management and caverns business activities the company does not meet the relevant criteria.

Compared to the overall German real estate market, the public real estate market in Germany is small. Also in a global context Germany's public real estate market is still in an infant stage. The overall market capitalisation of the sector is still comparatively low. According to EPRA the aggregate market capitalisation of listed real estate companies in Germany is 14 billion US-Dollar. In comparison the overall German real estate market, according to EPRA publication including non-listed assets has a size of approximately 1,493 billion US-Dollar.⁶ The left-hand pie chart in Fig. 1 shows Germany's share of the aggregate global value of the private and public real estate markets whereas the chart on the right side displays Germany's

³ EPRA (2011a).

⁴ The DIMAX consists of companies that generate at least 75% of revenues and earnings through real estate activities. No free float, market capitalisation or listing standard requirements.

⁵ The EPRA includes companies with at least 75% of EBITDA (earnings before interest, tax, depreciation and amortisation) related to real estate activities, a market capitalisation in excess of 50 million euro and an annual trading volume of more than 25 million euro.

⁶ EPRA (2011b).

Table 1 Global private and public real estate market

Country	Private and public market (billion US-Dollar)	Public market (billion US-Dollar)	Public market in % of overall market
US	6,152	359	5.8
Japan	2,074	152	7.3
Germany	1,493	14	0.9
UK	1,460	56	3.8
France	1,164	58	5.0
Italy	944	6	0.6
Hong Kong	795	159	20.0
Canada	597	39	6.5
Australia	389	63	16.0
Singapore	144	39	27.0
Total	15,212	945	Average: 9.3

Source: EPRA global real estate market 2010

share of the public market alone. Germany's total market accounts for approximately 10% of the global real estate universe and is similar to the size of the UK real estate market; the public German real estate market, however, has a share of less than 1%, despite being Europe's largest economy in terms of GDP (Table 1).⁷

1.2 Characteristics of the Public Real Estate Market

To understand why the public real estate market is less developed, it is important to explain Germany's "equity culture" in general: In Germany only a small percentage of households owns stocks of listed companies. Only 6.6% of German private households are directly invested in stocks, in other countries the investments are significantly higher (e.g. France 14.5%, Switzerland 20.4%, US 25.5%, Japan 27.7%). The aggregate market capitalisation of the total listed market relative to GDP in Germany is at 57% well below the European and global averages.⁸ In Germany, it is more common to invest indirectly in shares, e.g. via equity funds, certificates and, increasingly, exchange-traded funds.

Also regarding real estate investments other indirect vehicles play a much bigger role than real estate stocks: Indirect investments like open-end and closed-end real estate funds have a very long and (overall) successful history in Germany. While there are numerous closed-end funds providers, most of the open-end funds providers are owned by commercial banks (see also Knepel, 2011 and Sebastian, 2011 in this book).

⁷ EPRA (2011b).

⁸ Dieckmann (2008).

With the aim to further develop the public real estate market the German REIT legislation was introduced with retrospective effect on 1. January 2007.⁹ The intention was to build on the successful REIT concept known in many countries of the world to create a new real estate asset class with a transparent and conservative business model that is focussed on stable dividend payments. At that time expectations were very high; the market anticipated a large number of REIT IPOs and hence increased liquidity, transparency and competition in the listed German real estate market.

However, expectations were not met; the IPO window quickly closed after the first signs of the financial crisis emerged. Today, only three companies are listed as REITs in Germany. The first and largest REIT that went public (in 2007) is alstria office REIT with a market capitalisation of 913 million euro on first quotation.

A further characteristic of publicly listed real estate companies in Germany is the low free float. While the companies included in the German EPRA Index have an average free float of around 50% each company has at least one major shareholder holding more than 20%.¹⁰ These anchor investors can be divided into private equity companies who initially brought the companies to the public market or have contributed assets into the listed vehicle (e.g. Fortress, Natixis, Grove and Oaktree), family offices/high net worth individuals (e.g. Otto Family and Mann) and cross shareholdings of other listed real estate companies.

Furthermore leverage ratios of the listed companies in Germany are still above the European average.¹¹ German companies have not been able to de-lever by raising new equity in order to compensate for the value losses in the course of the financial crisis. In developed public real estate markets like e.g. the UK, companies have tapped capital markets to restructure their balance sheet despite relatively high NAV discounts that eventually have a dilution impact on existing shareholders. It can be expected, that German companies will continue to de-lever in the near future which should ultimately lead to a number of capital increases. In addition, in a more stable equity and real estate market environment, IPO activity is likely to gain momentum as there are numerous non-listed real estate companies with funding needs to either restructure their balance sheet, grow their business or where investors look for an exit strategy for their investment.

1.3 Investors in the Public German Real Estate Environment

The small size and in particular the limited free float of most of the publicly listed companies in Germany combined with a very low liquidity and trading volume are

⁹ Schäfers (2007).

¹⁰ According to company information as of December 2010.

¹¹ For further information compare EPRA monthly LTV monitor as of December 2010.

major reasons for the absence of a broad international investor basis. Large international institutional investors have difficulties to invest in German real estate stock companies since their minimum equity investment size is often too large compared to the liquidity in the relevant stocks.

In addition, the currently high leverage and unclear refinancing situation (see Nickel, 2011 in this book) as well as the fact that most companies have one anchor investor often mean significant investment barriers for many large institutional investors.

Therefore, the most important investors for German listed real estate companies are smaller institutional, insurance and pension funds as well as smaller dedicated real estate specialists. Retail investors, as in many other European countries, only play a very small role. Retail investors as well as German pension and insurance funds are still rather directly investing in real estate or via open-end and closed-end real estate funds.

1.4 Investment Criteria

There are six main criteria a company has to comply with to successfully list as a public company. While these criteria also apply to already listed companies, there is particular investor scrutiny with regards to new companies that want to tap capital markets.

1.4.1 Management

In today's market environment, an internal management team is a sine qua non for a listed company. Before the crisis, there were listed companies with external management structures. Given the potential for conflicts of interest of these externally managed vehicles, investors prefer internal structures.

For any successfully listed company it is paramount to have an established and experienced management team in charge. Ideally interests of both management and investors should be aligned through share participations or stock option programs.

1.4.2 Strategy and Return

Broadly speaking there are three main business models of real estate companies, which are asset holding, asset management and project development. Often, business models include more than one strategy and in some cases all three strategies are pursued in parallel.

The asset holding strategy is the low risk and steady income business model real estate companies and in particular REITs are associated with. The more project development activities are included, the more volatile and riskier the underlying strategy becomes. In Germany and also other European countries there are only

Table 2 Strategic focus of the selected German real estate companies

Company	Asset holder	Asset manager	Development
Alstria office REIT	X		
Colonia real estate	X	X	X
DIC asset	X	X	X
Deutsche Wohnen	X	(X)	
Deutsche euroshop	X		
Gagfah	X		
IVG immobilien	X	X	X
Patrizia immobilien	X	X	
TAG immobilien	X	X	X

Source: Company information

very few pure play listed development companies that typically play a minor role. Given the nature and risk-return profile of the development business it is better qualified for the private sector. Table 2 gives an overview of the current strategies of selected listed real estate companies in Germany.

Successful listed real estate companies communicate a coherent and consistent strategy. This includes an outline of relevant investment criteria and a clear communication of growth targets.

1.4.3 Asset Portfolios

Prevalent asset class categories of listed real estate companies in Germany are residential, retail and office. Listed companies focusing on industrials, logistics or hotels do not yet exist.

Investors have a strong preference for companies with a clear focus on one particular asset class. The more focussed the asset class strategy the better. This also applies to the second dimension of the asset class strategy, i.e. whether companies are focusing on core, value-add or opportunistic assets. Most German listed players have a focus on core assets, which is consistent with the most common strategy as asset holder. However, there is also some leeway. For example, if a company is focussing on prime locations with prime assets, some non-core assets may be acceptable to provide for additional upside potential.

In summary, public investors prefer companies with a concentration on high quality properties in attractive markets that provide for stable cash flows and value appreciation potential. Future upside potential has to come from selected project development activities, change of use, repositioning, vacancy reduction, rent increases and other asset management activities.

1.4.4 Size and Liquidity

In order to hold liquid and tradable shares, investors require a minimum free float of between 300 million euro and 500 million euro, although this target range largely

depends on the market environment. Investors need to be able to sell their positions quickly. Both minimum size and liquidity are also prerequisites for certain public markets as well as main selection criteria for many indices.

1.4.5 Transparency and Governance

Full transparency and appropriate governance are crucial for the success of an IPO. The exit or sell down of existing shareholders can for example be a potential conflict of interest that has to be addressed.

For public listed real estate companies the implementation of the EPRA standards is recommended¹² to provide transparency regarding financial reporting. International investors appreciate to have a common standard.

1.4.6 Capital Structure

While the LTV (loan-to-value) is generally adjusted according to the underlying business model, LTVs also depend on the prevailing market environment.

If the REIT status is envisaged a maximum LTV of 55% is legally permitted in Germany. In the aftermath of the financial crisis a LTV of up to 60% may be acceptable for investors in German non-REIT companies. This is below the leverage of most listed German non-REIT companies today. This compares to target leverage ratios of some 40–50% internationally. However, under certain circumstances some very stable asset classes such as German residential can support higher leverage ratios of up to 75%.

1.5 Pricing

In theory, real estate stocks are best valued by a discounted cash flow analysis given relatively long-term cash flows. In practise many investors focus on relative financial ratios, particularly when assessing IPO investments, as these ratios provide a relevant asset allocation benchmark that can be applied easily based on the limited data available in the public domain (see Voigtländer, 2011 in this book).

The three main relative metrics that are usually used in Germany are premium/discount to NAV (net asset value) as metric to compare the pricing of the equity, market capitalisation/FFO (funds from operations) as proxy for the price for the annual cash flow generation for equity holders and EV/EBITDA (enterprise value/

¹² For further information EPRA Best Practices Recommendations as of October 2010.

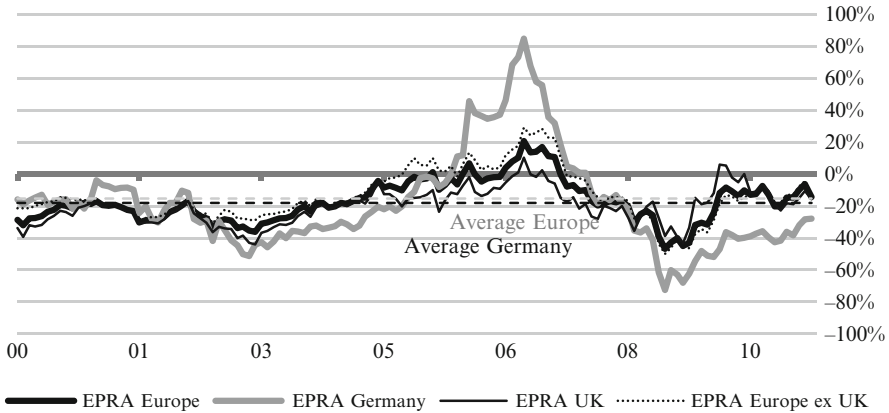


Fig. 2 EPRA NAV cycle since 2000 (Source: EPRA monthly published NAV bulletin December 2010)

earnings before interest, tax, depreciation and amortisation) as operational pricing metric independent from any capital structure and tax considerations.

NAV defines the value of the underlying properties as per the valuation of an independent appraiser excluding liabilities. Theoretically this is equivalent to the fair value of the equity. Historically most real estate IPOs in the German market have been priced relative to NAV.

Figure 2 shows the development of NAV premium/discounts in Europe according to major EPRA indices over a period of ten years.¹³ While all indices follow the same trend the German index shows a much higher volatility. In the period between 2005 and end of 2008 German real estate stocks were trading at historically very high premiums but in the turmoil of the financial crisis the sector in Germany was hit much harder than the rest of Europe.

FFO defines net earnings theoretically available for dividend payments, not considering any fiscal accounts that ultimately define distributable reserves. The concept of FFO was established in the German market with the IPO of Gagfah and has its origin in the USA where the metric is a key benchmark for REITs. Given the high leverage of most German companies today, FFO is heavily influenced by changes in the financing structure. To the extent an existing financing structure is not deemed to be sustainable, or is no longer accessible at similar terms, nowadays investors have a more critical view on FFO.

The third main relative valuation metric EV/EBITDA does not take into account capital structure or tax considerations and is also commonly used in other industries. The concept is particularly qualified for a direct comparison of operational performance across various jurisdictions.

¹³ EPRA (2011c).

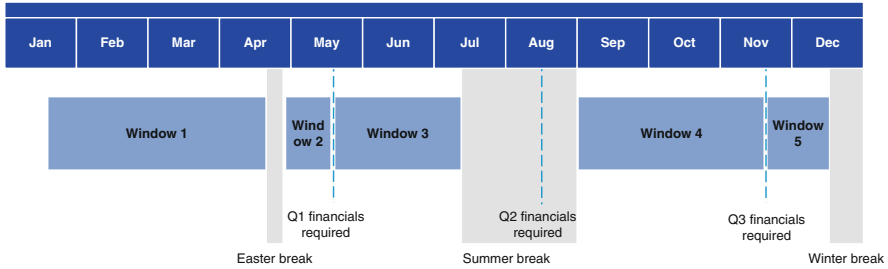


Fig. 3 Overview of listing windows in an IPO process (Source: Deutsche Bank)

One of the key challenges of the relative valuation approach is the adjustment of differing accounting and reporting standards. For example, the treatment of asset sales or revaluation results in both FFO and EBITDA varies by company. To ensure a common and transparent reporting that enables the comparison of different companies EPRA has published a best practices recommendation as guidance for real estate companies regarding their financial information reporting.¹⁴ Companies are increasingly implementing these standards, following both investors’ and research analysts’ demand for an industry-wide standard.

2 IPO Process

The timing of an IPO is driven by technical factors and market sentiment. Technical factors such as the financial calendar of the company as well as the legal prospectus requirements only allow for limited placement windows. This is due to the so called “135 days rule”, which stipulates that the financial information in the prospectus testified by the accountants is not older than 135 days. Potential listing windows are shown in Fig. 3.

However, only in a market environment with a favourable investor sentiment towards equity investments in general and towards the specific equity story of the company, a company can ultimately enter the listed market successfully. As market windows can quickly close following e.g. an external event and due to the fact that it is generally difficult to forecast at what time market windows will reopen, it is important to keep options in the process and to start the preparation well in advance. A generic IPO process including the relevant phases and the corresponding timing is shown in Fig. 4.

¹⁴ EPRA (2011d).

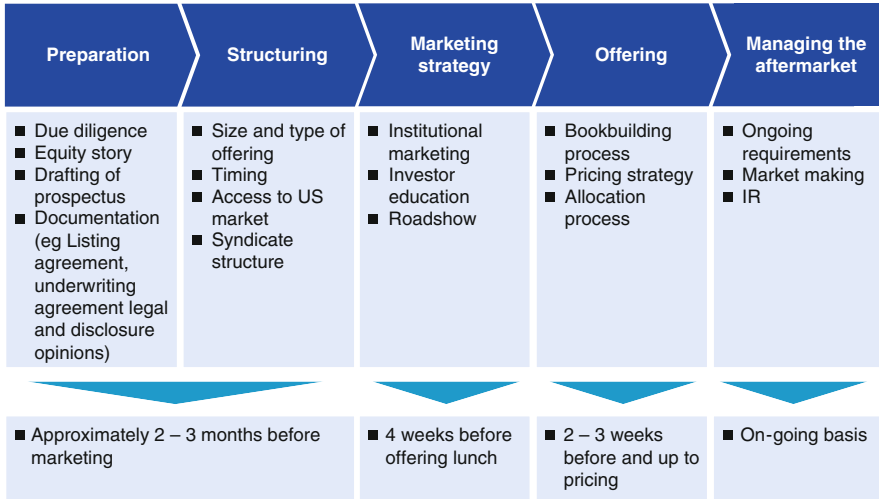


Fig. 4 Generic IPO process (Source: Deutsche Bank)

2.1 Preparation Phase

A main part of the preparation phase is the due diligence, during which the advisors carry out an extensive analysis of the company (incl. the real estate portfolio). Focus areas are the business plan, financing, the quality of the real estate portfolio database, contracts in place, tenant structure as well as environmental and legal issues.

Furthermore, the company prepares the analyst presentation together with its advisors. The analyst presentation is used to present the company incl. the equity story to research analysts. This is a key document of the company’s marketing strategy.

For getting listed in a regulated market a prospectus is required including all relevant information regarding both the issuer and the issuance. While the prospectus process for real estate companies does not differ from the process for other companies, there is one additional document real estate companies have to add. In line with the EU directive (CE 809/2004) real estate companies in Europe are obliged to add a valuation opinion to the prospectus defined by the CESR Recommendations (128–130). The valuation opinion has to be prepared by an external consultant according to international standards. The valuation assignment should not be older than 1 year compared to prospectus publication date and is in practice often aligned with the reporting date of the last financial report included in the prospectus. The prospectus can also just include a condensed instead of the full version of the valuation report. Next to the prospectus there are additional documentation requirements including the underwriting agreement between the company issuing new securities and the lead underwriter of the syndicate. This

agreement determines the public offering price, the underwriting spread, the net proceeds to the issuer, and the settlement date. Additional documents include the listing agreement, legal and disclosure opinions.

2.2 Structuring

At the beginning of the IPO process the issuer selects a syndicate of banks, usually comprising of one or two lead banks acting as global coordinators and bookrunners and additional co-lead managers, depending on the size of the IPO. Main criteria for the selection of the syndicate banks next to costs are track record, distribution power (sales force and access to relevant investors) as well as research capabilities. In course of the structuring phase the syndicate banks together with the company define which investors will be targeted as well as how both the future shareholder and capital structure of the company is supposed to look like. During the structuring phase the size of the offering, the general transaction structure and the final timing are defined.

2.3 Marketing Strategy

The marketing strategy consists of three cornerstones: institutional marketing, investor education and the roadshow. Institutional marketing for early key investors aims at receiving detailed feedback regarding the general feasibility of the transaction before a formal process is started. The second step is educating investors. Given the volatility of the equity capital markets in recent years this has become a critical tool to secure investor support at an early stage. Investor education is driven by research analysts who publish an IPO research report. During the roadshow the management team presents the company and the equity story to potential investors e.g. in New York, London or Frankfurt and has one-on-one meetings with institutional investors.

2.4 Offering

In the offering phase the so-called book-building is conducted by the syndicate banks, collecting all investment requests of potential investors, usually for a period of up to 10 trading days. At the end of the book-building the price for the shares is determined and the shares are allocated to investors.

2.5 *Managing the Aftermarket*

After a successful IPO the share price should not drop significantly below the offering price during the first few trading days. The syndicate banks ensure the stabilising of the market in line with the directive 2003/6/EG of the European Parliament and the Council.

3 Merger and Acquisitions

3.1 *Market Overview*

The German market for real estate transactions is very fragmented and local by nature. The most active markets include Berlin, Munich, Frankfurt, Dusseldorf, Hamburg and Cologne or Stuttgart. In 2009 out of a total transaction volume of 10.6 billion euro, more than 50% of the total transaction volume was invested in these few big cities.¹⁵

At the same time, the German market is characterised by numerous small transactions. The overall volume of these small transactions has remained relatively stable over time – even during the financial crisis. These smaller deals are usually executed by local brokers and mostly involve small local investors and high net worth individuals. The development of both single asset and portfolio transactions since 2005 is shown in Fig. 5.¹⁶ The years 2006 and 2007 stand out as transaction peaks. Private equity companies that were entering aggressively into the market as well as both open-end and closed-end real estate funds were the most active buyers during these years. A main driver for this development was the availability of cheap, high-volume credit from banks. During that period transactions with LTVs (loan to value) of up to 100% and in some cases even above have been financed. The significant drop in volumes post 2007, however, is not only due to the dry-out of the financing markets and the difficult refinancing environment. Another reason has been diverging price expectations of buyers and sellers. For many potential sellers, prices were falling below a critical threshold, and therefore they refrained from selling.

The development of the German real estate market has been different to many other European countries both before and after the financial crisis. While most real estate markets have suffered heavily in course of the crisis, the impact on the German market was less severe. Though transaction volume has been falling markedly, the prices for both residential and commercial property have remained relatively stable (see Cieleback, 2011 and Schulten, 2011 in this book).

¹⁵ BNP Paribas Research (2010).

¹⁶ BNP Paribas Research (2010).

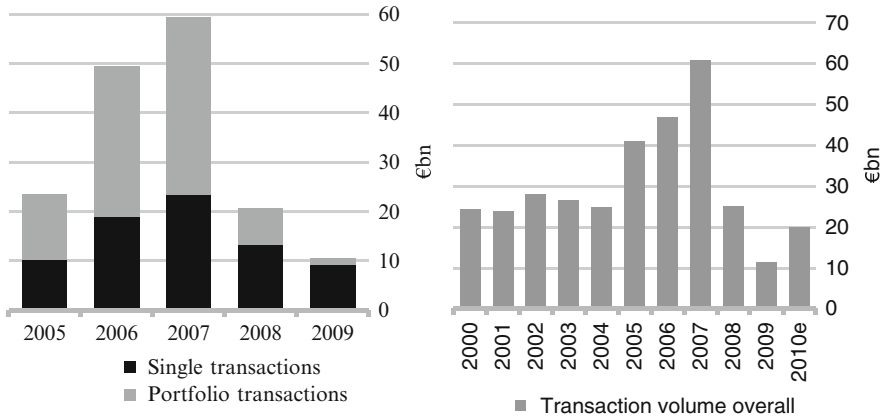


Fig. 5 Development of transaction volumes in the German market (Source: BNP paribas real estate property report investment market 2006 – 2010 excluding residential portfolios. Source: Aberdeen market outlook 2010, Aberdeen research 2010 development of transaction volume of institutional investors)

3.2 Investor Landscape

According to the BBSR (Bundesinstitut für Bau, Stadt-, und Raumforschung) the majority of investors in the German market are still domestic investors.¹⁷ Buyers with a strong equity base focussing on stable core assets have been most active after the financial crisis.

At the same time, the share of domestic investors rose from 50% to 90% in 2009.¹⁸ Property developers, private investors and real estate funds have been among the most active sellers. Non-property companies were less inclined to sell assets primarily due to relatively low valuation levels following the financial crisis and the rather high book values of assets, which were acquired between 2005 and 2008 at comparatively high prices. Foreign “value-add” and “opportunistic” investors, who were very active buyers in 2006 and 2007 sold many of their “core” assets in 2009 to free-up liquidity as there was still a lack of demand for “value add” and “opportunistic assets”.¹⁹

Before the financial crisis there was a high interest from international private equity funds in the German market. Particularly in the residential segment various larger transactions have been realised.

Main investors in the commercial real estate sector have been both open-end and closed-end real estate funds. Also private equity companies were active in this segment. Some of the largest commercial portfolio transactions during the peak

¹⁷ Bundesinstitut für Bau-, Stadt- und Raumforschung (2010).

¹⁸ Bundesverband Investment und Asset Management e.V. (2010a).

¹⁹ Bundesverband Investment und Asset Management e.V. (2010a).

years have been realized by private equity companies, acquiring assets from open-end real estate funds.

Recently, investors' focus in the segment was almost exclusively on core objects in top locations with long-term rental contracts. Hence 60% of all office investments in Germany were focussed on the large markets in the seven largest cities.

The retail sector experienced a reduction of the transaction volume of approximately 50% in 2009 with a significantly lower number of portfolio transactions than in 2008, although with an improving environment in the second half of 2009.²⁰ So far, similar to the commercial sector investors' focus in the retail sector after the crisis has been on core assets in top locations. However, shopping-centers in less attractive locations are becoming increasingly demanded, since yields for core assets have started to contract again. In terms of major players the market is dominated by Deutsche Euroshop and ECE as the largest German shopping center owner and developer group.

4 M&A Process

Real estate transactions may be pursued either as asset deal or as share deal. While in an asset deal the real estate is sold directly, only the shares of the legal entity owning the real estate are sold in the case of a share deal. The procedure of transferring property rights is often less complicated in a share deal since ownership of the shareholding entity passes by virtue of the share sale contract and there is no need to implement the procedure at Land Registry that applies in the case of an asset deal. A further advantage is that, depending on the structure of the transaction, the acquirer may benefit from various tax exemptions (property transfer tax, corporate tax and even income tax; see Farle, 2011 and Krämer, 2011 in this book for more details).

The real estate transfer tax is a tax that is imposed by states and/or municipalities on the privilege of transferring real property within that jurisdiction. When domestic real estate is sold or changes owner, a one-time real property transfer tax of between 3.5% and 5.0% (depending on the federal state) of the purchase price is levied if the purchase price or consideration exceeds 2,500 euro. Taxable events under the Real Estate Transfer Tax Act include both a direct transfer of real estate and a transfer of shares that lead to an indirect change in ownership of real property in Germany. In the latter case, the real estate transfer tax will be triggered where there is a direct or indirect concentration of at least 95% of the shares in an entity that owns real estate in a single owner or a group of companies, or where there is a direct or indirect change of ownership of at least 95% in a real estate-holding

²⁰ Bundesverband Investment und Asset Management e.V. (2010a).

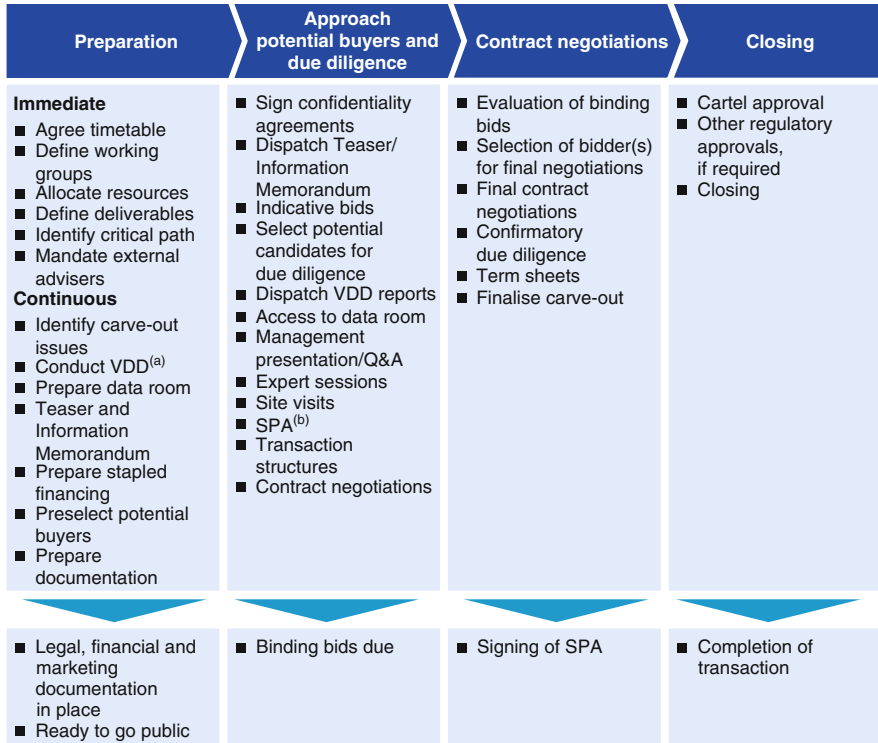


Fig. 6 Generic M&A process (a) Vendor due diligence. (b) Sale and purchase agreement (Source: Deutsche Bank)

partnership within a 5-year-period. The concept encompasses the legal ownership of property, inherited building rights and “building on land owned by another person”. Often less than 95% of the shares are sold to structure the transaction in a tax efficient way. In 2009 real estate transactions which led to real estate transfer tax in Germany still amounted to 135 billion euro.²¹

This chapter gives an overview of a structured sales process, which is typically applied in corporate M&A transactions or in larger, more complex portfolio transactions. Although the M&A process follows a clear structure, some flexibility is necessary in order to adapt to a rapidly changing market environment. In a sellers’ market for example, the process is rather strict, while in today’s buyers’ market often a more flexible process is required, more tailored to the needs of buyers.

The process can be broken down into four phases. An overview of a generic sell-side M&A process is depicted in Fig. 6.

²¹ Bundesverband Investment und Asset Management e.V. (2010a).

4.1 Preparation Phase

During the preparation phase the timeline for the process is agreed on. Accordingly, deliverables and milestones are defined, working groups are set up and external advisors are mandated e.g. investment banks or brokers, accountants and lawyers. Furthermore, the required legal, financial and marketing documents are prepared, the data room with a comprehensive documentation is set up, potential buyers are pre-selected and potential carve-out issues have to be addressed, if relevant.

It has increasingly become a standard feature in M&A processes to conduct a vendor due diligence (VDD) in order to reduce uncertainty of the transaction. Typical VDD reports cover financial, legal, tax and environmental issues, the latter being of great importance for real estate transactions. The VDD also accelerates the process as it facilitates the financing for potential acquirers.

Another feature that can be incorporated into the process to increase transaction security is a stapled financing, often offered by the investment bank advising on the transaction. Currently, acquisition financing is often difficult to obtain and a key success factor – particularly for larger M&A transactions.

In Germany change of control clauses are usually part of the general terms and conditions of financing banks; therefore, acquisition financing is generally required. In case a new financing is required it is advisable to assess whether or not there are any material pre-payment penalties included in the financing contracts with existing banks that ultimately have to be paid in addition to the purchase price.

When acquiring or selling investment properties in Germany another important issue is whether assets are encumbered with heritable building rights. A heritable building right defines the right to use a land for a certain timeframe without owning it.

4.2 Contacting Potential Buyers and Due Diligence

Contacting potentially interested parties is usually done in a two-staged process: Initially, potential investors are addressed with a teaser (short overview of the asset). After receiving the teaser a non-disclosure agreement is signed and an information memorandum (detailed fact book on the target) is sent to interested parties. Based on the information memorandum indicative bids have to be submitted by potential acquirers so that the seller gets an indication of the possible price and the competition between the different parties.

In the next phase potential investors get access to the data room that includes all relevant information to conduct an own due diligence on the target. Additionally, interested parties are furnished with the vendor due diligence reports (to the extent prepared) and often with a first draft sale and purchase agreement outlining the terms and conditions of the transaction. During this phase the management presentation, Q&A sessions and site visits are organised. It has also become a *sine qua non*

to organise “expert sessions” for potential acquirers during which they get direct access to relevant employees of the target that are responsible for crucial functions. Finally, potential buyers are requested to submit binding bids together with a mark-up of the draft SPA (Special purpose agreement) that has been submitted.

4.3 Contract Negotiations

In the third phase of the M&A process binding bids are analysed and the final bidder or bidders are selected. In most cases, two parties are invited to the final negotiations to maintain competitive tension. The negotiation phase includes a confirmatory due diligence during which last remaining issues regarding structure or financing are resolved. At the end of phase three the SPA can be signed.

4.4 Closing

In the closing phase regulatory approvals have to be obtained, e.g. cartel approval and other formal closing conditions that may be required. The closing of the transaction is the completion of the M&A process when legal ownership of the asset is transferred. If the transaction was structured as an asset deal the legal ownership is transferred as soon as the acquirer is registered in the land register. The land register states the ownership of a property in Germany. If the transaction is pursued as share deal the land register right remains with the existing legal entity that is registered.

Finally the purchase consideration has to be paid and other sales conditions have to be fulfilled.

This chapter focussed on the particularities of the public and M&A real estate markets in Germany. It was outlined that compared to other European markets and given the size of the economy the public real estate market thus far only plays a minor role in Germany. There are only few companies with a significant market capitalisation and attractive liquidity in the stock.

One of the major reasons is the importance of both closed-end and open-end funds that still represent the prevalent real estate investment vehicle for both private and many institutional investors apart from direct investments. As a consequence, also the M&A market is influenced by closed-end and open-end funds. Both fund categories account for a relatively large share of the annual investment volume in Germany.

It remains to be seen to what extent the recent financial turmoil of open-end funds will impact both the public and M&A real estate market in Germany going forward.

References

- Bundesinstitut für Bau-, Stadt- und Raumforschung (2010). BBSR_Berichte KOMPAKT Handel von Wohnungsportfolios in 2009 weiter verhalten. http://www.bbsr.bund.de/cln_032/nn_340582/BBSR/DE/Veroeffentlichungen/BerichteKompakt/2010/BK032010.html?nnn=true. Accessed 10.01.2011.
- Bundesverband Investment und Asset Management e.V. (2010a). Aberdeen Market Outlook Germany 2010. www.bvi.de/de/presse/.../2010_Maerz_Aberdeen_MarketOutlook.pdf. Accessed 10.01.2011.
- Bundesverband Investment und Asset Management e.V. (2010b). BVI press release as of 10. January 2011. Investmentfondsbranche sammelt im November 8,7 Mrd- Euro neue Mittel ein. <http://www.bvi.de/de/index.htm>. Accessed 11.01.2011, Accessed 18.11.2010.
- Deutsche Börse (2011). Deutsche Börse RX Real Estate Index. Accessed 11.01.2011.
- Dieckmann, R. (2008). Germany's equity culture taking time to materialise. DB Research. <http://www.dbresearch.de>. Accessed 10.01.2011.
- EPRA, European Public Real Estate Association (2011a). EPRA Germany Index. http://www.epra.com/indices_constituents.jsp. Accessed 11 Jan 2011.
- EPRA, European Public Real Estate Association (2011b). EPRA Global Real Estate Market, October 2010, Brussels. Fraser Hughes, Director - EPRA.
- EPRA, European Public Real Estate Association (2011c). Monthly published NAV Bulletin December 2010. <http://www.epra.com/news.jsp>. Accessed 11 Jan 2011.
- EPRA, European Public Real Estate Association (2011d). EPRA Best Practices Recommendations October 2010 (BPR). <http://www.epra.com>. Accessed 15 Dec 2010.
- Ellwanger & Geiger (2011). Ellwanger & Geiger DIMAX Immobilienaktienindex http://www.privatbank.de/de/eundg_dimax.html. Accessed 11 Jan 2011.
- BNP Paribas Research (2010). BNP Paribas Real Estate Property Report Investment Market Germany 2010. <http://www.realestate.bnpparibas.de>. Accessed 12.11.2010.
- Schäfers, J. (2007). REITs real estate investment trusts, marktüberblick aufbau und management investitionen in REITs. In B. Knoflach & T. Körfgen (Eds.), *Grundkonzeption und Vorbereitung der real estate investment trusts*. München: C.H. Beck Verlag.

Part V

Asset Classes

Development of Residential Property

Marcus Cieleback

Abstract The German residential market has been in the focus of numerous (opportunistic) international investors in the last decade. In their view the market was undervalued offering significant potential to benefit from rising prices and a rising home-ownership rate, as Germany was amongst the lowest in Europe. The actual development proved the business plans, based on these assumptions, wrong, as they missed out, that more or less stagnation prices and the low home-ownership rate are the result of the structural framework and the changes during the reunification process that is still not completed yet. A detailed analysis of the development of the demand and supply side reveals this, but also shows that institutional investors are only playing a subordinate role in the German housing market as private owners and investors dominate the market. As construction activity in the multi-family sector is only slowly recovering from its low, this will change slow, supporting the stable performance of the German residential sector already seen in the past.

Keywords Home ownership • house prices • housing completions • rental market

1 Introduction

In the first few years of the new millennium, the German residential market has been in the focus of numerous (opportunistic) international real estate investors. These investors saw great opportunities in the German residential market. As a consequence the investment activity of international investors increased strongly, leading to fundamental changes in existing ownership structures, which were not without political controversy. The results of these investment activities were huge portfolio transactions between 2005 and 2007. Approximately 175 portfolios each with more than 800 apartments were sold during this time. However, the significance of municipal block sales involving more than 10,000 apartments, that were of

particular public concern, such as the sale of GSW (Gemeinnützige Siedlungs- und Wohnungsbaugesellschaft Berlin, 66,000 apartments) in 2004, GWG in Hamburg (Gesellschaft für Wohnen und Bauen mbH, 38,000 apartments) in 2005 and Woba Dresden (48,000 apartments) in 2006 has drastically declined after the WOBA-deal. Ultimately, in the years 2007, 2008, 2009 and 2010, no more municipal block sales took place, not least because of very strong public resistance.

The financial crisis not only had a significant impact on municipal block sales; also the overall transaction activity of residential portfolios in Germany was heavily affected. With the exception of LEG NRW (Landesentwicklungsgesellschaft Nordrhein-Westfalen GmbH), no more portfolios with more than 10,000 apartments were traded between 2008 and 2010. At the end of 2010 there have been rumors that larger transactions might occur again in 2011, as several portfolios are prepared for a sale. However, because of lower public visibility and difficulties in access to debt; the share of smaller sales has grown markedly in the course of the last 3 years. This is to some extent the reflection of a changed buyer structure, as the demand for residential portfolios no longer comes solely from large (opportunistic) international investors (Fig. 1).

After the period of opportunistic interest in the German residential market ended, institutional investors like insurance companies and pension funds are now returning to the German residential market. In the wake of the financial crisis, the “boring” investment class “residential property” has experienced a renaissance within this investor group. Particularly this investor group, but also family offices and wealthy private investors, are again investing money in German rented residential real estate. The advantage of rented residential real estate is, that its tenant base is very granular, limiting the default risk, because in most cases the incomes of

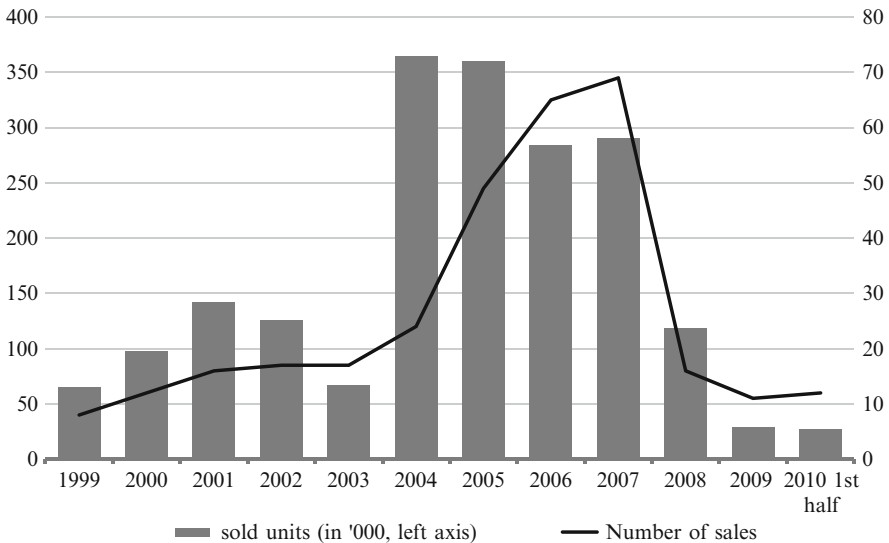


Fig. 1 Portfolio transactions in Germany (from 800 apartments) (Source: BBSR)

tenants of a residential facility are not closely correlated. A total loss of rental income as in the case of an office building with a single tenant is therefore significantly less likely. True, even residential real estate is unable to decouple from a general economic trend, but as housing addresses a basic need, tenants will attempt to maintain their accustomed environment as long as possible. Tenant fluctuation therefore will not increase abruptly even in economically difficult times, as was the case in a lot of commercial portfolios during the financial crisis.

The remainder of the chapter is organized as follows: the next section gives an overview of the German residential market, also in comparison to international residential markets, explaining many reasons, why opportunistic players were attracted to the German market, but also highlighting some facts, which were not accounted for completely in their business plans, leading to the strategic changes of these opportunistic investors that could be observed in the past few years. Section 3 discusses the effects of the German reunification on the residential market, before in Sects. 4 and 5 the demand and supply side is discussed. Section 6 gives an overview of the (historic) market performance, and an outlook of the German residential market concludes.

2 The German Residential Market in an International Context

Why were so many (opportunistic) international investors investing in the German residential market at the beginning of this century? One of the main reasons was that the investors believed that few years after the millennium the German residential sector provided relative value due to lagging price performance over the last decade in comparison with other European countries. Given the low or in some years even negative growth of house prices in Germany, limited downside was expected. This situation seemed to offer significant potential to benefit from rising prices, as a result of the comparatively positive economic development in Germany. The actual development proved those business plans wrong, which were primarily based on the assumption of rising prices. In 2009 German wide house prices are still more or less at the same levels seen in 2003/2004 (Fig. 2).¹

One more feature of the German housing market, which was often used as a good reason to buy into the market, was the low home-ownership rate that was and continues to be among the lowest in Europe; only Switzerland with 35% registers a lower level than Germany. In combination with the price development described above, the investors saw the opportunity to privatize parts of the acquired portfolios, based on the assumption that the home-ownership rate would rise, approaching the European average. But again, as with the house prices, the reality proved the assumptions in the business plans wrong, as the investors

¹For a discussion about the quality and availability of German house price indices see e.g. ZIA (2010) and Voigtländer (2011) in this book.

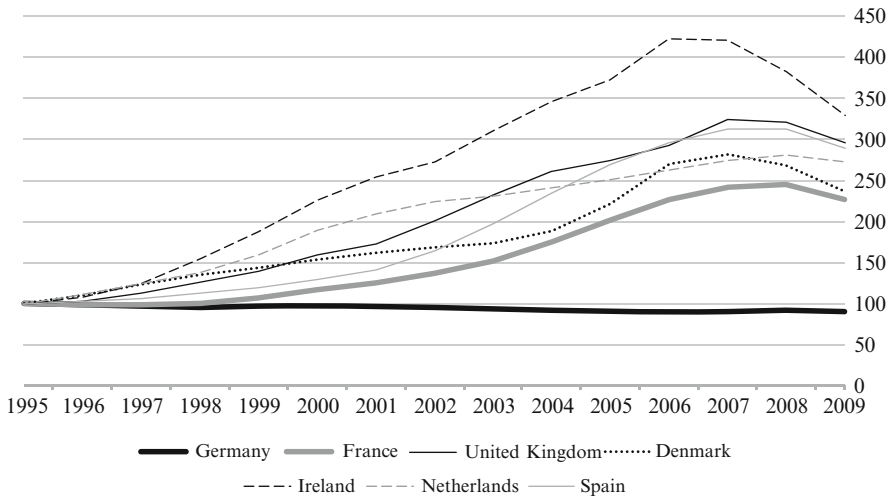


Fig. 2 Nominal house prices in Europe (index 1996 = 100) (Source: OECD, own calculations)

underestimated the power of Germany's regulatory environment. The ownership rate in Germany remained slightly above 40% and there are no signs that this will change fundamentally in the coming years. A major reason for this is the regulation of the residential rental market in Germany, which makes renting quite attractive for large parts of the German population (Fig. 3).²

In effect the combination of a low home-ownership rate and the significant regulation of the rental market is largely the reason for the price stagnation seen in Germany in the past. Since it constitutes a basic need to live somewhere, the key decision for households is whether to rent or own a property. If there is a lack of a broad-based residential rental market, as is suggested by the very high ownership rates in some countries, then almost all the demand for housing is focused on the real estate ownership market. In many cases, demand on the ownership market is also supported by tax incentives, such as tax deductibility of mortgage interest (e.g. unlimited in the Netherlands and in Finland up to a certain limit). Many households' desire to live in their own four walls and the demand on the ownership market was hence partly enabled by government incentives. The dominance of the rental sector in the German residential market ultimately stabilized the price development in the past, by dampening the demand for home-ownership.

² For a discussion of the German regulation of the residential market in a European comparison see Haffner et al. (2007), O'Sullivan and De Decker (2007). For an explanation of the low German home-ownership rate see Voigtländer (2009).

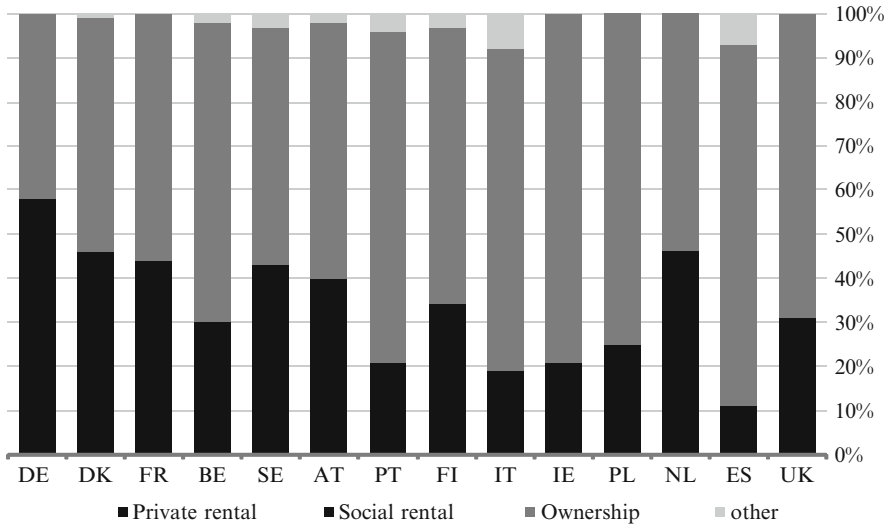


Fig. 3 Tenure split in Europe (Source: CECODHAS)

This stability hypothesis is also supported by a vulnerability analysis of housing markets undertaken by the IMF in 2008. As part of this analysis the house price gap for different housing markets was estimated. This gap represents the extent to which the increase in house prices in recent years cannot be explained by fundamentals. To assess potential overvaluation, changes in house prices were modeled for each country as a function of an affordability ratio (the lagged ratio of house prices to disposable incomes), growth in disposable income per capita, short-term interest rates, long-term interest rates, credit growth, changes in equity prices and the development of working-age population. The unexplained part of the increase in house prices was interpreted as a measure of overvaluation (and undervaluation, respectively) and therefore used to identify countries that were seen particularly prone to corrections in house prices (Fig. 4).

The unexplained increase in house prices (the “house price gap”) might also reflect variables omitted from the model, for instance macroeconomic volatility, household formation, and institutional factors like changes in tenant law or government incentives. Given the structural environment in Germany it is unlikely that these factors would change the results in a significant way. Therefore the results of the model can be seen as supporting the assumption that the German residential market was not significantly undervalued at the time the international investors entered the market. The data shows that the German residential market offered little upside potential at that time.

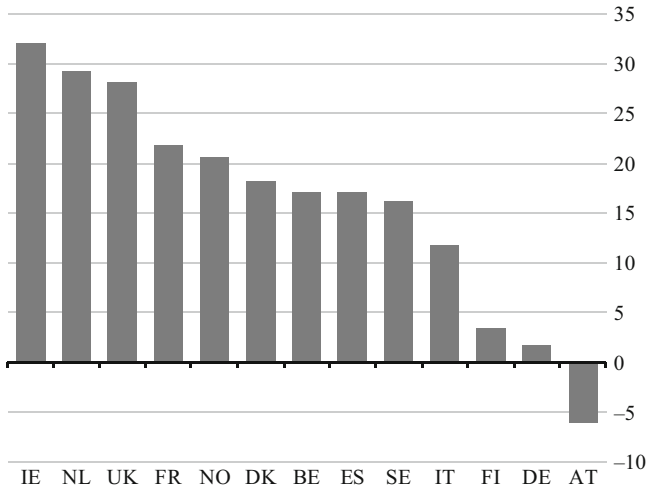


Fig. 4 House price gaps in 2008 (in percent) (Source: IMF)

3 The German Reunification and Its Effect on the Residential Market

After German reunification the German residential market has been characterized by marked structural changes during the 1990s as a result of government intervention and strong inward migration. Any analysis of the German residential market, especially of building permits and completions, has to take these developments into account to avoid “comparing apples with oranges.”

Following reunification in 1990, thousands of residents of the former German Democratic Republic migrated to the western part of Germany in search of employment and better economic prospects. In order to stop this process, politicians promised a rapid convergence in living standards between the eastern and western parts of the country. Especially the housing and construction sector in eastern Germany (five new federal states) was targeted to enhance the living standard and boost private investment. Tax benefits and subsidies for both homebuyers and investors were introduced to stimulate construction of new homes and foster refurbishment of the existing housing stock in the five new federal states. As a result a construction boom in eastern Germany began, that paid little heed to the demand side and therefore to the sustainability of investment returns. During the period 1991–1996 building permits in the five new federal states exploded from 5,484 dwellings to 186,155 and completions rose tenfold between 1991 and 1997 from 16,670 to 177,829 units. In 1997 every third dwelling in Germany was built in the new federal states, a remarkable number, considering that it also came to a building boom in western Germany (Fig. 5).

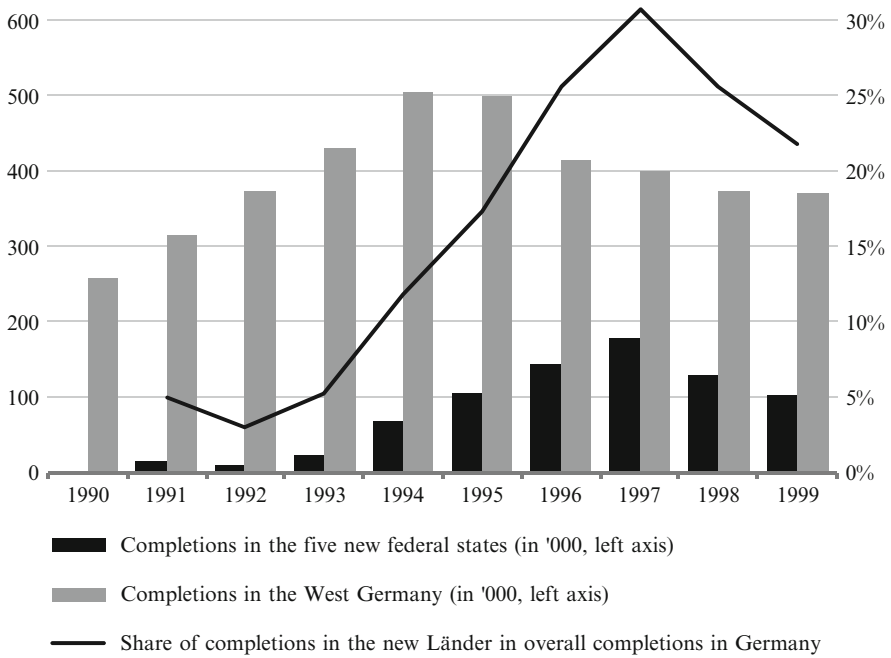


Fig. 5 Housing completions in Germany in the 1990s (Source: Federal statistical office, own calculations)

In western Germany the internal migration from east to west was amplified by a wave of immigration from ethnic Germans from Eastern Europe and asylum-seekers. This sharp increase in demand resulted in a housing shortage in the West. The consequences of these developments were (strongly) rising rents and prices as well as construction activity picking up considerably in the West. Building permits in western Germany (incl. West Berlin) rose by almost 50% between 1990 and 1994 and completions nearly doubled in the same period (Fig. 6).

Simultaneously with this strong increase in construction activity, construction costs shot up until the mid-1990s, in both the five new federal states and in western Germany. This happened despite the considerable capacity expansion in the construction industry. Also land prices began to move upwards, leading to a situation where residential rents and prices not only increased in western Germany, but also in the new federal states, where this was partly the result of the distorting subsidies. From the mid-1990s a cyclical countermovement with structurally weak demand for housing and the withdrawal of most of the fiscal policy incentives led to a sustained period of correction, which started in the apartment sector with the tightened depreciation conditions from January 1, 1996 and extended to the segment of single-family houses and two-family houses around the start of the millennium.

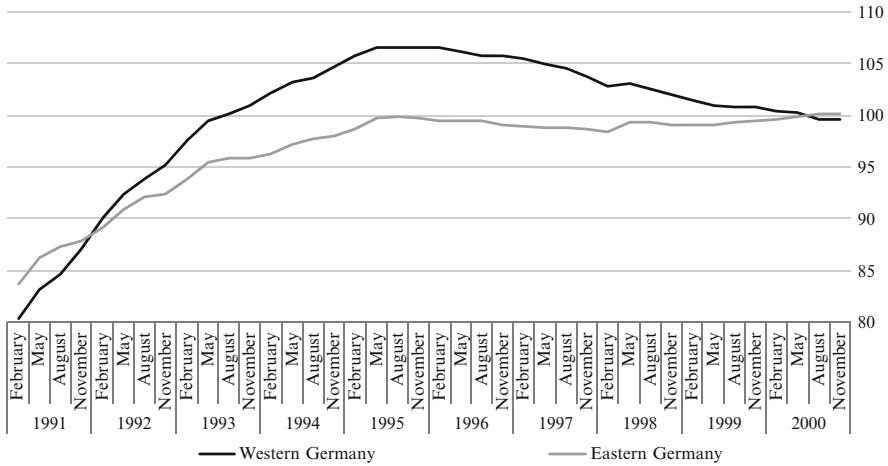


Fig. 6 Construction price index for residential buildings (quarterly figures, index 2000 = 100, incl. VAT) (Source: Federal statistical office)

4 Development of Residential Demand

Looking at the demand side of the residential market, on the one hand one has to look at the need for housing and on the other hand at the demand induced by income growth. The need for housing is determined by the demographic developments in Germany. In the described period after the German reunification, the German population grew by about 2.3 million between 1990 and 1996 to around 82 million with corresponding effects on housing demand. After this period, demand induced by demographic shifts has been rather weak, as the overall population grew only slightly till 2002, the year the German population peaked with 82.5 million. Since then, the German population has been continuously declining and will continue to do so in the future. According to a medium variant of the official population forecast, the German population will be back at about 79 million in 2025, a level slightly below that at the time of the German reunification. For later years the current 12th coordinated population projection of the Federal Statistical Office reports that the German population might decline to not more than 65–70 million by 2060.³

Given this overall population development in Germany, the demand for additional dwellings due to demographic changes since the mid-1990s in the country as a whole comes mainly from the tendency towards smaller-sized households. In

³For detailed results of the 12th population projection see Federal Statistical Office (2009) and Just (2011) in this book.

particular, it is the number of single-person households that has grown significantly over the past two decades. The share of overall households has grown from 35% in 1990 to nearly 40% in 2009. As the share of two-person households has also risen, the importance of traditional family households with three or more persons has continuously declined from 35% in 1990 to 26%. Consequently, the average household size has continuously declined from 2.28 persons per household in 1991 to 2.04 persons per household in 2009. This trend is expected to continue in the future. In 2025 the share of one-person and two person households will be 41 and 37% respectively, reducing the share of traditional family households to little more than 21%. At the same time, the average household size will have declined further, to only 1.95 persons per household (Fig. 7).

These nationwide numbers mask the strong regional differences that follow from the federal structure of the country. Internal migration is a very important driver of housing demand, as the economically strong agglomerations, mostly in the former western part, attract more and more people. As a result, the overall population in these regions is still growing, in contrast to the national figure. This leads to an ever increasing urbanization in Germany, associated with strong, demographic induced housing demand in the urban areas. The current urbanization level of roughly 74% will increase to nearly 85% by 2050 according to some estimates by the United Nations Population Division. The resulting pressure on the housing market will be reinforced by the even stronger tendency towards one- or two-person households in urban areas.

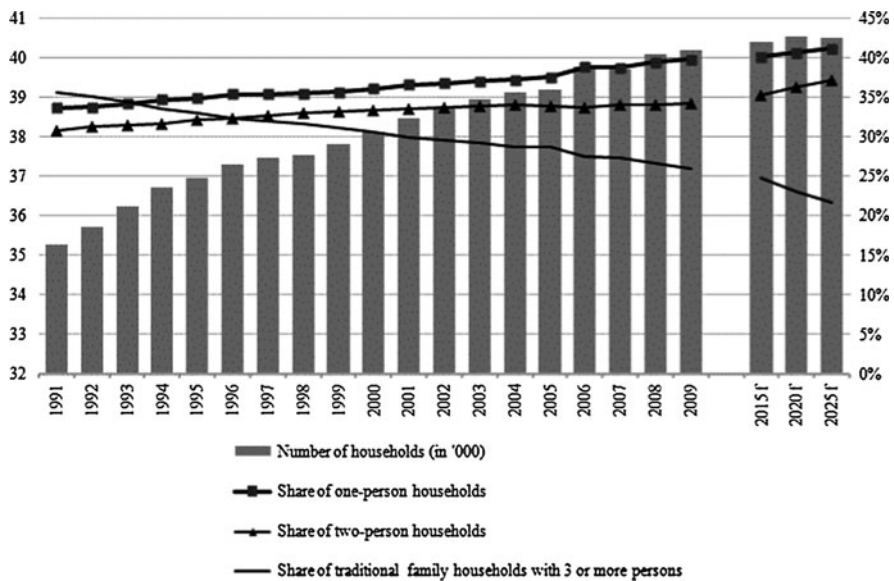


Fig. 7 Number of households by household types (Source: Federal statistical office, own calculations)

These developments in household numbers and household size, as well as the changes in the age structure of the persons forming the household, influence housing demand in many ways – especially the size and structure of the dwelling. In general, in the past life cycle effects, remanence and cohort effects led to an ever increasing living space per apartment and inhabitant (sî, Just (2011) in this book). In the five new federal states these effects were reinforced in the last two decades by a level adjustment effect, as after reunification the standards in the five new federal states began to adjust to the standards in the west, a process that has still not ended. Nevertheless, one can assume that all effects will continue to have a positive impact on housing demand in the future, but to a (much) lesser extent than in the past 20 years (Fig. 8).

In addition, the economic and cultural development of a country influences the demand for housing. Firstly by changing attitudes towards housing, and what is regarded as normal housing conditions. This relates to the layouts of the dwellings and their size as well as to the fit-out of these dwellings. As a consequence, many dwellings in apartment blocks, built in the 1950s, 1960s, and 1970s only satisfy basic housing needs today. As soon as a better and more affordable alternative is available the household will move to the new, in many cases more modern, premises. Secondly, economic growth and related advances in productivity ensure a high level of employment thereby creating a solid basis for sustained growth in per capita income. For households this gives an environment, in which the financial options for housing expenditures continuously rise. At the same time, a stable economic environment provides a secure framework for financial planning,

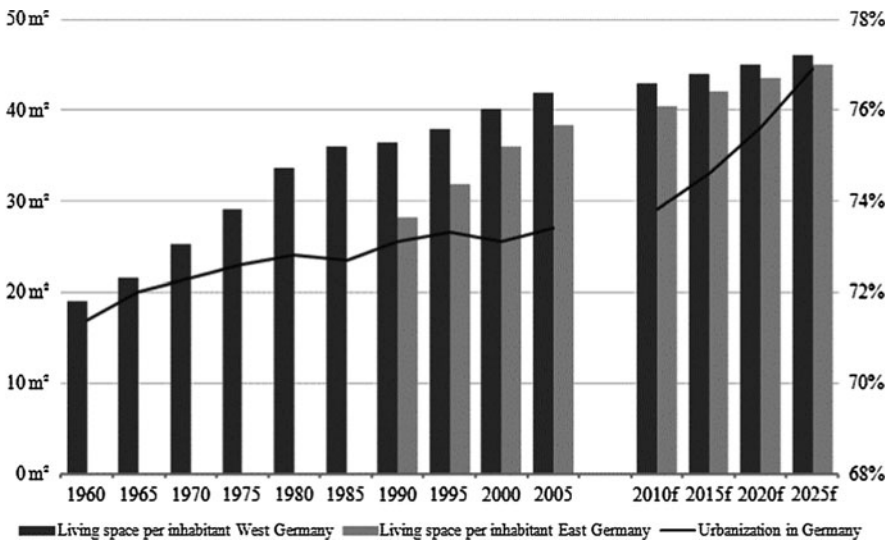


Fig. 8 Living space per inhabitant in East and West Germany and German wide urbanization (Sources: Federal statistical office, UN)

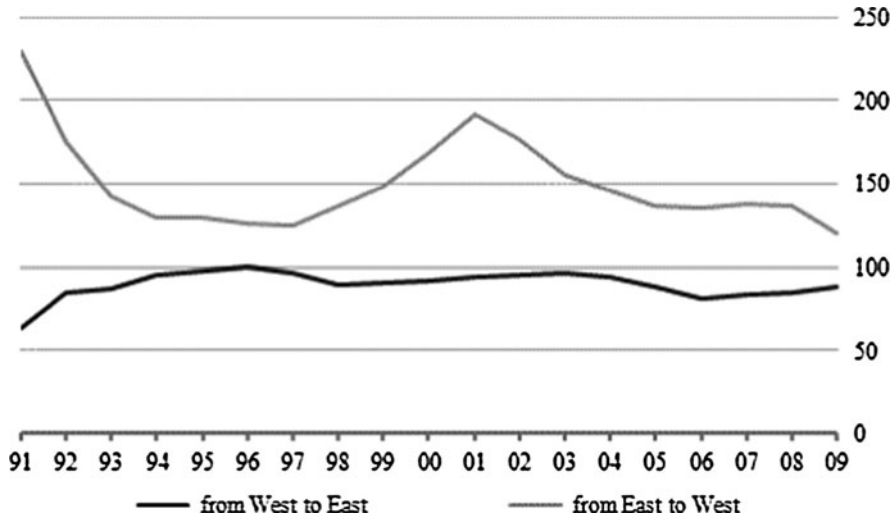


Fig. 9 Internal migration patterns in Germany (in '000) (Source: Federal statistical office)

e.g. to acquire owner-occupied housing. Thirdly, an economically attractive country or region generally attracts people, which results in an increased demand for housing in that area.

All three factors had, to varying degrees, effects on the development of the German residential market in the past. But given the fact that the overall performance of the German economy in an international context was not outstanding, the last two effects had, in the context of a national analysis, only a small positive impact on the demand side of the German residential market in the past decade. Nevertheless, on a regional scale, especially the third effect is and will be a strong driver for housing demand in Germany. In general, internal migration in Germany is still biased towards West Germany, with the resulting positive and negative effects on housing demand in western and eastern Germany, respectively (Fig. 9).

5 Supply Situation

According to official data from the federal statistical office, there were approximately 40.2 million dwellings in Germany at year end 2009 in residential and non-residential buildings. Of these dwellings, 31.3 million are located in western Germany, while 8.9 million are located in eastern Germany (incl. Berlin). Focusing solely on the 39.4 million dwellings in residential buildings, 18.5 million residential units are in single- and two-family houses (46% of the total stock) and 20.8 million units are in multi-family houses (52% of the total stock). Due to demolition activities under the “*Stadtumbau Ost*” (East German urban restructuring) the housing stock in eastern Germany has remained more or less constant since 2005.

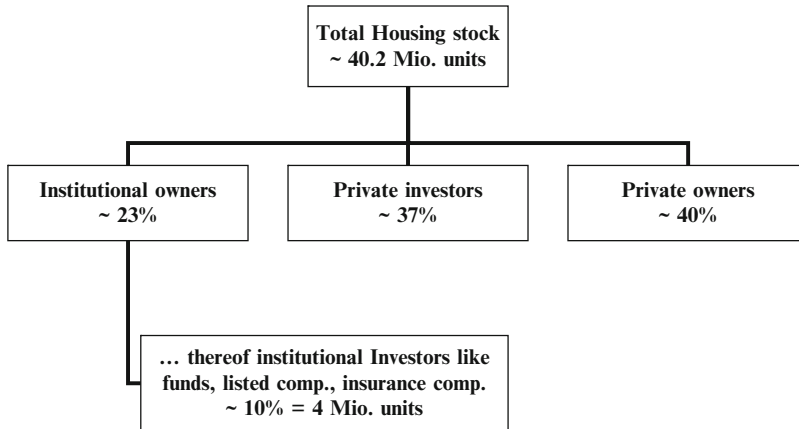


Fig. 10 Ownership structure of the German housing stock (Source: Federal statistical office)

Still, the knowledge about the actual size of the German housing stock is incomplete, as there is no comprehensive register of all buildings and dwellings, as current data is not reflecting a new count, but adjusting old census data. Between two census surveys the stock is updated with the statistically recorded completions and assumptions about exits. Differences between the actual stock and the reported figures will therefore increase, with every year after the last census. The basis for the current update of the West German stock is the building and housing census of May 25th 1987 and in eastern Germany the building and housing census of September 30th 1995. The next census will be conducted in 2011 to provide new reliable data on the German housing stock by 2012 (Fig. 10).

The largest part of the German housing stock, roughly three quarters, is owned by private individuals. This includes approximately 16 million owner-occupied dwellings, or 40% of the total stock. The remaining quarter is in the hands of institutional owners. Thereof about half is in the hands of institutional investors such as funds, listed companies and insurance companies, which correspond to about 4 million dwellings. The other half is owned mainly by public sector, cooperatives and the church.

In both western and eastern Germany the majority of the stock was built between the end of WWII and the German reunification, 64% and 43% respectively. The bigger share in the west is a result of the higher war damage in this area and the resulting need for a higher building activity and the higher tendency in a market environment to replace old buildings by new efficient ones. In West Germany as well as in East Germany 10% of the stock were built in the first decade after reunification, and only around 3–4% of all dwellings were built in the new millennium (Fig. 11).

Both, housing permits and completions in Germany are characterized by a marked downward trend since the turn of the millennium, which was interrupted only when the legislative environment for private buyers changed, e.g. due to the

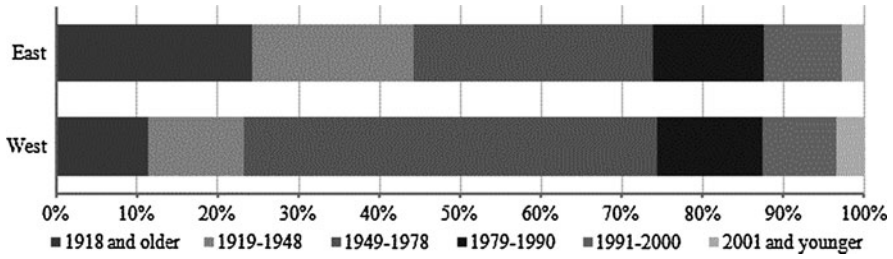


Fig. 11 Age structure of the German housing stock (Source: Federal statistical office)

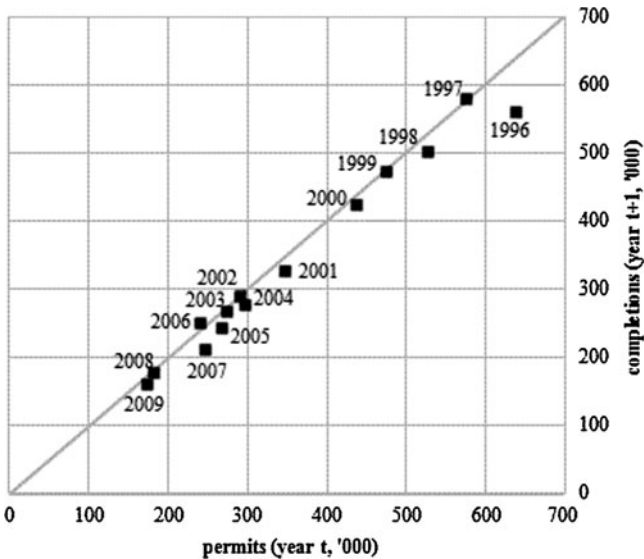


Fig. 12 Housing permits and completions in $t + 1$ (years refer to the time of completions) (Source: Federal statistical office)

abolition of the home owner’s allowance from January 1st 2006, which resulted in rising permits year on year in 2005 and subsequently for completions in 2006. As Fig. 12 shows, there is a close connection between permits and completions in the following year and this relationship has been very stable since the mid 1990s.

Looking at the completion numbers for Germany in more detail it becomes obvious that over the last two decades the completion numbers of single and two-family houses have been more stable than the numbers of construction of dwellings in apartment blocks (including residential homes). Since 1998 more dwellings have been completed in single and two-family houses than in apartment blocks. In 2004 the share of completed dwellings in apartment blocks reached its low point of 25%. Since then the percentage of completed dwellings in apartment blocks has been rising continuously, standing at just over 33% in 2009.

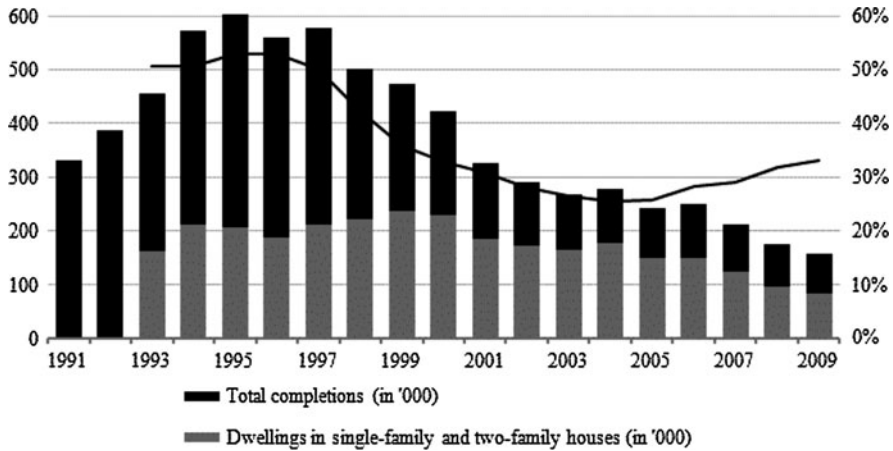


Fig. 13 Housing completions in Germany (Source: Federal statistical office, own calculations)

In 2009, the number of building permits started to pick up, this time not owing to tax effects. Based on the described close connections to completions in the year after, completions are set to have risen in 2010. These completions will be increasingly accounted for by apartment block construction, since continuing urbanization is shifting the demand for dwellings into the towns and cities, where multi-family houses dominate the housing market (Fig. 13).

As well as in the case of housing demand, significant regional differences are masked by these overall numbers for Germany. It is hardly surprising that in the city states Berlin, Bremen and Hamburg, housing completions in apartment blocks are predominant. Essentially all three federal states do not have sufficient building land to enable the construction of single and two-family houses on a grand scale. In the West German federal states with economically strong urban regions such as Baden-Württemberg, Bavaria, Hesse and North Rhine-Westphalia, the share of completed dwellings in apartment blocks is also close to 50%. The completions in these states are heavily concentrated in the urban regions, where building land has become scarce.

6 Market Performance

Based on this demand and supply situation, it is not surprising that the returns of institutional portfolios of German residential properties showed a stable performance in the past, when compared with the office and retail sector in Germany or with international real estate returns. Capital growth was almost non-existent in the past 15 years on average, evidenced by an annual increase of only 0.3%. The income return was roughly 4% per year during the same time. This brings the average annual total return to a little more than 4.5% (Fig. 14).

Since these total return figures are based only on the data reported by institutional portfolio holders to IPD, they only represent a small part of the German residential sector. Therefore a closer look at rent and price developments in Germany makes sense. Looking at the price changes of owner-occupied housing, based on a recently introduced hedonic, transaction based index, it is possible to control for quality differences that result from the heterogeneity of the properties. The vdp Price Index for Owner Occupied Housing is calculated quarterly and is made up of two hedonic price indices that date back to 2003. They show the development of prices for single-family homes and condominiums and are weighted according to the total number of owner-occupied single-family houses and condominiums.⁴

In contrast to the OECD numbers shown earlier, these hedonic indices show a small, cyclical price increase for owner occupied housing in Germany during the last 8 years. Although, with annual price growth of just around one percent, the results are not fundamentally different from the OECD figures that show an annual price decline of half a percent between 2003 and 2009 without taking into account adjustments for quality (Fig. 15).

Looking at the rental side of the market, the national numbers show an annual rent increase for the last decade in the range of one percent, approximately 40 basis

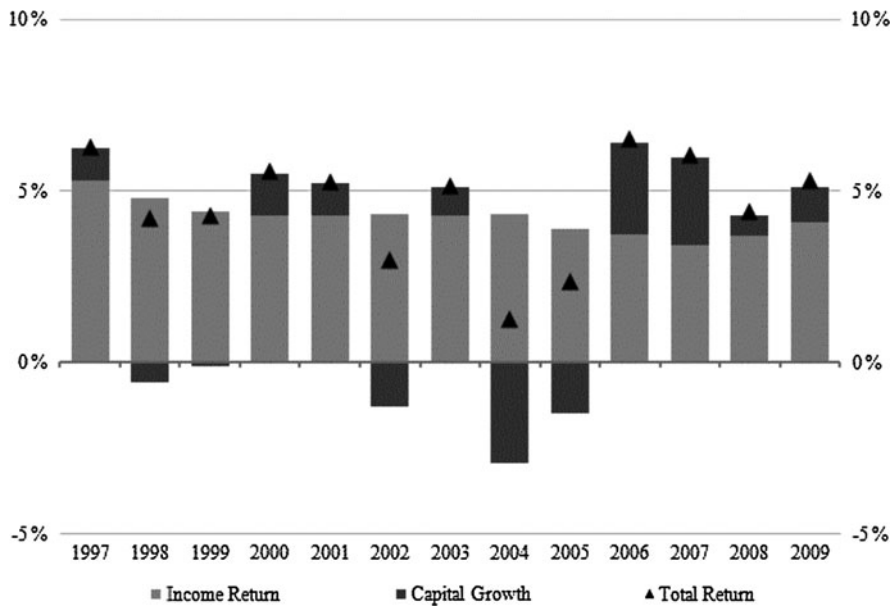


Fig. 14 Residential total return in Germany and its components (Source: IPD)

⁴ From 2011 onwards vdpResearch will also provide an index for multi-family housing, calculated in the same way.

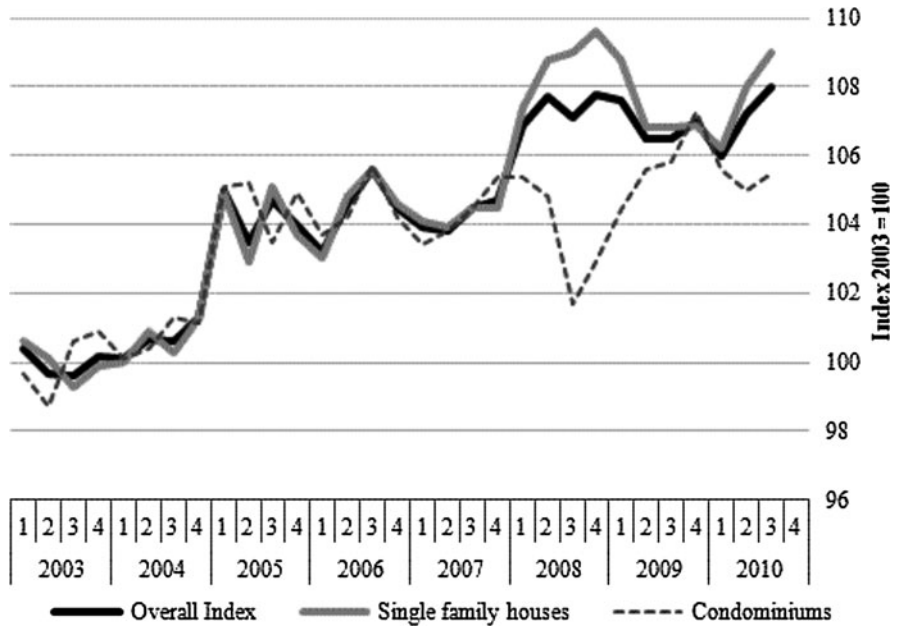


Fig. 15 vdp price index for owner occupied housing in Germany (Source: vdpResearch)

points less than the average inflation rate during this period. But again, when looking at these performance numbers of the German residential market, one has to differentiate between the regions within Germany. Generally speaking, especially the economically attractive regions will show higher rent and price growth than the German average, while the rural regions, characterized by outward migration, will see rents and prices stagnating or even falling.

7 Outlook

Going forward it is very unlikely that the underlying structural characteristics of the German residential market will change noticeably in the next decade, particularly with regard to the ownership rate. Nevertheless, construction activity is expected to increase in the coming years, but only to a level that is sufficient to meet the demographic demand, due to a smaller average household size. Reinforced by increasing urbanization this will exercise considerable pressure on rents and purchase prices in the urban regions. The priority for the coming years will be, to develop (residential) concepts for low income households in order to create affordable living space in the urban areas. If this does not happen, then the danger of frictions on the labor market may arise and the economy will no longer function without friction, since not enough manpower will be available on all levels of

qualifications and wages. One of the central tasks for the future will be to create (affordable) living space as part of an internal development of the city conurbation regions in order to satisfy rising demand.

References

- Deutsche Bundesbank (2002)P. The housing market during the nineties. *Deutsche Bundesbank Monthly Report*, 54, 27–37.
- Federal Statistical Office (2009). *Germany's population by 2060, Results of the 12th coordinated population projection*, Wiesbaden: Statistisches Bundesamt.
- Federal Statistical Office. (2010). *Bauen und Wohnen, Bestand an Wohnungen, Fachserie 5 Reihe 3*. Wiesbaden: Statistisches Bundesamt.
- Haffner, M., Elsinga, M., & Hoekstra, J. (2007). Balance between landlord and tenant? A comparison of rent regulation in the private rental sector in five countries. In *Paper presented at the ENHR 2007 conference*: Rotterdam.
- Just, T. (2011). Demographics and German real estate. In T. Just & W. Maening (Eds.), *Understanding German real estate*. Germany: Springer Verlag.
- Knetsch, T.A. (2010). *Trend and cycle features in German residential investment before and after reunification*. Deutsche Bundesbank Discussion Paper, Series 1: Economic Studies, No 10/2010. Frankfurt am Main: Dt. Bundesbank, Press and Public Relations Div.
- Michelsen, C., Weiß, D. (2009). *What happened to the East German Housing Market? – A Historical Perspective on the Role of Public Funding*. IWH-Diskussionspapiere No. 20. Halle: Institut für Wirtschaftsforschung Halle.
- O'Sullivan, E., & De Decker, P. (2007). Regulating the private rental housing market in Europe. *European Journal of Homelessness*, 1, 95–117.
- Voigtländer, M. (2009). Why is the German homeownership rate so low? *Housing Studies*, 24, 355–372.
- Voigtländer, M. (2011). Real estate data sources in Germany. In T. Just & W. Maening (Eds.), *Understanding German real estate*. Germany: Springer Verlag.
- ZIA. (2010). *Wohnimmobilien-Indizes Vergleich Deutschland – Großbritannien*. Berlin: ZIA Düsseldorf Barkow Consulting.

German Office Markets

Andreas Schulten and Ulrich Denk

Abstract Market activity on the German office property market focuses strongly on the seven prime markets Berlin, Cologne, Düsseldorf, Frankfurt/Main, Hamburg, Munich and Stuttgart. Relative to primer rents, both markets Frankfurt/Main and Munich are comparable and competitive within the global context. Vacancy rates in respective markets differ substantially, reaching even 18% in Frankfurt/Main. Berlin leads in terms of office stock and take-up, whereas prime rents in the German capital still lag behind expectations.

Keywords Office employment • office stock • total returns • vacancy rates • yields

1 Introduction

The total gross German office stock of 410 million square meters is spread over seven prime and 14 secondary markets as well as hundreds of minor office locations. This specific polycentric structure goes along with a comparably low volatility of office rents. Even in prime markets like Frankfurt, Munich, Hamburg and Berlin, where monthly prime rents range between 35 and 20 euro/m², rents are comparatively stable. Forecasts indicate no major changes within the next few years. One reason for that may be found in few factors potentially fuelling the demand. Office space per office employee is at 31.3 m² gross, which represents quite a high figure among OECD countries. At the same time, office employment growth is quite modest and between 2000 and 2009 it averaged to +5.7%. Investment returns for German offices were much more volatile than prime office rents. According to the German Property Index, they ranged between -5% in 2002 and 14% in 2006, which is due to strong demand on the part of foreign investors between 2005 and 2008. The good performance of the German economy after 2009 has significantly contributed to the specific profile of the present German office market – a low-risk and low-yield market with long-term investment opportunities.

2 General Facts

For historical reasons, the structure of the German office property market differs fundamentally from other European markets, e.g. in England, France and Spain. The structure of economies and consequently office markets in the aforementioned countries is virtually monocentric (e.g. Paris or London), whereas the German market, because of its specific historical background, which is reflected in the country's federal structure, has a polycentric structure. As a result of this situation, in England, France or Spain the economic activity focuses on capital cities and generates major demand for office space in these locations, which in turn is reflected in comparatively high office rents.

In contrast, there are seven prime office markets¹ in Germany. Five of them can be regarded as best performing in terms of office yields, take-up and investment volume. Additionally, there are 14 smaller office markets, referred to as secondary



Fig. 1 German prime and secondary property markets
(Source: BulwienGesa)

¹ Office stock over 7 million m², average annual take-up above 100,000 m².

office locations², to some extent of national, but predominantly of regional relevance. The following map displays location of these five/seven prime office and 14 secondary office markets in Germany (Fig. 1).

Until the mid-1990s, also due to only subdued market activity of international investors, the transparency of the German office market was poor or at least not sufficient, compared with Anglo-American standards. It is only in more recent years that among other active parties gif e.V. (German Society of Property Researchers) managed to gradually enhance the transparency on the German property market. Since 1996, gif has been cooperating with large broker houses in order to collect market data for the most relevant German property markets regarding office take-up, new supply and pipeline, office vacancy or prime rents. A comprehensive set³ of definitions and standards underlies this data collection. All market-data quoted in this article refer to market data as defined by the gif.

3 Office Employment

In an increasingly service-oriented economy, the office property segment reflects not only cyclical, but also structural development trends. In many regions, the development of business services is actually of greater significance for economic growth than the development of the manufacturing industry.

Official statistics provide no data on office employment and the available classification by service industries is insufficient. The Federal Labour Office, together with the affiliated Institute for Employment Research (IAB) in Nuremberg endeavour to categorise office professions. They define more than 300 professions according to their primary, secondary and tertiary characteristics. Thus, they are able to highlight the main character of a profession. Allocation of an enterprise to a specific sector of activity is pursued according to the “main-focus”-principle. Thus, professions with a minor proportion of office activity are excluded (Table 1).

According to Dobberstein (1997), office professions comprise exclusively employees who indeed occupy office space, thus e.g. physicians working in hospitals are excluded. However, this distinction can be applied exclusively to employees subject to social insurance contributions. Additionally there are office employees among civil servants, self-employed and marginally employed persons (exempted from social security contributions).

The demand side of the German office market is characterised by little total growth and substantial structural changes. Methodologically, German office employment counts four major segments with the specific data characteristics.

² Office stock between 1.5 and 4 million m², average annual take-up usually above 35,000 m².

³ Available for free download at www.gif-ev.de.

Table 1 Office employees in Germany^a 2000 and 2009

Professional group with office relevance	Office employment rate 2009 in (%)	Office employees in 1,000		Change in %
		2000	2009	
Administrative professions	93.6	4,777	4,880	+2.2
Technical professions	69.9	1,530	1,514	-1.0
Consulting professions	94.0	787	1,041	+32.2
Financing professions	89.5	812	763	-6.0
Executive managers	99.2	619	615	-0.8
Social professions	19.0	212	287	+35.3
Traders	41.4	248	264	+6.4
Publicists	69.9	120	127	+6.0
Forwarding agents, storekeepers	100.0	90	101	+12.8
Teachers	79.8	84	100	+19.6
Support services	44.3	79	80	+1.5
Physicians, pharmacists	32.0	63	78	+23.6
Security professions	50.1	14	19	+38.0

Source: Federal employment agency, BulwienGesa based on Bundesagentur für Arbeit

^aOffice employees subject to social insurance contributions according to professions in comparison

Employees Subject to Social Security Contributions

Statistics on office employees subject to social security contributions are taken from the statistics of the Federal Employment Agency and they are categorised in respective professional groups according to quotas derived from empirical analysis.

Civil Servants

The Federal Statistical Office also reports the number of civil servants, including information on employers, as part of regular reporting on employment in the public sector.

Self-Employed

The number of self-employed persons – yet not broken down to regions – is based on survey data (Microcensus by the Federal Statistical Office) and projections according to latest regional workplace census. The same procedure as in the first case is used for calculating office employment in this category.

Marginally Employed Persons⁴

Information on marginally employed persons is derived from statistics of the Federal Employment Agency. In 2009 the total number of office employees in Germany amounted to roughly 13.1 million persons (thereof 11.33 million in the old Bundesländer and 1.73 million in the new Bundesländer). This corresponds to an office employment rate (= share of office employees in all gainfully employed persons) of 32.4%. Regionally differences are significant; for prime markets these office employment rates are in the range of 37 m² (Berlin) and 49.9 m² (Frankfurt/Main). For secondary markets the office employment rates are in the range between 30.5 m² for Duisburg and 48.2 m² for Bonn.

Table 2 Office employment in Germany in 2000 and 2009

	2000 (million)	2009 (million)	Change in %
Total gainfully employed persons	39.14	40.27	+2.89
Employees subject to social security contributions	27.28	27.38	+0.37
Office employees subject to social security contributions	9.80	10.25	+4.59
+ Self-employed	1.26	1.55	+23.02
+ Marginally employed	0.42	0.54	+28.57
+ Civil servants	0.88	0.72	-18.18
Total office employees	12.36	13.06	+5.66
Share of total gainfully employed persons	31.6%	32.4%	-

Source: www.riwis.de, BulwienGesa

Office employment rates in rural counties range between 20% and 25%

Berlin’s office employment rate may be comparatively low, yet the absolute number of office employees in the German capital is the highest among all German office markets and amounts to approx. 606,000 (Table 2).

4 Office Stock and Vacancy

Office space is defined as space, where typical work at a desk is carried out or could be carried out, and which is traded in the office space market (can be let or purchased as office space). This definition poses some difficulties: to cite just a few examples: service counter areas in banks, universities, courtrooms, police stations, hotels, factory buildings do not count as office space. The gif (gif e.V. 2008) provides a precise definition of office space.

⁴Marginally employed persons (monthly income <400 EUR, employees exempt from social security contributions).

Table 3 Office stock and vacancy end of 2010

Territorial unit	Office stock (gross) in million square metre	Office stock (lettable space) in million square metre	Vacant space (gross) in million square metre	Vacant space (lettable space) in million square metre	Office employment in 1,000	Ratio gross office space/employee
Berlin	22.9	18.4	1.75	1.40	605	33.5
Munich	16.9	13.5	1.58	1.25	442	33.9
Hamburg	16.5	13.2	1.58	1.16	469	31.1
Frankfurt	12.3	10.2	2.34	1.87	308	31.9
Düsseldorf	8.8	7.3	1.11	0.89	228	33.7
Cologne	9.3	7.4	0.78	0.63	266	30.8
Stuttgart	9.0	7.4	0.60	0.48	217	38.2
Total Top-7	96.7	77.4	9.73	7.79	2,538	33.1
Germany	410.0	328.0	28.00	22.50	13,059	32.4

Source: www.riwis.de, BulwienGesa

There is no comprehensive database embracing the German office stock. Estimates are usually based on the number of office employees and on assumptions regarding the size of a single workplace.

In the past ten years however, some extensive stock surveys have been conducted for many large German cities (Bulwien 2008; Salostowitz 2008). Several others are currently being planned (Bonn, Krefeld, Mönchengladbach) or implemented (Busch and Spars 2009a) (Maklerhaus Aengevelt, Wirtschaftsförderung Potsdam (Hrsg.) 2006a). The first comprehensive stock survey was conducted in Düsseldorf (Flüshöh and Stottrop 2007). By late 2010 comprehensive office stock surveys for roughly 20 German cities had been published.

According to the available information, by the end of 2010 the office stock in Germany totalled roughly 410 million square meters (gross office space). This corresponds to approx. 328 m² lettable office area according to the gif definition, of which 268 million square meters are located in the old Bundesländer and 60 million square meters in the new Bundesländer.

The ratio between the total office stock (gross) and the number of office employees results currently in an office occupation rate of 31.3 m²/office employee. When calculating with the gif-office space figures, the ratio amounts to 25.1 m²/office employee. Taking into account vacant office space the ratio is roughly 23.4 m² of office space in use/office employee (Table 3).

Berlin's office stock totals approx. 18.4 million square meters; it is by far the largest office property market in Germany, followed by Munich, Hamburg and Frankfurt/Main with between 10.2 million and 13.5 million square meters respectively. Düsseldorf, Cologne und Stuttgart comprise each approx. 7.4 million square meters. However, the office stock is not the most important variable determining prime office rents and net initial yields. Other factors play more important roles.

One parameter characterising an office market is the vacancy rate. Vacant office space is defined as the sum of all office space offered for letting, sub-letting or for

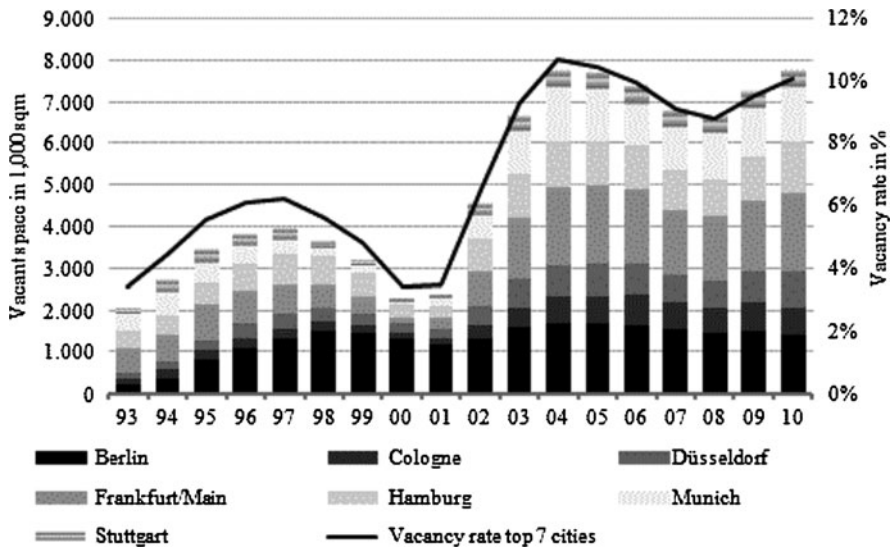


Fig. 2 Office vacancy in prime office markets, 1993–2010 (Source: www.riwis.de, BulwienGesa)

sale, which is not occupied at the time of the survey yet available within a period of 3 months. Here as well, the gif (gif e.V. 2008) provides a precise definition of office vacancy.

In late 2010, roughly 22 million square meters of office space were vacant in Germany (value updated according to Bulwien 2008). This volume corresponds to a vacancy rate of 6.9%. Nearly 7.8 million square meters thereof are located in the largest seven German office markets (vacancy rate: 10.1%). A big part of the currently vacant office space came on the market over the past 10 years. In 2000, office vacancy in prime German office markets totalled only 2.3 million square meters (3.4%). This strong increase can be attributed to the extraordinary number of office projects developed on a speculative basis on the one hand and only poor net absorption of office space on the other hand. In Frankfurt/Main alone, the total volume of vacant office space rose from 165,000 m² (2.0%) in 2000 to 1.88 million square meters (19.7%) in 2004 (Fig. 2).

Another 2.5 million square meters vacant office space exist in the 14 secondary office markets, resulting in an average vacancy rate of 7.1%. The spectrum ranges from 2.4% in Duisburg or 3.5% in Bonn to above 20% in Leipzig. The fact that by and large office vacancy in secondary markets is lower than in prime office locations can be attributed to the less volatile markets in smaller cities.

However, the presented data does not account for qualitative factors: Mostly, vacant office space also includes no longer marketable old office stock as well as technically not mature or difficult to customise new schemes in locations considered by the majority of potential tenants as inconvenient.

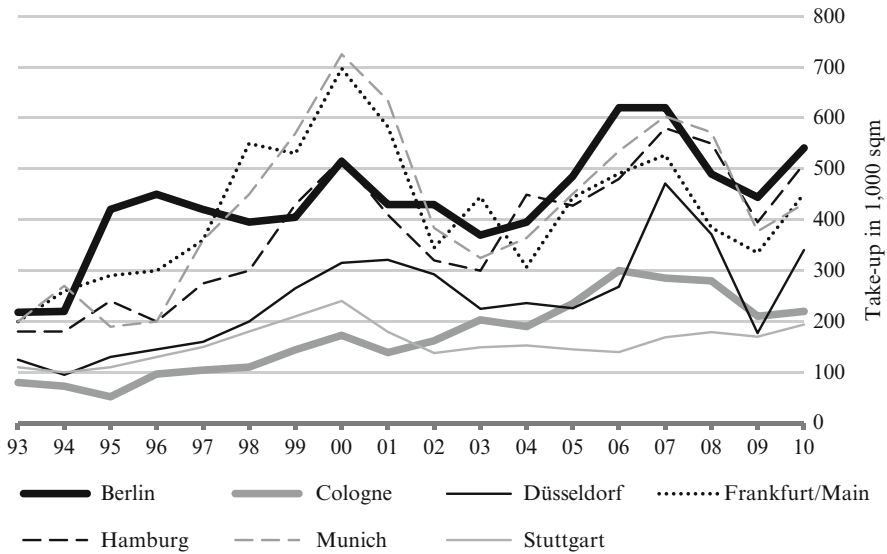


Fig. 3 Office take-up in prime office markets, 1993–2010 (Source: www.riwis.de, BulwienGesa)

5 Office Take-up

Office take-up⁵ in Germany is – as in most countries – highly dependent on the development of the economy. During economic upswings, e.g. 1998–2000 and 2005–2007, office take-up figures increase considerably. In times of economic downturns (e.g. 2001–2004) office take-up figures usually decline (Fig. 3).

In Berlin, Hamburg, Frankfurt/Main and Munich as well as in some parts of Düsseldorf this cyclical behaviour is somewhat stronger than in Cologne and Stuttgart. On the one hand, this is due to the absolute magnitude of these property markets, on the other hand, it relates to higher economic volatility in the most important sectors driving these city economies. During the past decade, the total office take-up in the seven prime markets ranged on average between 160,000 m² in Stuttgart and 482,000 m² in Berlin.

In the 14 secondary markets, the total annual office take-up amounts to between 750,000 and 1 million square meters. This corresponds usually to the total take-up volume achieved by two or three prime markets.

It is even more interesting to focus the actual net absorption volume, which is defined as the change in the volume of office space occupied during a particular period of time in a defined market. The following table displays the volume of office take-up and net absorption in the seven prime markets in 2010 (Table 4).

⁵ Office take-up is defined as the sum of all space, which is let, pre-let or sublet in a defined office submarket within a given period. This includes developments for owner-occupiers or sales to an owner-occupier (gif 2008). Extensions of tenancy agreements are not included.

Table 4 Net absorption in prime office markets, 2010

City	Take-up in m ²	Thereof net absorption in m ²	Net absorption in % of take-up
Berlin	541,000	197,000	36.4
Hamburg	510,000	38,600	7.5
Frankfurt/Main	451,000	-75,500	-16.7
Munich	431,000	84,400	19.5
Düsseldorf	340,000	-29,900	-8.7
Cologne	220,000	100,900	45.8
Stuttgart	194,000	2,100	1.0

Source: www.riwis.de, BulwienGesa

All in all, since 1996 a total of more than 49 million square meters of office space have been let to tenants or delivered to owner-occupiers in German prime and secondary markets. Yet, only one third thereof (16.5 million square meters) has actually been absorbed by the market; the remaining two thirds account for office relocations.

6 New Supply

Official statistics provide information on the annual construction activity regarding office and administrative buildings. However, these figures should be used cautiously. Often the volume of a development is not or only partially specified, in some cases completion dates are simply wrong. Here, it is recommended to use market data (available for all seven top cities), which are provided within the annual gif survey or by professional advisors.

Provision of new office supply is also linked to the economic cycle. Due to time lags, the highest completion volumes occur roughly 12–24 months after the economic cycle peaked (e.g. Frankfurt/Main: 600,000 m² in 2003, thus 2 years after the dot.com boom ended) (Fig. 4).

In this context, Berlin plays a special role. Due to the German reunification and as a consequence of the high backlog demand and backed by tax incentives introduced between 1995 and 1999, office completion figures in the German capital rocketed. During these 5 years 2.8 million square meters of office space were delivered to the market. This steep increase in office stock occurred at that time regardless of the macroeconomic situation.

Despite favourable economic conditions between 2006 and 2008, the annual volume of new office supply in the seven prime markets has only occasionally exceeded the 200,000 m² mark since 2005. High office vacancy in many markets called the need for additional office supply into question. Therefore it was more difficult to find sufficient funding for new developments. Only projects with a relevant share of pre-let office space (at least 50–60%) were initiated. These indirect restrictions have kept completion figures at a low level, and the trend is expected to continue in the next few years.

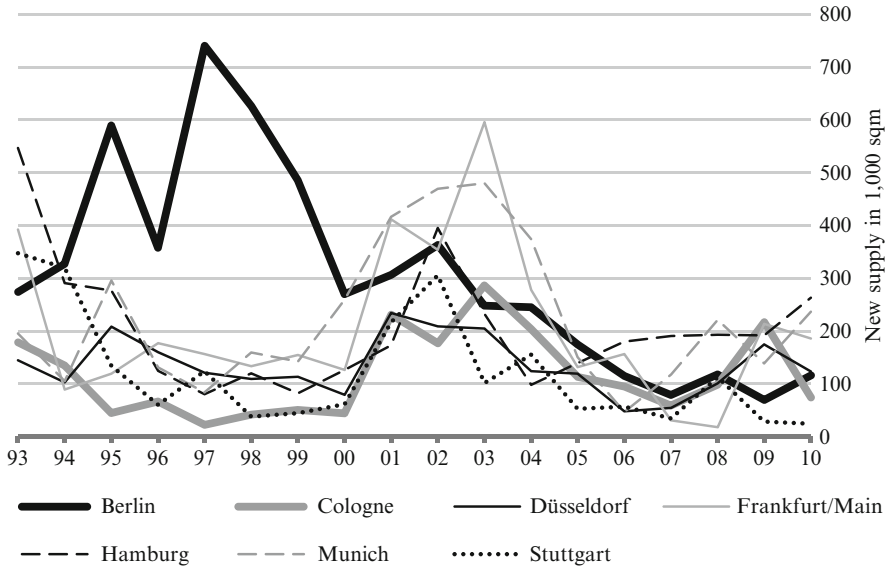


Fig. 4 New supply in prime office markets, 1993–2010 (Source: www.riwis.de, BulwienGesa)

Since 2004, the 14 secondary markets have seen average annual office completion volumes in total between 300,000 and 400,000 m². During the decade between 1993 and 2003, the annual volume of new supply delivered to these markets exceeded the 500,000 m² mark and it even reached one million square meters in mid-1990s. Similarly as in Berlin, special effects of the German reunification (high backlog and tax incentives) influenced the situation in Dresden and Leipzig.

7 Market Rents

Additionally to completion volumes and office take-up figures, prime office rents quoted in German prime markets also follow economic cycles. In times of office space scarcity, office rents increase, and they fall, when additional new supply is coming to the market during downturn periods (especially considering the aforementioned time-lags). The following figure displays the change in nominal prime rents in German prime property markets (Fig. 5).

Frankfurt/Main obviously is an outlier. It is Germany's financial centre and home to the European Central Bank. Thus, international corporations from the financial sector (banks, financial service providers, consulting companies) dominate the demand for office space in Frankfurt. Still, in 2010 the prime rent in Frankfurt amounted to 33.00 euro/m², considerably lower than office rents in other European financial centres, such as London (approx. 80 euro/m²) and Paris (approx. 60 euro/m²).

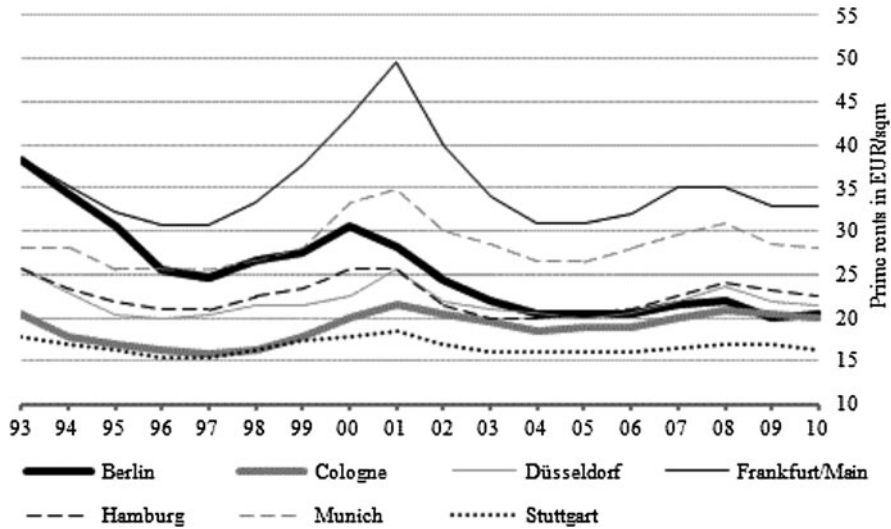


Fig. 5 Prime rents in prime office markets, 1993–2010 (Source: www.riwis.de, BulwienGesa)

Since 2000, Munich has been the second most expensive office location in Germany. In 2010, the prime rent in the Bavarian capital amounted to 28 euro/m². In Berlin, prime rents are considerably lower (at 20.50 euro/m²; end of 2010). This discrepancy is to some extent due to historical reasons. Berlin still lacks an efficient business base, which could generate some strong demand for services and consequently for more office space as well.

For the next few years, we expect that rent cycles remain limited in the seven prime German markets. Prime rents beyond 35 euro/m² are expected to remain an exception.

In late 2010, prime rents in secondary German markets were between 10.50 euro/m² in Dresden and 15.00 euro/m² in Bonn. All in all, secondary markets are less volatile than German prime office locations.

8 Investment Market and Yields

In the the last few years the German investment market has not only become more professional in terms of due-diligence processes but also more transparent. However, when it comes to rent multipliers and purchase prices – unlike in Anglo-American markets – in Germany both vendors and purchasers like to play their cards close to their chests, unless legal requirements (open-end funds, property companies) force them to disclose the figures. In order to gain

comparables, local advisory committees can be consulted – even though they only forward anonymised data – as well as brokerage houses and data providers, who systematically monitor property investment markets, take record of investment activities and analyse them.

During the economic boom 2005–2007, total annual investment volumes (office, retail, other) in Germany rose sharply from roughly 20 billion euro to nearly 80 billion euro in 2007. On the seller side, open-end property funds seized an opportunity to reduce their regional cluster risk. They divested large portfolios, some of them worth more than a billion euro. The public sector as well as semi-public institutions, such as the German savings banks attempted to take advantage of the favourable market situation on a large scale by means of sale-and-lease-back-transactions. They disposed of numerous properties and leased them back for 20 years. Particularly prime German markets benefitted; investment activity in this segment literally took off during these years. Between 2000 and 2004, annual total investment volumes in prime cities ranged between 5 billion and 7.5 billion euro. In 2007 the total volume in prime cities reached nearly 32 billion euro, thus roughly 40% of the total volume of investment in commercial property in Germany. This investment boom was triggered by low interest rates and the willingness of financial institutions to allow for very high loan-to-value rates (see also Nickel, 2011 in this book).

This extraordinary market performance was corrected in the wake of the financial crisis and in the course of 2010 the market stabilised and the total investment volume in prime office property increased from 3.5 billion euro in 2009 to 6.7 billion euro (Fig. 6).

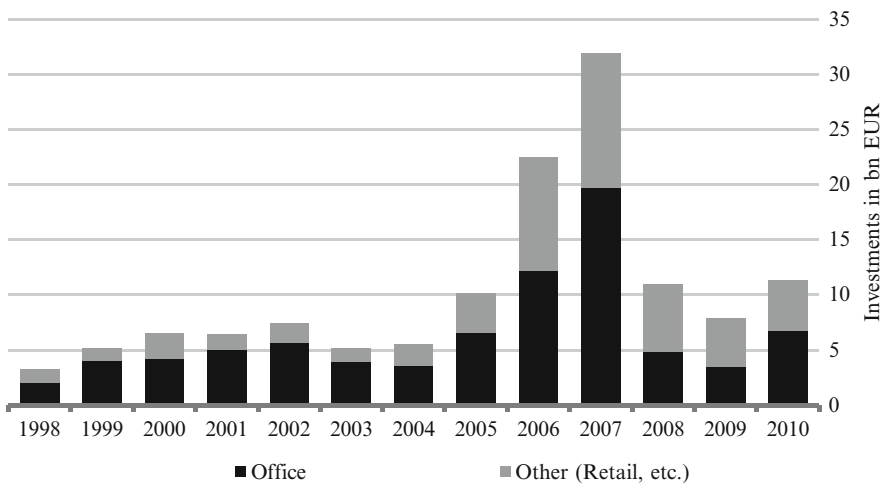


Fig. 6 Investment volume in prime cities, 1998–2010 (Source: www.riwis.de, BulwienGesa)

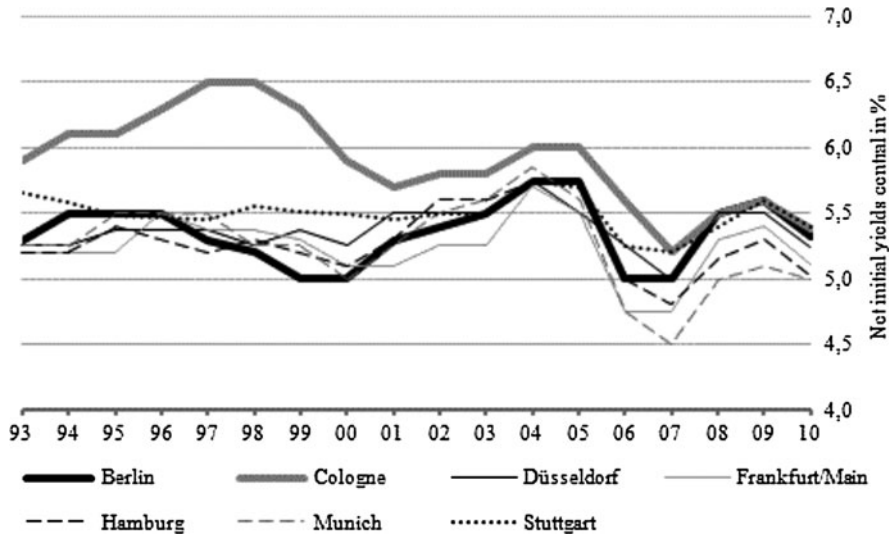


Fig. 7 Net initial yield in prime office markets, 1993–2010 (Source: www.riwis.de, BulwienGesa)

In line with the considerably increased demand for German assets, yields for office property compressed modestly. In 2007, net initial yields⁶ for office property in German prime office markets ranged between 4.5% and 5.2% – significantly lower than the long-term average. In the course of the financial crisis, investment volumes returned to much lower levels and the declining demand led to some downward pressure on prices. Consequently, yields increased. In late 2010, yields for office property levelled off to long-term averages (Fig. 7).

Munich, Hamburg and Frankfurt/Main – and parts of Berlin – are the most expensive German office markets, whereas Cologne, and Stuttgart achieve higher net initial yields.

At the end of 2010, net initial yields in secondary German markets ranged between 5.7% (Nuremberg) and 6.6% (Bochum).

9 Total Return

The German office property investment market traditionally offers relatively low return potentials. According to the German property index DIX, the annual total return for German office property amounts to 2.6%, compared to 5.8% in Great

⁶ Net initial yields are defined as the ratio of net rental income and purchasing price including additional costs (taxes, notary costs, agents etc.). For details please see: gif e.V.: Yield Definitions Real Estate Investment Management, 2007.

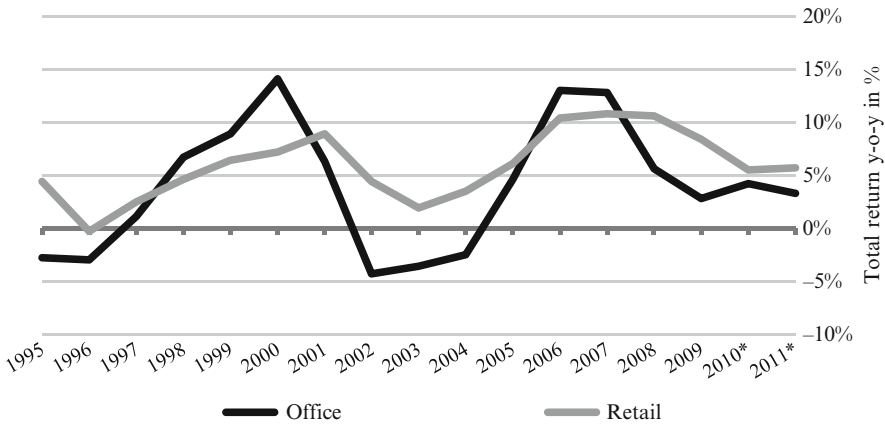


Fig. 8 German Property Index (GPI/Total Return) by property segments in Germany, 1995–2011 (Source: RIWIS, BulwienGes. *forecast (as of May 2010))

Britain or 9.9% in France (see also Piazzolo 2011, in this book). These values refer to a 10 year-average from between 1999 and 2009. Total return comprises the cash flow return and capital growth, defined as the property’s resale value after 10 years. Among others, due to the leading role of London and Paris in national markets, the cash flow increase in the investment phase is considerably higher abroad.

Then, the question might arise, why investors are queuing for German real estate again. One reason for the gap between “theory” and “practice” can be seen in differing methods for computing performance. While IPD–indices are based on indirect data collected in the course of valuating the existing office stock, the

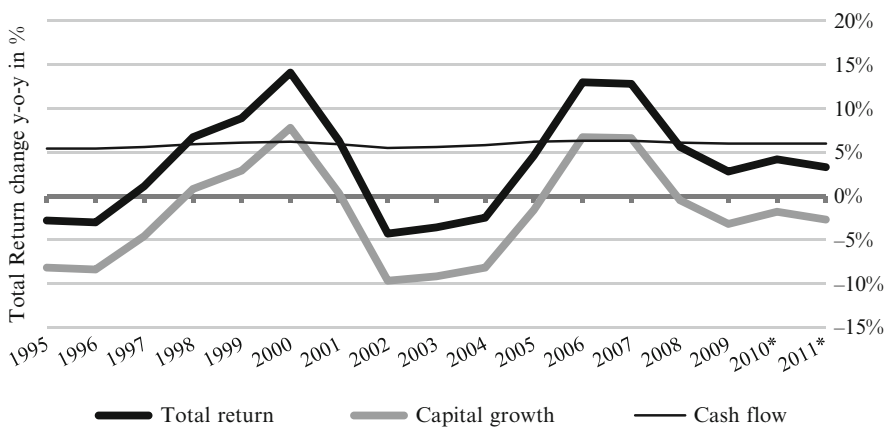


Fig. 9 German Property Index (GPI) in Germany, 1995–2011 (Source: RIWIS, BulwienGes. *forecast (as of May 2010))

GPI Index (German Property Index) by BulwienGesa draws upon direct data from the pool of current transactions closed in a year. In 2010, the GPI for office property in Germany was at +4.2%. The forecasted value for 2011 is +3.3%. These figures indicate slightly declining prices for office investments and thus a positive trend with regard to net initial yields accompanied by relatively constant rents (Fig. 8).

Overall, the performance of German property – based on market data within a 10 year-time frame between 1999 and 2009 – considerably exceeded 2.5%. According to the GPI index, the average total return amounted to 4.9% and thus it was only slightly lower than the performance of the British and French office property markets. It is plausible though, that the relatively low performance correlates with the apparently lower risk, which is involved in investing in German property. In contrast to Great Britain and France, German offices as an asset class never generated negative returns despite the last financial and economic crisis. Despite difficult financing conditions and the massive slump in GDP in 2009, investors on the German market had to cope with far fewer value adjustments than investors investing in other European markets (Fig. 9).

References

- Bulwien, H. (Hrsg.). *Zeitschrift für Immobilienökonomie*. Sonderausgabe 2008: Bürobeschäftigte und Büroflächenbestände in Deutschland.
- BulwienGesa, & Baasner Stadtplaner. Büroflächenerhebungen für folgende Städte: Berlin, Hamburg, Cologne, Munich (inkl. Umland), Stuttgart (inkl. Umland), Frankfurt/Main, Hanover, Nuremberg, Furth, Mannheim, Ludwigshafen, Heidelberg, Landkreis Recklinghausen, Bad Homburg (alle unveröffentlicht).
- Busch, R., Spars, G. (2009a). *Büroflächenvollerhebungen – Beispiel Wuppertal*. vhw FWS, Heft 6, Dezember 2009.
- Busch, R., Spars, G. (2009b). *Büroflächenerhebung Duisburg*. Download at <http://www.gfw-duisburg.de>.
- Dobberstein, M. (1997). *Bürobeschäftigte – Entwicklung einer Methode zur Schätzung der Bürobeschäftigten im Rahmen von Büroflächennachfrageprognosen*. Dortmund 1997 (Manuskript).
- Flüshöh, C., Stottrop, D. (2007). Büroflächenbestand – Grundlagen, Daten und Methoden, Band 42 der Reihe Schriften zur Immobilienökonomie, Köln.
- Gif, e.V. (2008). *Office market definitions*. Wiesbaden 2008, free for download at www.gif-ev.de.
- Maklerhaus Aengevelt, Wirtschaftsförderung Potsdam (Hrsg.) (2006). *Büromarktanalyse Potsdam 2006*. Potsdam 2006.
- Salostowitz, P. (2008). *Vorsprung durch Gemeinsamkeit: Frankfurts Immobilienprofis rücken zusammen*. Zeitschrift für Immobilienökonomie, Sonderausgabe 2008: Bürobeschäftigte und Büroflächenbestände in Deutschland, pp. 71–75.

Retail Property Markets

Olaf Petersen

Abstract Thanks to its relatively high purchasing power combined with nearly 82 million inhabitants Germany is the biggest retail market in Europe. In the 1990s and in the first decade of the new century the dynamics of total sales were low; nevertheless retail sales area continued to grow. Amid tough competition professional retailers and retail developments not least grew on new and modern sales space. But new planning law for large-scale retailing becomes more and more a bottleneck as planners nowadays often favour inner cities and other existing functioning retail locations. Since the pipeline for good locations and leasable and investable properties are limited, rents and prices for these scarce objects and developments are rising by trend whereas low-quality locations and objects show a more difficult performance.

Keywords Location • retail turnover • sales area • shopping-centres

1 Overview of German Retail Trade

1.1 *Private Consumption and Retail Demand*

1.1.1 Private Consumption and Purchasing Power

Germany has always played an important role for international market players as one of the most successful exporting nations of the world. Although private consumption has not developed very dynamically in the past two decades it still accounts for the largest share of German GDP. Consumer spending of more than 1.4 trillion euro contributes approx. 58% to the overall economic performance (Destatis 2011).

Moreover, the savings rate has always been comparatively high, due to a distinctive precautionary motive within the German population. Savings amount to nearly 200 billion euro p.a., i.e. the saving rate amounts to 11%.

In total, purchasing power of German consumers for goods, services, housing and savings comes to approx. 1.6 trillion euro. GfK GeoMarketing (2010) estimates that the per capita purchasing power will reach approx. 19.700 euro in 2011. Within Europe, German purchasing power is among the top ten of all countries, though still significantly behind the leading countries Luxembourg, Norway or Switzerland.

Within the country the purchasing power of the German population varies remarkably. This especially reflects the German divide, even in 2010; regarding the distribution of private wealth the gap between west and east Germany has become smaller, but is still sizeable. Among all German federal states the new, eastern states rank at the very bottom. The weakest performance is achieved in Saxony-Anhalt with a purchasing power of approx. 16,400 euro per capita, about 17% below average and 23% below the leading federal state (Bavaria).

Beyond the west-east-dichotomy there is also a (smaller) gap between the southern and the northern federal states, with Hamburg being an important exception from this rule.

Looking more closely at Germany the purchasing power disparities are increasing: At county-level GfK GeoMarketing identified the Hochtanuskreis in the vicinity of Frankfurt/Main as the wealthiest region in Germany. Its inhabitants possess a purchasing power of nearly 28,600 euro in 2011, nearly twice as much as the inhabitants of the poorest county Uecker-Randow in Mecklenburg-West Pomerania near the border to Poland.

1.1.2 Retail Turnover and Competition

In 2010 the turnover of German retailers amounted to approx. 400 billion euro (ex auto, fuel and sales of pharmacies).¹ Compared to the previous year this corresponds to nominal annual growth of 2.5% and 1.5% at constant prices, respectively. On the one hand, these numbers can be appreciated as a remarkable recovery after the financial crisis – especially compared to the retail performance in other European economies. On the other hand, the development still fits into the typical scheme of the economic cycle of retail since the last boom phase during German reunification.

By and large, retail sales growth in Germany has been relatively weak in the last few years with only moderate cycles since 1992: the highest growth rate of real retail sales was achieved in 2004 with +2.4%, while the lowest growth rate was –2.9 in 2009 (Fig. 1).

Overall consumer spending was muted in the last two decades and this was aggravated by a secular trend towards less typical retail goods: the share of retail expenses was falling, while the share of expenses for housing, services, car driving

¹Frühjahrgutachten Immobilienwirtschaft 2011, ZIA and Immobilien Zeitung, Wiesbaden, 2011; Data by GfK GeoMarketing.

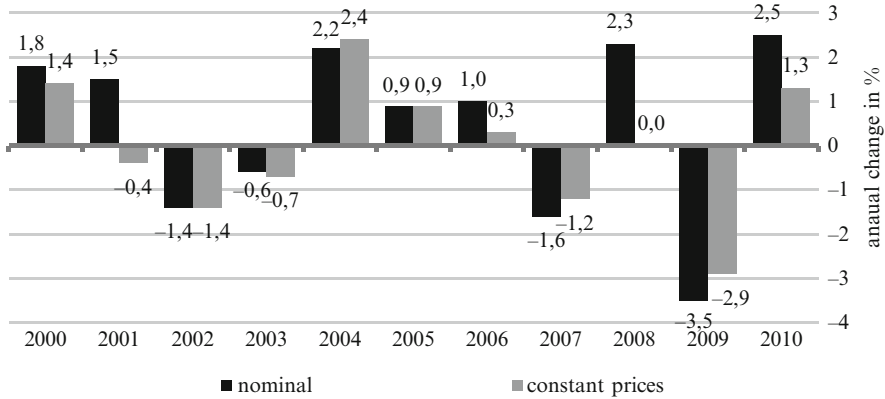


Fig. 1 Development of German retail turnover (Sources: Destatis, Frühjahrgutachten der Immobilienwirtschaft 2010)

and administrative fees was rising over the last few decades. As a result, the share of retail expenses was at about 28% in 2010, significantly lower than in most other advanced European countries (e.g. France and Netherlands 35%, UK 32%, Austria 31%).

Nevertheless, thanks to its 82 million inhabitants Germany still represents the biggest retail market in Europe together with France – where inhabitants spend a lot more money per capita on retail – far more than in all other European countries (European Shopping Centre Trust/GfK GeoMarketing 2010).

Another characteristic of German retail is the low level of price increase. Usually, retail price inflation is significantly below overall consumer price inflation. Between 2000 and 2010 the index of retail prices rose by 9% whereas the consumer price index climbed by 17%.

This price stability is due to the high price consciousness of the German population and the extraordinary degree of competition.

1.1.3 Structure of the German Retail Market

There are about 400,000 enterprises in the whole retail business, roughly 90% of which are small businesses with an annual turnover of less than one million euro. However, this does not preclude that we find a very high concentration of the business in some sub-segments: in the food sector for example, the ten biggest players have a market share of about 78%.²

Still, even in the more concentrated market segments competition is very high, as entry barriers like capital intensity or access to human capital are much lower

² EHI Retail Institute (2009), calculations of Comfort Hamburg GmbH 2011.

than in many manufacturing industries. Any pricing power of a few incumbents therefore quickly attracts new entrants – both domestic and international.

This very high degree of competition makes the German retail market very difficult, even for highly professional concepts, as the failures of Wal-Mart (the world largest retailer) or Marks and Spencer show. Both companies withdrew from the market because of big losses in their German operations. However, the big success of brands like IKEA or H&M also reveals the opportunities and is an important role model for many foreign retailers now entering Germany, not least because of its market size.

1.2 German Retail Landscape

1.2.1 Retail Formats

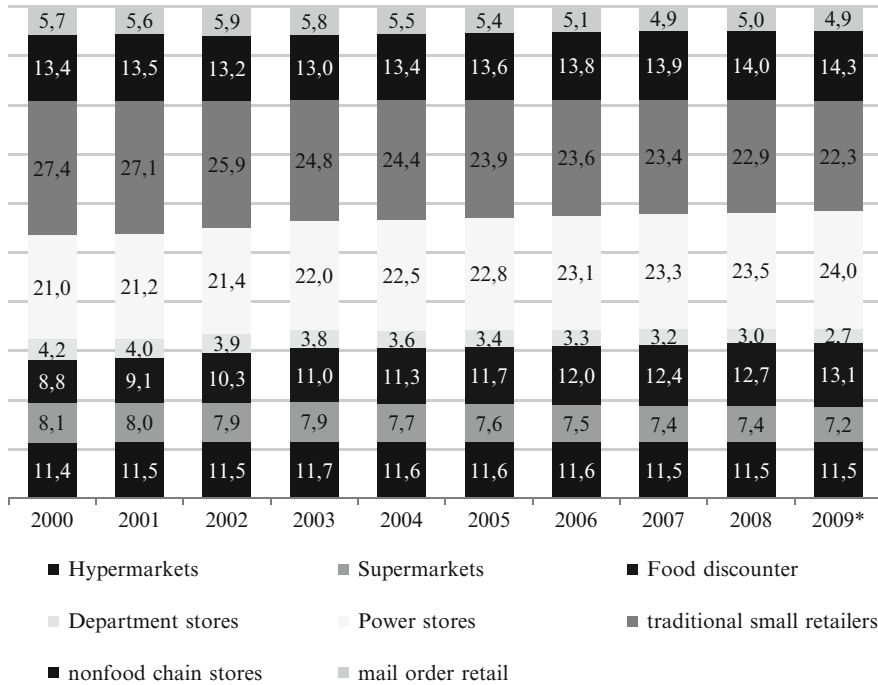
German retail is characterized by a remarkable variety of retail formats. This extends from the single owner-conducted specialty store to the aggressively price-orientated mega-chain stores with thousands of outlets all over the country. In comparison to other European markets the price-orientation of the German customer is high and is reflected by the significance of discount retail formats, which were secularly rising over the past few decades.

As a result, with about 15,500 stores and a market share of approximately 13% of total retail turnover, the food discounter segment plays an outstanding role in comparison to other European countries (EHI Retail Institute 2009). However, market penetration, at least as regards the key players Aldi and Lidl, is approaching its peak. Therefore, for them future growth opportunities especially arise from optimizing their store portfolio in terms of size and layout.

What is more, hypermarkets with a sales surface of more than 1,500 m² and a market share of more than 11% in more than 3,000 outlets play a relatively stable role. However, the market share of very big stores with more than 5,000 m² sales surface and a relatively high percentage of nonfood-articles is shrinking.

The market share of supermarkets – self-service food stores with a maximum of 1,500 m² sales surface – is falling (today: about 8,000 stores, approximately 11% market share). Bigger supermarkets usually perform somewhat better than the smaller formats. But after a phase when stores with a sales surface of less than 700 m² were seen as a ‘dying species’, new city-concepts now show that in the city and quarters with a high population density small-size supermarkets can also perform successfully (see e.g. Rewe and Tegut) (Fig. 2).

In the first decade of this century power stores with a market share of approximately 24% today took the lead of all retail formats within the nonfood retail sector. Since their start in the 1970s with typical DIY-products like building materials, tools, wallpapers and carpets this retail format has enlarged assortments significantly – to even include products like wine or erotic articles. The success is not least a result of the high price sensitivity of German consumers and has in some segments



* Short term extrapolation

Fig. 2 Development of retail formats in Germany: market share of retail turnover in percent (By definition excluding automobile and fuel sales as well as pharmacy) (Source: Frühjahrgutachten Immobilienwirtschaft 2010)

led to clear market domination of a few power store players (e.g. market for technical goods: Media Markt and Saturn).

The market share of family-conducted retail stores still accounts for approximately 22% of total turnover, significantly less than in the past, and there is no trend reversal in sight. Tough competition and succession problems are the main reasons for this secular loss of market share. Also important changes in the locational quality of the store property are a key factor.

In contrast to many other countries, department stores play only a marginal role in Germany. In 2010 their market share was just about 2.7%. Despite their grand history, department stores have been forced into a sandwich position between the new price-oriented retail formats and high-quality specialty stores since their last peak in the 1970s. Today Kaufhof and Karstadt – still existing after becoming insolvent in 2009/10 – are the only department store chains with about 200 stores. In terms of real estate it is interesting to note that many former department stores (e.g. Hertie; Woolworth and some Karstadt outlets) represent interesting new development opportunities thanks to their central and very good retail locations. And there is more to come in the next few years.

Big clothing specialty stores with sometimes more than 10,000 m² of sales space in city centres are one peculiarity of German retail markets: examples for that are Peek & Cloppenburg, Breuninger or SinnLeffers. In addition to this heterogeneous group of non-food chain stores, there is a big variety of High-Street- and vertical retailers with a focus on clothing and shoes and some other Monolabel-/Flagship-Stores. Here, consumer brands operate their own stores with top-notch standards. Altogether the non-food chain stores achieve a market share of more than 14% and are growing.

Last but not least, mail-order business, which has a long-standing tradition in Germany, should be mentioned in this context. This sector, however, is currently undergoing a dramatic change: On the one hand, the relevance of traditional universal mail-order retailers is diminishing (e.g. breakdown of Quelle in 2009) in favor of specialty mailorder retailers and new internet-based suppliers like Amazon or eBay. All in all, the pure mailorder retailers accounted for a market share of roughly 5% in 2010.

The internet is leaving its imprint not only on traditional mail-order retail but on all retail formats and assortments. The magic word is ‘multi-channeling’, which means that more and more stationary retailers are extending their selling to the Internet. In Germany this trend is not restricted to the bigger chains, small and medium-sized firms are also trying to hop on the internet train. The main German retail association HDE estimates that total E-Commerce turnover in Germany – of stationary shops, mail-order retailers and internet specialists – amounted to 22 billion euro in 2010, i.e. roughly 5% of total retail sales in Germany. And the trend is not to end soon (HDE estimates internet sales to grow by a further 8% in 2011), which implies a big challenge for classic retail properties.

1.2.2 Sales Area³ and Locations

In Germany the sales area of all retailers added up to 116.5 million meter square in 2010, i.e. more than 1.4 m² per capita. Only two other countries in Europe (Austria and the Netherlands) have more retail space per capita, in general retail space is not scarce in Germany.

While retail sales have risen only moderately over the past few years, the sales surface has increased year by year. Nearly every year, the latter has outperformed turnover in terms of growth. The structural change in retail is among the most important reasons for this development. Especially, the success of big-size retail formats like power stores and Flagship-Stores was an important trigger that has also led to rising sales areas within the other retail formats and enabled broader retail assortments, more services as well as a more emotional presentation of goods.

³The following numbers concerning sales area and space productivity are all taken from: “Key European retail data 2009 review and 2010 forecast”, GfK GeoMarketing, European Shopping Centre Trust (2010).

The average space productivity in German retail amounted to about 3,400 euro/m² in 2010. In comparison to other advanced European countries this number is relatively small⁴ and again reflects the very high degree of competition in Germany.

The growth of the sales area also raises political issues with regard to urban development and accommodation of the people. Regulation is complex at diverse levels: The most important regulations are included in the “Baugesetzbuch” and the “Baunutzungsverordnung”. These are complemented by various laws and rules of the federal states.

In general, the regulation concerning big-size retailing with a surface of more than 700 m² has become more rigid over the past years. Now, the developer of new retail space has to testify (by appraisals, plans, figures and other documents) and convince the relevant authorities and councils (especially municipalities and counties) that the project will harm neither existing retailers nor city structures severely. This has become a very high hurdle and prevents the realization of many retail projects.

The German retail landscape shows a well-differentiated structure of locations. The focus is on the established city centres and newly created and managed centres. They meet the needs of the people with regards to diversity of retail, restaurant and café sectors and services, social space, ambiance and pleasing surroundings.

Although competition of other locations -especially of non-integrated properties- has increased in the last few decades, the city centre still marks the most important retail location of a municipality with supply balance points for clothing, shoes, technical goods and products for everyday use. And this does not only hold for metropolises like Berlin, Hamburg or Munich, but also for many medium and even small-sized cities. Still, the attractiveness of the downtown areas for shopping varies significantly.

City centres with a strong performance usually possess a catchment area of at least 250,000 inhabitants. Of course, this catchment area is not necessarily limited to the administrative borders of a city or county. What is more, in the last few years the relevance of primary locations has risen considerably compared to lower-quality locations.

In big and medium-sized cities there are also traditional district and quarter shopping areas besides the centre. Their spectrum of retailers and assortments is generally mirroring the needs of the population in the vicinity. So, the food sector plays a key role. For many traditional shopping areas competition has clearly increased amid the rise of new neighbourhood shopping centres in a size of 2,000–5,000 m². These neighbourhood centres typically have sufficient parking space, a smaller hypermarket, supermarket or even a food discounter as key tenants and some smaller shops or power stores.

During the last few decades the development of new locations has become very important, such as green-field developments with big-size (or big box) retailers that

⁴E.g. France: 6.100 euro per m², Switzerland 5.900, Sweden 5.400, Belgium 4.700, United Kingdom 4.800, Italy 4.200, Spain 4.000.

are easy to access by car. Today the development of these locations is heavily regulated especially if the new formats plan to offer typical inner-city goods like clothing. But for assortments like DIY or furniture the out-of-town locations represent by far the most important German retail locations.

Last, but not least shopping centres are of rising importance within the German retail landscape Fig. 3. Their success story started after the unification of east and west Germany: in 1990 there were just 93 shopping centres.⁵ By 2010 the number of shopping-centres reached about 430 centres, adding gross leasable area (GLA) of about 14 million meter Square. So, more than three-quarters of today's centres are no older than 20 years. This is an impressive illustration of momentum growth in shopping centre development. The biggest 'wave' occurred during the first half of the 1990s. Due to significant pent-up demand the geographical focus was in eastern Germany. Most of the centres were developed at out-of-town locations, also due to unresolved property right questions.

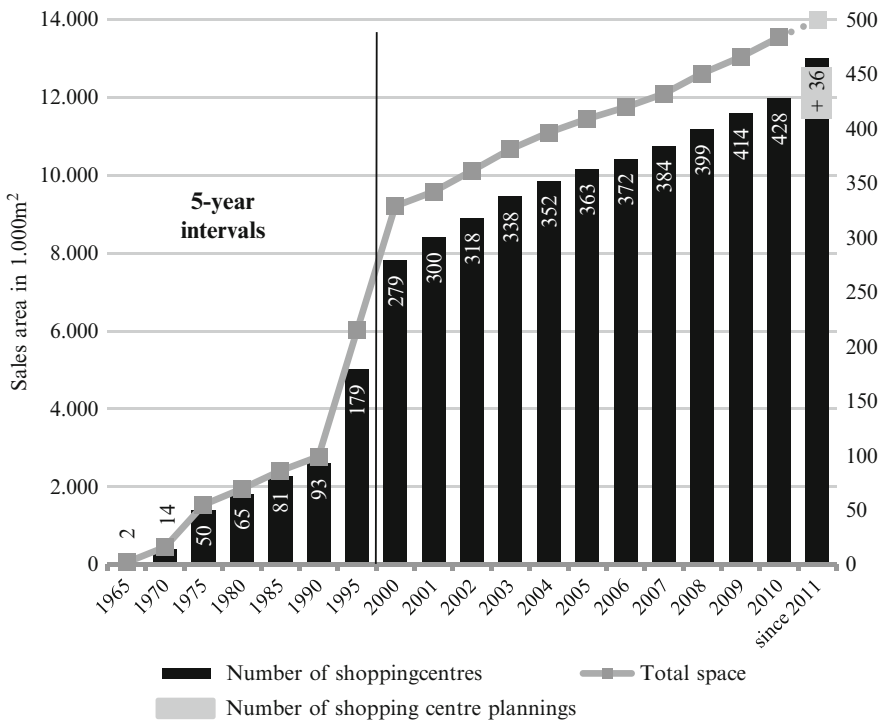


Fig 3 Shopping centre development in Germany (Sources: EHI Retail Institut, Köln; German Council of Shopping Centres, Ludwigsburg; GfK GeoMarketing, Bruchsal)

⁵ According to the definition of the EHI Retail Institute shopping centres possess at least a GLA of 10.000 m².

In the past few years the development focus for new centres shifted back to the inner cities, as many cities restrict the permission process to inner city developments – typically with strict requirements concerning dimension, assortments and architecture.

2 Retail Property Investment

Retail properties play a very important role in terms of total investment in commercial properties in Germany. After a severe decline in retail property transactions to a level of just under four billion euro during the recession of 2009 retail property transactions rose back to a volume of 7.5 billion euro in 2010. The all-time high was realized in the boom year of 2006 when retail properties worth nearly 20 billion euro were sold.

In these heydays most of the investments were opportunistically motivated in the context of a relatively high yield spread (over government bonds) aiming at beneficial leverage effects with very big loan-to-value ratios. Thus, it was possible to realize big portfolios deals as well as big objects and projects. Now these times are over and risk-minimizing single core properties are preferred by investors, though supply of these properties is typically meek.

An important structural aspect which makes retail properties in Germany interesting is the typical lease contract. The legal framework and the lease terms are advantageous for investors. Ten-year leases for new tenancies are common, for anchor tenants in shopping or power centres even 12- to 15- up to 20-years leases are accepted. Furthermore indexation and a high level of contract certainty are the rule. Last but not least the existing rigid planning law for new big-size retail space also limits potential competition by new entrants (see above).

Concerning the buyers as well as owners and sellers of retail properties funds play an important role (see Knepel, 2011; Schäfers und Schulte, 2011 in this book). While formerly the German retail property market was to a large extent reserved to German players, the picture changed especially after the introduction of the euro. Today international players play important parts on both sides of the market.

2.1 Prime Locations

Usually, the prime locations in German cities mark the retail real estate locations with the highest prices. But during the last years the length of these high street locations was shrinking by trend. Together with the fact that the number of owners who want to sell their properties or at least are open for new suggestions can be described as straightforward. This leads to a typically scarce supply of tradable prime inner cities objects.

Prices and multipliers tend to be relatively stable. Even during the financial crisis prices remained at high levels, in some cases prices continued to rise. Beyond the excellent location the higher prices are achieved via good status of leasing, long-term leases, tenants with a first-rate credit standing for technically state of the art properties. Objects fulfilling most of these criteria constitute the classical core segment.

However, it makes a big difference whether such an object is located in one of Germany's metropolises or whether it is located in a medium-sized city. Besides the four German cities with more than one million inhabitants (Berlin, Hamburg, Munich and Cologne) also Frankfurt, Düsseldorf and Stuttgart play in a league, where multiplier of more than 20 are common. In the other major cities similar multipliers are partly possible, but not the rule. Depending on the national position, economy and image of the macro-location yields between 6.5% and 5.0% are common.

2.2 Other Locations

Prices and multiples for other retail locations usually do not reach the high street levels. Still, due to their sheer size, shopping centres are in absolute terms very expensive. For that reason the number of potential buyers is small – especially during the financial crisis. But generally, e.g. compared to the 1990s, the situation has improved on the back of the internationalization of the real estate industry.

For good objects in interesting German shopping locations the yields typically reach about 6% and are relatively stable.

Prices for other retail real estate assets are clearly more volatile. While yields for peripheral retail property were around 7% during the boom years of 2005–2007 and deteriorated in the course of the crisis. Now, prices have more or less normalized again to yield levels of roughly 6.6% for power centres and less than 8% for self-service stores Hahn-Gruppe (2010). The markdown of prices in this segment is relatively large in case of significant shortcomings, i.e. poor location, tenants with risk etc.

3 Retail Property Rent

Of course the level as well as the development of the retail property rent corresponds to the quality of the location, the competition as well as the marketability of the store or object. Against this background retail rents in Germany differ extremely between best high-street locations in shopping metropolises and bad or unlettable sub- or solitary locations in small cities or rural surroundings (Fig.4).

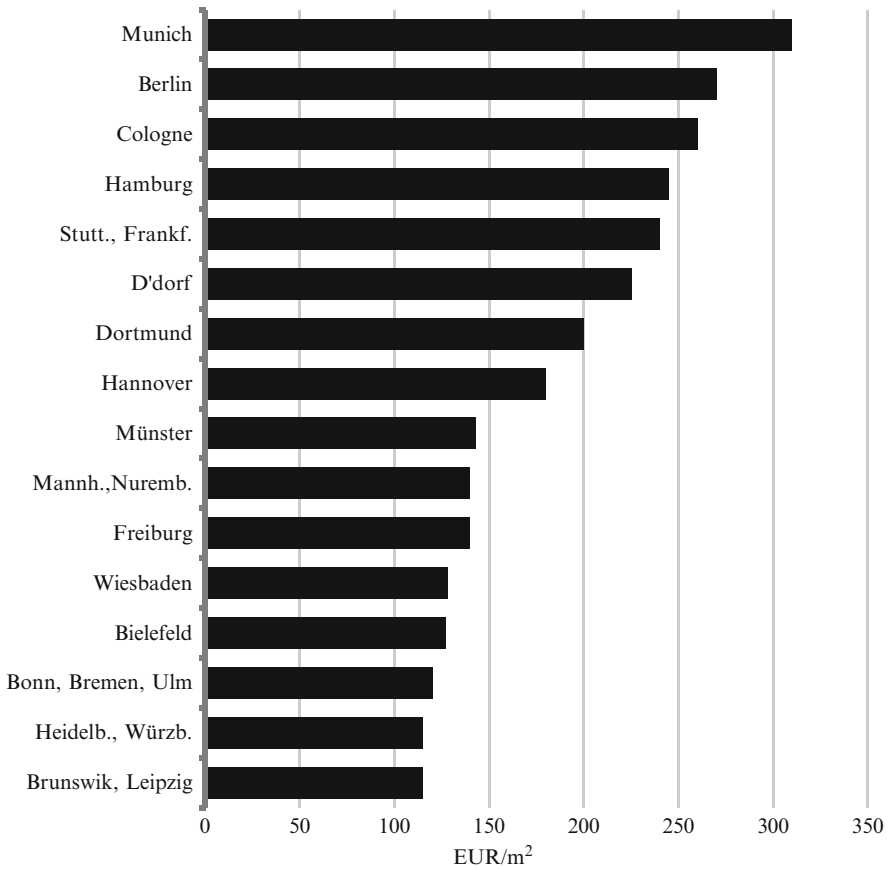


Fig. 4 Retail rents (80–120 m²) in prime locations – ranking of top 22 Cities 2010 (Source: COMFORT)

3.1 Prime Locations

At the moment, there are many (potential) tenants searching for properties in prime locations, and this has led to rising rents in the recent past. For example, the rents in the 22 “most expensive” German cities have continued to develop positively. From 2004 to 2009 prime rents have increased by 23.6% on average. Particularly noteworthy is the fact that these rents, against the national trend, in 2010 increased again by 1.3% when compared to 2009. Even in 2008 and 2009, when the financial and economic crisis put significant pressure on many cities’ retail property rents, it was possible to raise rents in these sought-after shopping cities⁶ (Fig. 5).

⁶These and following statements and figures are gathered from the Annual Report 2010/2011 of Comfort, Holding GmbH, Düsseldorf.

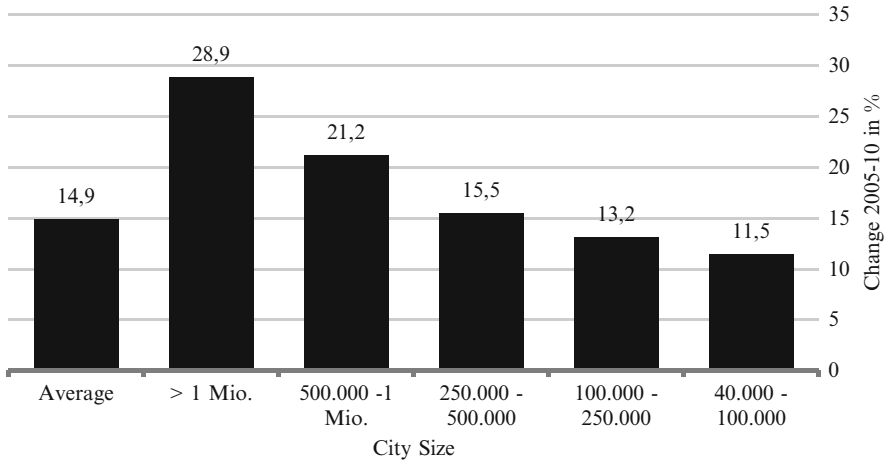


Fig. 5 The development of store rents (80–120 m²) (Source: [COMFORT](#))

Admittedly, this relatively positive observation and analysis of the sought-after retail locations in the attractive micro- and macro-locations only represents a small, though important, part of the German retail market – especially for retail chain stores. These prime locations are not only distinguished by their above-average sales per square metre and sales potentials. They also offer the best possible platform for brands and styles, in order to make a lasting impression on consumers’. Thus, many retail chains are active in these locations with a long-term perspective and this ensures a lively market. What is more, beyond the “classic” and well-established retailers, such as Hennes & Mauritz, C&A, New Yorker, Deichmann or Tally Weijl, who have been around for years, a plethora of new concepts and companies is also active e.g. PRIMARK, Abercrombie & Fitch, Forever 21 with their Anglo-American background, Uniglo from Japan or H&M with their two new store concepts Weekday and Monki.

Furthermore, a multitude of, frequently smaller scale, vertical chains as well as wholesale companies, trying to diversify into retail business are also searching for suitable locations. For example, suppliers such as Adidas, Gerry Weber, Tom Tailor, Hugo Boss, Geox or Esprit. The share of retailing in overall turnover has been growing over the last few years (Fig. 6).

The long-term success of this expansion strategy will often only unfold after many years. For some people it might be surprising, though, that shop rents in prime locations of 170 German cities decreased by merely 0.13% in 2010 for smaller, ground-floor units. Rents for larger ground-floor areas between 300 and 500 m² rose by 0.2%.

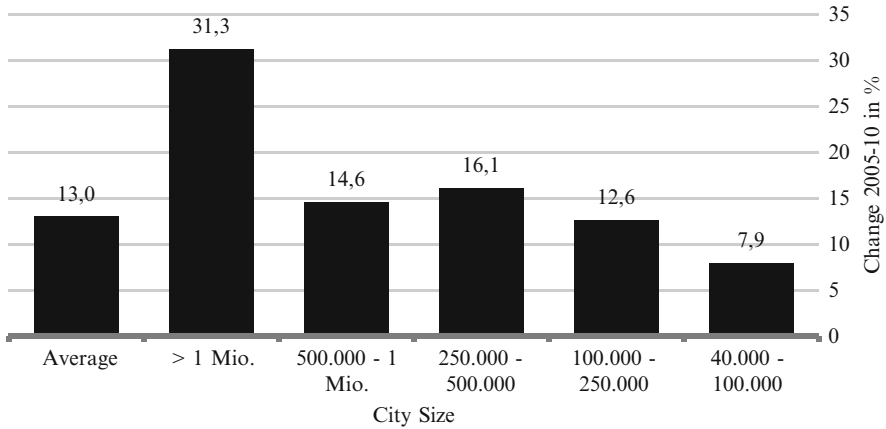


Fig. 6 The development of store rents (300–500 m²) (Source: COMFORT)

3.2 Other Locations

Outside the top locations both level of rents and rentability fall sharply. Concerning large-scale stores ten euro per m² marks an important barrier that is typically topped by objects with some attractive features. For smaller stores there are several factors that positively impact on potential rents: the administrative requirements for retail and urban development, the image of the surroundings together with the existence of neighbor (retail) facilities producing pedestrian frequencies. As mentioned before both rental levels and growth potential vary extremely.

Quality, as well as rents for solitary retail locations – besides marketability of e.g. store design, visibility or accessibility – are to a large extent dependent on the performance of the particular retail tenant, and this naturally implicates a special operator risk.

Last but not least rents in German retail parks and shopping centres are fixed in line with international standards. That means, rents for the individual tenant are set in a kind of mixed calculation with a tendency of relatively low prices for the anchor tenants and higher prices for the medium- and small-size lettable areas.

4 Brief Outlook

Today and in the next few years German retail properties benefit from two big influences: On the one hand, the relatively positive performance of the German economy, comparatively low interest rates and rare opportunities for profitable money investments after the financial crisis generate high interest in German real estate. On the other hand, the general outlook for private consumption and especially for retail has not been that positive for years.

These are important reasons why competent investors, together with powerful national and international retailers, are seeking to expand their engagement in German retail properties. As a result, prices as well as rents for good locations and objects look set to trend upward in the foreseeable future. The main problem is that the pipeline of objects/locations/stores which fulfill the relevant requests is very narrow, availability is currently very scarce. But for retail properties and stores with noticeable defects it is by no means sure that they will benefit from the generally positive environment.

References

- COMFORT Holding GmbH (2010). *Annual Market Report 2010//2011*. Düsseldorf.
- Destatis 2011, Germany Statistical Office, Online-Retail-Data, Wiesbaden. Access, 19.09.2011.
- EHI Retail Institute (2009). *Handel aktuell 2009/2010*. Cologne.
- European Shopping Centre Trust, London, GfK GeoMarketing, Bruchsal (2010). *Key European retail data 2009 review and 2010 forecast*.
- GfK GeoMarketing (2010). Press newsletter December 2010. Bruchsal.
- Hahn-Gruppe (2010). *Retail Real Estate Report*. Bergisch Gladbach.
- ZIA, Immobilien Zeitung (2010/11). Frühjahrgutachten Immobilienwirtschaft 2010 und 2011, Wiesbaden, 2010 und 2011.

Hotel Market Germany

Martina Fidschuster and Christine Mayer

Abstract For some years, the German hotel market has become increasingly interesting to international investors who have come to appreciate its transparency, stability and diversity. Germany is also regarded by international hotel chains as the most important European expansion target and with this, offers an abundance of investment possibilities. Along with this and apart from the top locations and core investments, whose demand far exceeds its offerings, it is also worthwhile for market participants to become active in the segment of internationally little-known locations, the so-called “secondary cities,” that display a definitely positive growth outlook within the hotel industry. This chapter delivers the requisite know-how to be able to comprehensively understand the hotel market in Germany with its opportunities and risks as well as an understanding beyond its well-trodden hotel investment paths.

Keywords Franchise agreements • FF&E • hotel investment • hotel projects • lease contract • management contract • operator • resorts

1 Supply and Demand

The hotel market Germany is a very heterogeneous market with a variety of investment opportunities in addition to the internationally renowned cities and internationally branded hotels.

The demand for hotels is based on various pillars: leisure travellers, business travellers, MICE (meeting, incentives and events) as well as trade fair and congress visitors (Table 1).

Table 1 Primary characteristics of the hotel markets in Europe and Germany

Europe	Germany
<ul style="list-style-type: none"> • Largest hotel market in the world in spite of increasing market movement in the direction of Asia, the Middle East and Africa • Highly developed economy • Highly developed traffic technology and infrastructure • High density of interesting cultural and touristic destinations and countryside • Developed, mature businesses with high revenues • Relaxation as an essential basis for travel and investments 	<ul style="list-style-type: none"> • Largest business travel market in Europe • Largest exhibition locations worldwide • The most important event market in Europe with 450 international congresses per year • Hub-function for travellers from the growth markets of Asia • Low-cost carriers have provided, to date, for the above average growth rates • High growth potential for branded hotels due to the high portion of private hotels

Source: HOTOUR

1.1 Supply

In terms of numbers of businesses, the hotel supply is predominated by owner-operated hotels, particularly in the budget and mid-market segments. Chain-affiliated hotels are gaining market shares rapidly, though, and as their room counts outnumber the traditional owner-operated hotels, the average number of rooms/beds is rising. At an average of 66 beds in all hotels throughout Germany, the average hotel size is still comparably small though.

As most international hotel chains wish to be represented in the major cities, a tendency towards oversupply can be found in some locations. Particularly with the “BIG SEVEN”,¹ which are of great importance to these hotel chains, supply has been growing at a tremendous speed.

There are currently some 350 hotel projects throughout Germany. Budget hotels are becoming increasingly fashionable since they are attractive for both business and leisure travellers. The German chain MOTEL ONE has been leading this development and other operators are following.

1.2 Demand

The overall demand for overnight stays has grown considerably and almost constantly throughout Germany in the last few years. Only the terror events of 9/11, SARS and the war in Iraq caused a decline in 2002 and 2003. Whilst the economic recession caused a decline in 2009 slowed the growth rate in 2009, results in 2010 already show a return to previous levels (Fig. 1).

¹Germany’s most important hotel markets in regard to the number of overnight stays: Berlin, Hamburg, Munich, Düsseldorf, Cologne, Dresden and Frankfurt.

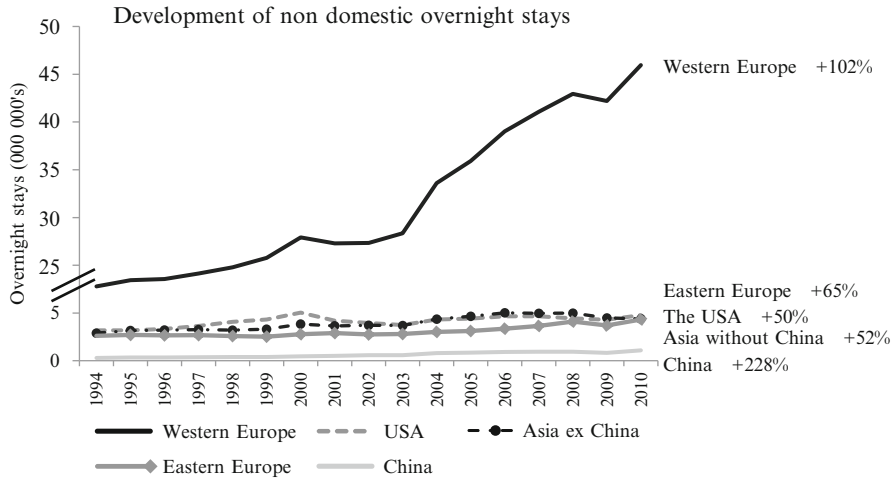


Fig. 1 Development of non domestic overnight stays (Source: Federal Statistical Office of Germany, in 1995–2011)

As the demand is both leisure and business driven, cities with balanced target groups, e.g. Munich or Hamburg, have been able to perform with very low fluctuations and can generally achieve high occupancy rates.

The demand for overnight stays is dominated by domestic demand. Depending on the specific characteristics of a location, e.g. the number of international businesses or the international reputation of a city (e.g. Heidelberg), the shares of international demand vary to a great extent. The highest shares (up to 45%) of international demand are recorded in Munich, Frankfurt, Berlin and Dusseldorf.

Out of the 380 million overnight stays registered throughout Germany in 2010, approximately 16% were generated by non-domestic demand. The ratio has slightly increased in the last 10 years (2000: 12% foreign demand). The demand is primarily created by other western European countries (76%) with the largest demand generators overall being the Netherlands (10.5 m overnight stays in 2010), USA (4.8 m), Switzerland (4.2 m), UK (4.2 m) and Italy (3.3 m). Source markets like China, Brazil, Korea or the United Arab Emirates are growing quickly from low levels. The growing demand for city trips, low-cost carriers and the economic growth has been contributing to this development.

2 Focus on the Key Markets: The Big Seven

Out of the 380 million overnight stays that were registered in Germany in 2010, approx. 103 m took place in the large cities (more than 100,000 inhabitants) (Figs. 2 and 3). The primary destinations (Berlin, Cologne, Dresden, Dusseldorf, Hamburg, Frankfurt, and Munich) alone registered 59 m overnight stays (Table 2).

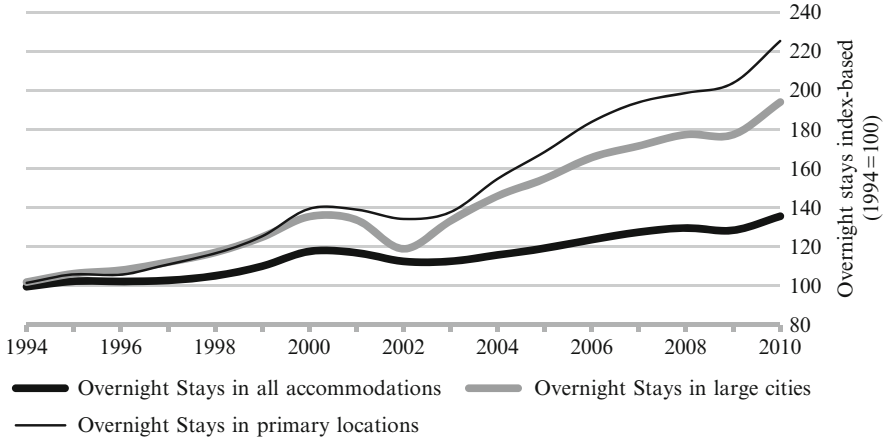


Fig. 2 Development of overnight stays by type of location (Source: Federal Statistical Office of Germany, in 1994–2011)

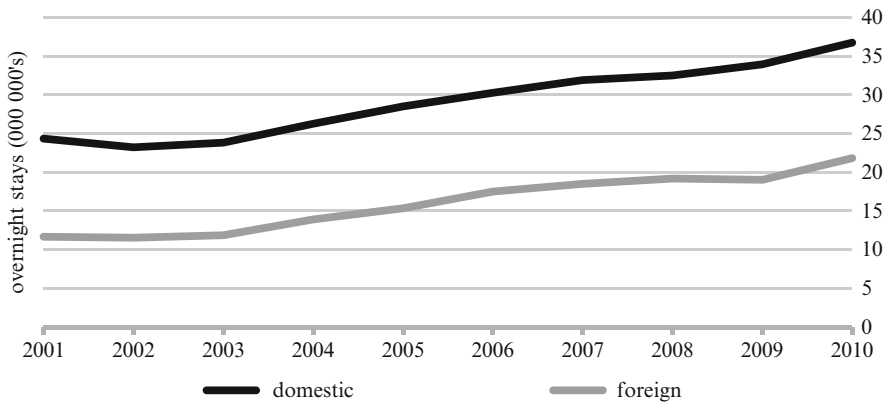


Fig. 3 Demand in primary cities (Source: Federal Statistical Office of Germany, in 2001–2011)

2.1 Performance in an International Comparison

Although demand has risen considerably during the last years, the performance in terms of ADR and occupancy did not improve much. As the supply grew, some markets experienced a cut-throat competition in the upscale and luxury segment. In order to enter the market and gain the needed market share, hotels offered their services at very low prices. Although occupancy rates in German cities with a balanced demand structure like Berlin, Munich or Hamburg can keep up with other European cities, ADRs are much lower in German cities than in many other

Table 2 Characteristics of the German key hotel markets

	Berlin	Munich	Hamburg	Frankfurt	Cologne	Dusseldorf	Dresden
Bed supply (k)	112.4	55.1	45.5	37	39	23	19.2
10 years growth rate (%)	81.2	43	58	39	34	43	25
Overnights (m)	20.8	11.1	8.9	6.1	4.6	3.6	3.5
10 years growth rate (%)	83.3	46.1	87	41	40	50	42
Bed occupancy (%)	51	55	54	45	46	43	51
OCC 2010 (2009)	69% (67.5%)	72.1% (65.1%)	71% (69.9%)	65.5% (58%)	65.7% (61.1%)	60.4% (57.1%)	63.2% (62.4%)
ADR 2010 (2009)	87.3 € (80.1 €)	113.2 € (95.6 €)	100.4 € (92.1 €)	113 € (105.1 €)	96.3 € (92.9 €)	104.4 € (88.4 €)	72.7 € (63.8 €)
Demand							
Leisure (%)	40	45	55	30	30	10	60
Trade fair (%)	8	18	0	24	25	40	0
Business (%)	20	24	25	26	25	30	20
MICE (%)	32	13	20	20	20	20	20
International (%)	40	46	21	45	34	39	17
Characteristics	<ul style="list-style-type: none"> • International demand growing exceptionally • Congress and trade fair location No.1 in Germany 	<ul style="list-style-type: none"> • Events such as Oktoberfest generate high demand 	<ul style="list-style-type: none"> • Privately managed hotels very successfully 	<ul style="list-style-type: none"> • Demand driven by airport, trade fair and financial companies 	<ul style="list-style-type: none"> • Balanced demand structure 	<ul style="list-style-type: none"> • High influence by trade fairs on demand, changing every other year • High ADRs 	<ul style="list-style-type: none"> • Strong competition in 4-5 star segment
	<ul style="list-style-type: none"> • High occupancy rates due to balanced demand • Low ADR 	<ul style="list-style-type: none"> • Balanced demand 	<ul style="list-style-type: none"> • High occupancy rates 	<ul style="list-style-type: none"> • International demand 	<ul style="list-style-type: none"> • Largest international source markets (UK and US) declining 	<ul style="list-style-type: none"> • Low leisure demand 	<ul style="list-style-type: none"> • Asian demand comparably high
	<ul style="list-style-type: none"> • High competition, especially among first class and luxury hotels 		<ul style="list-style-type: none"> • Low ADRs 	<ul style="list-style-type: none"> • Low occupancy on weekends 			

OCC occupancy, ADR average daily rate, MICE meeting, incentive, conventions and events Source: Federal Statistical Offices, STR Global, HOTOURL estimation

European cities. Various hotel operators have been entering the market with luxury hotels expecting to achieve rates comparable to other capitals but had to learn that the German hotel market in general is aggressively priced. Much the same, the corresponding cash flows generated for the real estate owners (or leases) are lower as well (Table 3).

Table 3 Performance of international cities

	2010	2009	2010	2009	2010	2009
	Occupancy		ADR (€)		RevPAR (€)	
London	82	80	149	130	122	105
Paris	76	74	171	161	131	118
Munich	72	65	113	96	82	62
Amsterdam	75	69	127	120	95	83
Zurich	73	68	173	152	126	104
Vienna	73	66	91	95	67	62
Berlin	69	68	87	80	60	54
Gothenburg	65	65	101	86	66	55
Brussels	67	64	107	103	72	66
Istanbul	73	64	143	141	104	90
Rome	66	62	139	139	92	86
Moscow	63	57	143	143	89	81

Source: STR Global

3 Secondary and Tertiary Markets

3.1 Hotel Markets in Secondary and Tertiary Cities

Germany disposes of 81 cities with a population of more than 100,000. Some of these generate a considerable number of overnight stays. Aside from the Big Seven, Germany's leading secondary cities like Stuttgart (2.7 million overnight stays), Nuremberg (2.4 m) or Leipzig (2.0 m) are dynamic economic locations and also benefit from the trend toward short city trips. Still often dominated by privately owned and managed hotels, secondary cities in particular are increasingly becoming targets of internationally operating hotel chains. Even tertiary cities (more than 50,000 inhabitants, 100,000–750,000 overnight stays), that are mainly known and frequented by national travellers have attractive hotel markets with considerable growth rates of demand and supply. While cities like Weimar, Baden-Baden or Potsdam distinguish their selves by their touristic importance, others own an important congress or trade fair business (e.g. Karlsruhe, Mannheim) or gain their largest share of demand from local companies (e.g. Wolfsburg, Darmstadt) (Fig. 4).

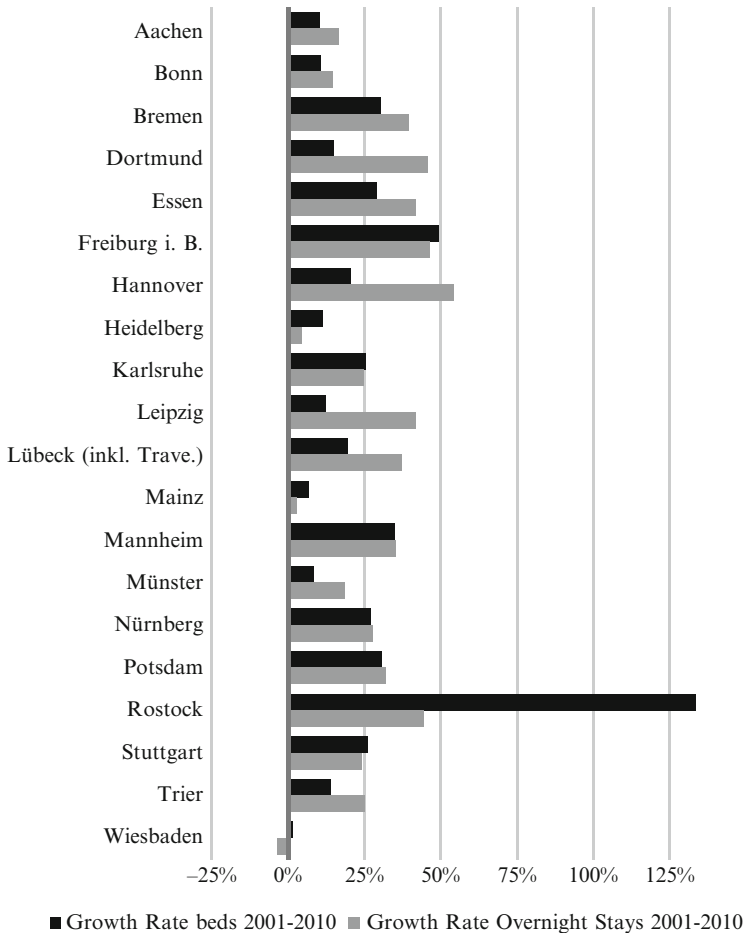


Fig. 4 Growth rates of secondary locations: overnight stays and offered beds 2001–2010 (Source: HOTOUR)

3.2 Resort Hotel Market

Current social and business developments such as the trend towards short trips and wellness travelling, an increase within the Best-Ager target group who generally travel with predilection in their own country as well as the increasingly rising flight prices all play into the hands of tourism in Germany. The amount of holiday travelling in one’s own country has increased in Germany over the years. Along with this, the RevPAR’s of the holiday hotels have risen – partially through an increase of the average daily rates – during the last 10 years. On the other hand, city hotels react more volatile to economic shocks. Particularly, the economic crisis in 2008/2009 led to falling RevPAR in this segment (Fig. 5).

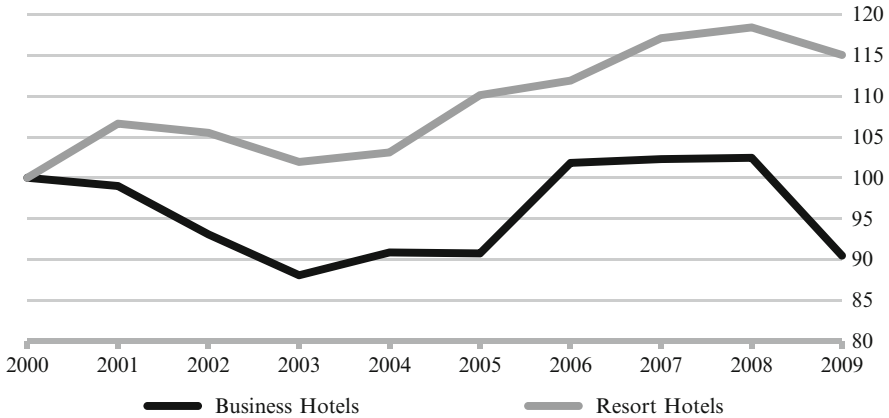


Fig. 5 RevPAR index developments (Source: HOTOUR for Hotel report IHA 2011)

Table 4 Opportunities and risks profile of the German hotel market

Opportunities	Risks
Locations	
Primary locations	Tertiary locations with unshaped images
Metropolitan regions	Small towns on the periphery
Large cities with tourist attractions and Effective tourism marketing	Medium mountain regions without Appreciable tourist infrastructure and in greater distances to largely populated centres
Mountains and sea as well as holiday regions with clear profile (particularly if appropriations are available)	Cities with unbalanced demand
Hotels	
Brand hotels	Capital-weak companies without successor planning
Budget hotels	Hotels in the second life cycle without consistent reorientation
Hotels with clear positioning and target group focus	Middle-class hotels with unshaped images
Original concepts	

Source: HOTOUR

By and large, German holiday tourism occurs on the north coast and Baltic coast as well as in the southern German alpine regions. Additionally, the strongest growth rates are registered in the holiday regions within the new federal states. Appropriations are primarily responsible for this which in turn, can make the hotels rewarding investments. The large number of new operations that have sprung up, particularly in Mecklenburg Western Pomerania, led to a high demand growth (+26% in the past decade), the attractive accommodation offers clearly stand out from the partially very aged operations in other holiday regions. Along with this, is

to be said that this development would not have been possible without the suitable appropriations. Other holiday regions without similar programmes stagnated (Baden-Wuerttemberg +0%) or registered a decline in demand (Bavaria -12%).

Due to the new travel habits, the location criteria for resort hotels have changed. Aside from their image and a clear profile of the destination, it is particularly advantageous to be situated no more than 2.5 h drive from a highly populated and economically strong principle region.

The largest German holiday destinations are still firmly in the hands of private hoteliers. Nevertheless, the hotel chain industry – particularly from the German-speaking areas – is also still waiting to move. Due to the predominantly domestic demand, international hotel groups are seldom represented and the advantages of an international brand are also less important than in city destinations (Table 4).

4 Key Players: Hotel Operators

The majority of hotels in Germany are family-owned and not branded. Particularly in the budget segment, chain hotels have only recently started to expand.

Of all branded hotels,

- 55% are chain-affiliated through cooperation
- 18% via leases by hotel chains
- ~11% through franchise agreements
- 12% ownership by the hotel chain
- ~4% through management agreements

Table 5 Cooperation vs. Franchise agreements

Cooperation	Franchise
Various degrees of intensity – less standardisation than franchised hotels – hotels will stay individual as own entities	Different levels of standardisation of the hotel product depending on brand (e.g. All Seasons by Accor, 2-star brand for non-standardised hotels versus IBIS by Accor for very standardised product)
Marketing association, sometimes purchasing and controlling as well	Shared marketing, controlling and purchasing
Local, regional, nationwide or international cooperations, based on e.g. quality of interior, type of destination	Nationwide or international franchise
Often used by owner-operator hotels that want to keep to individual touch	Individual hotels (e.g. Best Western) as well as standardised products
Fees vary by level of intensity	Fees vary
Largest cooperations: Land-gut-hotels, Stadt-gut-hotels, Schloß-gut-hotels: 254 member hotels in Germany, 68 foreign hotels; Ringhotels: 127 member hotels in Germany, one foreign hotel; top international hotels: 110 member hotels in Germany, 48 foreign hotels, Romantik hotels: 109 member hotels, 97 foreign hotels	

Source: HOTOURL

Table 6 The 20 largest hotel operators in Germany in 2009 in terms of revenue

<i>Hotel operator</i>	Net turnover in million euro	Number of operations in Germany	Number of rooms	Average room occupancy in %	ADR in euro
Accor Hotellerie Deutschland GmbH	709.0	309	41.336	k.A.	k.A.
Best Western Hotels Deutschland GmbH	502.3	178	17.950	65.0	75
InterContinental Hotels Group	493.4	68	14.130	62.3	108
Maritim Hotelgesellschaft mbH	347.2	37	10.992	53.3	80
Steigenberger Hotels AG	327.9	66	11.022	59.9	85
Starwood hotels and resorts worldwide, Inc.	306.9	29	k.A.	k.A.	k.A.
Hospitality Alliance AG	242.2	69	9.343	60.0	52
Neue Dorint GmbH	229.9	29	5.879	58.0	93
Marriott Hotel Holding GmbH	223.2	27	6.342	67.4	93
NH Hoteles Deutschland GmbH	217.5	59	10.087	56.1	65
Hilton International	182.1	14	4.440	k.A.	k.A.
Event Hotel AG	181.9	25	6.327	65.6	76
Grand City Hotels GmbH	168.8	82	10,372	61.2	51
Rezidor Blu	145.6	k.A.	k.A.	k.A.	k.A.
Kempinski AG	140.3	10	2.291	46.2	163
Arabella Starwood hotels and resorts	139.6	19	3.911	61.1	100
QGD Hotelmanagement	120	k.A.	k.A.	k.A.	k.A.
Lindner Hotels AG	110.1	24	3.797	64.1	73
Mövenpick Hotels Deutschland	101.3	16	3.111	57.4	88
Center Parcs Leisure GmbH	84.8	4	2.321	70.1	90

Source: AHGZ – contains doublings since some of the known chains such as Event Hotels AG, Grand City Hotels GmbH and QGD are franchisees

Out of the 37,000 hotels in Germany, some 4,000 are branded – i.e. they are either leased, managed or franchised by a hotel chain or are member of a cooperation (see Table 5). Although only 11% of all hotels and guesthouses in Germany are linked to a hotel chain, they provide 37% of all rooms. Throughout Europe, chain affiliated hotels account for 25% of all hotel operations and in the US, approx. 70% (IHA, 2010, p. 125).

Not only is the number of branded hotels comparably low, the prevailing mode of operation differs, too. The internationally dominated franchise-system favoured by large hotel companies is still of comparatively low importance in Germany.

The principal reason for this is the dominance of family businesses – often steeped in tradition – who do not have the heart to assign their own name to a brand. The cooperations active in Germany hold this tradition of individuality firmly and have the following distinctive characteristics.

4.1 German Brands Versus International Brands

As demand in Germany is primarily of national origin, German brands can compete with international brands in most locations. International luxury brands are mostly found in the primary cities such as Berlin, Hamburg, Munich, Frankfurt, Dusseldorf, Cologne and Dresden, whereas other international brands can be found in secondary or tertiary cities as well. The degree of internationally branded hotels in leisure destinations is low.

The 20 largest hotel operators in Germany in 2009 in terms of revenue are given in Table 6.

The largest hotel chain in terms of revenue in Germany is Accor; the French company operates more than 300 hotels under various brands (i.e., Sofitel, Pullman, Ibis, and Etap) in Germany. In terms of revenue, the 20 largest hotel operators in Germany are divided almost equally into national and international chains.

The largest German hotel chains/brands in terms of revenue like Maritim, Steigenberger (now sold to an Egyptian investor), Hospitality Alliance (joint venture of the Ramada brand and Treff Hotels) and Neue Dorint are focussing on Germany, but do have international locations as well.

5 Type of Operations: Lease Contracts

Lease contracts for non-owner operated hotels have been predominating in German speaking countries. As this form of operation guarantees the owner a very predictable and fixed income stream, investing in a hotel operated under a fixed lease agreement has always been considered as a very “safe” form of real estate investment. Owners would usually neither engage directly in the hotel operations, nor even care about the operator’s results as long as the lease was paid on time. Their responsibilities – and participation – are mostly limited to the surveillance and upkeep of the building and structure. Most German financing institutes and investors are used to these types of contracts and the supposedly safe income stream generated by fixed lease rates.

The internationally prevailing operations through a management company specialised in hotels that will often hold a franchise of an international brand is

not very common in Germany. Due to the entrance of more global players (investors as well as operators) and the preference of franchise or management agreements by international hotel chains, it is getting more common, though.

5.1 *Characteristics of Lease Contracts*

According to German law, a lease contract cannot extend over a fixed period of more than 30 years, most are valid for 15–25 years plus options for extension.

There are different types of remuneration, fixed and/or variable payments, guaranteed amounts and cap clauses (Table 7).

Table 7 Lease contracts

Operator	Investor/owner
Pays fixed amount of lease and/or variable lease	Receives fixed income stream
Opportunities and risks on the operator's side	
Usually pays for the replacement of FF&E, sometimes also property taxes and insurances	Usually responsible for building and structure
Operates hotel without interference by owner	Only receives performance data of hotel if needed for calculation of a variable lease

Source: HOTOUR

5.2 *Current Development*

Due to IFRS changes and the need to minimize liabilities and risks, international hotel operators have been increasingly reluctant to sign fixed lease contracts. In order to share opportunities and risks, lease contracts have been undergoing significant changes. So-called hybrid contracts that combine the aspects of management and lease agreements are currently on the rise.

Nevertheless, smaller regional or national hotel operations not preparing their balance sheet under IFRS are still offering to sign lease contracts. International operators might as well do so, if the hotel was located in a primary city at an excellent site.

5.3 *Hybrid Contracts*

The hybrid contract has components taken from lease and management contracts. Generally such types of contract are characterized by guaranteed payments to the investor or owner and payments depend on profit or turnover. The determining criterion whether a respective hybrid contract is a lease or a management contract is

the responsibility for hotel staff. If the operator employs the staff, the contract is considered a lease contract.

Conclusion: Even though the term “hybrid” is often used in practice, legally it must be either a lease contract according to the tax laws of the lease (rental law, income to the investor from renting and leasing) or a management contract (contract of employment, mediation contract or contract for work, income to the investor from a commercial operation).

6 Valuation of Hotel Investments – Characteristics of German Valuation Standards

The valuation standards in Germany depend on the reason for valuation. In comparison to international valuation methods, German valuations might often appear rather conservative (see Meister/Dressel, 2011, in this book).

Valuation is usually based on two of the three main approaches (Income, Cost or Comparison), whereas for hotels, the Income and Comparison Approaches are the prevailing and recommended methods.

The *Sales Comparison Approach* is often used to validate a value generated through the Income or Cost Approach. However, it is very difficult to find a sufficient amount of comparable sales (in a contemporary manner at the time of assessment). Sales prices can be obtained through “panels of experts” in the cities and counties, the trade press or publications by real estate agencies.

The *Cost Approach (material value)* is based on the “normal production costs”, as defined in German regulations and procedures and is used to validate the Income Approach. Financing institutions prefer certified valuers (HypZert) for the valuation.

There are two commonly used methods that are based on the *Income Approach*: The German *Ertragswertverfahren* (Income Capitalisation) and the Discounted Cash Flow Method.

The derivation of the *Liegenschaftszinssatz* is a key factor of the valuation. As most local committee of valuation experts (Lokaler Gutachterausschuss) do not deduct *Liegenschaftszinssätze* for hotels separately since the number of hotel transactions in a specific city is usually too low to derive a meaningful value, the general *Liegenschaftszinssatz* must be adapted. Publications by HypZert might help on this topic. The Capitalised Earnings Method is widely used for the assessment of the market value.

The Discounted Cash Flow Method has been used more frequently as international investors and financing institutes are entering the market. Yields for hotel sales are rarely published for hotel transactions that have taken place in Germany, thus hindering the derivation of the respective discount and capitalisation rates.

The German lending value can only be assessed by certified appraisers (DIN EN ISO/IEC 17024). It is required by mortgage banks and its determination is strictly regulated by various laws. The lending value can never exceed the market value.

7 Players in the German Hotel Investment Market²

Since the mid 1990s, hotels have been regarded as an own asset class and have been considered an attractive investment opportunity. The tendency of hotel chains towards sale-and-lease-back transactions or sale-and-manage-back transactions has enhanced this trend. Due to the historical predominance of lease contracts and conservative portfolio strategies, investors often prefer hotels with lease contracts.

German-based *Open-end real estate funds* own hotels in Germany and worldwide. By definition, they can only generate their income from rent and leasing and are not permitted any income from trade and business, meaning that they cannot own hotels without a lease contract. The minimum investment per hotel usually starts at 20 million euro. Their active portfolio strategy is conservative, i.e. the share of the fixed lease is to be as high as possible. Examples: Union Investment, Deka.

Real estate special funds for institutional investors are a little bit less conservative than public funds. They invest only in leases. Example: DEFO (Union Investment) and LB HotelInvest Germany I (LB ImmoInvest). The investment volume per property generally amounts to at least ten million euro and is limited upwards to 15% of the entire fund volume.

Closed-end real estate funds have been active as hotel initiators in Germany since the 1970s and intensively so since the early 1990s. They invest in hotels with (fixed) leases. Examples of initiators of hotel funds: Lloyd Fonds, E&P Real Estate and Fundus Gruppe. Investment volumes per property are from ten million euro with package purchases also included.

Real estate PLCs and REITs limit themselves, as a rule, to large-volume investments in hotel chains. REITs still have hardly appeared as hotel investors in Germany. Exception: the French REIT Foncière des Murs has acquired an 85 million euro hotel portfolio from B&B in Germany and France. Examples of real estate PLCs with hotel investments: IVG Immobilien AG, DIC Asset AG, Patrizia Immobilien AG. As a general rule, the investment volume per property amounts to at least 20 million euro.

Insurance companies and pension funds as managers of investment funds are also controlled by the BaFin, (German Financial Supervisory Authority), with accordingly conservative investment strategies with a focus on leases. Examples: Provincial and AXA. Project developments are often transacted through real estate subsidiaries. Example: UNIQA Real Estate. Also, these investors generally buy properties from a volume of 20 million euro.

Private equity funds are often opportunistically oriented funds and frequently work with foreign capital and draw particular attention with Sale and Manage Back transactions from large hotel groups and portfolios in the area of Non-Performing

² Source: Fidschuster, Martina, in Fidschuster M. and K. (Ed.), *Fundamentals of Hotel Investments*, Berlin, 2010.

Loans. The originally very ambitious expectations of returns were quite often not fulfilled in the wake of the financial crisis. Example: Blackstone (whose investment company is meanwhile listed on the stock exchange), MSREF VI International.

Pan-European open and closed-end funds, as well as special funds for institutional investors authorized under Luxembourg tax law are pursued due to less regulation and a less conservative investment strategy than its German counterparts. As a rule, hotels are bought as lease properties and flexible contract models are also possible. Examples: Invesco European Hotel Real Estate P.à.r. L.

Private investors pursue hotel engagements with very different investment strategies. They buy or build hotels either under yield aspects or for the asset's security. Hotels are also sometimes acquired for personal motives, which is partially why very individual properties such as castle hotels, holiday hotels or intercity boutique hotels are selected.

Owner-operators: The range of the owner-operators is as big as the variety in hotels: they stretch from family-controlled, traditional operations through to trophy

Table 8 Investment strategies of hotel investors

Typical investors	Hotel types	Real estate cycle	Locations	Contract structure/ operator
Open real estate funds	4-star hotels	Buy new hotels, partly already in planning phase	Cities: prefers primary, but also secondary	Leases with very high fixed lease portion
Pension funds and insurance companies	Rarely: 3-star and lower			
Closed real estate funds	3-star to 5-star hotels	Also hold older hotels	Cities: primary, secondary, tertiary and holiday locations	Credit standing-strong operators prefers hotel chains
Real estate special funds	2-star to 4-star hotels	Older hotels bought only with long running leases	Cities: primary and secondary, if necessary, tertiary	
Pan-European open funds	Mostly all hotel categories	All phases, also shortly before lease expiration of the contract	Cities: primary, secondary and tertiary	Leases, also with lower fixed lease share
Real estate PLCs				
Private equity	Hotels with development potential, also non-performing	High renovation and repositioning requirements	Any, holiday locations only with high significance	Management contracts, also operator free
Private investors	Any, often hotels with prestige	Lengthy holding period in all phases, as a rule	Cities, as well as holiday hotels	All, also their own establishment
Owner-operator	Any	Any		Operator free

Source: Own representation from Martina Fidschuster (2010)

properties and resort hotels and up to hotel chains that are (still) in the possession of hotel groups. These are broadly strewn according to the interests of the owners.

Hybrid forms: some opportunistically oriented investors and private equity funds acquire hotels and also operate them or conduct this through management companies. They also partially operate hotels of other investors as lease or management companies. They are quick, very adaptable and indeed also buy smaller hotels from an investment volume of approximately three million euro that they bundle up into bigger portfolios to reach a sufficiently large critical mass. Examples: Grand City, Azure Property Group and Event Holding.

From the description of the investors, there appear to be different investment strategies that somewhat changed in the course of the financial and economic crisis (Table 8).

8 Investment Market

Due to the dominance of leases, the German hotel investment market is less volatile and still shaped by German institutional investors. While globally, hotels with management contracts most notably are sold through the mechanisms of rising or falling cashflows and shorter holding periods are common, local investors look at hotels with often up to 25-year-old leases as a stable investment with steady income streams. This basic position has changed little, even though a shift to turnover leases with base guarantees has taken place during the last years.

International buyers started to become interested in the German hotel market only after the turn of the millennium and with this, considerably contributed to the stimulation and internationalisation. The first movers included rather opportunistically – oriented funds in particular that initially involved the Sale and Manage or Lease Back transactions of large hotel groups. Then there came numerous purchases of hotels and portfolios from Non-Performing Loans by German banks which brought movement into the local hotel transaction market during the course of the introduction of Basel II. The interest of international buyers became increasingly greater and the readiness of some banks to finance Loan-to-Value ratios from 80% and more culminated in the years 2006 and 2007 to transaction volumes of over two billion euro for each year (see Richard Ellis, 2011). In 2008, the volume was halved in the course of the financial crisis and ground to a halt in 2009 with roughly 350 million euro. Only in 2010, particularly in the second half of the year, the investment market began to recover. The portion of the sales of budget hotels has perceptibly increased as well as portfolio sales to international investors. Though this increasingly more popular investment class has relatively low individual volumes, it is valid with institutional investors in particular as a tried and tested means of risk dispersion within a hotel portfolio. CBRE registered a transaction volume of at least 890 million euro in 2010 again which roughly corresponded to the average levels of the last 10 years before the boom years of 2006/2007. In the first months of 2011, the positive trend of 2010 is visibly continuing.

9 Summary

The characteristic features of the German hotel market are:

- Germany offers a wide variety of interesting hotel locations, also beyond the internationally known cities. It is worthwhile for investors to also deal with the so-called Secondary and Tertiary locations.
- An intensive employment of regional and local hotel markets is also necessary because the value drivers in hotel real estate – attainable rates and occupancy – often differ very strongly from location to location. The range of the attainable cash flow or leases is broad.
- The domestic demand dominates the local hotel market by far: therefore, national chains and partnerships are as successful in an entire series of markets as the international chains, although the latter always succeeds in achieving higher rates in the large cities, at least.
- German project developers, banks and investors traditionally shape their entire way of thinking around leases. At least during the last years, hybrid contracts have begun to be accepted primarily in the form of turnover lease contracts with a base guarantee and a profit sharing. Nevertheless, the German investment market is still far away from an acceptance of the management contract as favoured by the international chains.
- Hotel operators that are independent of brands, purchasing franchises according to their needs are only at the beginning of their development in Germany.
- In this country, the understanding of the market value of a hotel by the financing banks is more past- than future-oriented. Therefore, a long track record of cashflow can still evoke a good result more than the Hockey-Stick effect. This is why the Discounted Cash Flow Method is not accepted for all valuation purposes.
- Mortgage banks must determine the lending value according to strict regulations; this is why the lending value always lies below the market value.
- Even if during the last years, the German hotel market has gained in transparency, comparative transactions are only rarely published. Although purchase prices for hotels are increasingly more available, they are, as a rule, always without information regarding yields, cash flows and/or leases.

The German hotel industry that had already registered a perceptible stimulation in demand in 2010 will also share in the unexpectedly speedy recovery of the German economy and the consequentially improved consumer climate in 2011. The branch profits throughout from more business trips, conferences and private travelling particularly from the domestic market which stands for just at 80% of the overnight stays at hotels.

Important indicators for hotel transactions are also:

- The financing environment: while many hotel transactions of the boom years as mentioned before were absolutely done with LTVs above 80%, the LTVs seem to have settled now to 60–65% according to risk assessment and contract

structure which, in principle, is detrimental to hotel transactions by opportunistic investors. Besides, the readiness to finance by the German banks during the course of the preparations for Basel III and the upcoming stress tests might sink somewhat or, at the least, stagnate. Nevertheless, we currently see that a line of investors who have been rather opportunistic to date appear to have adapted to the new financing environment and are approaching hotel financing with higher equity capital ratios than in the past. Paired with low lending rates, this would speak for the fact that during the coming months, another stimulation in the hotel transaction market will take place.

- The offers of the market: With the necessary higher equity capital ratios, the risk readiness of the investors diminished so that the demand for core hotel real estate has already recognisably risen and will rise further. Nevertheless, suitable offers are substantially lower because many hotel owners hold favourable financing conditions and are able to wait for rising prices with no sales pressure. There may be purchases of hotel projects and/or newly opened hotels at short notice less because the pipelines of the project developers are perceptibly empty and not the least, also due to the absent readiness of the banks to carry out project financing. Meanwhile, budget hotels as segment within the asset class of hotels also continue to be strongly demanded and therefore contribute to a stimulation of the transaction market in the medium term. Also, we expect from the fact that during the next few years, hotels from formerly non-performing loans may come back onto the market again.

Reference

- CB Richard Ellis GmbH (2011). Hotelverband Deutschland (IHA) e.V. (Ed.) Hotelmarkt Deutschland 2011, Berlin. Market. <http://passthrough.fw-notify.net/download/263928/http://www.cbrehotels.com/NR/rdonlyres/B36D302C-11D7-41F0-B721-8D7A4C9EBAAF/0/MVHotelmarketGermany2010.pdf>. Accessed 8 March 2011.
- Martina Fidlschuster (2010). In Fidlschuster, K., & Fidlschuster, M. (Ed.), *Fundamentals of Hotel Investment*. Berlin.

German Open-End Real Estate Funds

Steffen Sebastian and Till Strohsal

Abstract This chapter discusses German Open-End Real Estate Funds (OEREFs). We discuss essential aspects of the institutional design and legal environment including the 2011 law reform of the German Investment Companies Act (InvG). Historical performance, size and portfolio composition are characterized. Finally, this chapter reviews prominent approaches to explain the success of OEREFs in Germany.

Keywords Investment-Gesetz • liquidity crisis • performance • regulation

1 Introduction

This chapter discusses Open-End Real Estate Funds (OEREFs) as the predominating type of securitized real estate investments in Germany. We distinguish between OEREF structures for institutional investors (*Spezialfonds* or “special funds”) and for private investors (*Publikumsfonds* or “public funds”). Legal requirements of OEREF for institutional investors are considerably lower and information is usually confidential. Therefore, we will focus on OEREF for private investors. With about 87 billion euro assets under management these OEREFs have held approximately 13% of all assets managed by German mutual funds in September 2010.¹ The open-end structure of German real estate funds comes along with a unique institutional design that clearly distinguishes them from common securitized real estate investments, as e.g. Real Estate Investment Trusts (REITs). In contrast to listed property companies that issue a fixed amount of shares, OEREF shares can be bought or redeemed at any point in time. Hence, short-term liabilities have to be matched with long-term real estate investments. This feature is referred to as liquidity transformation and constitutes the key characteristic and core competency of OEREFs.

¹ See the German Association of Investment and Asset Management (BVI) statistics 30/11/2010.

Historically, the open-end construction has proven to be overall successful in Germany. In contrast to stock returns, returns on OEREFs exhibit a high degree of stability and a moderate mean (Maurer et al. 2004b). By construction, OEREFs originally represented an investment opportunity for private investors. The group of OEREF shareholders is, however, remarkably heterogeneous. In addition to private investors, institutional investors as, for instance, pension funds, banks and non-financial firms are nowadays engaged in “public” OEREFs. In the course of the global financial crisis a number of OEREFs currently suffer from liquidity shortages that in some cases led to suspension of redemption and even to liquidation of funds. With the intention to enhance investor protection and to improve the functioning of funds the legal environment is about to undergo a significant reformation with the three key aspects of redemption of shares, property valuation and fund liquidation. Especially institutional investors increasingly tended to use OEREFs as a substitute for money market funds to store liquidity. The 2011 law reform of the German Investment Companies Act (InvG) has the main objective to avoid such misuse by increasing the overall investment horizon of the typical shareholder. In general, the regulation of open-end funds is much less intense than the rigorous regulation of banks.

As opposed to listed property companies, prices of OEREF shares depend on property appraisals and are not directly determined by demand and supply on a secondary market. Instead, the price – quoted daily – equals the total value of the fund assets divided by the total number of shares. The value of fund assets reflects expert’s valuations of the properties. Hence, prices are not straightly exposed to financial volatility. As the valuation of a certain property takes place only once a year, the quoted price incorporates just part of the market price of the underlying properties.

Since the first OEREF was launched in 1959 the number of OEREFs in Germany is steadily growing: Several new funds emerged in the 1960s, which led to the inclusion of OEREFs in investment regulation. Important changes in legislation were the successive approvals of investments in the European Economic Area (EEA) and of investments outside the EEA up to 20%. OEREFs became a large success in Germany with assets under management (AuM) increasing by a factor of about 40 from 2.3 billion euro in 1980 to 87.3 billion euro in 2010 (see Fig. 1). For the sake of comparison: The US REIT was created in 1960 and has seen its AuM soar from roughly one billion euro in 1990 to 364 billion euro in 2010. In the same period the number of REITs increased from 35 to 136, whereas the OEREFs went up from 8 to 53 (see Figs. 1 and 2). Both investment vehicles manage a comparable market ratio of around 8% of the total commercial real estate market in 2010; 7.6% in the USA and 7.9% in Germany.

In other countries (e.g. Australia or the Netherlands), however, where securitized property investments mostly take the form of listed property companies, open-end funds could not quite win recognition. A prominent example is given by the RODAMCO case in the Netherlands during the late 1980s, a huge open-end fund that finally had due to liquidity problems to be transformed into a stock-listed closed fund (see Little 1992 and Sebastian and Tyrell 2006 for more details).

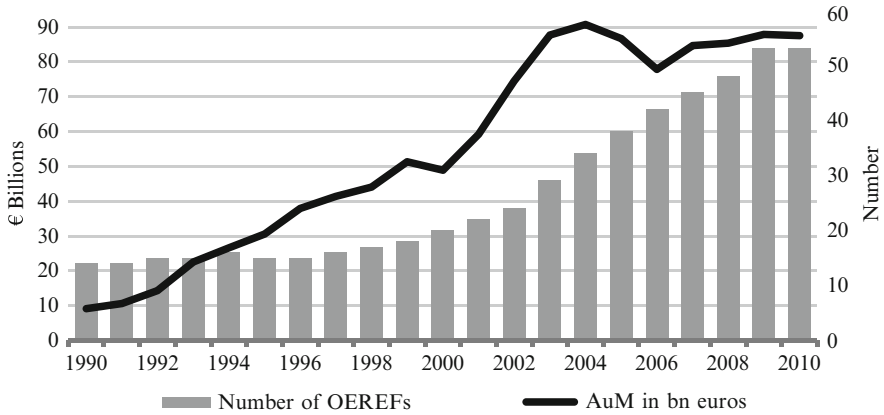


Fig. 1 AuM and number of OEREFs in Germany (Source: BVI, datastream, company reports)

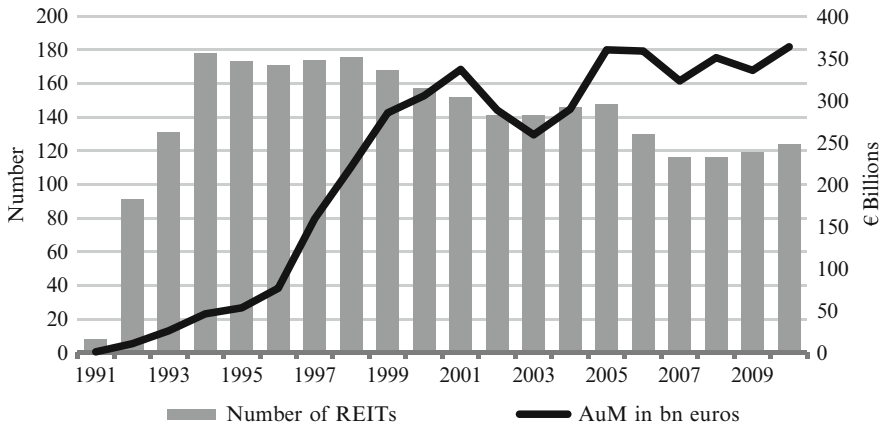


Fig. 2 AuM and number of REITs in the USA (Source: SNL)

Comparable phenomena have been observed for US mutual funds with illiquid assets (Chen et al. 2010).

The next section takes a closer look at the institutional design and the legal environment of OEREFs. This includes a discussion of the very recent law reform of the InvG. Section 3 provides descriptive statistics on OEREFs to characterize their role within the German financial market. We provide an overview of the historical performance, the portfolio composition, the amount of assets under management and net cash flows. A review of possible explanations for the track record of German OEREFs and a brief description of international experience with open-end funds are found in Sect. 4. Section 5 contains concluding remarks.

2 Institutional Design and Legal Environment

German OEREFs have to be managed by investment companies (Kapitalanlagegesellschaften). The investment companies themselves are usually owned by banks and insurance companies. This implies that, in general, investors of the open-end funds are different from those of the managing investment company. The investment companies mostly take the legal form of stock or limited liability companies. An OEREF is treated as a special asset and is strictly separated from the other assets of the managing investment company.

The Investment Companies Act (Investmentgesetz, InvG) from January 2004 constitutes the decisive element of the legal environment of OEREFs. Furthermore, the InvMaRisk (Minimum Standards for Risk Management) represents a Circular published on June 30, 2010 by the Federal Financial Supervisory Authority (BaFin) that clarifies the fundamental requirements of Art. 9 a (duty of organization) of the German Investment Companies Act. The ‘general’ requirements for risk management, for instance, include regular stress tests. The implementation of a risk management policy is part of the ‘special’ requirements (see BaFin Quarterly Q3/10).

According to the InvG the following aspects are of particular importance:

- An OEREF has to invest a minimum of 51% of its capital into real estates.
- Risk must be diversified. German open-end real estate funds must not hold a single property that accounts for more than 15% of the funds capital. Additionally, the sum of all properties that each represents more than 10% of the fund’s capital must not exceed 50% points.
- Due to the daily redemption guarantee there should be enough liquidity. It is required to hold at least 5% but not more than 49% in cash.
- The amount of debt relative to the total value of the fund’s real estate must not exceed 50%.
- Most strikingly, under certain conditions, the German Investment Companies Act provides for the possibility of suspending redemption of shares for a period of up to 2 years as a last resort. During that period additional liquidity should be generated through selling properties.
- In case that after the suspension period of 2 years a fund is still not able to cover investors demand for liquidity the fund is liquidated.

2.1 *Liquidity Shortages and Recent Law Reform of the InvG*

Liquidity transformation or, put differently, financing long-term real estate investments through daily available shares inherently bears the risk of liquidity shortages. Nonetheless, during a period of about 45 years this never happened.

The first notable turbulences in the German market started with the announcement from Deutsche Bank on December 11, 2005, of a reappraisal of their largest OEREF Grundbesitz Invest (about six billion euro). This notification triggered the first liquidity crisis in the German open-end funds market. Investors were expecting

the redemption price to fall sharply and so the fund-run finally led Deutsche Bank – itself not willing to undertake supporting purchases – to suspend redemption. Shortly afterwards, the panic spread out to the whole market and finally, on January, 17 and 19, 2006 two other funds, KanAm Grundinvest and KanAm US-Grundinvest were temporarily closed as well. Yet, on March 3 (DB Grundbesitz Invest), March 31 (KanAm Grundinvest), April 13 (KanAm US-Grundinvest), 2006 the three funds reopened and continued redemption. Recovery of the funds took place quite fast so that the net capital flow became positive again by the end of 2006. Yet, in the course of the global financial crisis several funds are currently again suspending redemption. In October 2008 and May 2010, especially institutional investors were withdrawing on a massive scale. In April 2011, 12 funds were closed, and three funds are in liquidation (see Table 1).

The German legislator has tackled the problem of liquidity shortages by a significant law reformation of the InvG, coming into force in January 2013. The officially stated main objective is to attenuate the problem of liquidity transformation.

There are five major changes:

1. A minimum holding period and redemption fees represent the centerpiece of the reform. Every 6 month an investor can redeem shares with a value of up to 30,000 euro without any restrictions. For shares that exceed this amount, investors need to announce redemption at least 12 month in advance. In addition, a minimum holding period of 24 month is required. (Art. 80 a § 3 InvG).
2. Suspension of redemption is facilitated. Funds are now *obliged* to suspend redemption in case of an imminent liquidity shortage (Art. 81 § 1 InvG). If funds do not comply with that the BaFin is now *obliged* to do so (Art. 37 §3 InvG).
3. Compulsory periodic payout to compensate for the minimum holding period and redemption fees. 50% of the revenues have to be paid out as long as they are not needed for maintenance of the properties (Art. 78 §1 InvG).
4. Property valuation. According to Art. 79 §1 InvG valuation of properties through appraisers has in general to be carried out at least every 3 month if shareholder can ask for redemption on a daily basis in order to assure that valuations are close to the actual market values.
5. Property sale is facilitated. In case of suspension of redemption for more that 12 month properties can be sold as well 10% under the valuation result in order to generate liquidity. After 2 years of suspension, the authorized derivation is increased to 20%. After 30 month every shareholder can ask for redemption. If there is still not enough liquidity the management companies loose the right to manage the fund. The fund will then be liquidated. (Art. 81 §2 and 4 InvG).

3 Historical Performance and Portfolio Composition

Figure 3 shows the historical yearly average return of German OEREFs. The return graph illustrates a high degree of stability, a moderate mean and substantial autocorrelation (Maurer et al. 2004a). Through the last three decades the return

Table 1 Suspension and liquidation history of German OEREFs

Fund name	Investment trust	Suspension	Reopening	In liquidation since
grundbesitz europa	RREEF investment	3-Dec-2005	3-Mar-2006	
KanAm US-grundinvest Fonds	KanAm Grund	17-Jan-2006	13-Apr-2006	
KanAm grundinvest Fonds	KanAm Grund	19-Jan-2006	31-Mar-2006	
KanAm US-grundinvest Fonds	KanAm Grund	24-Oct-2008	–	30-Sep-2010
AXA Immoselect	AXA investment managers	27-Oct-2008	28-Aug-2009	
KanAm grundinvest Fonds	KanAm Grund	27-Oct-2008	8-Jul-2009	
Catella focus nordic cities	Catella	28-Oct-2008	28-Jan-2009	
TMW Immobilien Weltfonds	Pramerica	28-Oct-2008	11-Dec-2009	
CS EUROREAL A CHF	CSAM IMMO	29-Oct-2008	30-Jun-2009	
CS EUROREAL A EUR	CSAM IMMO	29-Oct-2008	30-Jun-2009	
SEB ImmoInvest	SEB IMMOINVEST	29-Oct-2008	2-Jun-2009	
DEGI EUROPA	Aberdeen	30-Oct-2008	–	22-Oct-2010
DEGI INTERNATIONAL	Aberdeen	30-Oct-2008	30-Jan-2009	
Morgan Stanley P2 value	Morgan Stanley	30-Oct-2008	–	26-Oct-2010
UBS (D) 3 Sector real estate Europe	UBS RE KAG	30-Oct-2008	27-Oct-2009	
UBS (D) Euroinvest Immobilien	UBS RE KAG	30-Oct-2008	6-Aug-2009	
DEGI GLOBAL BUSINESS	Aberdeen	11-Nov-2009	11-Nov-2011	^a
DEGI INTERNATIONAL	Aberdeen	16-Nov-2009	16-Nov-2011	^a
AXA Immoselect	AXA investment managers	17-Nov-2009	16-Nov-2011	^a
TMW Immobilien Weltfonds	Pramerica	8-Feb-2010	8-Feb-2012	^a
KanAm grundinvest Fonds	KanAm Grund	5-May-2010	1-Jun-2011	^a
SEB ImmoInvest	SEB IMMOINVEST	6-May-2010	6-May-2011	^a
CS EUROREAL A CHF	CSAM IMMO	18-May-2010	18-May-2011	^a
CS EUROREAL A EUR	CSAM IMMO	18-May-2010	18-May-2011	^a
AXA Immosolutions	AXA investment managers	26-May-2010	26-May-2011	^a
UBS (D) 3 Sector real estate Europe	UBS RE KAG	6-Oct-2010	5-Oct-2011	^a
DEGI GERMAN BUSINESS	DEGI	29-Nov-2010	29-Nov-2011	^a
UniImmo: Global	Union investment real estate	17-Mar-2011	17-Jun-2011	^a

^aAnnounced data only, still closed on April 1st, 2011

Source: Bundesanzeiger, company announcements

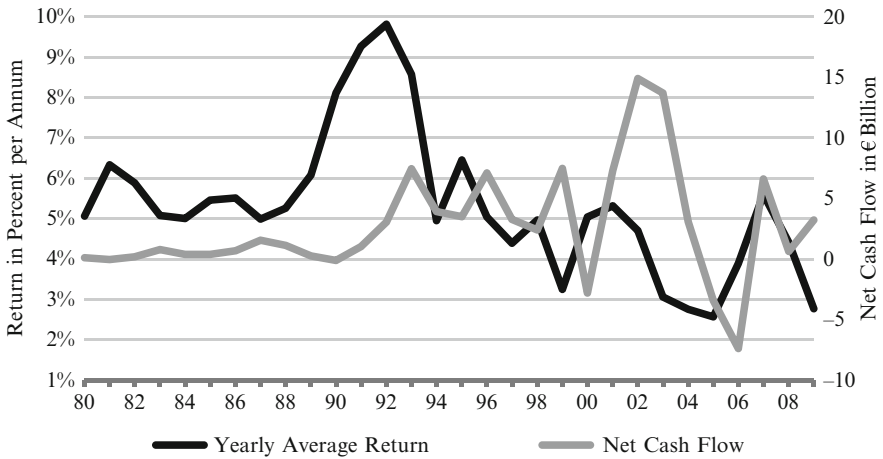


Fig. 3 Average return and net cash flow of German OEREFs (Source: BVI, datastream)

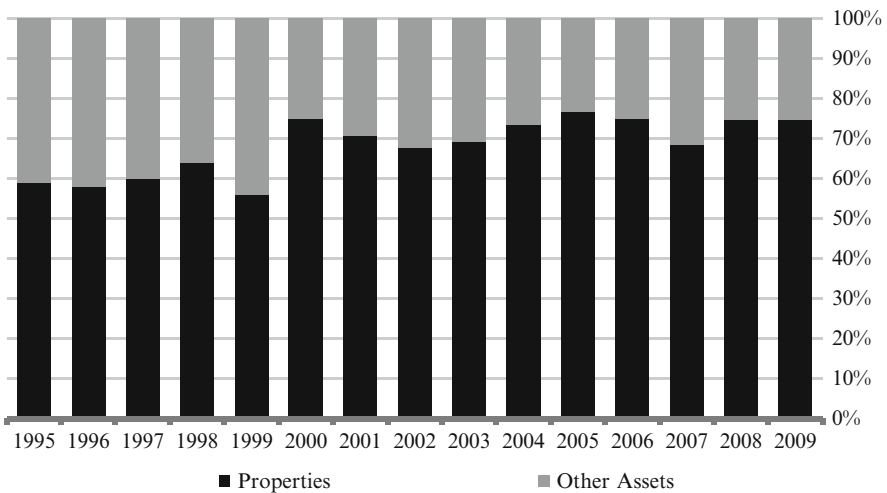


Fig. 4 Portfolio composition (Source: BVI, company reports)

quite persistently fluctuates around a mean of about 5.32% with a peak of 9.82% in 1992 and a low of 2.57% in 2005 (see Fig. 3, *solid line*). Correlating with the return, the yearly net cash flow also exhibits a high degree of stability until 1992 (*dashed line*). However, from 1993 to 2009 the variability is steadily increasing, which is reflected by a standard deviation of net cash flow during the first period raising from 0.85 billion euro to 5.65 billion euro in the second period. This can mainly be explained by the increasing amount of institutional investors typically operating with large amounts of capital.

The historical portfolio composition is depicted in Fig. 4. Accordingly, the fraction of properties within the average OEREF portfolio grew slightly. Yet,

ranging within a band of about 15% points the portfolio composition exhibits a fair degree of stability with a 15-year average of about 68% of illiquid properties and about 32% of more liquid assets, typically cash and bonds. Such a portfolio composition reflects the redemption guarantee and the associated need for a liquidity buffer.

Tables 2 and 3 show the regional and sectorial distribution of OEREFs investments. In 1990 OEREFs were almost exclusively investing in Germany with a property type focus on office (40.45%) and retail (42.67%). Over the following two decades more and more properties were located in other countries, mostly in France and the UK. The decreasing Hirschmann-Herfindahl index (HHI) illustrated the increasing international diversification. On the other hand, in the same period the funds specialized more and more in offices. The fraction of retail property decreased to 17.13% in favor of office property that increased to 65.79% in 2008.

Table 2 Regional distribution of OEREF investments

Regional focus	31-Jan-1990 (%)	31-Jan-2000 (%)	31-Jan-2008 (%)
Germany	98.89	64.97	37.81
France	0.00	2.52	17.64
UK	0.00	15.71	11.55
Netherlands	0.00	5.04	5.99
Italy	0.00	0.20	4.42
USA	1.11	2.55	4.20
Belgium	0.00	0.28	3.18
Spain	0.00	0.00	2.71
Sweden	0.00	0.00	2.55
Austria	0.00	0.21	1.94
Luxembourg	0.00	0.00	1.08
Others	0.00	8.51	6.92
HHI region	98.09	54.85	28.68

Source: Company reports. HHI is the Hirschmann-Herfindahl index

Table 3 Sectorial distribution of OEREF investments

Property type focus	31-Jan-1990 (%)	31-Jan-2000 (%)	31-Jan-2008 (%)
Office	40.45	69.07	65.79
Retail	42.67	17.09	17.13
Hotel	8.45	3.14	5.79
Car and parking	0.00	0.07	4.07
Storage and service	0.93	4.84	2.26
Residential	4.10	0.51	1.24
Industry and business parks	2.14	1.74	1.21
Others	1.27	3.55	2.51
HHI property type	35.78	53.53	48.27

Source: Company reports

4 Understanding the Success of OEREFs in Germany

Except for the years 2000 and 2005/2006, the amount of assets under management has steadily grown since the first OEREF was launched in 1959 (see Fig. 1), which indicates that the OEREF construction is well established in the German mutual fund market. Apart from the 2005/2006 liquidity shortage and the current turbulences, German OEREFs experienced a respectable track record during the last 50 years. Two common theoretical arguments are of particular importance in explaining that phenomenon (see Bannier et al. 2008): The *liquidity insurance* argument and the *disciplining device* argument. They are discussed below and briefly evaluated with respect to the German institutional design.

The first argument of (liquidity insurance) – stems from thinking of investors that are uncertain about the point in time when they will need liquidity. Of course, risk averse investors demand insurance and prefer smooth returns. The possibility for investors of a daily redemption (from 2012 on very limited by the reformation of the InvG) serves as liquidity guarantee and the risk-aversion assumption implies the insurance to be welfare-enhancing.² Moreover, the redemption price is based on the property valuations of experts and thus simply results from the fund's total value of assets divided by the number of shares. Since every property was appraised only once a year (or in case of sell or buy) this procedure induced a strong smoothing effect and hence low return volatility. However, the liquidity insurance argument is attenuated by a counteracting effect. In order to meet redemption the OEREF needs to invest a considerable part of its capital (see Fig. 4) into liquid assets that usually lower the average return of the portfolio below the return that could have been realized through pure long-term property investments. The shorter the average investment horizon of shareholders the more costly the effect becomes.³

The second argument focuses on the functioning of liquidity transformation as a disciplining device and follows the reasoning from Calomiris and Kahn (1991) for banks that issue demandable-debt (bank notes and giro accounts). The mismatch of the maturity of property investments and that of liabilities creates the permanent possibility of liquidity shortages. Put differently, the redemption guarantee of OEREFs permits investors to 'vote with their feet' – redeeming shares means withdrawal of confidence in the fund's management. The obvious incentive to withdraw when monitoring misbehavior of the management is further strengthened as the individual investor may expect the same behavior from other investors. In the extreme case a fund-run would be the consequence. Therefore, investors observing a declining redemption price may potentially suspect moral hazard that possibly

² For a detailed discussion on the theoretical aspects it is referred to Bryant (1980), Diamond and Dybvig (1983) and Qi (1994).

³ For example, if the fraction of institutional investors using OEREFs as a giro account (that even pays interest) is sufficiently large, the positive effect of the liquidity insurance may even be outweighed.

even leads to the liquidation of the fund and hence to the sudden liquidation of real estate. The latter in turn is, at least in general, not possible without considerable price reduction. So as to prevent the OEREF from bankruptcy the management can be expected to refrain from moral hazard.⁴

An explanation for liquidity transformation to work explicitly well as disciplining device in Germany can be found in the aforementioned institutional design. The typical German construction is a universal bank as the owner of an investment company that in turn manages the OEREF considering it as a special asset. Through the universal bank that usually comes with a huge network as it holds several further business relationships – especially within the real estate market – portfolio restructuring bears only little transaction costs. Due to that unique institutional design German OEREF shareholders have an exceptionally strong incentive to monitor the fund's management and hence the redemption guarantee effectively imposes discipline on the behavior of the management.

A further aspect of the German institutional design has been proven to be one of the main reasons for the success of OEREFs. The Bank as the typical owner of the investment company may provide OEREFs with additional liquidity in case the fund's liquidity buffer is depleted. Such supporting purchases have actually played an important role in the German OEREF market, for instance, in 2004 during a liquidity shortage of funds managed by DekaBank, HypoVereinsbank, and Commerzbank (cp. Fecht and Wedow 2009).

4.1 *The Nature of Liquidity Crises*

Understanding the nature of liquidity crises facilitates the understanding of the open-end concept and the related issue of liquidity shortages. It sheds further light on the current law reformation and the effects to be expected. The classification of crises to be considered here distinguishes between *fundamental* and *non-fundamental* crises.

A fundamental crisis is triggered by a price of an OEREF share that differs too much from actual market prices of real estate. There are two reasons for such an event to occur. Firstly, prices of German OEREFs are quoted once a day whereas the property valuation takes place on a much lower frequency. Hence, the price embodies valuations that are up to 12 month old, which induces a strong smoothing effect (Geltner 1993). Secondly, in practice, appraisals tend to lag behind market prices,⁵ as by considering lagged evidence valuation uncertainty of future market developments can be reduced (see Quan and Quigley 1991). As a result, OEREF shares are typically undervalued when the real estate market is booming and overvalued when it is down turning. The former case creates an incentive to buy

⁴ Given the one-time benefits resulting from the misbehavior are sufficiently small.

⁵ Geltner et al. (2003) surveys several studies on that issue.

and the latter to sell. If this effect is strong enough, it may lead to liquidity shortages. Private investors are usually charged a fee of 5%, which attenuates the incentive to sell in case of a downturn in the real estate market. Importantly, such fees are commonly not charged for institutional investors that are more and more investing in OEREFs.

A non-fundamental crisis is attributed to a self-fulfilling prophecy in the sense that it can be the optimal decision for investors to sell if they expect others to withdraw. If the number of investors that belief in future large scale withdrawals is high enough a fund-run may result even though there is no fundamental pricing problem.

4.2 Turbulences in the German Market

Bannier et al. (2008), for instance, quote the above mentioned 2005/2006 crisis as a prime example of a non-fundamental liquidity crisis. Again, the crisis was triggered by the revaluation announcement from Deutsche Bank of its fund Grundbesitz Invest. Remarkably, on March 3, 2006, when Grundbesitz Invest reopened, the redemption price fell less than 2.5%.

In the course of the worldwide financial crisis the liquidity problems recurred. In 2008 several German OEREFs suspended redemption for considerable periods of time, including large funds as, for instance, SEB Immoinvest or CS Euroreal (see Table 1). In 2009, nine re-openings took place. However, via a press release on September 30, 2010, KanAm announced the liquidation of its fund US-Grundbesitz (600 million euro). This has been the first liquidation of a German OEREF so far. On October 22, 2010, DEGI Europe (1.3 billion euro), a quite large and well-established OEREF managed by the British investment company Aberdeen followed. Four days later, on October 26, 2010, Morgan Stanley published that its P2 Value fund (850 million euro) was going to be liquidated.

However, a closer look at the three liquidations reveals the special nature of these cases. Properties held by KanAm US-Grundinvest were mainly North American and hence severely affected by falling US property prices. P2 Value was heavily investing in Asia even in 2006 and 2007 when property prices had already reached an exceptionally high level. The two cases exhibit the characteristics of a fundamental liquidity crisis.

The case of DEGI Europe provides further evidence for the German institutional design to be the main driving force behind the overall stability of the German market for OEREFs so far. When Commerzbank took over Dresdner Bank in January 2009, Dresdner Bank's DEGI Europe fund was already sold to Aberdeen International. Commerzbank successfully channeled former DEGI investors from Dresdner Bank into their own open-end funds. In contrast, funds managed by affiliated companies of powerful banks that provide distribution expertise and may also undertake supporting purchases, as is the case, e.g., for Grundbesitz (Deutsche Bank), Hausinvest (Commerzbank) or Deka (Sparkassen) perform

quite well. In that sense, the current liquidity crisis may just be a shakeout separating the weaker funds from those that exhibit the institutional conditions to overcome turbulent times.

5 Concluding Remarks

OEREFs are the most important German securitized real estate investment vehicle. The daily redemption guarantee on the one hand and the long-term real estate investments on the other constitute the core competency of OEREFs: liquidity transformation. Until recently, liquidity buffers have been proven to be sufficiently large to render the functioning of OEREFs possible.

The exceptionally success of OEREFs in Germany can be attributed to the unique institutional design. Funds are managed by investment companies, which in turn are often owned by powerful banks. Banks provide distribution expertise and in case of large scale withdrawals can support the funds by temporary purchases.

The Investment Companies Act (InvG) forms the legal environment of OEREFs. The InvG regulates minimum liquidity reserves, a minimum amount of real estate investments and other aspects of portfolio composition. Most importantly, it includes a mechanism to prevent funds from liquidity shortages by offering the possibility of suspending redemption for a period of up to 2 years.

The liquidity crisis 2005/2006 and the current turbulences, have led to a reformation of the InvG in order to further optimize the functioning of OEREFs and to improve investors protection. The most important changes concern a restriction of the daily redemption guarantee, reformation of the property valuation procedure and a facilitation of suspending redemption as well as fund liquidation.

The new framework requirements for the property valuation procedure intend to reduce the gap between prices of OEREF shares and real estate market prices and thus to reduce the probability of fundamental liquidity crises. The minimum holding period is the centerpiece of the current law reformation. It means that the daily redemption guarantee is effectively preserved for private investors as it allows for redeeming shares of up to 30,000 euro within 6 month without any restrictions. It seems very likely that this amount is in general sufficient for private investors. From a theoretical point of view the liquidity insurance argument and the disciplining device argument should be reconsidered. Both arguments will remain strictly valid if in the future only private investors last. OEREFs would still provide liquidity insurance to private investors, which are still be able to 'vote with their feet' and thus prevent the management from moral hazard. On the other hand, both arguments will be alleviated if in the future institutional investors continue to invest in OEREFs. Institutional investors facing the cancelation period cannot benefit from liquidity insurance and have less incentive for monitoring the management. It will therefore be of central importance to which extend the composition of investors will change and whether private investors will consider OEREF as an attractive alternative to a direct real estate investment. Until the new regulation will

come into force in January 2013 we might see further market adjustments with several funds disappearing from the market and others having to deal with substantially lower assets under management.

References

- Bannier, C. E., Fecht, F., & Tyrell, M. (2008). Open-end real estate funds in Germany – Genesis and crisis. *Kredit und Kapital*, 41, 9–36.
- Bryant, J. (1980). A model of reserves, bank runs, and deposit insurance. *Journal of Banking and Finance*, 4, 335–344.
- Calomiris, C. W., & Kahn, C. M. (1991). The role of demandable debt in structuring optimal banking arrangements. *American Economic Review*, 81, 497–513.
- Chen, Q., Goldstein, I., & Jiang, W. (2010). Payoff complementarities and financial fragility: Evidence from mutual fund outflows. *Journal of Financial Economics*, 97, 239–262.
- Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy*, 91, 401–419.
- Fecht, F., & Wedow, M. (2009). *The dark and the bright side of liquidity risks: evidence from open-end real estate funds in Germany*. Discussion Paper 10/2009, Deutsche Bundesbank.
- Geltner, D. (1993). Temporal aggregation in real estate return indices. *Journal of the American Real Estate and Urban Economics Association*, 21, 141–166.
- Geltner, D., MacGregor, D. B., & Schwann, G. M. (2003). Appraisal smoothing and price discovery in real estate markets. *Urban Studies*, 40, 1047–1064.
- Little, A. (1992). Changes for the unlisted property trusts. *The Valuer and Land Economist*, 230, 166–170.
- Maurer, R., Reiner, F., & Rogolla, R. (2004a). Return and risk of German open-end real estate funds. *Journal of Property Research*, 21, 209–233.
- Maurer, R., Reiner, F., & Sebastian, S. (2004b). Financial characteristics of international real estate returns: Evidence from the UK, US, and German. *Journal of Real Estate Portfolio Management*, 10, 59–76.
- Qi, J. (1994). Bank liquidity and stability in an overlapping generations model. *Review of Financial Studies*, 7, 389–417.
- Quan, D. C., & Quigley, J. M. (1991). Price formation and the appraisal function in real estate markets. *Journal of Real Estate Finance and Economics*, 4, 127–146.
- Sebastian, S., & Tyrell, M. (2006). *Open-end real estate funds: danger or diamond?* Working Paper Series Finance and Accounting No. 168, Goethe University Frankfurt.

German Closed-End Funds

Helmut Knepel

Abstract Closed-end funds investing in real estate play an important role in the asset allocation of wealthy private investors in Germany. The investors take shares in a private company investing with a relatively small amount of money in large individual properties. The following article describes the basic elements of closed-end funds, the market in Germany, the different players and ends with a short overview of concepts used to analyze those funds.

Keywords AIFM • Distribution channels • limited partnership • speciality funds

1 Introduction

Closed-end funds permit private investors to participate in large investment projects while investing a relatively small amount of capital. Originally designed to reduce taxable income, they acted as “tax avoidance schemes” for many years and hence were considered to be part of the so-called “grey capital market” in German. Their image has changed significantly in the last few years: closed-end funds have become an indispensable part of asset planning for yield-oriented investors.

In the wake of the recent financial crisis, it is expected that closed-end funds could benefit strongly from the trend towards security-oriented, sustainable investments. In contrast to short-term investments listed on the stock exchange, closed-end funds are longer-term investments which are not only aligned with stable and sustainable yields, but are also less volatile.

Closed-end funds also play an important quantitative role in asset allocation for investors in Germany. In every year since 1996, an average of almost 11 billion euro in equity capital has been invested in closed-end funds. At the same time, the spectrum of investment opportunities and available asset classes has expanded considerably. As of 2010, real estate funds made up nearly 50% of the market. The remainder of equity capital was invested in maritime, private equity, aircraft,

new energy, and various less important asset classes like forests, infrastructure, games, wine or patents.

Few other investment classes are so varied and complex, or offer so many opportunities and risks. Risks result because closed-end funds are entrepreneurial activities and, to date, statutory control is, to a large extent, still lacking; in other words, there are few restrictions regarding investment targets or legal arrangements. As a consequence of the financial crisis, however, this will change because in the future closed-end funds will be subject to the European AIFM (Alternative Investment Fund Managers) Directive and high quality standards will be required of consultants and brokers.

2 Definition and Elements of Closed-End Funds

2.1 *Definition and Characteristics*

There is no clear legal definition for the product category of closed-end funds. The main points are defined in the German Investor Protection Improvement Act of 2004 (Anlegerschutzverbesserungsgesetz) and in the so-called Ordinance on the Prospectus for Securities Offered for Sale (Vermögensanlagen-Verkaufsprospektverordnung).

The product category can be described by its main characteristics.

- The fund finances an existing investment object, normally, with a fixed investment target and a medium, or more likely, long-term investment horizon.
- The ratio of equity capital to loan capital is fixed. Investors are only admitted until the necessary amount of equity capital has been obtained. At that point, the fund is “closed”.
- Using equity capital, the investors take a share in a private company – which is the owner of the investment object.
- Due to fixed equity capital volume, the number of investors is limited, meaning that there is a minimum investment volume.
- Existence of a specific plan for the allocation of financial resources.
- Existence of a comprehensive, pre-formulated contract (partnership agreement, deed of trust, etc.), over which the individual investor has no influence.
- The entire contract, a complete description of the investment project (including an analysis of all known opportunities and risks), as well as all legal and tax issues, are described in a prospectus which, since 2005, must be examined and approved by the German Federal Financial Supervisory Authority (BaFin).
- Except for the obligations set forth in the prospectus and the required approval of the BaFin, no governmental control or monitoring is currently in place.

In order for a fund to be categorised as a closed-end fund, all characteristics need not be fulfilled at the same time. To classify a fund in the asset class of closed-end

funds it is enough that only some selected characteristics are included (for example, via a “blind pool” where the investment object has not yet been specified).

2.2 Institutional Players and Legal Structure

The main elements of a closed-end fund and its’ legal structure are illustrated, in simplified form, in Fig. 1.

In a closed-end fund, investors unite to finance a defined investment project. For this purpose, they establish a private company: the investment company (as a rule as limited partners in a GmbH & Co. KG, i.e. a limited partnership with a private limited company as general partner). The partners’ liability here is limited to the value of their shares in capital. Unlike shares in investment funds, shares in closed-end funds are not securities; they are partnership shares; they represent a stake in a company.

In the terminology of the Ordinance on the Prospectus for Securities Offered for Sale (Vermögensanlagen-Verkaufsprospektverordnung), the investment company in which the investor participates is known as the “issuer”. The investor can participate either directly or through a trustee (as a trustor).

The investment project, for example the purchase and letting of a property, is carried out by the investment company. The business activities of the company are normally managed by the initiator who acts as the managing limited partner: the

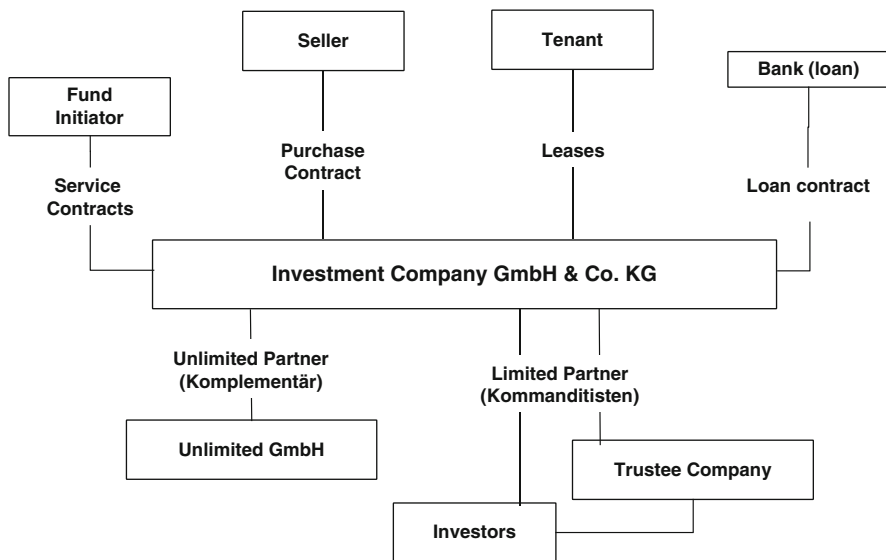


Fig. 1 Main elements and legal structure of closed-end funds (Source: own representation)

individual investors have no ability to exert direct influence over the company's operations. In most cases, the investment project is partially financed by bank loans which seldom amount to more than 50% of the investment volume. The limits of management authority are defined in the partnership agreement. As a result, the consent of the partners is needed for specific business transactions (such as amendments to the partnership agreement or the sale of the investment object). Business decisions which require consent are made by voting either during attendance at a specially-planned event; or, in writing through a circulation procedure. Individual investors have no right of opposition.

The minimum participation in a closed-end fund is normally between 10,000 euro and 25,000 euro. Occasionally, instalment schemes are offered starting as low as 50 euro.

The investors' money is made available to the investment company as equity capital with the corresponding legal consequences (such as the absence of the right to repayment of the share or a fixed interest rate). The distribution of profits occurs in accordance with the provisions of the partnership agreement and depends on the actual profit situation of the investment company. Normally, distribution corresponds to the investor's share of equity capital. The payments shown in the forecast calculation are always 'planning values'. As a result, the actual amounts distributed may vary and investors have no legal recourse. In most cases, decisions on the actual amount to be distributed are taken either by management or during a meeting of partners based upon recommendations provided by management.

2.3 *Legal Forms*

In principle, closed-end funds are offered to private investors in the form of private companies. The most common types of companies are as follows:

1. *Limited partnership – Germany*: Normally, a Kommanditgesellschaft (KG), a company with partners with limited liability (Kommanditisten) and at least one general partner (Komplementär), is chosen as the legal form for closed-end funds in Germany. The most common form is the GmbH & Co. KG (limited partnership with a private limited company as general partner). Here participation is either 'direct' as a partner with limited liability or 'indirect' through a trustee (as trustor).
2. *Limited partnership – USA*: U.S. real estate funds are often offered as a form of participation in an American limited partnership. This company form, which is similar to the German KG or GmbH & Co. KG, has at least one general partner and, at least, one limited partner. Similar to the German Kommanditist, investors participate as limited partners.
3. *Silent partnership*: In a silent partnership, the legal form of participation is secondary to the non-active role of the investors. Because the investors participate as silent partners, their participation is normally invisible to the public.

There are two types of silent partnerships. In the ‘typical’ silent partnership according to §§ 230–236 HGB (German commercial code) the partner shares in profits and losses; while in the more common “atypical” silent partnership, the partner shares not only in the profits and losses but also in the company assets. As a rule, investors in the silent partnership have no common rights; and, their right to control, influence or intervene in decision-making are severely limited.

4. *Unlimited liabilities (GbR/OHG)*: Due to the investors’ unlimited liability (exposure of their personal assets to indemnify the fund’s obligations), the two legal forms Gesellschaft des bürgerlichen Rechts (GbR) (partnership under the German civil code) and Offene Handelsgesellschaft (OHG) (general partnership) are rarely found today. In the 1990s the GbR, in particular, was one of the most often chosen legal forms. In practice, attempts were often made to avoid joint liability through contractual agreements based on proportionate liability. In this case, creditors could only claim a settlement of debts from a partner which were proportionate to that partner’s share of the company’s capital. However, this limitation is only effective if it can be proven that the creditor was informed and had accepted the limitation. It is not valid in the case of legal liabilities, and the unlimited liability regarding personal assets remains proportionate to the fund’s debts as allocated to the partner.

2.4 Basic Tax Issues

Tax structuring has always played an important role in closed-end funds. The lack of government regulation enables fund initiators to take advantage of the existing tax conditions up to the legal limit. In the past, the allocated losses which investors could use to off-set other income for tax purposes (which effectively reduced their personal tax burden) played major roles when investment decisions were made. In the past few years, this has been increasingly restricted. In 2005, with the introduction of article 15b EStG (German income tax act), it was essentially abolished. Nevertheless, it must be borne in mind that this initial tax saving was generally only a tax deferment; and often, at a later stage, resulted in a net tax payment.

Now, as is also the case with other types of investment, initiators try to either avoid taxes entirely or at least reduce them through skilful construction of the investment vehicle. Detailed tax structuring depends mainly on the investment object, country of investment.

As already stated, in Germany the preferred legal form for closed-end funds is the GmbH & Co. KG. Here the taxable entity is not the company, but the individual partner (investor). The company is financially transparent and the profits are allocated to the partners according to the proportion of their holdings. Alternate profit allocation arrangements are possible according to partnership agreements. The income categories for which the partner is taxable correspond to those of the fund. In the case of closed-end funds, the most common income categories are “income from rent and leasing” (e.g. real estate and aviation funds), “business

enterprise” (e.g. maritime funds, media funds, new energy funds), “income from shares and securities” (e.g. investment certificates and profit-sharing rights), and “other income” from private sales transactions. However, this only applies to investors who hold their participation as a personal asset.

1. *Income from rent and leasing according to § 21 EStG*: Income from rent and leasing is determined by offsetting income and income-related expenses (cash-based accounting according to § 2 (2) No. 2 EStG). The taxable result is allocated proportionately to the investors and must be reported on their personal income tax declaration (§ 2 (1) No. 6 EStG).
2. *Income from business enterprises according to § 15 EStG*: The object of taxation is the business enterprise and the associated earning power. Taxation is independent of the owner’s personal circumstances. The tax is not levied on the income of a person, but on that of the performance of the business enterprise. The basis of taxation is the enterprise’s operating profits.
3. *Income from shares and securities according to § 20 EStG*: Income from shares and securities is generated by funds in which investments are not direct investments in individual assets, but are indirect investments through securities such as certificates or participation rights. The fund’s taxable result is taxed at the investor level according to the so-called half-income system.
4. *Foreign income*: In the case of foreign income, the existing double-taxation treaties with foreign countries are utilised. The so-called exemption procedure, which enables the application of basic tax rates and basic tax allowances, applies. The precondition is that the investment company is financially transparent according to both foreign and German capital gains law. Taxation in Germany is carried out solely within the scope of the progressivity proviso (Progressionsvorbehalt).

2.5 Asset Classes

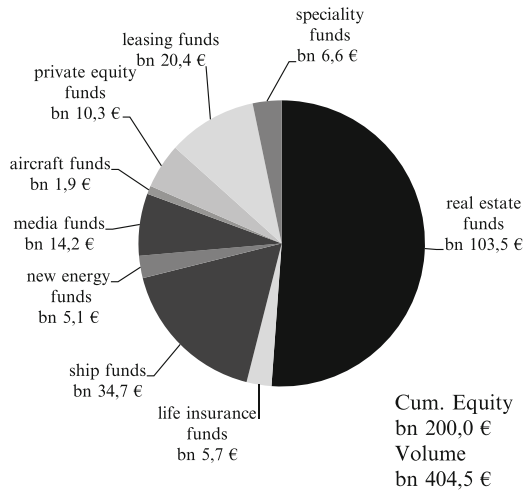
Closed-end funds originated in the financing of real estate investments. However, today all conceivable types of investment projects are offered on the market in the form of closed-end funds.

The structure of the total market cumulated up to 2010 is illustrated in Fig. 2.

In 2010, equity capital of more than 200 billion euro was placed in closed-end funds (investment volume of almost 405 billion euro).

The largest share, by far, was apportioned to real estate funds, followed by maritime funds. Only during the past few years other categories have (such as private equity or secondary-market life-insurance funds) gained in importance. For this reason, when considered cumulatively, they currently have a rather low investment volume. In the wake of the recent financial crisis, new energy and aviation funds have gained in significance. The speciality funds include a number of

Fig. 2 Equity capital invested in closed-end funds to 2009 (Source: Feri Eurorating Services 2011)



different assets such as infrastructure, containers, forests, game and music funds, as well as wine and securities investment companies.

2.6 *Initiators, Distributors and Investors*

Each closed-end fund is a unique investment product which is introduced into the market by someone called an initiator who is responsible for the identification of a suitable investment object, the legal and economic design of the project, and the drafting of the required documentation. Hence, it is the initiator who develops the fund concept and is responsible for preparing the prospectus.

As a rule, initiators are also in charge of the management of the investment object and are of vital importance to the success of a closed-end fund. They must be capable of successfully steering the fund. Furthermore, as a rule, the initiator or a subsidiary takes over all executive responsibilities as well as the day-to-day management of the fund. The initiator’s tasks, especially in the preparation phase, are diverse: they select the investment object, found the company, select project partners, conclude contracts, design and prepare the prospectus, organise marketing and distribution, as well as issuing guarantees, if deemed necessary.

In 2010, there were about 350 initiators in Germany. In general, there are two main groups of initiators:

1. Institutional/listed initiators

The subsidiaries and associated companies, mainly of banks and insurance companies, are included in this group. Almost every large bank has its own initiator company. A large number of initiators, especially those with high placement volumes, are listed on the stock exchange. Although this is not an

indication for quality of a fund, the stock exchange-related disclosure and information requirements guarantee a high level of transparency to the business of such initiators.

2. Private or independent initiators

All other initiators are private or independent initiators. Often, these are owner-run businesses where, in many cases, the owners themselves are the managing directors. In terms of the number of funds, they comprise the main share of the market.

In the past, the promotion of closed-end funds was managed primarily by independent promoters and consultants. Today, however, banks and other financial service providers have also discovered this asset class. The structure is shown in Fig. 3.

Originally in the early 1990s, closed-end fund investors were wealthy, private individuals (such as lawyers and doctors) who wanted to take advantage of substantial tax deductions (for allocated losses at that time in Germany). However, due to the reform of German income tax legislation, the elimination of such tax benefits led to a significant change in the investor structure. For each year from 2004 to 2008, between 350,000 and 400,000 private individuals participated in closed-end funds. However, in the wake of the financial crisis, in 2009 the number of investors fell, for the first time, to below 200,000.

The average subscription sum has been declining over time. While average subscriptions were more than 50,000 euro in 1999, this has dropped to about 25,000 euro in 2010. The main reason for this development is due to the expansion of closed-end funds to customer groups with lower income.

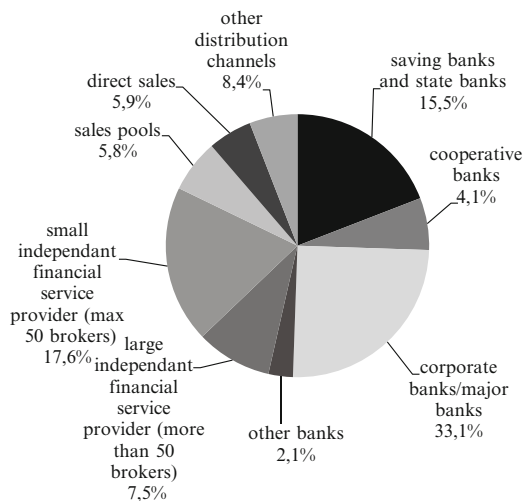


Fig. 3 Distribution channels for closed-end funds in Germany (Source: Feri Eurorating Services 2011)

2.7 *Legal Framework*

For many years the closed-end fund was an unregulated investment product. However, in recent years some changes have taken place; and, in the future, there will be fundamental changes.

Regulation of closed-end funds began in October 2004 with the enactment of the Investor Protection Improvement Act. In addition to general regulations designed to improve investor protection, existing securities prospectus requirements have been extended to include other types of vested investments as well. Subsequently, as of 1.7.2005, in the Act on the Prospectus for Securities Offered for Sale (Wertpapier-Verkaufsprospektgesetz – VerkProspG), official approval of all prospectuses for closed-end funds was required by the German Federal Supervisory Financial Authority (Bundesanstalt für Finanzdienstleistungsaufsicht – BaFin). Although only a formal examination as to the completeness of the prospectus is required, the new regulation has led to full disclosure of all funds and all providers of closed-end funds and, consequently, the transparency of the market has significantly improved.

Through the revision of the Investor Protection Act (Anlegerschutzgesetz – AnSVG), which is still under discussion, the legal scope will be extended further. The most important regulations for closed-end funds are:

- All bank advisers must be registered with the BaFin.
- In the future, those selling closed-end funds (i.e. their distribution agents) will be controlled by the German trade supervision through the German Chambers of Trade (Industrie und Handelskammer) instead of the BaFin.
- Closed-end funds will most likely be classified as financial instruments; however, they will not be subject to the German Banking Act (Gesetz über das Kreditwesen – KWG), as no licence and no liability umbrella are required for distribution.
- However, the relevant trade regulation shall follow the good conduct of rules of the Securities Trading Act and shall require proof of competence (Sachkundennachweis) and insurance cover from the distribution agents as well as extensive information on data, consulting and documentation.

In addition, a separate act for the regulation of closed-end funds (Act for Investments – Vermögensanlagegesetz) is in preparation. With this new law, the European guideline for the supervision of alternative investment funds manager (AIFM) – which was approved by the European Parliament in November 2010 – will be implemented into national law. In the future, under this act, initiators of closed-end funds will fall under the jurisdiction of the AIFM.

The act for regulation of closed-end funds will involve further product regulations which will exceed the original draft for the Investor Protection Improvement Act. In addition to the implementation of a check on the coherence of the prospectus and the preparation of a product information sheet, the obligation to conduct an annual assessment of funds or publish annual financial statements (including audit reports) will also be addressed in the act.

3 Closed-End Property Funds in Germany

Real estate remains the oldest and most important asset class for closed-end funds. Therefore, we will now concentrate on closed-end property funds.

3.1 Differences in Comparison to Other Real Estate Investments

As indirect real estate investments, closed-end property funds are in competition with other types of investments, such as open-end property funds. The differences in their features are summarised in Table 1 (see also Sebastian/Strohsal, 2011, in this book).

In addition to the different legal forms, significant differences exist in terms of the amount of participation, the duration of the equity holding, their fungibility and the duration of the investment object. While open-end property funds very often offer subscriptions for a relatively small amount of money, participation in closed-end funds generally start at 10,000 euro. The term of participation in the closed-end fund is limited (i.e. when the investment object is sold, the fund is liquidated). Open-end funds, which operate under the principle of risk diversification, have an unlimited term. However, their shares can be redeemed by the private investors at any time. Consequently, they were considered to be fungible. Due to the crises of the open-end property funds, their fungibility has been qualified, though (see Sebastian/Strohsal, 2011, in this book).

Table 1 Differences between open-end and closed-end property funds

Feature	Open-end property funds	Closed-end property funds
Legal form	Shares in separate accounts	GmbH & Co. KG
Participation amount	In general starting at €50	In general starting at 10.000 €
Subscription period	Issue of shares any time	Defined
Investment horizon	Medium term	Long term
Duration	Unlimited	Limited
Investment project	Investment criteria defines, in general large spread, min 15 properties	Defined in advance, in general small spread
Fungibility	High	Small
Financing	Legal limits defined	According to investment plan
Shareholders	Regular change	Defined after end of the placement
Type of income	Capital income	Rent and lease or business, if applicable foreign income
Supervision	Investment act (InvG), German Federal Financial Advisory Supervision (BaFin)	No control or supervision

Source: own representation

3.2 Current Market Volume

In 2010, investors invested around 2.3 billion euro of equity in closed-end property funds (Table 2), i.e. 34% less than in 2008 far below the volumes placed in recent years (on average approx. five billion euro). Over the past 17 years, the invested fund volume averaged around ten billion euro annually. In sum, the total equity in all closed-end property funds is more than 100 billion euro. This figure is significantly higher than that of open-end property funds (2010 fund volume of around 80 billion euro).

In recent years the debt-to-capital ratio declined considerably from about 55% in 1999 to less than 45% in 2010. This is a result of financial crisis and the issuance of private equity vehicles (in the form of umbrella funds or fund-in-fund concepts) that are designed, in most cases, as pure equity capital funds (i.e. debt financing takes place on the level of the target fund).

3.3 Fund Types

In the past, closed-end property funds in Germany invested mainly in core real estate with regular income streams and significant appreciation potential.

Table 2 Closed-end property funds analysed for several periods

	Closed-end property funds							
	Placement results							
	1995	2000	2005	2006	2007	2008	2009	2010
<i>Total in billion EUR</i>								
Fund volume	4.6	9.7	8.6	11.2	8.2	5.6	4.4	4.2
Equity	9.0	4.7	4.0	5.0	4.5	3.5	2.5	2.3
<i>Investment countries (Share in %)</i>								
Germany	96.3	65.9	37.4	45.3	29.7	32.9	43.4	67.0
Abroad	37	34.1	62.6	54.7	70.3	67.1	56.6	33.1
Including USA	3.3	21.9	21.5	22.8	25.1	15.5	6.6	2.2
Netherlands	0.4	8.5	5.7	3.8	1.0	2.5	10.9	10.0
Austria	0.0	0.2	5.4	1.6	1.8	1.1	4.8	3.0
Great Britain	0.0	0.9	12.4	9.2	10.8	2.9	2.3	1.3
Others	0.0	2.6	17.6	17.3	31.6	45.2	32.1	16.5
<i>Types of use (Share in %)</i>								
Office	–	44.0	74.4	55.6	47.0	42.1	42.0	54.7
Residential	–	12.4	9.0	11.0	9.1	10.3	19.4	8.2
Retail	–	27.4	6.5	14.7	9.5	6.6	16.3	17.8
Hotel	–	5.1	2.9	4.4	3.0	2.4	2.1	2.7
Social property	–	2.9	1.7	5.5	2.1	8.9	6.7	4.0
Logistics	–	1.8	1.6	1.4	2.4	0.2	4.8	2.2
Others	–	6.4	4.0	7.4	26.9	29.5	8.8	10.4

Source: Feri Eurorating Services (2011)

When carefully selected, they offer a long-term, stable investment opportunity that may comply with the criteria of a sustainable investment.

In the closed-end funds market, until the end of the 1990s, funds with an investment target in Germany had the largest placement volume. This was a result of special depreciation rules for real estate investments in the new Federal States after the German unification. The elimination of these tax advantages, as well as the comparatively weak development of German real estate markets (see also Piazzolo, 2011, in this book), resulted in numerous funds failing to meet their forecast performance. As a result, in recent years, a significant decline in placement volumes has occurred. In 2007, they represented only 10% of the overall market. However, as a consequence of the financial crisis this share has increased again to around 25%.

Depending on the target investment of the funds, it is possible to distinguish between German, foreign, a real estate private equity funds (REPE).

While investments in the 1990s were made mostly in real estate located in Germany, investments in foreign real estate has increased significantly in the wake of the elimination of these tax benefits (allocated losses) on German property investments.

Even here, tax aspects play a role as investors take into consideration existing double taxation agreements when selecting the countries in which to invest. Table 2 shows the breakdown of domestic and foreign funds.

The distinguishing features between those funds are as follows:

Distributions: While distributions of German funds amount to approximately 5% pre-tax (including increasing progression in terms of duration), foreign funds are expected to yield distributions which are about 1–1.5%-points higher. With REPE funds there are, generally, no fixed, continuous distributions.

Investment horizon: The investment horizon for German funds is usually more than 10 years, whereas foreign real estate funds are often planned with shorter terms. In most cases, REPE funds are planned for 5–8 years.

Income tax category: German funds have income from rents and leases. In contrast, foreign funds are taxed according to the location of the property. For countries with double taxation agreements, no taxation is applicable in Germany (except the progressivity proviso (Progressionsvorbehalt)). REPE funds show business income or income from capital assets.

Expected return: The expected return (internal rate of return, IRR) varies considerably. With domestic core real estate funds, the expected return is around 5%, with foreign investments the expected returns are more than 6%. Private equity structures are, in general, expected to return more than 9%.

3.3.1 Allocation According to Investment Countries

The United States of America are by far the biggest foreign property market for closed-end funds in the world. However, in 2009, due to the financial crisis, its significance was dramatically lowered (only 7% of funds invested in that year in the US). As financial security aspects were the top priority of investors that year,

Germany and other European countries were preferred investment locations. The primary focus of investor interests were highly creditworthy properties and, if possible, with public tenants and long-term tenancies.

3.3.2 Allocation According to Types of Use

In general, closed-end property funds invest in all types of properties. The structure of the types of usage is shown in Table 2. Feri's market study of closed-end funds (Feri Gesamtmarktstudie Beteiligungsmodelle) differentiate between the following types of usage:

- Office
- Residential
- Retail
- Hotel
- Social properties
- Logistics
- Developments, REPE, secondary funds
- Other

In principle, office properties had, and continue to have, the largest share in placement volume. Funds also invest in shopping centres, large specialized retailers, hotels, logistic centers, homes for the aged and nursing homes, as well as residential properties. Funds with existing buildings are to be found nearly as often as project developments or revitalisation schemes. In the wake of the financial crisis, a noticeably stronger focus on core funds as well as in the types of use has emerged. In addition to office properties, the main focus is on German residential properties, as they are thought to have substantial value, solid cash flows and provide positive risk diversification effects. However, for property funds with assets outside Germany the office segment remains the most significant asset class.

3.4 Success Factors and Risks

For an investor, the prerequisite for a successful investment is the selection of the most suitable investment offer. This depends on the investor's individual preferences, but depends even more on the characteristics of a specific offer.

There are three main issues for selection criteria of an investment decision: the investment property, the initiator and manager of the fund, and the specific fund concept.

1. Investment property

The investment goals of the fund can only be reached if the properties generate the needed cash flow and if an attractive sales price can be obtained when the fund is ended. The attractiveness of a property is characterized, in particular, by

the quality of construction of the buildings with regards to the suitability for the current tenant or later third parties. Of vital importance are the qualities of the macro- and micro-location, the rental situation and, in particular, the creditworthiness of the tenants.

2. Fund concept

In addition to the contractual agreements and the design of the legal and tax stipulations, a financing and investment plan, as well as a calculated forecast of the economic performance of the investment vehicle constitute the core of the fund concept. In the financing and investment calculation the estimated investment costs (use of funds) are compared to the financing (source of funds), i. e. the loan and equity capital of the fund. Investment costs include the purchase price and the ancillary acquisition costs (brokerage, notary fee, property transfer taxes, expert property valuations, etc.), as well as the so-called soft costs. These soft costs are e.g. costs of the fund concept; the issuing of the prospectus; guarantees (rent guarantees, placement guarantees, etc.); procurement of loan capital; financing costs and commissions for the initiator and distribution (cost of equity). The calculated forecast is a comparison of the expected earnings and expenditures which determine the economic success of the fund, i.e. payouts and taxable results. On the earnings side, these include the achieved rents, accumulated interest on the existing liquid assets and the revenue derived from the sale of the property. On the expenditure side, it is primarily the interest on – and repayment of – loans, fund management costs, maintenance and refurbishment costs, re-letting costs, and depreciation. In most cases, the forecast horizon is for 10–15 years.

3. Management

The professional expertise and performance capacity of the initiator and the fund manager are important success factors that are often underestimated. The initiator is the partner of the investor. The initiator's high quality and management skills can be seen in the realistic design of the product and, in particular, in mastering difficult situations, e. g. under deteriorating market conditions or in the case of tenant failure or follow-up financing.

The opportunities resulting from investments in closed-end funds face a number of risks:

1. No government control, no deposit protection: Due to existing lack of regulation, offers are introduced into the market which do not meet the minimum standards with regards to legal, taxation and economic criteria. Furthermore, there is the risk of entrusting initiators or project partners who are only interested in lining their own pockets or whose activities border on illegal. Hence, the investor is not secured against the total loss of his investment.
2. Freedom of contract: There are no specific statutory requirements for the legal design of contracts, i.e. contracts can be designed freely on the basis of the regulations of the HGB (German Commercial Code) and BGB (German Civil Code). As a result, legal constructions are possible that either severely limit the rights of control and influence granted to investors or practically rule them out all together.

3. Long-term duration/binding of capital, very limited fungibility Normally, a closed-end fund is designed for a period of 10–20 years and provides only very limited opportunities for the investor to opt-out prior to the planned exit. However, many initiators now offer investors an exit opportunity in case of emergency situations (such as unemployment, occupational or long-term disability and care); and they now co-operate with secondary market platforms demonstrating an increased level of professionalism. Hence, fungibility is improved. Nevertheless, the product class of closed-end funds is still far away from being a fungible asset class.
4. No power of control over the investment property: Investors of closed-end funds are dependent on majority votes and often have no control over the investment property. As a result, decisions can be made either against the will of individual investors or even putatively necessary decisions can be postponed at will (or simply not made at all). Furthermore, the rights of control, participation and influence can be severely limited for investors by an unfavourable design of the contract.

3.5 Analysis of Closed-End Property Funds

Due to the large number of diverse offers it has become increasingly difficult for both consultants and investors to differentiate between good, average and bad funds. For this reason, independent fund analyses and ratings are essential for the distribution as well as for investment decisions in addition to the investor's own analysis and discussion of a product.

The fund prospectus is the basis of every product analysis. The initiator is responsible for its content and preparation. However, in contrast to the material content, the range of topics and the structure of prospectus have been regulated by law since 2005. The examination of an offer has to start with the assessment of the success factors and risks mentioned above. For example, the fund ratings of Feri EuroRating Services AG systematically analyses and assesses the three major components of a fund: the property itself, the fund concept, and management. This is done on the basis of standardized criteria and key figures to benchmark all aspects relevant to the success of a fund. This analysis allows the comparison of several otherwise hard-to-compare investment alternatives.

4 Summary and Outlook

Closed-end property funds offer investors the opportunity to invest in assets they would otherwise not be able to access. This helps the investor achieve a very good, diverse asset allocation which, at the same time, has little, or no, correlation to classic asset classes.

Despite declining yields and dividends as well as the drop in placements as a result of the financial crisis in the years 2008 and 2009, closed-end funds still offer attractive investment opportunities and will gain more importance in the German private investment market in the near future. Property funds comprising core properties in good locations with long-term tenancies and creditworthy tenants are particularly in demand. Despite the remaining business hazards (due to long-term capital commitment and a lack of fungibility), these funds fit into the investment profile of investors who are interested in long-term stable yields. The importance of closed-end funds will be further enhanced when this asset class is traded on the secondary market. Furthermore, the current trends towards more stringent regulation of both vendors and distributors will liberate closed-end funds from the stigma of being an unregulated product in the gray capital market. There may be declining investment volumes in the short term as this market matures, but such a “consolidation” of the market must be regarded as positive in the mid-term.

References

Feri Eurorating Services (2011). Feri Gesamtmarktstudie Beteiligungsgesellschaft. Bad Homburg.

REOCs and REITs

Wolfgang Schäfers and Kai-Magnus Schulte

Abstract This chapter considers the German market for listed real estate companies. First, a distinction is made between German listed real estate operating companies and Real Estate Investment Trusts. These are then ordered into the investment spectrum and the German and European market for listed real estate companies is analyzed. Finally, success factors and value drivers that can support the success and the future of German real estate companies on the capital market are presented.

Keywords REITs • REOCs • market overview • success factors • value drivers

1 REOCs and REITs

Real estate stocks experienced an international upswing since the bursting of the dotcom bubble that only came to a preliminary end in the face of the global financial crisis. This development however largely passed Germany by. While in countries such as the United Kingdom, the Netherlands, France, Australia, Hong Kong, Japan and the USA real estate stocks have now long been viewed as a promising investment vehicle, real estate stocks in Germany continue, according to the relevant research of EPRA (European Public Real Estate Association), to lead a minor existence. Although Germany has a large direct real estate market, only 1.25% of the German real estate assets are securitized in the form of real estate shares. Moreover, real estate stocks represent only 1.24% of the total capitalization of the German stock market (see Table 1). This makes the German real estate capital market under-represented in Europe, and it also lags well behind its own expectations.

With the introduction of the German Real Estate Investment Trusts (G-REITs), hopes of an upturn in the German real estate capital market were raised. This jump-start failed however to materialize, not least due to an unsatisfactory configuration of the law, the delay and uncertainty regarding its introduction as well as the onset

Table 1 Real estate markets in international comparison

Country	BIP 2008 (\$ bn)	Real estate assets 2008 (\$ bn)	Listed real estate assets 2009 (%)	Stock market capitalization 2009 (\$ bn)	Real estate stocks as % of the stock market 2009
USA	13,079	5,885	6.15	13,740	2.63
JP	4,438	1,997	7.71	3,467	4.44
UK	2,497	1,404	3.99	2,990	1.87
DE	3,034	1,365	1.25	1,367	1.24
FR	2,352	1,058	5.39	1,895	3.01
HK	2,912	605	26.63	5,571	2.89

Source: EPRA (2009a)

of the global financial and economic crisis. By the end of 2010, only Alstria Office REIT-AG, Fair Value REIT-AG and – just recently – Hamborner REIT-AG have applied for conversion into this new form of real estate stocks. Nonetheless, the potential for a securitization of real estate in Germany remains substantial.

In this chapter, the Real Estate Operating Company (“REOC”) and the Real Estate Investment Trust (“REIT”) as forms of indirect listed investments in real estate will be analyzed. After presenting the definitional foundations as well as differentiating between the two forms, the chapter then considers REOCs and REITs in relevant (international) market environments. Finally, success factors and value drivers that can facilitate and promote the further development of REOCs and REITs are presented.

1.1 Definition of REOCs

In contrast to Real Estate Investment Trusts, listed real estate operating companies are not legally defined. Moreover, there are no legal or fiscal peculiarities that distinguish the listed real estate operating companies from other listed companies. A distinction is therefore generally made based on the primary aims of the company. Correspondingly, a REOC is a listed company that generates its profits predominately (for example 75%) from letting and leasing, the sale of portfolio properties, project development and the management of real estate as well as the provision of corresponding services. Listed real estate operating companies can therefore be primarily subdivided into property investors and project developers, although a mixture of the two – for example in the case of IVG Immobilien AG and DIC Asset AG – is most commonly found.¹

Through the securitization of real estate in the form of a REOC, investors can bypass numerous unattractive characteristics of direct investments in real estate. Assuming sufficient stock-market liquidity, the buying and selling of shares via the

¹ Rehkugler and Sotelo (2009).

stock exchange is easy, and furthermore allows a term transformation, as the investor can sell at short notice his holdings of long-held real estate. He is moreover able to benefit from precise timing and a quick reaction to market trends. Additionally, a size transformation can also be realized, as real estate stocks are usually fragmented into small investment amounts, whereas individual properties generally cost at least six-figure sums.

In contrast to direct investing, the purchase of real estate stocks involves no real estate transfer tax and no notary or broker fees. The transaction costs are therefore correspondingly moderate, as only the stock-exchange brokerage fee, the commission for the stock purchase and the bank's deposit fee need to be paid. As a result, real estate stocks are also in advantage over open-ended property funds, which in addition to the deposit and management fees generally also levy an issue surcharge of around 5%. This must be generated over the holding period of the shares, which, depending on the situation of the real estate market, can take several years.

Due to a lack of specific taxation regulations, the standard tax regulations for income from stocks apply to REOCs and their shareholders. While private investors had been able formerly, through the half-income assessment method, to realize tax-free profits from the sale of real estate stocks after 1 year, the dividends as well as the capital gains on disposal have been subject to a withholding tax since 1 January 2009. This amounts to either 25% plus the German solidarity tax and, where applicable, church tax (around 28.5% in total) or corresponds to the personal tax rate, where this lies below 25%. REOCs can under certain circumstances (cf. §6b EStG) transfer profits from the disposal of domestic real estate tax-free to new properties. In addition, they can issue to their shareholders tax-free stock dividends (bonus shares) instead of regular dividends. REOCs that are internationally active can optimize the tax through the use of different double-taxation agreements.

If a REOC pursues an international investment strategy, it is able to benefit from the consolidation of the European markets as well as lucrative investment opportunities in emerging countries, while at the same time further reducing its portfolio risk through diversification effects. Further diversification effects can be realized through a scattering of the sources of income, as REOCs do not only realize their revenue through rental income, but also through sales, real estate services, project development and fund business.

Alongside these comprehensive REOCs, investors can however also participate in specialized REOCs. Alongside sectorally and/or geographically focused companies are also those that have specialized exclusively in property investment, project development, the trading of real estate or service provision. However, the risk profile of project development and real estate services differs quite significantly from property investment, for which reason a clear focusing on the respective core business from the perspective of investors and analysts is required. The investor in REOCs can then compose his portfolio according to his risk propensity.

It remains to be clarified whether an investor in REOCs exposes himself to the performance of the underlying real estate market or the general stock market. In the latter case, an investment in real estate stocks would offer no specific advantages, as

it would not represent an alternative investment product to stocks and one would not be able to secure the advantages described above. Through the listing on the stock market, market sentiments as well as upturns and downturns that affect the entire market have a direct effect on the real estate capital market, so that real estate stocks behave in the short term the same as general stocks. This relationship is however of a short-term nature. In the long term, real estate stocks behave according to their underlying direct real estate market, so that these can be considered a substitute for the direct investment in real estate.²

1.2 Differences Between REOCs and REITs

In contrast to France and the United Kingdom, Germany did not have a mature market for exchange-traded real estate investments when REITs were introduced. Whilst in these countries the existing real estate capital market in particular was taken into account, in Germany only in the recent past have a small number of real estate stocks been established on the capital market. The introduction of REITs in Germany has therefore been primarily discussed in terms of the supplementation of the investment market for indirect, non-listed real estate investments. A comparison of the traditional, widely unregulated REOCs with REITs is necessary in order to differentiate between the two vehicles of listed indirect real estate investment. Also, the question must be asked whether, from the perspective of existing REOCs and their investors, additional value creation can be achieved through the conversion into a REIT.

Both the traditional REOC in the narrow sense as well as G-REITs according to Paragraph 1 Sect. 3 of the REIT Act (REITG) are subject to the German Stock Corporation Act. Substantial differences are however found in the divergent and supplementary provisions of the German REIT Act, in particular regarding the investment, revenue and payout obligations set out in the act as well as the conditional tax transparency of REITs. The most important differences are outlined below.

- Investment and revenue provisions

The investment and revenue provisions of G-REITs are anchored in paragraphs §3, §12 and §14 of REITG. In contrast to REOCs, it is forbidden for German REITs to pursue in the framework of their business model extensive speculative project developments or the active trade in real estate. Moreover, G-REITs are only permitted to have 20% of their assets invested in service provision. The law also states that G-REITs must have 75% of their assets invested in real estate, whereby domestic residential real estate built before 1st January 2007 may not be invested in. Moreover, 75% of a G-REIT's gross earnings must be derived from renting, leasing, letting and disposal of real estate.

² Sebastian and Schätz (2010).

- Tax transparency, payout obligations and leverage

The most noticeable difference between REOCs and G-REITs is found in the special tax status of G-REITs. If a REOC meets the regulatory parameters of the G-REIT Act, it can opt for G-REIT status and, according to §16 REITG, corporate tax and trade income tax no longer apply.³ Taxation at shareholder level takes place, as with REOCs, by means of the withholding tax. From a fiscal perspective, G-REITs are therefore “transparent”; the revenues are taxed exclusively at shareholder level. In contrast to REOCs, G-REITs are here subject according to §13 of REITG to a payout obligation that additionally requires them to distribute at least 90% of the annual net income. Exempt from this requirement are capital gains on disposal, of which up to half can be placed in a reserve fund that must be dissolved over 2 years.

A further regulatory restriction compared to REOCs is the leverage restriction according to §15 of REITG. While REOCs can freely decide on their leverage ratio, the equity of G-REITs may not fall below 45% of the amount with which the immovable assets in the financial accounts are set (valued at fair value IAS 40).

- Business field strategies

According to the regulatory framework, G-REITs must specialize in portfolio-oriented real estate investment business. As a result, they have a substantially narrower scope than REOCs, which can exploit market cycles for example through active portfolio management. G-REITs in contrast must not engage in trading with their real estate assets. This applies for the purpose of §14 of REITG when the G-REIT as well its subsidiaries included in the consolidated accounts generated revenue within the past five business years from the sale of immovable assets that constitute more than half of the average value of its real estate portfolio within the same time period. Moreover, REOCs can expand their business field through project development activities or property-related services such as real estate fund management for third parties.

As investment products with a wider scope for management must also meet the higher returns expectations of their investors, REOCs generally have higher capital costs than REITs.⁴ Decisive is not whether this scope is actually being used, but rather that the opportunity exists. It is therefore all the more important for REOCs to clearly communicate its business field strategy to investors, while with REITs this is already largely ensured through the regulatory framework.

- Financing strategies

Existing and in particular future real estate investments can be financed by capital-market-oriented real estate companies through the uptake of additional equity and debt capital. In addition, companies generally have the opportunity to retain profits as an alternative to paying dividends. The holding back of profits

³ Exceptions are listed in §16.2 to §16.6 of REITG.

⁴ Sotelo (2006).

for the refinancing of the existing business activities or new investments is described as internal financing. Correspondingly, with the uptake of additional funds in the form of equity and debt, the capital market is called upon for external financing.

The payout obligations of G-REITs determine in this respect a substantial restriction in possible financing strategies: as the revenues from the real estate investments, less any depreciation, management, maintenance and borrowing costs etc., must be almost entirely distributed to the shareholders, G-REITs are therefore more strongly linked to the external capital market than REOCs.

2 REOCs and REITs in the Market Environment

2.1 REOCs and REITs in the Investment Spectrum

Through the increased professionalism and development of the market, investors today have a large number of investment opportunities to choose from. These mostly have a relatively characteristic risk/return relation, which allows an ordering in the investment spectrum and a comparison to the individual asset classes. Figure 1 presents a schematic ordering of the individual asset classes, although these can vary depending on market phase and the period under consideration.

Of the real estate investments, REOCs represent the asset class with the highest risk/return ratio. This is a result of the characteristics of REOCs described above.

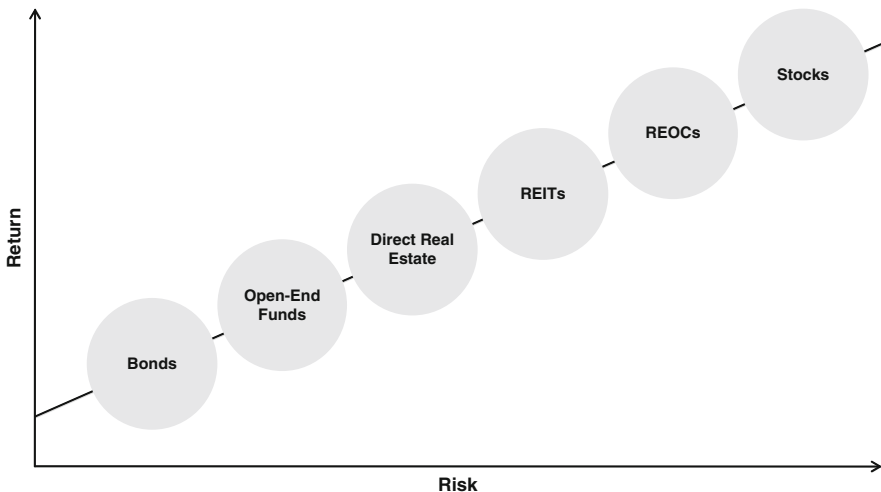


Fig. 1 Schematic risk/return profile of the most important real estate asset classes (Source: Author's illustration)

While open-ended real estate funds may mostly only invest in comparatively low-risk core/core-plus real estate and are subject to various, generally risk-reducing restrictions, REOCs are free to choose which real estate they invest in. So alongside the classic office and retail real estate, hotels and specialized property, which represent a higher risk, can also be acquired. The higher risk/return ratio compared to REITs results in particular from the lack of any minimum payouts or leverage restrictions as well as the absence of limitations of the business field to property investment. A REOC, which along with property investment is also involved in active trading and the development of real estate, is more strongly impacted by the market situation and market cycles, which increases the risk of these stocks.

2.2 REOCs and REITs in the German Context

So far, the history of neither German listed real estate operating companies nor German REITs has been a clear success story. Figure 2 shows the development of the market capitalization and the number of listed real estate companies according to the FTSE/EPRA NAREIT Germany Index. While the market in the early 1990s was characterized more by a sideward movement than a dynamic development, German REOCs experienced from the mid-1990s a noticeable upswing. The market capitalization grew from around 700 million euro in 1996 to around four billion in 1999. The crash of the new economy did not pass Germany’s REOCs by either,

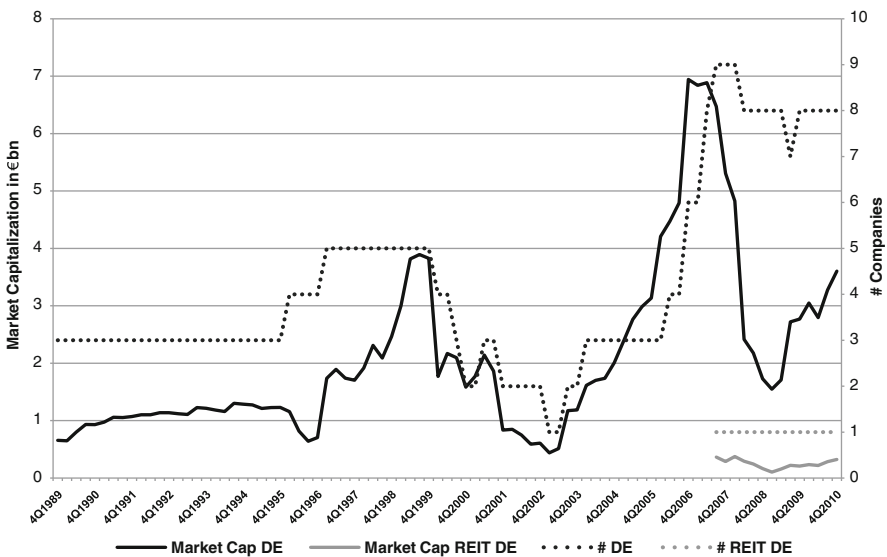


Fig. 2 Market capitalization and the number of real estate companies of the FTSE/EPRA NAREIT Germany Index (Source: EPRA (2011); Author’s illustration)

with the market shrinking to a volume of barely 440 million euro. During the last boom from 2002 to 2006, the German listed real estate sector grew by an impressive 1,600% to its high point of approximately seven billion euro. After a significant correction during the financial and economic crisis, the market has now recovered slightly and comprises some 3.4 billion euro (as of end 2010). Since their introduction in 2007, the FTSE/EPRA NAREIT Germany REIT Index records the development of German REITs. Due to the low market capitalization of Fair Value REIT AG (end 2010: 40.6 million euro) and the conversion of Hamborner REIT AG only in 2010, at the end of 2010 only Alstria Office REIT AG was quoted. The market capitalization of the German REIT market at the end of 2010 therefore amounted to only 323 million euro.

Alongside the low market capitalization, the small amount of free float is also a substantial problem for the German REOCs. This creates the risk for institutional investors that significant price reactions can be provoked through sales or purchases and that the completion of the order takes up a lot of time. The relatively small segment of REOCs in Germany is certainly also partly explained by the regulatory disadvantages compared to open-ended funds and the REIT status that was not available until only recently. The German REIT market suffers as before not only from the dissatisfactory REIT legislation. The point of introduction and the subsequent financial and economic crisis in particular impeded new REIT IPOs and the conversion of existing REOCs.

The potential for listed German real estate stock companies is without doubt present. Not only the low capitalization of REOCs in comparison to the total real estate market but also the high property-holding rates found in Germany are indicative of the high potential through the mobilization of capital tied up in real estate. The REIT market also has a large potential. While several companies have set their REIT plans and pre-REIT status aside due to the uncertain market environment, five companies are currently registered as pre-REIT and intend or consider to obtain REIT status in view of a more certain and stable market environment (as of January 2011: CR Capital Real Estate AG, IVG Immobilien AG, Prime Office AG, TAG Gewerbeimmobilien AG, Vivico Real Estate AG).

2.3 REOCs and REITs in the European Context

If one considers the German listed real estate market in a European context, its secondary role is clearly visible (see Fig. 3). In Europe, the United Kingdom is by some margin the country with the most listed real estate companies and the highest market capitalization. This is partly explained by the position of London as Europe's most important financial and real estate metropolis. As in Germany, the United Kingdom only recently enacted Real Estate Investment Trusts, which have been expanding the investment spectrum since 2007.⁵ In contrast to Germany

⁵ EPRA (2009b).

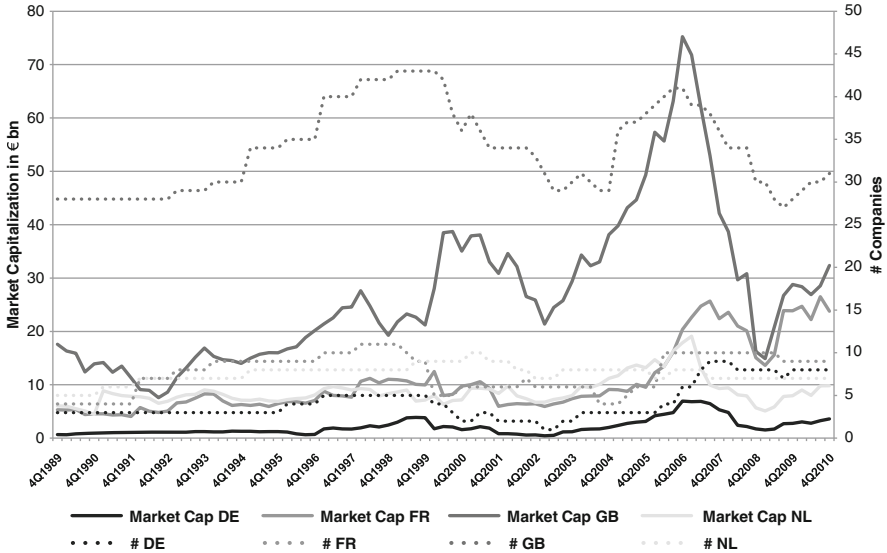


Fig. 3 Market capitalization and the number of real estate companies of the largest countries of the FTSE/EPRA NAREIT Europe Index (Source: EPRA (2011); Author’s illustration)

however, the United Kingdom already had a long-standing and flourishing listed real estate sector, as clearly shown in the figure. On top of this comes a well-developed stock market culture. Since the crash in the British real estate market between 1990 and 1992, the real estate sector grew to a market capitalization of around 75 billion euro, ten times the volume of the sector in Germany.

However, the strong reliance of the finance sector in the positioning of London as the financial center of Europe meant that the financial and economic crisis affected the British sector all the harder and resulted in the market capitalization sinking to 15 billion euro. By the end of 2010 the British real estate capital market had recovered somewhat (approximately 32.4 billion euro) and with an average of 28 companies was also well ahead of the number in Germany. The largest company is Land Securities, with a market capitalization of 6.0 billion euro, followed by British Land (5.4 billion) and Hammerson (3.4 billion).⁶

The second-largest country segment in Europe is now occupied by French real estate stock companies. Listed real estate operating companies in France were for a long time the only real estate investment form due to a lack of alternative

⁶ EPRA (2010).

products. France only introduced open-ended real estate funds – OPCI (Organismes de placement collectif dans l’immobilier) – on 1 January 2006.⁷ Due to the long lack of open-ended real estate funds and the significance of the Parisian real estate market, listed real estate companies consequently have a long tradition. With the implementation of the REIT concept in the form of the SIIC (Société d’investissement immobilier cotée) in 2003, they have gained an additional boost⁶. France’s listed real estate sector grew to a market capitalization of 25.7 billion euro and was therefore already 3.5 times the size of Germany’s. After a low-point of 13.6 billion euro, France has also recovered to a volume of 23.8 billion euro. With nine companies in the index, France occupies the second spot behind the United Kingdom, although with Unibail-Rodamco (13.5 billion euro) it has Europe’s largest real estate stock company. Unibail-Rodamco dominates the French real estate market and towers above Klepierre (2.6 billion) as well as Foncière des Régions (1.8 billion).⁸

The Netherlands is also home to a significant real estate capital market. Due to the small domestic market, Dutch companies began early in investing abroad and brought holdings to impressive levels. This was certainly helped by the so-called FBI status (“Fiscale Beleggings-instelling”) with which the REIT concept was introduced very early, in 1969 already.⁹ During the recent crisis the real estate sector shrunk from approximately 19 billion euro to 5.1 billion euro and has since then only sluggishly recovered. At the end of 2010 the seven companies quoted in the EPRA Index had a total capitalization of just under ten billion euro, with Corio (4.4 billion), Wereldhave (1.6 billion) and Eurocommercial Properties (1.4 billion) being the largest real estate companies in the country.¹⁰

Table 2 illustrates the composition of the FTSE/EPRA NAREIT Europe Index of the years 1990 and 2010. As already mentioned, the United Kingdom takes the largest proportion of the index (35.4%), followed by France (26.0%) and the Netherlands (10.8%). Germany represents only 4.6% of the European real estate capital market. The smallest countries are Spain and Greece, with only one or two real estate stock companies and a representation in the index of below 0.5%. Spain was for a long time a large component of the index and in 2007 achieved a market capitalization of around 8.5 billion euro. The Spanish real estate crisis and the global financial crisis however led to the capitalization shrinking to a mere 16 million euro and Spain temporarily being removed from the index. Ireland – despite a long-flourishing real estate market – and Portugal are no longer represented in the index. Since the introduction of the FTSE/EPRA NAREIT Index, the European real estate capital market has grown from 44.5 billion to 91.4 billion euro.

⁷ BVI (2006).

⁸ EPRA (2009a).

⁹ EPRA (2009b).

¹⁰ EPRA (2009a).

Table 2 Composition of the FTSE/EPRA NAREIT Europe Index in 1990 and 2010

Companies/market cap in million euro 1990			Index weight 1990	Companies/market cap in million euro 2010			Index weight 2010
AT	–	–	–	2	1,898 €	2.08%	
BE	1	448 €	1.01%	6	3,084 €	3.38%	
CH	2	1,000 €	2.24%	4	5,924 €	6.48%	
DE	3	681 €	1.53%	8	4,162 €	4.55%	
ES	2	1,586 €	3.56%	1	186 €	0.20%	
FI	–	–	–	3	1,898 €	2.08%	
FR	4	5,271 €	11.83%	9	23,778 €	26.02%	
GB	28	18,469 €	41.43%	31	32,371 €	35.43%	
GR	–	–	–	2	160 €	0.18%	
IE	2	437 €	0.98%	–	–	–	
IT	2	516 €	1.16%	2	780 €	0.85%	
NL	5	6,152 €	13.80%	7	9,840 €	10.77%	
NO	2	3,042 €	6.83%	1	662 €	0.72%	
PT	1	169 €	0.38%	–	–	–	
SE	4	6,802 €	15.26%	6	6,632 €	7.26%	
EU	56	44,573 €	100.00%	82	91,375 €	100.00%	

Source: EPRA (2011); Author’s illustration

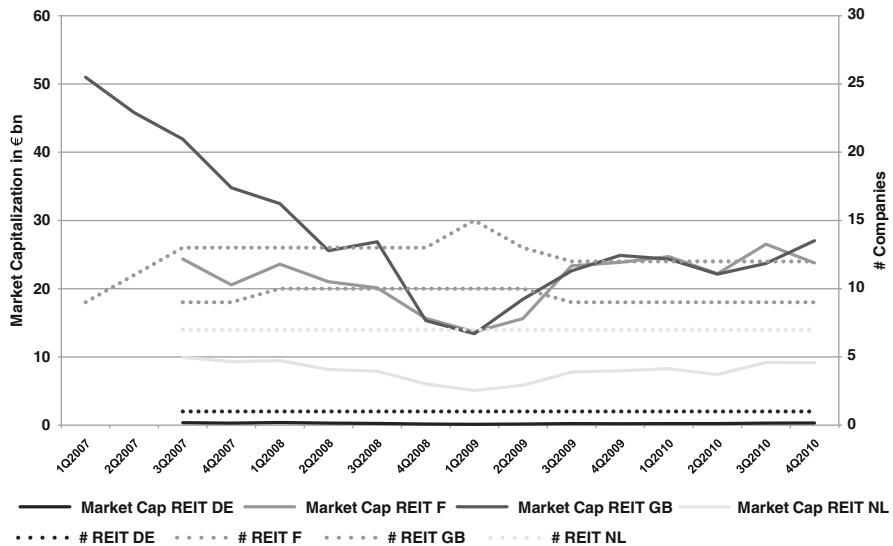


Fig. 4 Market capitalization and the number of REITs of the largest countries of the FTSE/EPRA NAREIT Europe Index (Source: EPRA (2011); Author’s illustration)

Finally, Fig. 4 highlights the composition of the European REIT market. While the market capitalization of France and Britain is nearly identical, the Netherlands and in particular Germany limp behind. Noteworthy is how in France, the

Netherlands and Great Britain REITs represent a large proportion of the total real estate capital market, while in Germany, as already mentioned, this is not the case.

3 Success Factors and Value Drivers of REOCs and REITs

The capital market presents REOCs and REITs – as with all listed companies – with numerous challenges. Decisive for the attractiveness to investors is that the management is in the position to generate sustainable cash flows and results and thus to grow profitably in the core business. In order to achieve this goal, many different value drivers are available to managers that ensure and increase success on the capital market. The challenges of the capital market on the management, the nature and orientation of the company as well as further success factors and value drivers of listed real estate companies are presented below.

3.1 Management Quality and Track Record

The quality and experience of the management generally plays a decisive role in the success of a REOC or REIT. Along with outstanding real estate market experience, investors also expect extensive capital market experience. Moreover, against the backdrop of the focusing on one real estate type or region, it appears advantageous for the management to have in-depth specialist knowledge. As the trust in the management is of great importance in investment decisions, special attention should be paid to the selection of the management.¹¹

In contrast to REITs, REOCs are not restricted to the management of the portfolio and so can also emerge as an active trader and project developer. This places additional requirements on the quality and experience of the management, which is all the more so the case with companies that have diversified over several different business fields, so that the management should be extended to include specialists in the corresponding fields.

3.2 Orientation of the Business Model

The management of listed real estate companies has various options for the focusing of their investment portfolio, as they can concentrate on particular real estate segments or usage types as well as specific geographical regions or pursue

¹¹ Schäfers et al. (2008).

a broader investment strategy. The management of REOCs can also decide on focusing on individual business fields (investment, project development, trade, etc.). With REITs, the business field is, as already described, largely limited to portfolio holding.

REOCs and REITs should focus on specific regional markets and/or specific property sectors in the management of their real estate portfolios. The concentration on such core competences promotes the achievement of a leading market position in the respective field and frees both financial and organizational resources. Through the concentration on the positively developing real estate segment, above-average returns can be generated. A regional focus with a strong local basis allows a faster recognition and reaction to changes in regional markets as well as the exercising of corresponding market advantages. Through the regional and sectoral focusing, investors have the possibility of selecting the company that covers the desired market segment in the desired region and that best complements their own investment portfolio.¹²

Alternatively, the following of a diversification strategy in contrast to a specialization on individual real estate sectors, regional markets or specific segments can reduce the risk associated with specific sectors and markets. This is however for various reasons not in the best interests of the investors. On the one hand, the efficiency of the management sinks due to the frequently insufficient know-how in individual markets or real estate segments. On the other hand, the investors themselves are in the position to diversify at their own portfolio level, and therefore search for investment opportunities that best complement their investment portfolio.¹³

3.3 Exploitation of Market Cycles

Through active exploitation of real estate market cycles, REOCs and REITs can realize significant value potentials. This can be achieved through short-term buying and selling of real estate, whereby in poor market phases real estate and real estate portfolios are acquired at favorable rates and are sold again after the market has recovered. Alternatively, these properties can also be held long-term in the portfolio and the value potential developed over the investment period. The precondition is again a strong capital basis or opportunities for (external) financing in weakening market phases. In particular for internationally active REOCs, significant value creation potentials arise through the shifting European real estate market cycles. Restrictions emerge for REITs, as these are only permitted to conduct trade with their real estate portfolio to a limited extent.

¹² Schäfers et al. (2008).

¹³ Schäfers et al. (2008).

3.4 Value Creation in the Portfolio

An essential component of the strategy of a real estate company should be a regular analysis of the development and value creation potential of the company's real estate portfolio. In particular in phases with a lack of investment opportunities or limited financing options, value creation in the portfolio represents a low-cost opportunity to increase the company value compared to new acquisitions. A precise knowledge of the market developments as well as the early recognition of certain trends are absolute prerequisites. Opportunities can arise for example through the conversion of (vacant) spaces and properties, renovations and refurbishments.

Further prerequisites are the precise knowledge of the needs and requirements of the tenants of the rented spaces. A regular dialog can improve the relationship with the tenants and also their satisfaction levels, which can be manifested in long-term rental contracts and new tenants through recommendations. This is of significance considering the low costs of contract extension compared to finding tenants and drawing up new contracts.

For German REITs, the opportunity for value creation does exist, albeit limited by regulations. §12 Para. 3 in conjunction with §3 Para. 6 REITG prescribes that at least 75% of the gross earnings must come from letting, leasing and renting including real-estate-related activities or the disposal of immovable assets, whereby "real-estate-related" is understood to include such activities as the management, maintenance and development of real estate portfolios (in particular technical and commercial portfolio management, rental stock management, mediation activities, project management and project development). This limits the extent to which REITs can pursue value creation in their portfolios.

3.5 Project Development

A further lever for the realization of revenue beyond that achieved from rental income is project development. Unlike in the rental market, high returns can be realized, as long as the higher capital costs associated with the risk can be outperformed. Project development should only be undertaken with corresponding internal know-how or through the adoption of joint ventures with experienced local partners. A certain scale of the project development activities in relation to the total real estate portfolio should not be overstepped. As REOCs are paying for return potentials from 10% to over 20% through a significantly higher risk compared to portfolio holding, a balanced opportunity/risk profile must be considered.

Along with a specific knowledge of the respective real estate market and the ability to anticipate future developments, a possibly differently-natured requirement profile on the future rental areas must be considered before every project. In the face of increasing energy and service costs, sustainability aspects should also be considered during the conception, as in the recent past a trend towards "green

buildings” is recognizable on the side of users, investors and project developers. The realization itself requires a strict and continuous project controlling to ensure budget compliance with subsequent post-completion, as well as an as early as possible pre-leasing and, in the ideal scenario, the sale already before completion. A rental contract closed already before building start or completion reduces the risk for the REOCs and makes it easier to find a financier or a purchaser for the property. Due to the already mentioned regulations, this value driver is also only of limited application for REITs.

3.6 Growth Fantasy

The equity story should, along with the already presented orientation of the business model and portfolio, above all illustrate the growth potential of the company. The difference between internal and external growth must be clarified here.¹⁴

Internal growth of a real estate stock company is above all achieved on the basis of an active management of the portfolio properties, for example through the use of development potentials, modernization, use-related restructuring, improvements in the rental structure, minimization of vacancy rates and portfolio optimization, as well as through the trading of real estate and successful project development, and is generally valid as a reliable indicator for the quality of the management. The potential for internal growth should be clearly communicated. Indicators for internal growth can include sustainably increasing rental income, a continually increasing net asset value as well as increasing cash flows or dividend payouts.¹⁵

Substantial growth for the expansion of the company can often only be realized externally in the framework of merger and acquisition transactions. The possibilities of external growth depend strongly on the market environment, as the internal financing options are often insufficient and the financing must therefore be guaranteed externally via the capital market.¹⁶

3.7 Size, Liquidity and Capital Structure

Further success factors of a REOC or a REIT are its size, liquidity and capital structure. International investors prefer companies with a high market capitalization and high free float, which allows the buying and selling of large blocks of shares without strongly influencing the share price of the affected company. REITs have

¹⁴ Schäfers et al. (2008).

¹⁵ Schäfers et al. (2008).

¹⁶ Schäfers et al. (2008).

an advantage in this respect over REOCs due to their legally stipulated free float. With increasing market capitalization the number of stock market analysts accompanying the company also increases, creating additional demand from investors. Moreover, the capital structure of a REOC should fit to the corresponding business model and be aligned with the portfolio structure.¹⁷ In contrast to REITs, REOCs are not bound to a maximum leverage ratio. While REOCs are free to decide on their leverage, the equity of REITs may not fall below 45% of the amount with which the immovable assets in the financial statements and consolidated accounts are set. Nonetheless, an excessive use of debt is to be resisted, as particularly in weakening markets problems through the breaching of covenants as well as through possible refinancing can occur.

3.8 *Transparency and Corporate Governance*

In the competition for scarce capital, convincing capital market communication between the company and its shareholders is essential. A REOC or REIT must be able to comprehensively and promptly communicate its equity story, value and appreciation potentials. The goal must be to inform shareholders, potential investors, financial analysts and financiers as best as possible and to make all relevant information available to them so that they can build up a well-founded picture of the value and valuation of the company. Information on the real estate portfolio (e.g. sectoral or geographical distribution, rental branches etc.) as well as the determinants of the real estate value (e.g. contract rents, growth rates of income and expenditure, vacancy rates, utilized discount rates) is essential here. As shown by recent studies, REOCs and REITs inadequately fulfill this information requirement due to missing statutory or voluntary information.¹⁸

Transparent reporting can deliver a substantial contribution to the increasing of the capital market valuation. This reduces information asymmetries, “agency costs”, the problem of adverse selection as well as liquidity and valuation risks and thus increases the company value.¹⁹ This relation was recently empirically demonstrated for European REOCs and REITs by Kohl (2009). REOCs and REITs should increase the transparency of their reporting to realize this potential.²⁰ This can be achieved for example through the voluntary use of the EPRA Best Practices Recommendations. These include, alongside additions to mandatory IFRS information, real-estate-specific information, in particular recommendations on the

¹⁷ Schäfers et al. (2008).

¹⁸ Feri Eurorating Services (2008), Rehkugler and Goronczy (2009), Cometis (2009), Kohl (2009) and Kohl and Schäfers (2010).

¹⁹ Healy and Palepu (2001), Bushman and Smith (2003), Callahan and Smith (2004) and Lang et al. (2009).

²⁰ Kohl (2009) and Kohl and Schäfers (2010).

uniform exercise of IFRS voting rights. Its recommendations fulfill the information needs of both investors and analysts and therefore contribute significantly to an increase in the transparency and to a better comparability of listed real estate companies in Europe.²¹

Alongside transparent reporting, general standards following corporate governance are also essential. These include in particular the freedom of managers from conflicts of interest. Good internal corporate governance can increase the value of the real estate company, as recently shown by Kohl and Schäfers (2010).²² Compliance with the code of the Initiative Corporate Governance of the German real estate industry should take place in every REOC and REIT.

4 Final Remarks

In this chapter, REOCs and REITs as a form of indirect, stock market investments in real estate were presented. German real estate stocks play – despite the importance and size of the local real estate market and the advantages associated with the securitization of real estate in the form of shares – a minor role compared to the stock market as a whole and to other European countries. As a result, the boom in real estate stocks of recent years largely passed Germany by, something not even the (delayed) introduction of Real Estate Investment Trusts (REITs) could change. REOCs differentiate themselves from REITs above all through the corporate taxation as well as lack of any restrictions on investments, disposals or business fields, so that the resulting extended activity area is riskier, but able to access further sources of revenue such as project development that are not available to REITs.

In view of the historical development of REOCs and REITs in Germany, their future is open. While their potential through the sometimes low securitization of real estate and the high property-holding rates of companies is very large, it remains to be seen whether and how this potential will be realized. Their future status as an indirect form of real estate investment depends in particular on the recovery of the local real estate markets and the (international) capital markets as well as the subsequent potential revival of the German real estate capital markets.

References

- Bushman, R. M., & Smith, A. J. (2003). Transparency, financial accounting information, and corporate governance. *FRBNY Economic Policy Review*, 9, 65–87.
- BVI (2006). Offene Immobilienfonds jetzt auch in Frankreich – der BVI gratuliert, <http://www.bvi.de/de/presse/pressemitteilungen/presse2006/pm110106/pm110106.pdf>. 11 Januar 2006.

²¹ EPRA (2009c).

²² Kohl and Schäfers (2010).

- Callahan, C. M., & Smith, R. E. (2004). *Firm performance and management's discussion and analysis disclosures: An industry approach* (SSRN Working Paper), pp. 1–61.
- Cometis, A. G. (2009). *Immobilienbewertung – Investorenwunsch und Börsenwirklichkeit*. Cometis. Wiesbaden.
- EPRA (2009b). *Global REIT survey*, September 2009. Brussels.
- EPRA (2009c). *Best practices recommendations*, July 2009. Brussels.
- EPRA (2010). *Monthly Statistical Bulletin*, December 2010. Brussels.
- EPRA (2011). *Historical data request*. <http://www.epra.com/indices.jsp>. Accessed 24.01.2011.
- Feri Eurorating Services, A.G. (2008). 1. Feri-Transparenz-Rating für Immobilienaktiengesellschaften. Press release from 15 July 2008.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31, 405–440.
- Kohl, N. (2009). *Corporate governance and market valuation of publicly traded real estate companies: A theoretical and empirical analysis*. Dissertation. Universität Regensburg.
- Kohl, N., & Schäfers, W. (2010). Corporate governance and market valuation of publicly traded real estate companies: Evidence from Europe. *Journal of Real Estate Finance and Economics*. doi:10.1007/s11146-010-9236-5.
- Lang, M., Lins, K. V., & Maffett, M. (2009). *Transparency, liquidity, and valuation: International evidence* (SSRN Working Paper), pp. 1–48.
- Rehkugler, H., & Goronczy, S. (2009). Transparenz von Immobilienaktiengesellschaften – Messung durch einen neuen Index der DVFA FINANZ BETRIEB, 10, 590–597.
- Rehkugler, H., & Sotelo, R. (2009). Verbriefte Immobilienanlagen als Kapitalmarktprodukte – eine Einführung. In H. Rehkugler (Ed.), *Die Immobilie als Kapitalmarktprodukt* (pp. 4–35). Munich: Oldenbourg.
- REITG (2008). Gesetz über deutsche Immobilien-Aktiengesellschaften mit börsennotierten Anteilen (REIT-Gesetz – REITG), REIT law from 28 May 2007 that is changed through Article 37 of the law of 19 December 2008 (BGBl. I. S. 2794).
- Schäfers, W., Heller, N. J., Körner, J., & Puhl, O. (2008). Erfolgsfaktoren beim Börsengang von German Real Estate Investment Trusts (G-REITs). In S. Bone-Winkel, W. Schäfers, & K.-W. Schulte (Eds.), *Handbuch real estate investment trusts* (pp. 143–164). Köln: R. Müller.
- Sebastian, S., & Schätz, A. (2010). *Real estate equities – real estate or equities?* Brussels: EPRA Research.
- Sotelo, R. (2006). Regel schaffen Werte – Rekonstruktion von Finanzierungstheorie als ein Ergebnis der Gegenstandsorientierung der Immobilienökonomie. In S. Bone-Winkel (Ed.), *Stand und Entwicklungstendenzen der Immobilienökonomie – Festschrift zum 60. Geburtstag von Karl-Werner Schulte* (pp. 41–54). Köln: R. Müller.

Derivatives on Real Estate Indices

Daniel Piazzolo

Abstract Derivatives on real estate indices have the potential to increase effectively the liquidity of real estate as an asset class. A well-functioning market for real estate derivatives will help diversify investment markets since real estate derivatives allow investors to change synthetically and quickly country allocations in their portfolios. If portfolio managers are able to increase or decrease their exposure in the various real estate markets they will be able to manage their risks better. The market for real estate derivatives is still in an infant stage in Germany, though. Still, derivatives on real estate indices have also in Germany the potential to contribute substantially to a more professional real estate portfolio management.

Keywords DIX • implied returns • real estate indices

1 Real Estate Futures on International Derivatives Exchange

In 2009 the Frankfurt based Eurex started to trade futures on a real estate index, namely on the IPD Annual Index for the UK real estate market. Eurex is the international derivatives exchange and is jointly owned by Deutsche Börse AG and SWX Swiss Exchange. In March 2011 the daily open interest covered 1,881 individual contracts with a nominal value of 94 million British Pound.¹

The arrival of real estate futures at Eurex has been an important development in Europe to open up with the exchange based trade a second route for derivatives on real estate indices besides the OTC (over-the-counter) activities of banks and institutional investors. Eurex is based in Germany, but until now the traded futures have as underlying the UK property index. However, the German property index DIX (Deutscher Immobilien Index) has been the base for OTC trades and has been used for swaps as well as options. In the following the various forms of trading types are discussed.

¹ EUREX (2011).

2 Correlation Between Real Estate Indices, Listed Real Estate Companies and Stock Market

Indices on listed real estate companies or REITs are sometimes seen as a proxy for the overall real estate market. However, market participants who want to diversify away from stock market risks should focus on derivatives on real estate indices composed of directly held properties such as the DIX.

Figure 1 shows the annual total return of DAX, E&G-DIMAX and DIX between 1996 and 2009 and the correlation between the different asset classes. The E&G DIMAX indicator from the bank Ellwanger & Geiger combines the performance of all German listed real estate companies. Both DAX and E&G DIMAX yielded high returns in good years (DAX 1997: 47.1%, DIMAX 1997: 20.0%). However, in bear years, both indices went into dark red (DAX 2008: -40.4%, DIMAX 2008: -49.7%). By contrast directly owned property usually offered a single-digit return and never a negative one (here measured by the DIX). In other words, the DIX constantly performed with a positive return while DAX and DIMAX strongly fluctuated between high gains and losses. This impression is also reflected in the negative correlation between DAX and DIX of -0.20. In contrast, the correlation between DAX and DIMAX is +0.61. This means that an index on listed real estate companies is a far better proxy for the overall stock market than for the real estate market and therefore it is better to use real estate indices on directly held properties as underlying for derivatives than real estate stock indices (Table 1).

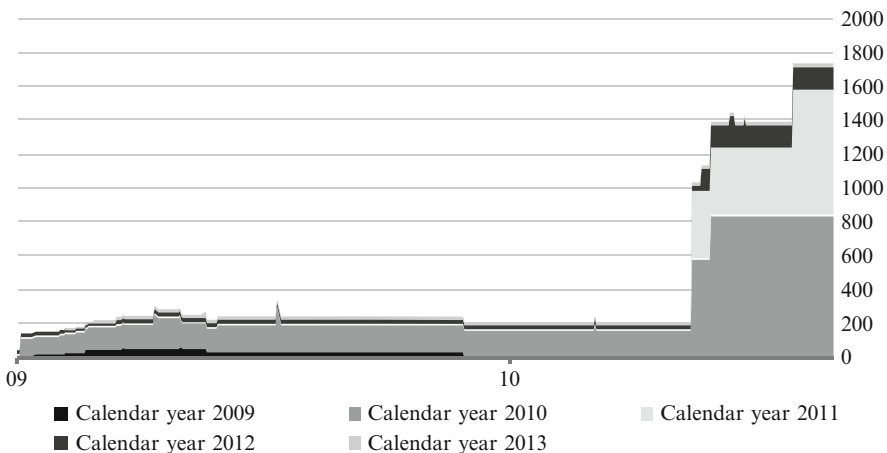


Fig. 1 Futures trade volumes on the IPD UK (Source: Eurex, IPD Investment Property Databank GmbH)

Table 1 Annual return in percent

	Dax (%)	E&G-Dimax (%)	DIX (%)
1996	28.2	-12.9	4.7
1997	47.1	20.0	3.5
1998	17.7	37.6	4.0
1999	39.1	56.5	4.9
2000	-7.5	-25.4	5.6
2001	-19.8	-2.3	5.4
2002	-43.9	-19.9	3.9
2003	37.1	-3.2	2.9
2004	7.3	8.3	1.1
2005	27.1	38.4	0.6
2006	22.0	46.3	1.4
2007	22.3	-31.4	4.5
2008	-40.4	-49.7	3.3
2009	23.9	20.2	2.5
Average	7.2	1.0	3.0

Source: Deutsche Börse, Privatbank Ellwanger & Geiger, IPD Investment Property Databank GmbH, own calculations

3 Exchange Traded Real Estate Derivatives

The main derivative types for the real estate world that are traded on the exchange are futures and certificates. Of course, derivatives in other markets have developed more varieties such as collars, floors etc. and it is likely that also the real estate world will make use of these tools in the near future. In this chapter, we will focus on those types that have been used already for real estate indices, though.

Futures are standardized financial instruments that are traded at a derivate exchange. The buyer of a futures contract must sell or buy a certain underlying instrument on a certain date at a specific price. For example, an investor is looking to sell his property in 1 year. Futures allow him to lock in today's prices and offer him strategic income security. If actual prices have fallen by the time the investor will sell, he will lose money on his property but receive a premium for the futures. If market prices are rising, he will lose money on the futures but earn higher profits from the sale of his properties on the market. Derivatives are hedging the risk on the underlying real estate markets. In times of uncertain real estate price development future markets are good for experienced investors. However, they carry a higher risk than options.²

Figure 2 shows the daily open interest of the Futures on the IPD UK index as traded at Eurex. This figure shows that in early December 2010 there was open interest on IPD UK futures for 4 different years. For the year 2010 there were 836

² Baran et al. (2008).

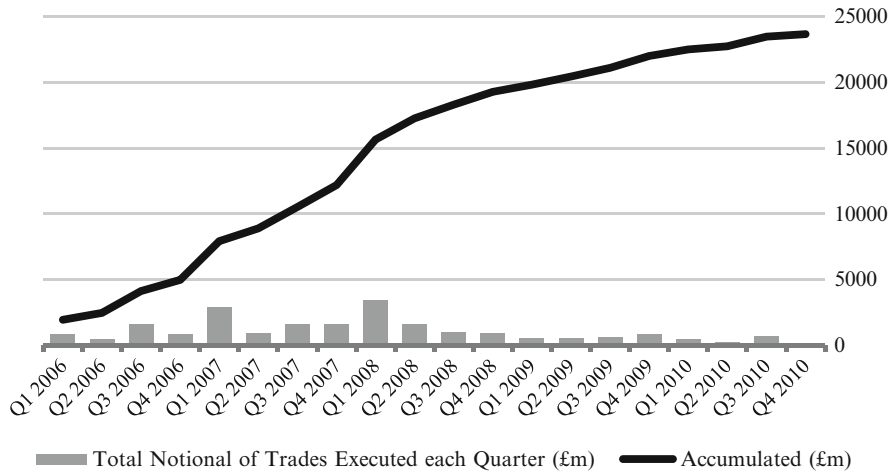


Fig. 2 OTC Derivatives on IPD UK Index (Source: Investment property databank GmbH)

open contracts, for the year 2011 more than 700 contracts, for the year 2012 about 130 contracts and for the year 2013 already 20 open contracts. The final settlement day for a future on the IPD index is the last day of March following the calendar year that the contract applies to. This means that the 836 open contracts for the year 2010 could be traded until end of March 2011. IPD announces the total return of most annual indices during the first quarter of the following year.

The Chicago Mercantile Exchange (CME) offers futures based on the S&P/Case-Shiller Home Price Index (see below Table 3). Investors can trade contracts on single-family home price indices for ten major U.S. metropolitan areas and one composite index. These activities in the residential sector on a derivative exchange in one country shows that also in other markets like Germany it is feasible that derivatives are used in all real estate sectors.

Certificates are capital-based financial instruments: The buyer pays his investment to the issuer of the instrument. Barclays Bank was the pioneer in this area. During the real estate crisis in the UK at the beginning of the 1990s, many debtors were not able to pay their mortgages. Barclays and other banks acquired many foreclosed properties. In order to reduce the exposure to the real estate market, Barclays issued Property Index Certificates (PICs) in 1994. These certificates ensure that the investor receives a return linked to a real estate index. For the UK the basis for these certificates is the IPD UK Annual Index. Real estate index certificates can widen the investment universe of retail investors. Since September 2006 it has been possible to trade a real estate index derivative certificate at German stock exchanges starting at 15 euro. Goldman Sachs has been offering certificates on the IPD UK Annual Index in Germany shortly after its introduction to the UK market in July 2006. Thus, a German retail investor can participate via a certificate in the development of the UK real estate market. The value of the derivative depends on the development of the UK real estate total return measured by the

underlying UK Annual Index which is based on the information of over 10,000 properties. Consequently, an investment in real estate is possible without actually directly owning any property. As also in other areas of the real estate industry, the UK market is the pioneer in developing and testing new products and services. It is likely that investment banks will start to offer comparable certificates also for other markets like France, Germany and the Netherlands after the repercussions of the global financial crisis have settled down.

4 Over-the-Counter (OTC) Derivatives

Until the advent of derivatives institutional investors had only been able to influence the risk return profile of a real estate portfolio on property levels. Now derivative swaps offer a cost-effective way to influence the risk return profile. The systematic risk of a national real estate market can be encapsulated via a real estate derivative. Then the total return of a real estate index is swapped against a floating or a fixed interest rate.³ As a result the portfolio may only carry the unsystematic risk of the individual properties.

A swap offers the opportunity for real estate investor A, who is confident that he can manage his properties better than the average market participants. The counterparty for this swap is bank B which will try to eliminate its own risk exposure through a second swap with investor C. Investor C could be a foreign real estate funds trying to increase the weight of the German market in its portfolio. C will receive the total return and the systematic risk of the German real estate market. In return, C pays a fixed or a floating interest rate via bank B to investor A.

Consequently, for a specified time period the risk and return opportunities are traded between two parties without any change in the ownership of properties. Investor A pays, for example, the DIX total return to bank B which passes the total return on to investor C. In reverse, C pays an interest rate to B which is passed on to investor A. In most cases, it is negotiated in advance that only the debtor is paying the creditor the resulting difference i.e. the cash flows are netted. The specified time period for a swap usually ranges between 1 and 10 years. The seller of the total return of the German real estate market (investor A) can automatically re-enter the real estate market, once he has decided not to renew the swap. By contrast, if investor A had decided to sell directly owned properties, then the decision to re-enter the German real estate market and build up a real estate portfolio would imply substantial transaction costs.

The first OTC real estate swap on the IPD All Property Index for the UK versus 3 months LIBOR (London Interbank Offered Rate) was traded in 2004. Since then the swap market has grown substantially and has diversified into real

³ Geltner and Fischer (2008).

estate sectors and sub-sectors. Until the end of 2010 more than 24 billion British Pound of swaps on the UK IPD index were traded.

5 Options: The Right, Not the Obligation

A real estate index option gives the buyer the possibility to benefit from the positive performance of a real estate market without bearing the risk of a negative performance. In return, the issuer of the option demands a price in advance reflecting the potential of this right. In other words: Options are conditional futures. That means one of the contracting parties may choose if the transaction takes place. The buyer of an option has the right but not the obligation to buy (call option) or sell (put option) a certain amount of units of a basis value at a pre-set price. The deal may be carried out either within a certain time frame (American option) or at a specific date (European option). The seller of the option takes the contrary position.

Goldman Sachs was the first bank to issue options on the real estate market in 2004. The British house price index Halifax House Price Index (HPI) was the underlying for this option. As for futures, the Chicago Mercantile Exchange (CME) issues call and put options on ten U.S. metropolitan areas based on the S&P/Case-Shiller Home Price Index. This financial instrument is also available for small private investors to hedge against decreasing home prices. The Zurich Kantonalbank offers call options bound to the Zurich house price index (ZWEX) since 2006.⁴ Therefore, options are traded on the exchange, but are also available as an OTC product.

6 Benefits and Costs of Derivatives on Real Estate Indices

Obviously, the involved exchange platform or the bank as intermediaries in a derivative trade will get paid for its provided services and own risk exposure. Especially in the case of retail investors these transaction costs can be quite high and should not be neglected. In the case of the above mentioned certificate, Goldman Sachs is currently adjusting the index by 2.8% p.a., consequently reducing the return of investors. Between 2004 and 2006 the UK IPD Annual Index on average increased by 18.5% p.a. Thus, during boom years the adjustment of the index is a fair entrance fee. These fees for the retail investors have to be compared to the normal transactions for direct holding that account for around 8%. The correct pricing of real estate derivatives draws on the insights of the approach for established derivative markets on other asset classes.⁵ With respect to investors

⁴ Syz (2008).

⁵ Patel and Pereira (2008).

with an investment horizon of several years, it should be analyzed if the transaction and management costs of for example open end real estate funds are for such a period favorable compared to the ones of derivative certificates. Concerning large institutional investors, it should be noted that with an investment of derivatives on real estate indices an investor buys the “systematic risk,” while real estate portfolios offer the possibility to buy the “unsystematic risk” which can offer further opportunities. The advantages, disadvantages and transaction associated with cost of direct real estate investments and derivatives on real estate indices are shown in Table 2.

Derivatives bear specific risks. One risk is the dependence of cash flows determined by the development of the real estate market. If the development of the DIX

Table 2 Advantages and disadvantages of directly held real estate versus derivatives on real estate indices

	Directly held property	Derivatives on property indices
Advantages	Full autonomy of decision and direction for property portfolio	Enable to diversify risk across geographies
	Generate alpha – increased returns in comparison to the market as a whole possible	Potential to minimise risks or manage them consciously
	Long-term protection of property (e.g. site for headquarters)	Short-term investment in property feasible
	No predefined time limit on property return	Fast implementation of strategies
	Clear and established supervisory regulations	Low transaction costs for acquisition and sale
Disadvantages	High transaction costs for acquisition and sale; high administrative costs	If invested for a longer period fees for derivatives exceed the saved transaction costs for direct investments
	Considerable acquisition and sale periods	No outperformance of the market possible
	Cluster risk	Danger of default of counterparty
	Always a combination of systematic (market) and unsystematic risks (e.g. tenant)	Derivatives count as liquidity not as property holding, thus for some investors who are allowed only a maximum share of liquidity only of limited use
Costs/Fees	Transaction costs for property acquisition and sale range between 4% and 8% of the investment volume	Institutional investors: swap: 0.1–0.2% of the nominal transaction value per year
	Operating costs are only partly covered by tenants	Futures: Fees for Eurex € 10 for orderbook trades plus fees for broker Private investors: 2.8% annual index deduction as fee for certificates from Goldman Sachs UK IPD tracker (minimum investment € 15)

Source: IPD Investment Property Databank GmbH

is positive, then the buyer of the DIX benefits, too. However, if the DIX total return is only small or even negative, then the buyer has to pay the seller the interest payment without being over-compensated through the receipt of the DIX total return.

A further risk of a real estate index derivative concerns the solvency of the counterparty. In most cases, a bank acts as a mediator between both parties and carries this risk. If for example the DIX total return is extremely high, it is theoretically possible that the counterparty is not able to pay its debts. Consequently, most institutional investors limit the possible amount of their exposure with counterparties or banks. This has been particularly important during the financial crisis and has also led to a significant downturn of the real estate derivatives market. With respect to derivatives, this business risk for other kinds of investments is usually reduced as all outstanding amounts are balanced and only the debtor has to make a safety deposit for all currently outstanding debts. However, as long as real estate indices are published only once per year, this kind of risk reduction is only partially possible for real estate index derivatives. Contrary to other markets like oil or stocks it is for real estate not possible to mirror the index by buying the underlying components. Thus this arbitrage possibility is missing as an important price mechanism. The fee margin for derivatives on real estate is likely to be higher than for other markets. Consequently, it is likely that the derivative volume on property will remain considerably smaller than implied by the size of the underlying asset class.

7 The Bases for Derivatives

The existence of a qualified real estate index is decisive for the development of a real estate derivatives market. This index has to meet different standards such as sufficient index size, market coverage, historical data series and compilation by an independent third party. IPD Investment Property Databank GmbH has issued such an index for Germany since 1996. Within the IPD Group indices are published for various countries. Real estate Indices that are useable for derivatives – either from IPD or from non-IPD sources – are set out in the following (Table 3).

8 German Property Index DIX (Deutscher Immobilien Index)

IPD's German Property Index DIX (Deutscher Immobilien Index) is based on an extensive databank which contains properties from the institutional investors with at least annual valuation of the properties. The DIX covers the performance of directly held institutional properties, but IPD calculates also benchmarks that include the purchases, sales and developments of these investors.

Table 3 Underlying indices for real estate derivatives

Start of index	Method	Geography	Published by	Sectors	Traded derivatives	Frequency of update	Sub-indices	Source
E&G DIMAX	Stock market based. Reflects development of listed real estate companies	Worldwide	Ellwanger & Geiger	All, since stock market based		Weekly	E&G EPIX, E&G ERIX	www.privatbank.de
FTSE EPRA/NAREIT Global real estate index series	Stock market based. Reflects development of listed real estate companies	USA, EMEA, Asia	FTSE	All, since stock market based	Futures	Daily	23 Sub-indices	www.ftse.com
Global property research 250 index	Stock market based. Reflects development of listed real estate companies	Worldwide	Global property research	All, since stock market based	Certificates	Daily	Country specific	http://www.propertyshares.com/images/pdf/LaunchGPR250REITIndex.pdf
Halifax house price index	Transaction based	UK	Halifax	Residential	Futures, Swaps, Options, Certificates	Monthly	New and old	http://www.floydsbankinggroup.com/media/research/halifax_hpi.asp
HKU-REIS University of Hongkong real estate index series	Transaction based	Hong Kong	University of Hongkong	Residential	Swaps	Monthly	HKU-HRPI, KRPI, NRPI	http://housingderivatives.typepad.com/housing_derivatives/files/hku_real_estate_methodology.pdf
IPD annual all property indices	Valuation based	Worldwide	IPD	Office, Retail, Residential, Industry, Others	Swaps, Options, Futures	Monthly, Quarterly, Annually depending on country	Country and sector specific	www.ipd.com
NPI NCREIF property index	Valuation based	USA	NCREIF	Office, Retail, Residential, Industry, Hotels	Swaps	Quarterly	Sector specific	www.ncreif.com

(continued)

Table 3 (continued)

Start of index	Method	Geography	Published by	Sectors	Traded derivatives	Frequency of update	Sub-indices	Source
RPX radar logic real estate index	Transaction based	25 Regions USA	Radar logic	Residential	Total return swaps	Daily	Regional	www.radarlogic.com
S&P/Case-Shiller home price index	Transaction based	20 Regions USA	Standard & Poor's	Residential	Futures und Optionen an der CME	Monthly	Regional	www.standardandpoors.com/
S-BOX DIMAX Germany	Stock market based. Reflects development of listed real estate company	Germany	Börse Stuttgart AG, structured solutions AG, Eilwanger & Geiger	All, since stock market based	Certificates	Daily	None	www.boerse-stuttgart.de
S-BOX DIMAX Eastern Europe	Stock market based. Reflects development of listed real estate company	Eastern Europe	Börse Stuttgart AG, structured solutions AG, Eilwanger & Geiger	All, since stock market based	Certificates	Daily	None	www.boerse-stuttgart.de
ZWEX Zürcher residential index	Transaction based	Kanton Zurich	IAZIAG (Informations- und Ausbildungszentrum für Immobilien)	Residential	Certificates	Quarterly	ZWEX Lake, ZWEX Regio	http://www.zkb.ch/de/center_worldeigenheimcenter/marktinfos/wohneigentumsindex_zwex_index.html

Source: IPD Investment Property Databank GmbH

The DIX shows performance as total return as a product of income return and capital growth. Capital growth is the net increase of the market value of all properties in the year adjusted to capital expenditures. Income return is calculated as net rental income which is calculated as gross rental income minus non-allocated operating costs of the year reviewed. Both values are expressed in per cent of the capital invested.⁶

In the autumn of 2011 there were slightly more than 100 derivative trades on the DIX with a notional value of 700 million euro, primarily swaps or options. Some of these derivatives were so-called quantos, i.e. the increase in the DIX was not paid in euro, but in a different currency. Such a type of derivative is attractive for investors who wish to have exposure to the German real estate market, but without the corresponding exchange rate risk. For the German market, Deutsche Bank and Goldman Sachs have been especially active. Until now, there are no futures on the DIX. However, Eurex plans to introduce futures on the IPD French and German Indices.

9 Other Available Real Estate Indices

Other real estate indices useable for derivatives are listed in Table 3. Further information can be found at the indicated web page at the Table 3. An assessments of the use of derivatives on real estate indices to manage especially European real estate risk are given by Fabozzi and co-authors.⁷

One important aspect of differentiation between the various indices is connected to the method of data collection. There are two types: valuation-based indices and transaction-based indices. Valuation-based indices express a total return calculated on basis of the estimated current market value and the income return. Transaction-based real estate indices generate their values from real estate transactions at actual prices. Most non-IPD indices are transaction-based except the NCREIF Property Index which also uses the valuation-based method. Both methods have advantages and disadvantages. Challenges for the valuation-based indices concern the reliability of the estimated real estate values and time-lags between valuation and calculation of the indices. Transaction-based indices encounter problems due to the heterogeneity of property (size, quality, etc.) and low frequency of transactions. Statistical methods such as Repeat Measures Regression are used to increase precision. Hedonic price models and the Repeat Sales Price method improve transaction-based indices.

Some researchers argue that transaction-based indices should be called real estate asset class research indices and valuation-based indices should be named

⁶ IPD (2011).

⁷ Fabozzi et al. (2010).

evaluation benchmark indices.⁸ Transaction-based indices are more research-oriented and useful for statistical means. Meanwhile valuation-based indices can be used to set benchmarks and measure performances of specific portfolios in comparison to the market as a whole including the performance of standing investments, project developments, purchases as well as sales.

10 Implied Real Estate Returns

A liquid derivatives market on a real estate index allows conclusions about the implied expectations for future developments of a market. Figure 3 shows the implied forecast of the market participants but documents also the volatility of such an assessment. For example the prices of derivatives for the IPD UK all property index implied in December 2009 a total return of 7.2% for the year 2013. In June 2010 the implied 2013 total return had fallen to 4.1%, but recovered in January 2011 to 5.5%. For the German market, not enough trading is yet taking place to have a robust development of the implied return for Germany. However, over terminals like Bloomberg the offer price of the various banks for derivatives on the German Property Index DIX can be seen and therefore the implied real estate return can be examined.

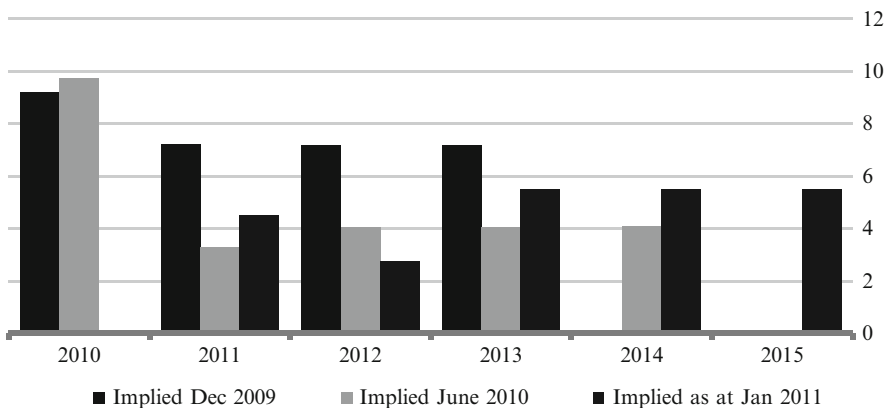


Fig. 3 Derivatives pricing (Source: RBS, IPD Investment Property Databank GmbH)

⁸ Geltner and Ling (2000).

11 Outlook: Substantial Growth Potential for Real Estate Derivatives

Derivatives on a real estate index like the DIX offer a great opportunity to diversify a portfolio quickly and cost efficiently. With the global financial crisis, the growth of derivatives volume has slowed down. However, derivatives have a very important hedging function. Since the global financial crisis has also underlined the importance of better risk management, hedging and the targeted reduction in exposure will be more used. This leads to an overall optimistic anticipation for the real estate derivative market in Germany. Real estate investors may use derivatives to expand or reduce the allocation in certain markets and sectors. For example, investors may reduce the share of the German retail sector in their portfolio while increasing the share of French office properties.

The use of derivatives on real estate indices within Germany is likely to lag behind the UK also for the decade to come, since Germany does not have the close UK relationship between the real estate and the financial markets. Nevertheless, the possibilities to scale the risk exposure will make real estate derivatives an important instrument in the toolbox of portfolio managers. The availability of standardized real estate derivatives through Eurex and of tailor-made real estate derivatives on the OTC market enables organizations to fine-tune their real estate commitments. Consequently, with all the potential advantages, one might conclude that in the year 2020 it will have become as much a standard to use derivatives on real estate indices to hedge against market risks, as it is now standard to use derivatives on currencies to hedge against exchange rate risks.

References

- Baran, L., Buttner, R., & Clark, S. (2008). Calibration of a commodity price model with unobserved factors: the case of real estate index futures. *Review of Future Markets*, 16, 455–469.
- EUREX (2011). Daily open interest. Available under http://www.eurexchange.com/trading/products/PRD/PUKA_en.html?mode=quotes.
- Fabozzi, F., Shiller, R., & Tunaru, R. (2010). Property derivatives for managing european real-estate risk. *European Financial Management*, 16, 8–26.
- Geltner, D., & Fischer, J. (2008). Pricing and index considerations in commercial real estate derivatives. *Journal of Portfolio Management*, Special Real Estate Issue, 99–117.
- Geltner, D., & Ling, D. (2000). *Benchmarks and index needs in the U.S. Private property investment industry: Trying to close the gap*. A RERI (Property Research Institute) Study for the Pension Property Association, October 2000.
- IPD (2011). The IPD Index Guide. London. Available under www.ipd.com.
- Patel, K., & Pereira, R. (2008). Pricing property index linked swaps with counterparty default risk. *Journal of Real Estate Finance and Economics*, 36, 5–21.
- Syz, J. (2008). *Property derivatives*. Chichester: Wiley.

German Real Estate Returns in International Comparison

Daniel Piazzolo

Abstract Real estate investments have become international. Therefore also the returns have to be judged in an international comparative context. The question arises whether the returns of the German real estate market have justified the investments by domestic and foreign investors? The answer is: Yes and No. Yes, investments in German property have earned higher returns compared to other countries in some years like in 2009. No, looking at the average return for all the years since 1998, the German market has not turned out to be a good investment. Compared to returns in other markets, German returns have been low. Yet, they have proven to be less volatile in comparison to other markets. Furthermore, the international investor has to consider that the German market is very divers across sectors and across regions. To benefit from the catch-up potential of the German real estate market over the next years, investors are well advised to research the local markets rigorously.

Keywords International comparison • Risk • Risk adjusted return • Total return

1 Globalization – Also for the Real Estate Investors

For years, Germany has been seen by a developing and under-managed real estate investment market since many international investors were irritated by the importance of the funds sector relative to the listed real estate sector and felt that the German market was contact driven and opaque. However, in the last couple of years the assessment of the German market has changed. The German real estate market is credited in becoming more professional and more transparent. This is for example reflected in the rise of Germany in the Global Real Estate Transparency Index of Jones Lang LaSalle to be judged as one of the ten most transparent real

estate market in the year 2010 (Jones Lang 2010) In the years before, Germany was never part of this group of highly transparent markets.

Within the last decade there have been considerable investments of German investors abroad and of foreign investors in German real estate. These cross-country investments can be attributed to two main factors. First, hand economic theory preaches diversification and this assessment has been accepted and practiced also by many real estate agents (Hughes and Arissen 2006). Second, international standardization (like the establishment of the *Acquis Communautaire* and the introduction of the Euro currency) and globalization have facilitated activities in the areas of other national legislations.

What about returns in the different national markets? Have the returns justified the investments abroad for the German investors? Were the international investors wise to diversify their investments also into Germany? How would investors know that their investments at least earned the average market returns? IPD Investment Property Databank analyses property performance for professional property investors to enable the analysis of real estate returns in an international comparison. In Germany, IPD has started its service for property investors in 1998. The databank of IPD provides detailed return and key figure analyses for many countries and most major urban areas within Europe.

The databank covers the performance of directly held institutional properties from large institutional investors. The institutional investors provide the data and receive in return a portfolio analysis relative to the benchmark of all participants. Thus, the IPD databank consists of primary data mirroring the relevant portfolio management systems, financial accounts and business reports of the data providers. IPD validates and double checks all information in order to ensure high data quality. IPD examines the total return of an investment as aggregated return summing up income return and capital growth of property investments.

2 Total Return and GDP Growth

Figure 1 shows the total return of real estate investments and GDP growth for 12 countries for the years 1998–2009 (Investment Property Databank 2011). It is interesting to note, that the pattern of these countries is diverse, despite the fact that all 12 countries are highly advanced, industrialized OECD countries. Concerning real estate, the question is whether there is a correlation between GDP growth and total returns, i.e. whether a higher economic output is linked to higher property returns. This implies the question, if higher economic growth also generates higher property returns. However, a simple regression analysis for a limited time allows only for correlation analysis without the possibility to infer causality. It can be also argued that a strong development on the supply side, with considerable amount of new building and related infrastructure developments will lead to GDP growth.

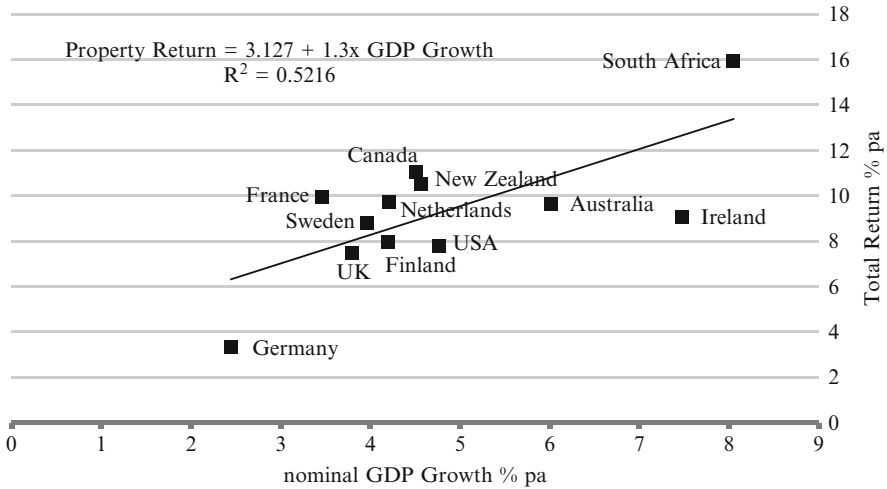


Fig. 1 Property returns vs. nominal GDP growth 1998–2009 (Source: IPD Investment Property Databank GmbH)

Figure 1 shows the correlation of nominal GDP growth and total returns in several countries with a time series of total return going back for more than a decade. Countries with a higher GDP growth tend to have a higher total return. Germany had for the years 1998–2009 only nominal GDP growth of 2.5% per year and total return of 3.3% per year. Both values are by far the lowest in this sample of 12 countries. All other countries performed better with regards to nominal GDP growth and total returns. South Africa has the highest values for best GDP growth and total returns. The driving factors for South Africa are a quickly growing economy and high inflation. The issue of inflation addresses a challenge for such analysis. It is easy to move from a nominal GDP growth to a real GDP growth by taking out overall inflation for this economy. However, it would be necessary to adjust also the total return figure for the appropriate inflation rate. It can be argued that the inflation rate for real estate could be best approximated by capital growth. If capital growth is taken out of the analysis, a major component of the total return calculation would be missing. Furthermore, growth in the value of a building can be seen as an increase in the net present value of future rental income. Thus capital growth might be induced by monetary developments, but also by real effects. Consequently, to simplify the approach the following analysis focuses on the nominal developments.

Figure 1 shows the regression line and as a statistical measurement of the goodness of fit, the coefficient of determination R, which expresses how well the regression line approximates the data points. If nominal GDP growth is 1% point higher, total return is 1.3% higher. The goodness of fit is quite good with a R of 52%. This means that a line with a gradient of 1.3 approximates the distribution of the empirical data.

3 Total Return and Risk

Figure 2 illustrates the relationship between total return and risk in the period 1998–2009. Risk is approximated here by the standard deviation. It is clear that standard deviation is not the best indicator of risk, but it is the most used one, since the data is easily available. Standard deviation punishes positive outliers with a high return in a year in the same way as negative outliers. Consequently, other risk measures like lower partial moments are important tools for further analysis of assessing risk (Thomas et al. 2010). Regardless of these qualifications, standard deviation is employed in the following to abstract from questions, like what level constitute downside risk. Contrary to expectation, there is no significant relationship between total returns and the associated risk; R, the coefficient of determination, for the estimated regression is no more than 2.5%. This fact is quite remarkable, because it is frequently stated that high risk is correlated with high return. Diversification is driven by the attempt to reduce risk (Mitropoulos 2008). Within Fig. 2, only Germany seems to verify the idea of low risk matching low returns. Sweden and South Africa have a similar risk as expressed by standard deviation, but differ in a significant way for total returns. Other markets like the Netherlands and Ireland have about the same total return, but quite different standard deviations.

It is important to stress that the fundamental insight concerning the close correlation of high return and high risk should hold in the long run, of course. An asset or investment of high risk implies that there are dire time periods when the return might be considerably lower than for the asset or investment of lower risk. Then the key question is, whether the selected period 1998–2009 is a good representative for the long term development or whether it is strongly distorted by a few dire years

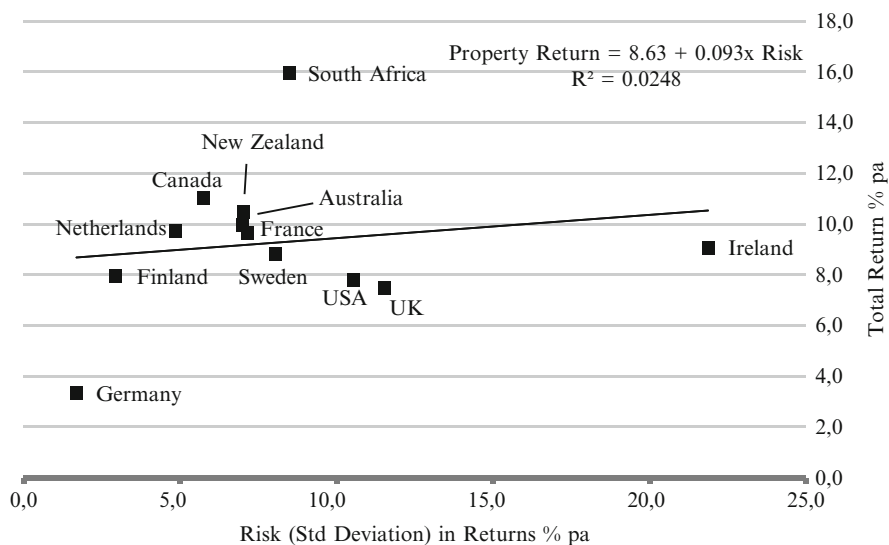


Fig. 2 Property return and risk 1998–2009 (Source: IPD Investment Property Databank GmbH)

4 Questionable Volatility Within Germany?

Figure 2 points to both low returns and low volatility for Germany. Since 1996, the total return within Germany has never reached yet 6% and performed on average at just above 3%. This low performance and also the low volatility of the German Property Index DIX (Deutscher Immobilien Index) are quite remarkable and have led to questions about the robustness of the DIX. However, the low performance and the low volatility of the DIX can both be explained by the underlying economic fundamentals. After German reunification in 1990, there was a building boom within Eastern and Western Germany. Due to the reunification euphoria and especially due to heavy tax-incentives, this building boom went on for too long has led to a property supply that was considerably higher than demand. In the post-reunification years Germany benefitted from strong GDP growth but the associated reunification cost burdens have led to a prolonged economic stagnation in the following years. It took a decade until the Germans accepted the implementation of necessary reforms to cope with the loss of competitiveness. These reforms, covering all aspects of the social security net, have been painful and led to a cut of many costly privileges. After several years of considerable increases in the state's share of the economic activities, this share came back to the pre-reunification level. Furthermore, low economic growth left no room for real wage rises and this led to a significant improvement of international competitiveness of German products and services.

In addition to the burden of German reunification there was the European monetary unification. Through the establishment of the Euro as the common currency in Europe, many countries benefited from a decrease in the real interest rates. This has fuelled the property markets in many Euro-countries like Ireland and Spain. However, the move from the Deutsche Mark to the Euro did not mean a decrease in the real interest rates for Germany since the rates had been the lowest within Europe before. Therefore, there was no special European unification effect in Germany during the first years after the introduction of the Euro. Today, with peripheral European countries suffering from the debt crisis, the situation has reversed: the interest rates appear comparatively low for Germany, now. Thus, the period 1998–2009 happened to be the years of prolonged economic stagnation in Germany with a relative modest upswing in the last years. In that respect, the comparatively poor property market development is well explainable.

Sometimes there is the concern that the valuation methods employed in Germany have a long-term stabilising effect as they are suspected to ignore short term market movements. However, the Royal Institution of Chartered Surveyors (RICS) puts the German “Verkehrswert” i.e. the legally required way of valuation for the open-ended funds” on par to the UK “market value” valuation and accepts both methods. Both methods want to derive a sales price assuming the property is sold within the near future and neither seller nor the buyer have any abnormal urgency to close the deal (for more details see Meister and Dressel, 2011, in this book). An empirical comparison by RICS and IPD, between the sales price and the

previous valuation for four European countries has shown that there is on average a 10–14% deviation between actual sales and valuation that seems to be quite stable across the last years within Europe (RICS 2010). German valuations have become more accurate over time and have come close to the accuracy of the UK and Dutch valuations, beating the French valuations in some instances.

The low volatility of the German property index can be partly explained by the stagnation of the German economy. In an extensive study, JP Morgan Asset Management has examined the use of various variables to explain and to predict property performance worldwide. The authors propose a model for the seven economies with the longest time series of property performance (Australia, France, Ireland, Netherlands, Sweden, UK, and USA) (JP Morgan Asset Management, 2007). The model uses changes in GDP of these countries to derive an estimate for property market volatility. These calculated effects are then combined with the historic GDP volatility for many countries worldwide from Germany to Peru. The country with the lowest estimated volatility is, model-driven, Germany. Therefore, this model insight can be taken as an argument, that indeed the empirical data as given by the DIX represent well the underlying property market. Still, the discussion about the low volatility of the German market and the German open-ended funds is ongoing (JPMorgan Asset 2007; Gläsner 2010).

5 Sector Differences

Table 1 shows the total returns for key property classes as well as for a weighted average. It is interesting to examine which sector was the best performing within each country (shaded in light gray in Table 1) and which sector was the worst

Table 1 Total returns in different sectors 1998–2009

Total return % pa 1998–2009					
	All property	Retail	Office	Industrial	Residential
Australia	9.6	11.6	9.3	11.0	–
Canada	11.0	11.1	11.2	11.0	10.1
Finland (KTI)	8.0	8.9	7.2	8.8	8.8
France	10.0	14.8	10.1	9.7	8.3
Germany	3.3	4.4	2.9	4.7	4.4
Ireland	9.1	9.8	9.2	7.9	–
Netherlands	9.7	10.5	8.8	9.8	9.5
New Zealand	10.5	12.1	9.6	–	–
South Africa	16.0	17.3	13.4	16.4	–
Sweden	8.8	10.0	8.0	9.1	12.0
UK	7.5	7.4	7.0	8.3	14.2
USA	7.8	9.0	7.6	7.5	7.5
Unweighted avg	9.3	10.6	8.7	9.5	9.4

Source: IPD Investment Property Databank GmbH

performing one (shaded in dark gray). For most countries (two-thirds of the sample) the retail sector performed best while the office sector performed worst.

More detailed analyses reveal additional insights: Canada for example was outperforming in all four sectors. All sectors in Canada had a performance of more than 10% p.a. Furthermore Canada is the only country where the office sector is the best-performing sector. This 10% annual performance for each sector stands in sharp contrast to the bad performance of Germany with the lowest returns for all sectors. As mentioned before overall inflation is one factor in pushing up total return. Germany had low inflation rates during this period especially when compared with countries like South Africa. In the years 2000–2009 South Africa had an average inflation rate of 6.1% per year. This high inflation explains parts of the considerable gap in total returns to the other countries. It is also remarkable that the United Kingdom’s residential sector performed more than twice as high as its retail and office sector and is consequently the best performing sector.

6 Risk Differences Between Sectors

Table 2 shows for total returns considerable differences concerning the respective standard deviations. This table illustrates the risk from 1998 to 2009 measured by standard deviation per sector for the different countries. Economic theory tells us that there is a close relationship between high return and high risk. However, Table 1 and 2 tell a somewhat different story – at least for this period. These two tables suggest that sectors with the highest returns are also often associated with the lowest risks. In many countries the important sector office has low returns for the

Table 2 Risk in different sectors 1998 – 2009

Risk (Std deviation) % pa 1998–2009					
	All property	Retail	Office	Industrial	Residential
Australia	7.1	6.0	7.8	7.0	–
Canada	5.7	5.8	6.8	6.3	4.4
Finland (KTI)	2.9	4.0	3.0	2.9	3.4
France	7.0	8.5	7.8	7.2	6.0
Germany	1.7	1.2	2.3	3.0	1.5
Ireland	21.9	22.7	22.6	17.4	–
Netherlands	4.8	3.6	5.3	4.7	5.7
New Zealand	7.0	6.7	9.4	–	–
South Africa	8.5	8.4	8.9	11.7	–
Sweden	8.0	6.8	9.2	8.0	5.8
UK	11.5	12.1	12.2	11.4	8.1
USA	10.5	9.9	12.0	10.0	10.5
Unweighted avg	8.1	8.0	8.9	8.2	5.7

Source: IPD Investment Property Databank GmbH

period 1998–2009, but also high risks. Conversely, in many countries the retail sector has high returns and low risks at the same time. It should be noted that the difference in risk between the retail and the office sector is about 1% point and the difference in returns is about 2% points.

A further significant difference in Table 2 is the spread between the lowest risks in Germany and the highest ones in Ireland. This spread is particularly noteworthy since both countries are within the Eurozone and the European Central Bank has to find the right monetary policy for both countries despite significant differences in the important real estate asset class.

7 Risk Adjusted Return

While Tables 1 and 2 showed returns and risk, Table 3 amalgamates these two measures in one single risk adjusted return number. Here the Sharpe ratio is used as a measure of the excess return per unit of risk. The excess return is calculated by the difference of the total return of one sector and the money market or T-Bill return. The money market return has been used for decades as approximation for a “risk free return”, assuming that OECD governments are unlikely to default. The recent developments in countries like Ireland or Spain have highlighted that the market participants have asked for a considerable risk premium before investing in the money market of these countries. Risk is measured by the standard deviation. The Sharpe ratio indicates how well the total return of a sector rewards for the risk taken. In other words: the higher the Sharpe ratio the better for the investor, as he receives a higher return for any given amount of risk.

Table 3 Risk adjusted return in different sectors 1998–2009

Risk adjusted return (Sharpe ratio) 1998–2009					
	All property	Retail	Office	Industrial	Residential
Australia	0.56	0.99	0.47	0.77	–
Canada	1.30	1.30	1.12	1.18	1.46
Finland (KTI)	1.58	1.38	1.32	1.86	1.60
France	0.97	1.37	0.89	0.90	0.87
Germany	0.07	0.94	–0.15	0.49	0.78
Ireland	0.24	0.27	0.24	0.24	–
Netherlands	1.31	1.96	1.01	1.35	1.08
New Zealand	0.59	0.87	0.35	–	–
South Africa	0.59	0.76	0.27	0.47	–
Sweden	0.68	0.99	0.50	0.72	1.50
UK	0.21	0.19	0.15	0.28	1.12
USA	0.41	0.55	0.34	0.40	0.39
Unweighted avg	0.71	0.96	0.54	0.79	1.10

Source: IPD Investment Property Databank GmbH

For each country the respective money market return is used. Table 3 shows quite clearly, that office is the sector with the lowest Sharpe ratio for most countries. For eight countries residential is the best performing sector according to this measure.

With regards to the risk adjusted returns for all properties Germany has the lowest value and Finland the highest one. Consequently, Germany’s property returns have not only been comparatively low in absolute numbers, they have even been low in relative terms, given the respective risk-free rate and market volatility.

8 Comparison with Other Asset Classes

One important motivating factor of the calculation of indices for the property market was the comparison with other asset classes. Table 4 shows the total return of money markets, bonds, properties and equities. Furthermore, the respective standard deviations are represented as well as the correlation of bonds and equities with properties. For most countries, property has turned out to be the best performing asset class for this period of 1998–2009. There are only two countries where property is outperformed by another asset class. In Australia, a respectable property performance of 9.6% per annum is beaten by an annual 9.8% performance of equities. In Germany the annual property performance is only 3.3% which is quite close to the performance of the T-Bill of 3.2% but is beaten by the annual return of 5.9 % of bonds. It should be noted that this period of observation, 1998–2009, is quite remarkable and in certain aspects untypical, since it includes an unique property boom for many countries, that was not seen in other decades. For equities the period 1998–2009 includes with the bursting of the internet bubble and the global financial crisis two catastrophic years concerning performance.

Table 4 Property vs. other assets 1998–2009

	Total return			Std deviation				Correlation	
	T-Bill	Bonds	Property	Equities	Bonds	Property	Equities	Bonds	Equities
Australia	5.6	6.2	9.6	9.8	9.4	7.1	18.4	-0.16	0.09
Canada	3.6	6.4	11.0	8.2	5.0	5.7	21.3	0.16	0.15
Finland*	3.3	6.0	8.0	-8.8	5.7	2.9	29.0	-0.15	0.46
France	3.2	6.0	10.0	5.1	5.8	7.0	26.2	-0.54	0.27
Germany	3.2	5.9	3.3	3.1	6.1	1.7	27.8	0.01	-0.27
Ireland	3.8	4.6	9.1	-6.6	4.0	21.9	29.9	0.07	0.62
Netherlands	3.4	6.2	9.7	1.7	6.7	4.8	24.2	-0.15	0.14
New Zealand	6.3	7.0	10.5	2.6	7.4	7.0	19.2	0.04	0.05
South Africa	10.9	-	16.0	-	-	8.5	-	-	-
Sweden	3.3	6.3	8.8	7.4	7.4	8.0	36.8	-0.21	0.30
UK	5.1	6.2	7.5	3.7	6.5	11.5	17.4	-0.37	0.58
USA	3.5	6.3	7.8	2.9	7.5	10.5	21.0	0.10	0.21
Unweighted avg	4.6	6.1	9.3	4.1	6.5	8.1	28.1	-0.15	0.29

Source: IPD Investment Property Databank GmbH

9 Final Remarks

The years 2007–2009 have meant a major real estate downturn for many countries. Germany has performed relatively well during this period. However, for the period 1998–2009 the German real estate market performed worse than other comparable real estate markets. This underperformance can be seen in all sectors and can be linked to low GDP growth and comparatively high real interest rates. It could be argued that at least Germany has also low volatility for the real estate market. Still, if a risk adjusted return is calculated that takes account for volatility Germany is still outperformed by all other markets during this period.

Many institutional investors had to accept significant negative returns in their international investment during the crisis years 2007–2009 whereas Germany continued to show low, but at least positive returns. These institutional investors look again to a greater extent for stable markets and core products. Consequently, Germany might attract more investments. Especially, German institutional investors like insurers and open-ended funds are looking to re-invest in real estate at home after moving abroad in recent years. A bigger proportion of conservative institutional investors will invest in Germany again. There are good arguments that Germany has come through a prolonged stagnation leading to comparatively low real estate performance, but that Germany has made necessary, though painful, adjustments to adapt to the new environment. Germany is seen by many investors as the embodiment of a core and conservative European market. With the crisis in mind this is now attractive for core investors. As shown Germany has had a bad performance when compared to other countries for the long time period 1998–2009. In this respect, it is rational to expect a considerable catch-up potential. The challenge is again timing: Real estate markets may stay longer irrational than the investors liquid. This means, there is no guarantee that the property recovery of the German market will take place within a short-time perspective of 3–5 years.

References

- Gläsner, S. (2010). *Return patterns of German open-ended real estate funds – An empirical explanation of smooth fund returns*. Frankfurt am Main: Peter Lang Verlag.
- Hughes, F., & Arissen, J. (2006). *Top real estate managers go global*. EPRA, January 2006.
- IPD Investment Property Databank (2011). *IPD multinational digest*. Wiesbaden.
- Jones Lang LaSalle (2010). *Global Real Estate Transparency Index 2010*.
- JPMorgan Asset Management (2007). *Outside the box – Risks, returns and correlations for Global Real Estate Markets*. London, October 2007.
- Mitropoulos, S. (2008). Indirect real estate as a strategic investment. In Rottke, N. (Ed.), *Handbook real estate capital markets*. Rudolf Müller.
- RICS (2010). RICS and IPD Valuations and Sale Price Report, London. Available under www.rics.org.
- Thomas, M., Piazzolo, D., & Gläsner, S. (2010). *Analyzing the changing risk and return structure of German open-ended funds using semivariance based performance measures*. SSRN Paper. Available under http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1545810.

Part VI
Public Real Estate

Public Real Estate

Eleonore Pöll

Abstract The parlous state of the public budget has led the public sector to take optimisation measures. The broad range of real estate assets and their management offers enormous scope for such intervention. The challenges of real estate management in the public sector include insufficient data transparency, a lack of real estate objectives and strategies, inefficient organisation and inadequate performance-related management methods and incentive systems. For more than 10 years, optimisation measures have been pursued at a national, federal state and local level towards professional Public Real Estate Management. Yet despite these efforts and many successes, there is still further re-structuring and building work to be done. This article describes the situation and requirements of Public Real Estate Management.

Keywords Facility management • PPP • Public real estate management

1 Situation, Relevance and Functions of Public Real Estate: Assets and Management

The challenging financial situation of the public sector in Germany is forcing public authorities to use their resources with optimal value creation. Real estate in particular has an important role to play. The State is the largest real estate owner in Germany. Market research institutions estimate its real estate assets to be worth more than 800 billion euro (Bulwien 2002; ifo Institut 2005).

To allow the public authorities to provide services and fulfil their politically determined administrative mandates necessitates a heterogeneous real estate portfolio. The properties and buildings differ considerably in terms of use, age and location. A typical profile of uses at a municipal level shows the following structure: 20% schools, 15% kindergartens, 10% administrative buildings, 5% sports centres, 5% fire service buildings, 45% miscellaneous buildings and properties.

The miscellaneous buildings include residential property, sewage works, indoor and outdoor swimming pools and hospitals.

The financial implications of these assets are tremendous. On the one hand, there is the significant cost dimension, with real estate outgoings accounting for an average 15–20% of annual budgetary expenditure. Compare this with the private sector, where this proportion stands at 5–15% of overall annual expenditure. On the other hand, real estate can serve as a financing instrument. In the short-term, liquid assets can be realised from sales or in the form of regular income from lettings, meaning that property can contribute significantly to the budget.

Through targeted acquisitions and sales of property, banking land and making it available under special conditions, public authorities can play an influential role in housing and business policy and make regulating interventions in the development of the real estate market. Property is also an instrument of urban and economic development policy and, with appropriate management, can provide a significant strategic competitive factor and locational advantage.

2 Definition Public Real Estate Management (PREM)

Real Estate Management (REM) in non-property companies, i.e. private sector (corporates) and the public sector is divided into Corporate Real Estate Management (CREM) and Public Real Estate Management (PREM).

According to Schulte, Schäfers, Pöll and Amon (2006), Public Real Estate Management is understood as the overall normative, strategic and operational concept for the optimisation and professionalisation of real estate management in the public sector at a national, federal state and local level and having regard to the politically determined administrative mandate. Public Real Estate Management means optimisation of the real estate portfolio, the fulfilment of the task itself and the organisation and structure around real estate; in other words, creating value from the real estate assets of the public sector. It can be defined as the active, results-oriented, strategic and operational management of public sector real estate assets as well as the use and making available of property, both economically and in accordance with demand, for the fulfilment of public sector tasks and with regard to the particular concerns of public sector task fulfilment and achieving objectives serving the public good. This includes assets owned as well as those properties held for use by way of lease, tenancy agreement or leasing contract (Pöll 2005).

Despite some differences in their general conditions, requirements and objectives, the methods and instruments of Corporate Real Estate Management represent valuable orientation for real estate management in the public sector. In both Corporate Real Estate Management and Public Real Estate Management, the real estate asset is seen not only as a factor of production but also as a resource. While the private sector is geared towards maximising profits, the public sector has the objective of fulfilling tasks within the framework of public services. Nevertheless, the objectives of Public Real Estate Management can be expressed in terms of the

objectives of Corporate Real Estate Management. The objectives of Public Real Estate Management include identifying and exploiting the success and resource potential of real estate assets and real estate services.

3 Potential for Optimisation in Public Real Estate Management

Large and heterogeneous real estate portfolios, such as those in the public sector, are generally difficult to manage, resulting in serious shortcomings if the approach to real estate is not afforded the appropriate status and is one of functional rather than economic management of these significant resources. Yet, Real Estate Management in the public sector is often still characterised by considerable shortcomings, such as:

- Unrefined or absent real estate objectives, planning and strategies
- Little transparency as to overall holdings due to unsuitable or absent real estate information systems with inadequate asset-related cost transparency and awareness of value.
- To some extent, still using outdated (cameralistic) accounting with little flexibility and no reflection of depreciation,
- Inadequate or absent controlling methods, systems for monitoring figures and performance and appropriate benchmarks,
- Little implementation of success-oriented management and control methods and an absence of systems to incentivise an economic approach to real estate
- Management of the real estate portfolio primarily according to the parameters and requirements of the budget and with policy exerting a high level of influence on real estate decisions
- For the most part, heavily fragmented responsibilities and organisational structures across the overall portfolio and the life-cycle of assets with a high level of redundancy in structural and process organisation

An awareness of these problems and the associated considerable potential for optimisation has resulted in professionalisation and re-structuring initiatives in recent years on a national, federal state and local level.

4 Development of Public Real Estate Management: Federal Government, Federal States, Communities and Cities

4.1 Federal Government

The German government has recognised that its real estate assets and the management thereof show considerable potential for optimisation. Real estate assets, real

estate operations and real estate management were historically the responsibility and activities of the individual department. The Federal Ministry of Transport, Building and Urban Affairs (Bundesministerium für Verkehr, Bau und Stadtentwicklung) is responsible for technical aspects of federal building works. Construction projects are predominantly delegated through the federal states. Up until the end of 2004, the Federal Ministry of Finance (Bundesministerium der Finanzen) was responsible for the making available, acquisition and disposal of real estate.

For optimisation purposes, the Federal Institute for Real Estate (Bundesanstalt für Immobilienaufgaben) was created within the Federal Ministry of Finance on January 1, 2005 as a comprehensive real estate service provider to the German government and as a company with a mandate to act on its own authority and in accordance with commercial principles. The creation of the Federal Institute has facilitated the development of a pure asset manager into a modern real estate service provider to the German government, with the objective of the standardised management of property assets of the federal government in accordance with commercial principles, including the disposal of assets surplus to operational requirements.

4.2 Federal States

Since the mid-1990s, gradually almost all federal states have departed from the classic administrative organisation of Public Real Estate Management. Real estate management is now organised, for the most part, in structures under public law and also partly in the form of companies under private law. An overview can be seen in the following Table 1.

Some federal states have also initiated a centralisation of REM-activities and operations as well as introducing the landlord and tenant model. Construction and property management activities have now been consolidated in most federal states. The introduction of business management tools for management and control is underway. However, there is still much development work to be done in the area of controlling, success-oriented management structures and ongoing property management tools such as portfolio management systems and central databases.

4.3 Communities, Cities

At a local level too, there have been re-organisational activities supporting the professionalisation of real estate management. According to our own assessment more than 50% of larger and medium-sized local authorities have now a central facility management unit. There is an understanding of the necessity for professional Public Real Estate Management and the opportunities it can generate. Nevertheless, the structures are still often characterised by tradition. Business

Table 1 General view on Real Estate Management of the Federal states

Federal states	Structure / organisation (prevailing)	Centralised facility management	Controlling tool "landlord and tenant modell"
Baden-Wuerttemberg	Municipal enterprises: Landesbetriebe nach \26 LHO: Vermögen ud Bau BW, Bundes-bau BW	Yes	No
Bavaria	Municipal enterprise: Staatsbetrieb nach \26 LHO: Immobilien Freistaat Bayern (ImBy)	No	No
Berlin	Real Estate fund, limited company, municipal enterprise, administration: Liegenschaftsfonds Berlin GmbH & Co. KG, Berliner Immobilienmanagement GmbH (BIM), Landesbetrieb für Gebäude-wirtschaft (LfG) und Liegenschafts-verwaltung der Bezirksamter	Yes	Yes
Brandenburg	Municipal enterprise: Landesbetrieb \26 LHO: Brandenburgischer Landesbetrieb für Liegenschaften und Bauen (BLB)	Yes	Yes
Free Hanseatic city of Bremen	Municipal enterprises, limited company: Gebäude- und Technikmanagement (GTM), Gesellschaft für Bremer Immobilien mbH (GBI)	Yes	Yes
Free Hanseatic city of Hamburg	Limited company, municipal enterprise, administration: Zentrale Liegenschafts-verwaltung, Objektgesellschaften, Betriebs-gesellschaften	No (partial)	Yes
Hesse	Municipal enterprises: Landesbetriebe \26 LHO: Hessisches Immobilienmanagement (HI), Hessisches Baumanagement (HBM)	Yes	Yes
Mecklenburg-Western Pommerania	Municipal enterprise: Landesbetrieb \26 LHO: Betrieb für Bau und Liegenschaften Mecklenburg-Vorpommern (BBL-MV)	Yes	Yes
Lower Saxony	Administration: Oberfinanzdirektion Niedersachsen	No	No
North-Rhine Westphalia	Municipal enterprise: Bau- und Liegenschaftsbetrieb Nordrhein-Westfalen (BLB NRW)	Yes	Yes
Rhineland-Palatinate	Municipal enterprise: Landesbetrieb \26 LHO: Landesbetrieb Liegenschafts- und Baubetreuung Rheinland-Pfalz (LBB)	No (partial)	Yes
Saarland	Administration: Landesamt für Zentrale Dienste (Amt für Bau und Liegenschaften), Ministerium für Finanzen	No	No
Saxony	Municipal enterprise: Staatsbetrieb \26 LHO: Staatsbetrieb Sächsisches Immobilien- und Baumanagement (SIB)	Yes	No

(continued)

Table 1 (continued)

Federal states	Structure / organisation (prevailing)	Centralised facility management	Controlling tool “landlord and tenant modell”
Saxony-Anhalt	Municipal enterprises: Landesbetriebe \ 26 LHO: LIMSA zund LBB	No (partial)	Yes
Schleswig-Holstein	Public-law institution: Gebäude-management Schleswig-Holstein (GMSH)	Yes	Yes
Thuringia	Municipal enterprise: Landesbetrieb \ 26 LHO: Thüringer Liegenschaftsmanagement (THÜLIMA)	No	No

Source: MCEP, Management Consulting Dr. Eleonore Pöll

management and control tools, operating figures and real estate controlling systems have yet to find a use in many local authorities. In the majority of cases, no real estate strategy is followed for the overall portfolio and no thought is given to the building life-cycle. By contrast, policy and heads of local government exert a significant operational influence on real estate decisions. Moreover, there are some instances of major problems being caused through the implementation of re-organisational measures.

5 Key Success Factors Public Real Estate Management

A holistic concept for a professional approach to real estate in the public sector must consider the entire life-cycle of properties as well as being able to identify those real estate resources that are strategic success factors. It must be capable of replacing the pure administration of property assets with a culture of active real estate management, including creating optimal value from required assets and achieving the most advantageous disposal of land and property that is not / no longer required. Achieving a professional Public Real Estate Management, i.e. an optimal support of user requirements, reducing costs and increasing revenues, is likely to involve the success factors and practical measures illustrated in the diagram below (Table 2).

6 Objectives, Strategies, Organisational Structures

In the public sector, there is an emphasis on the public interest which contrasts with the focus on revenue generation in the private sector. Potential basic strategies to consider for Public Real Estate Management include divestment strategy, optimisation strategy and growth strategy. Differing partial strategies can be formulated for certain property types and/or organisational areas. Often, for

Table 2 Key success factors of Public Real Estate Management and corresponding measures

Key success factors	Examples of measures
Developing and auditing portfolio strategies to create added value	<ul style="list-style-type: none"> • Creating transparency • Setup portfolio management • Portfolio and potential analysis • Optimisation facility management • Inclusion different types of financing • ...
Optimisation of organisation and creation of a real estate unit (core business)	<ul style="list-style-type: none"> • Centralisation / concentration of real estate related responsibility and competency • Clear definition of functions and duties • Flattening hierarchies, process optimisation, reduction of interfaces • ...
Introduction of systems for management, regulation and control of finances, services and procedures	<ul style="list-style-type: none"> • Introduction of controlling, managing and incentivisation systems (market mechanism e.g. landlord and tenant modell) • Formation of owner-, client- and service provider-structures, principal-agent relationship • Introduction of service and customer orientation • ...
Use of appropriate tools for increasing efficiency of services and quality	<ul style="list-style-type: none"> • Introduction of business management and real estate principles and tools (e.g. operational accounting, PM-, CAFM-Systems) • ...

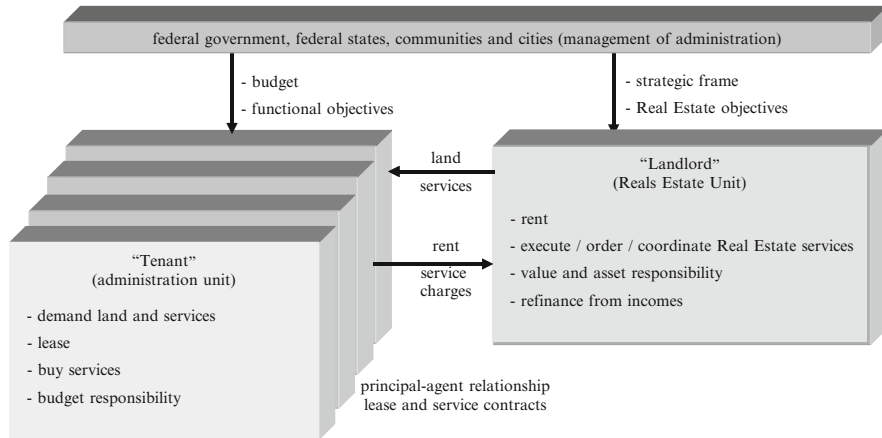
Source: MCEP, Management Consulting Dr. Eleonore Pöll

example, where there is an acute and/or significant requirement for liquidity, a divestment strategy is to follow. Where real estate activities are intended to influence long-term developments, an optimisation or growth strategy would be preferable.

A strategic re-direction should always begin with an analysis of the existing strategy as well as a detailed investigation of individual conditions, i.e. the portfolio, the market situation, potential barriers to taking action and the specific success factors.

Real estate management can only be optimised via an appropriate structure and organisation. Tasks, competences and responsibilities with regard to real estate must be co-ordinated and assigned. In particular, this organisation and its development must take into account the stages of the property life-cycle (provision, use, disposal) in order to facilitate optimal bundling of real estate duties with regard to potential specialities and synergies, reduced personnel capacities, low co-ordination expenditure, and high transparency and controllability with the effect of cost degression and economies of scale.

Public Real Estate Management often adopts a functional organisation model. The benefits here lie in the scope for clear specialisation of personnel, good internal structuring of tasks and the ease with which standardisation and standard regulations can be implemented and enforced.



Reference: M C E P, Management Consulting Dr. Eleonore Pöll
 Diagram 3: Schematic view landlord and tenant modell [7]

Fig. 1 Schematic view landlord and tenant modell (Source: MCEP, Management Consulting Dr. Eleonore Pöll)

The players in the Public Real Estate Management optimisation process are the local authority heads through their policy, the property-occupying organisational units and those managing buildings and properties. However, from their different viewpoints and objectives arise conflicts of interest and, thus, requirements for regulation and control. For the central control of real estate services and players, there are basic models available, such as the owner, landlord and tenant or management model (KGSt Bericht 2000) and numerous variations thereon. The most comprehensive model for management and for the introduction of market-oriented processes is the landlord and tenant model.

The benefits of the landlord and tenant model lie in the clear allocation of roles and responsibilities. Applying market-level rents and prices simulates the open market and promotes economic optimisation. One possible structure is illustrated in the following diagram (Pöll 2000) (Fig. 1).

7 Added Value by Professional Public Real Estate Management

As in the private sector, focusing on one's original duties to strengthen core competences is also highly relevant in the public sector. This requires the creation of organisational units capable of acting on their own authority and which have the appropriate structural and process organisation and business management tools and methods at their disposal. The introduction of operational structures as opposed to traditional administrative structures has a number of advantages:

- Entrepreneurial ability to take action and financial independence
- Control of services, finances and procedures from a business management and real estate management perspective
- Creating an incentive to adopt an economic approach to land
- Achieving a different appreciation of costs through market conditions
- Increased revenues and reduced costs through taking responsibility for results
- Greater service mentality, service quality and client/consumer orientation
- Efficient fulfilment of results targets, e.g. through profit orientation and profit centre structures
- Improved motivation of personnel through incentive systems and opportunities for qualification and development

Organisations subject to public and private law can take different legal forms. Those often discussed and chosen according to individual objectives and circumstances are the optimised administrative solution, the municipal enterprise according to § 26 of the Financial Regulation (Haushaltsordnung), the institution under public law and the GmbH (limited liability company). Evaluation of the different legal forms must be undertaken with regard to the overall strategy in accordance with a variety of financial, organisational and personnel-related criteria. To simplify the decision, a comparative evaluation of the different legal forms can be conducted in a scoring model (see e.g. NIMBUS Project report 2002). Of all legal forms, the municipal enterprise according to § 26 of the Financial Regulation (Haushaltsordnung) is the most popular solution, particularly in the federal states.

7.1 Facility Management

In the public sector, the content of Facility Management is to some extent still restricted to purely operational business and management tasks, which are also heavily fragmented in their organisation (departmental principle) and often lie outside of the core competences of the personnel concerned.

Facility Management concepts for the public sector must fit with the organisation, i.e. with the bringing together and bundling of management responsibilities. This relieves the pressure on the actual core responsibilities of the authority, allowing a central management of business and management, i.e. with regard to costs, services and land. Control and benchmarking are available as supporting tools.

The optimisation of Facility Managements goes hand in hand with an examination of one's own depth of services. The outsourcing discussion is often met with dissenting voices in the public sector, citing reasons such as the creation of dependencies and a loss of influence. The high professionalism of the FM market dictates that private sector service providers are more advantageous than corresponding organisational units in the public sector, particularly when it comes to time

and quality-related aspects. A significant component of facility management concepts in the public sector is therefore often the development of economically sustainable and politically acceptable operating concepts with a growing inclusion of private service providers.

7.2 Property Management

The conceptual approach of property management lies in the separation of coordinating and controlling management services with an optimisation task in property management on the one hand and the executive operational services in building management or facility management on the other hand. Numerous companies in real estate and construction offer comprehensive services within the framework of property management. This involves structuring different service offerings from the completion of individual management tasks or service packages for the owner or business process outsourcing to the complete takeover of the entire property management with transfer of personnel (takeover of entire company or parts of the company). The public sector is still very cautious when it comes to offerings of this nature.

7.3 Public Private Partnership (PPP)

The sustained modernisation and investment backlog in real estate and infrastructure in the public sector creates considerable pressure to act and leads to a consideration of different procurement options to bring in private capital and know-how.

A Public Private Partnership (PPP), is not a pure financing model but a contractual and organisational model for the public sector for the provision of infrastructure, property and services in conjunction with private partners.

The economic advantages of Public Private Partnership projects compared with conventional procurement variants can be examined through detailed feasibility studies and risk analyses. Efficiency advantages can be illustrated above all in new build projects and with larger project volumes, e.g. through building cost savings, security of building costs and reduced building times in the operational phase as well as through sharing experiences and optimising procedures. The success of Public Private Partnership projects is above all attributable to clear and sustained political support, a standardisation of the Public Private Partnership procurement channels and efficient decision processes (see also Alfen et al., 2011, in this book).

7.4 Disposing of Real Estate

Properties that are no longer operationally required are primarily brought to the market for direct sale with the objective of generating liquid funds. Public sector properties vary in condition and quality and are often not in line with market requirements, so disposing of a property directly ‘as is’ can prove difficult. Active disposal strategies are required, such as developing the portfolio and using different disposal methods such as tenders (Europe-wide if necessary), direct talks with investors, sale via agent/intermediary, auction and complex procedures such as package deals. The public sector is reluctant when it comes to development projects because of the associated risks. Property that does have operational requirements can be disposed of in the form of a sale and leaseback, for example, whereby the public authority is often guaranteed rights of use and access for the long term. Examples of large sale and leasebacks are package sales of commercial buildings and those used by authorities (offices, police stations, courts etc.) in the Federal State of Hessen as well as the Free and Hanseatic City of Hamburg.

In the public sector too, real estate has become a commodity that is subject to the laws of the economy and investment. Active portfolio management, targeted disposal strategies and a professional sales process, therefore, are becoming ever more important. Active management must put package sales, sale and leasebacks and real estate fund solutions to the test.

8 Steps to Professional Public Real Estate Management

Ascertaining the starting situation and the real estate portfolio, assessing value and potential and structuring the public real estate are basic requirements for professionalisation. Prioritisation and establishment of objectives, subsequent elaboration of

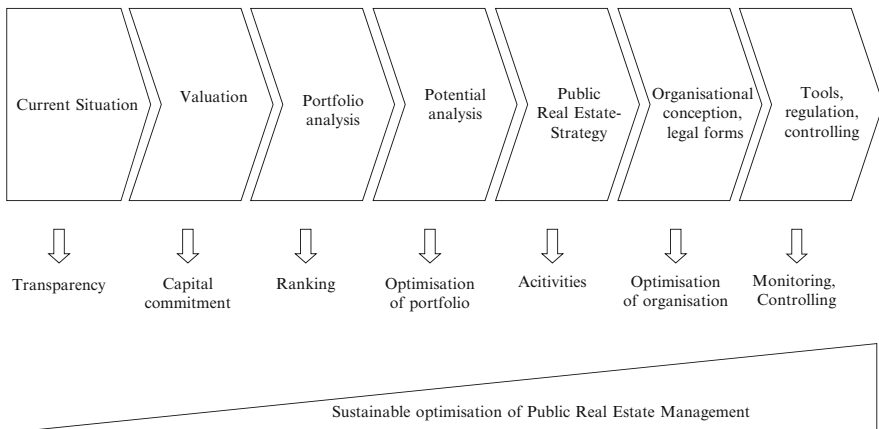


Fig. 2 Operational steps to a professional Public Real Estate Management (Source: MCEP, Management Consulting Dr. Eleonore Pöll)

corresponding public real estate strategies and the creation of a suitable structure and organisation as well as the introduction of essential tools for the management and control of both the portfolio and the organisation are indispensable measures (Fig. 2).

Strict requirements are placed on both the project and the implementation management, e.g. in respect of strategies, concept, management and communication. For stringent implementation, importing external know-how to provide consultancy support is highly beneficial in many cases.

9 Summary

The situation and potential for improvement in public sector real estate demands professional Public Real Estate Management. The federal government, federal states and local authorities are making good progress. However, further intervention is required at all levels. This applies both in strategic and operational areas, e.g. in organisation and management systems as well as in the inadequate portfolio management. A systematic course of action in the individual concept, and stringent implementation upon introduction as well as continual improvement of the Public Real Estate Management are essential. The public authorities must be ready and willing to modernise and provide clear support through policy.

References

- Bulwien, A. G. (2002). *Entwicklungen des Immobilienmarktes in Deutschland*, München 18. April 2002.
- ifo Institut für Wirtschaftsforschung e.V. (2005). Die volkswirtschaftliche Bedeutung der Immobilienwirtschaft. In: gif Gesellschaft für Immobilienökonomie e.V. (Hrsg.): *Zeitschrift für Immobilienökonomie – Sonderausgabe 2005*, Wiesbaden.
- KGSt Bericht 7/2000 (2000). *Kommunale Gebäudewirtschaft: Die Serviceeinheit Gebäudewirtschaft*, Köln 2000.
- Pöll, E. (2000). Der Weg zur optimierten Wertschöpfung öffentlicher Immobilien, in: Vermögensoptimierung der Immobilien der öffentlichen Hand für Bund, Länder und Kommunen, Euroforum Konferenz, Mainz 2000.
- Pöll, E. (2005). *Public Real Estate Management, Handout Vorlesung, Immobilienakademie "Facility Management und Corporate Real Estate Management"*. Oestrich-Winkel: European Business School.
- Projektbericht NIMBUS (2002). München 2003; Projektbericht "Organisation des sächsischen Immobilien- und Baumanagements" SIMBA, München.
- Schulte, K.-W., Pöll, E., Schäfers, W., Amon, M. (2006). *Handbuch Immobilienmanagement der öffentlichen Hand*, 1. Aufl., Köln.

PPP and Infrastructure

Hans Wilhelm Alfen and Sven Barckhahn

Abstract This chapter examines the role of public private partnerships in the public procurement of public real estate and transportation infrastructure in Germany. Introductory, the general structure and characteristics of PPPs are explicated along with special remarks about specific features of the German PPP approach. This includes the specific role of the financing models applied, especially the role of non-recourse forfeiting of installments in municipal projects. Further reference is made to the highly divided and complex approach of federal and federal states' authorities to PPPs. Any federal state set up its very own taskforce that issues guidelines and provides support to municipalities in heterogeneous ways. Nevertheless, on project level, a certain degree of standardization led to different types of contract models in the public real estate sector that are applied consistently throughout Germany on any governmental level. Although, even standardized, models in the road infrastructure sector are applied only on federal level, whereas single projects on municipal level can still be considered 'pilot projects'. Finally, the flow of deals in the public real estate and the road infrastructure sectors are summed up in tables that also feature updated figures for projects in tendering and under preparation.

Keywords Infrastructure • Public private partnerships

1 Introduction

In the wider context of public real estate, public private partnerships have become an established approach to public procurement of public real estate and transportation infrastructure in Germany. The general structure and characteristics of PPPs as well as special remarks about specific features of the German PPP approach will be explicated. Special reference is made to the flow of deals in the PPP market to point out the role of this procurement method in the German landscape of public real estate procurement.

2 Structure and Main Characteristics of PPP

PPP-Models have become an established procurement method in Germany since 2003. By means of PPPs, public bodies have procured projects in several different sectors. The sectors include public real estate (town halls, schools and the like) as well as public infrastructure, such as highways or federal roads. Even if the understanding of PPP may vary more or less from Country to country and often also from sector to sector in Germany and in the sectors mentioned above the term PPP refers to a long-term, contractually regulated cooperation between the public and private sector for the efficient fulfillment of public, non-sovereign tasks. Necessary resources of the partners, such as their expertise, operational funds, capital, staff and risk management capabilities are brought into the project complementarily.

The main resulting characteristics and benefits of PPPs for the public are derived from the definition above and are summarized as follows:

- Efficiency gains through sharing tasks and responsibilities (sovereign tasks remaining with the public bodies whereas operational tasks are transferred as far as possible to the private).¹
- Incentive mechanisms through life-cycle approach, long-term contractual relationship and private investments
- Innovative service delivery through application of output specifications, service levels agreements and performance-related payment mechanisms.
- Faster project delivery, lower public budget burdening and higher public budget liquidity.²
- PPP-models do not count amongst public net new borrowings and comply with the EC-Convergence criteria.³

A particular benefit of PPPs for the private partner – especially construction companies as strategic investors – may be the possible implementation of diversification strategies, in order to relief their heavy dependency from economic cycles.

¹The public agent makes use of thorough cost-benefit-analyses to proof value-for-money. Tytko 1999, p. 32.

²Clifton and Duffield 2006, p.580; Müller and Turner 2005, p.401; Spackman 2002, pp.288–291 and Grout 1997, p.59.

³The EU convergence criteria, respectively Maastricht criteria, determine price stability, public spending, exchange rates and long-term interest rates inside the EU. The inflation rate might not exceed those of the three most price-stable member states from the previous year by more than 1,5%. In addition, new net borrowings might not exceed the GDP of the previous year by more than 3%. Furthermore, public debt levels might not account for more than 60% of the GDP. The long-term nominal interest rate might not exceed those of the three most price-stable member states of the previous year by more than 2%. In order not to add public spending for PPP-Projects to public debt levels, Eurostat determined that neither construction risks, nor availability risks or volume risks are allowed to be borne by the public agent by more than 50%. Eurostat 2004a, pp.1–2; Eurostat 2004b, p.14 and Grout 1997, p.56.

Nevertheless, private partners need to build up expertise to cover the complete value chain of PPPs. Predominantly, construction companies have to extend their value creation with operation and maintenance services.

A typical structure of a PPP project with its different stakeholders and their mutual contractual relationships is shown in Fig. 1.

The SPC (later in this section as referred to the ‘private partner’) plays the pivotal role in the set up of a PPP structure. The SPC holds all the relevant contracts with a set of different contract partners. First and foremost, the PPP-Project agreement between the implementing public body and the SPC rules the scope of the services to be procured, the means of service delivery and payment mechanisms. The shareholder agreement rules all the rights and duties between the shareholders of the SPC. This includes the take-over of tasks (construction/ operation, etc.), the distribution of dividends from the SPC to the shareholders and the allocation of risks. The latter is a crucial point in the eyes of the debt creditors, so that the loan agreement rules responsibilities between the SPC and their shareholders and the debt providers. More explanations to the financing of PPP-Projects are made in the next section of this document. Furthermore, the advisory agreement, the GC-agreement, the operation/ service agreement and possible off-take/ supply agreements rule special tasks.

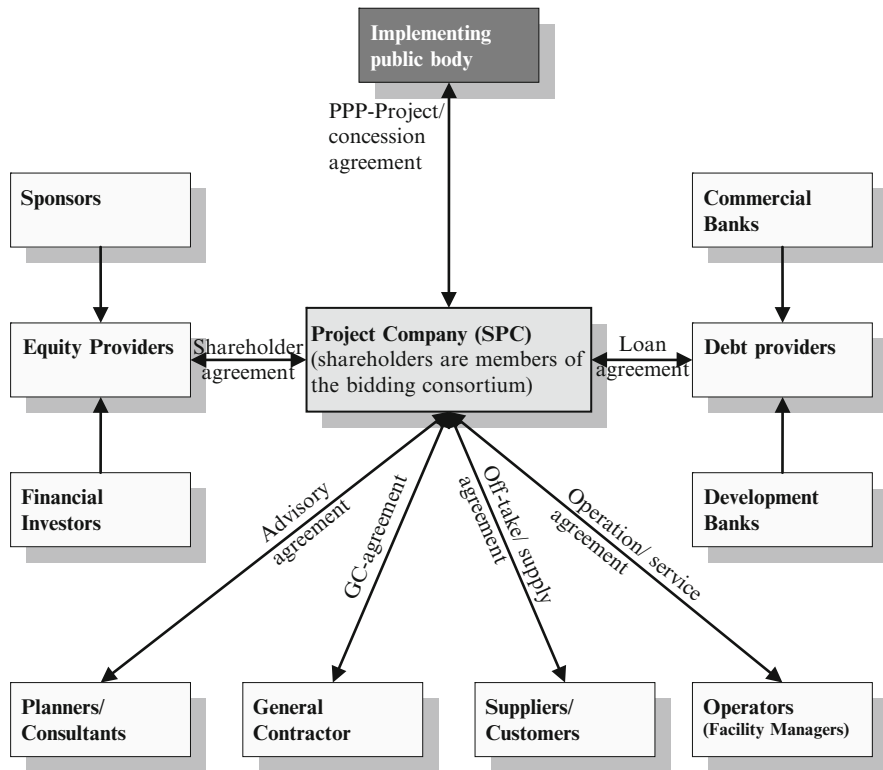


Fig. 1 Contractual relations in the basic PPP-Model (Source: Alfen/Weber [2009a], p. 156)

These tasks are commissioned to special subcontractors, who design, build, supply and operate the PPP-project on behalf of the SPC. As most of the risks are allocated to the subcontractors, the SPC stand almost free of risks, in order to satisfy the debt providers and the shareholders of the SPC.

3 Financing of PPP-Projects

In Germany, the application of PPP models is bound to the use of specific financing models. While in the UK and internationally, project finance is the most common mode of financing PPPs, in Germany and France so-called forfeiting models are commonly used, too and predominantly applied in social infrastructure. The differences between these models are described in following. Later in this section, major distinctions between PPP-Projects in terms of the incoming cash flows depending on the demand or the availability of the assets, the stage of the project at the time of investment as well as Greenfield or Brownfield characteristics will be explained.

Main characteristic of project finance is that the involved creditors develop risk-reflecting, stable financing structures that are based on expected cash flows and capital structure of the SPC, abilities and risk management capabilities of the project initiators. Figure 2 shows the structure of a project finance for PPP-Projects. The creditors determine the conditions of the capital commitment and the funds are paid directly to the SPC.⁴ Further characteristics of project finance are limited-recourse structures, which determine the distribution of credit risks between the creditors and equity providers and the leverage-effect, who requires a high level of debt.⁵ As the creditors concentrate on the expected cash flows for the SPC's debt service, cash flow related lending itself is focused on free cash flows. Free cash flows are the benchmark to rate the SPC's future financial situation, because project finance implies the valuation of returns instead of the valuation of assets.⁶ The whole structure of one project finance consists of several credits, which are suited to the financial situation of the SPC over the contract term. Concluding, different types of credits are paid out to the SPC for different investments with different risk profiles, e.g. the construction stage is riskier than the operation stage of one PPP-Project. Because of the financing structure reflecting specific project risks, the financing structure of SPC's vary depending on the risk exposition of the free cash flow. Typically, the equity-ratio ranges from 8–30%, whereby SPCs in

⁴ Henschel-Bätz 2005, p.18 and Tytko 1999, p.8.

⁵ Literature reviews imply that long before the financial market crisis it has been argued that the advantage of the leverage-effect depends very much on the current market conditions. Financial structures based on the leverage-effect crucially require non-rising interest rates. Newell and Peng 2008, p.23; Blanc-Brude and Strange 2007, p.2 und Probitas Partners 2007, p.9 and Tytko 1999, p.8.

⁶ Weber/ Alfen 2009b, p.164 und Tytko 1999, p.10.

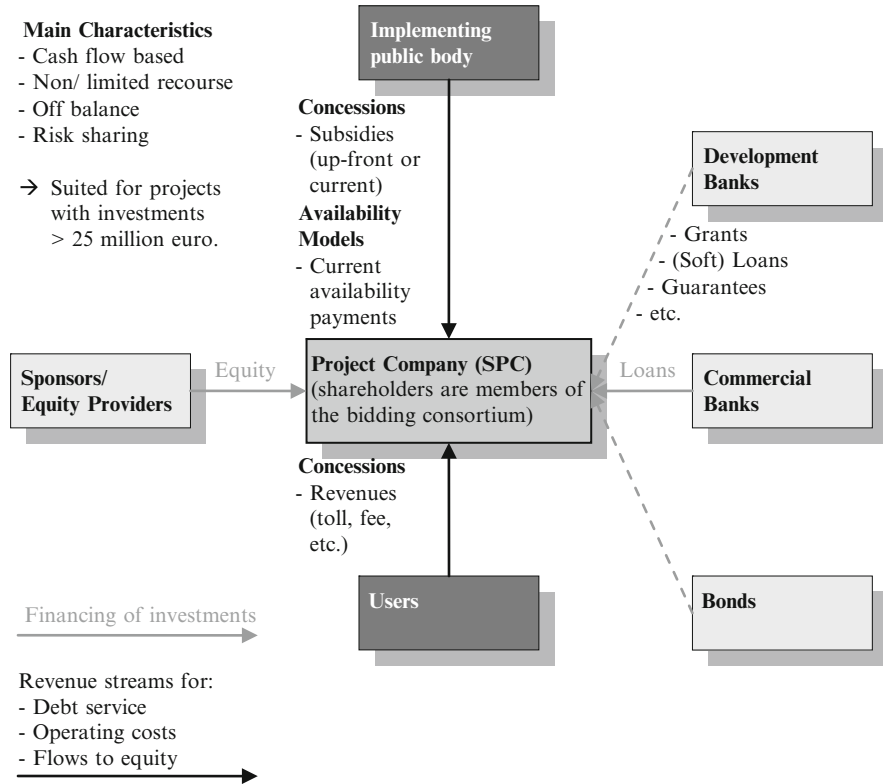


Fig. 2 Financing model: Project finance (Source: Alfen Consult GmbH [2010])

projects with high market risks might be forced to equity-ratios up to 50%.⁷ Finally, a high equity-ratio indicates insufficient leeway of the SPC.⁸

Alternatively, small projects in Germany might be financed with a non-recourse forfeiting of installments instead of project finance. Figure 3 shows the structure of non-recourse forfeiting of installments for PPP-Projects. The overall financing costs of a forfeiting solution compared to a project finance solution are lower for two reasons. One reason yields from lower cost of equity, because forfeiting models require minimal equity investments. Another reason yields from forfeiting installments. This means that the price of debt is lower, because the model features a credit risk transfer from the bank to the public body. In summary, the capital

⁷ Pfnür et al. 2008, pp.153–154 Hopfe et al. 2008, p.150; Blecken and Meinen 2007, pp.41–42; Devapriya 2006, p.563; Henschel-Bätz 2005, p.18; Sester and Bunsen 2005, p.438 and Tytko 1999, p.48.

⁸ The leeway results from the SPC’s property rights and volume-related risks remained with the SPC. The price of debt for the SPC is lower, if she bears no risks. Leland 1998, S.1228.

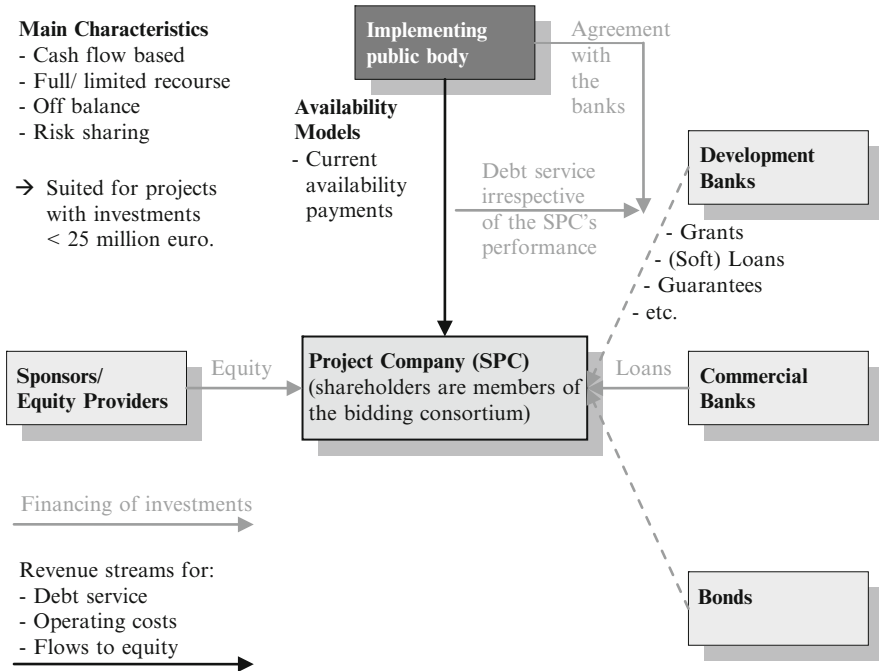


Fig. 3 Financing model: Forfeiting model (non-recourse forfeiting of installments) (Source: Alfen Consult GmbH [2010])

structure of the SPC shows very little equity, because the credit risk is borne by the public body. In addition, yield spreads for project risks are minimized and the price of debt is 5–20 bps higher than common loans taken by municipal bodies.⁹ Forfeiting the installments includes the non-recourse sale of the SPC's debt claims from the bank to the public body. In PPP-Projects, the public body pays for the construction of the project without the right to withhold payments due to poor contractor performance.¹⁰ Hence, the public body also bears the risk of bankruptcy of the contractor.

Apart from private financing and public initial funding, German and European development banks as well as EU-Funds can be applied to finance PPPs. Especially EU-Funds might be applied for receiving grants or revolving instruments.¹¹

⁹ Braune 2006, p.310 und Littwin et al. 2003, p.22.

¹⁰ Schöne 2006, p.101; Braune 2006, p.310; Weber et al. 2004, p.50 und Ertl 2004, p.40.

¹¹ Current funding instruments involve the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund (CF). Total funding from these funds may amount to 25% or 50%. Dastig 2009, p. 159–165.

4 Institutional Set up for PPPs in Germany

After erratic developments until 2009, the institutional set up for PPPs in Germany is founded on solid grounds. In 2009, the Federal PPP Task Force within the Federal Ministry of Transport, Building and Urban Affairs (BMVBS) was closed and its tasks were shifted to the 'Partnerschaften Deutschland AG', the new Federal PPP Task Force within the Ministry of Finance (BMF). Main objectives of the Partnerschaften Deutschland AG (PD) are to advise and support exclusively implementing public bodies and to adopt PPP structures to new sectors. Furthermore, PD also supports the harmonization of PPP standards in the federal system and in different sectors, based on specific working committees that hold regular meetings together with the PPP competence centers on federal state level. General standardization, harmonization of guidelines on federal and federal state levels and the exchange of experiences are to be achieved successfully in these new structures.¹²

On federal state level, there are PPP competence centers in every federal state, whose objectives are to support and advise local municipalities wishing to implement new PPP-Projects. The institutional set up and integration into local and state administration are varying, as can be seen in Fig. 4.

Most of the institutions at federal state level are integrated in the State Ministries of Finance, which is in line with the most successful approach for a quick and sustainable development of PPP internationally. The PPP Task Force of North Rhine Westphalia had taken a leading role in publishing basic groundwork in term of numerous PPP guidelines. Following institutions in other federal states adopted their institutional set up and their approach to support and advise municipal authorities to set up new PPP-Projects. The PD and federal state PPP institutions are focused on public real estate projects like schools, universities, administration buildings, hospitals, prisons, etc. Hence, most PPP-Projects were realized in the public real estate sector.

In the road sector, the institutional set up differs from the one in the real estate sector in parts. While road projects on federal state and municipal levels might be supported by PPP competence centers on federal state level, federal road projects are supported by the Verkehrsinfrastrukturfinanzierungsgesellschaft (VIFG). The VIFG is a special body of the BMVBS that manages the federal transportation-funding budget. Apart from the task to supervise the operator of the toll levying system for heavy goods vehicles (HGV) on German highways, the VIFG distributes toll revenues among the annual budget to fund works on roads, railways and waterways. The tasks of the VIFG are laid down and specified in a special law. They cover the distribution of the revenues from the HGV-toll and of revenues from inland waterway transportation in order to finance federal transportation projects in the sectors of road, rail and inland waterway transportation.¹³ Furthermore, the VIFG is responsible for the preparation and execution of PPP-Projects in the above named sectors.

¹² Hausmann and Rudolph 2008, p. 156.

¹³ §2, VIFGG (2006).

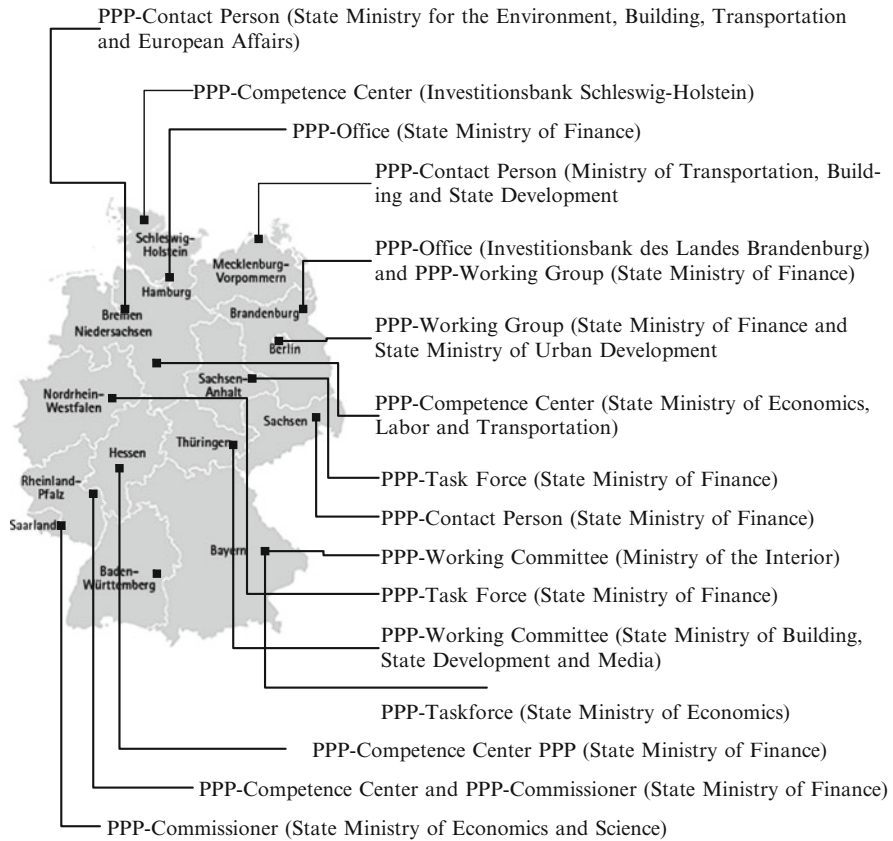


Fig. 4 German PPP task forces on state level (Source: BMVBS [2010]) <http://www.bmvbs.de/SharedDocs/DE/Artikel/UI/kompetenzzentren-und-ansprechpartner-der-laender.html> (as of 27.09.2010)

5 Applied Contract Models

Applied contract models in public sector procurement by the means of PPPs in Germany vary in wide ranges. However, models in the public real estate and road infrastructure sectors are inconsistent. This also applies for project executing authorities, both due to the federal system in Germany.

The different models applied in public real estate are:

- PPP-Owner-Model
- PPP-Purchaser-Model
- PPP-FM-Leasing-Model
- PPP-Renting-Model
- PPP-Contracting-Model
- PPP-Concession-Model
- PPP-Joint-Venture-Model

In the following, each of models will be described in brief. The seven PPP contract models named above are defined in the 'Federal Report on PPP in Public Real Estate'.¹⁴ Jointly, the models are based on the life cycle approach featuring design, construction, financing and operation of the projected assets. Differences between the models affect ownership of the asset prior to, during, and after the contract term, the reimbursement/ payment mechanisms and the utilization of the assets. Undisputedly the type of the model, the implementing public body pays the private partner a periodical remuneration to cover the cost of construction, financing and operation as well as risks and profit.

- Most PPP-Projects in social infrastructure are realized through the application of the so-called **PPP-Owner-Model** (design-build-finance-operate-transfer). In this model, the implementing public body remains the owner of the assets and the private partner takes over the life-cycle tasks design, construction, financing and operation of the assets. Throughout the contract term of 15–25 years, the private partner bears most of the risks except for realization risks and market risks. The PPP-Owner-Model is predominantly applied to school projects and other public buildings, where ownership of the assets cannot be transferred to the private partner.
- The **PPP-Purchaser-Model** ((design)-build-own-operate-transfer) also features the private ownership of the assets during the contract term. At the end of the contract term, the assets are transferred back to the implementing public body. Risk allocation, life-cycle tasks and the structure of the payments are not specifically different from other PPP-Models in social infrastructure. The term purchaser refers to the fact that the private partner has to acquire the building ground. Therefore, the regular payments by the implementing public body include corresponding amounts. The PPP-Purchaser-Model is similar to usual real estate project developments.
- The **PPP-FM-Leasing-Model** (design-build-lease-operate-transfer and/or maintain) is consistent with the PPP-Purchaser-Model. The main difference lies in the ownership of the assets. While the private partner owns the assets, the public body retains a call option to purchase the asset at the end of the contract term at a predefined price. In case that the public body does not make use his call option, the private partner remains the owner of the assets. Due to the design of this model, the private partner bears all of the ownership risks, including realization risks. Furthermore, the periodical remunerations by the public body do not cover the private partners' investment costs. Compared to common real estate leasing models, inside the PPP-FM-Leasing-Model the private partner may also take more responsibility for the operation of the assets. In summary, the life-cycle tasks design and construction are not part of the contract between the private partner and the public body, but a prerequisite to conclude the main contract after the PPP-FM-Leasing-Model.
- The **PPP-Renting-Model** (design-build-renovate-operate-transfer) is similar to common real estate renting, except for the fact that it features the operation of

¹⁴ PwC/ FBD/ VBD/ BUW/ 2003.

the assets by the private partner. The model assumes that the private partner owns the building ground, the assets and also designs, builds, finances and operates/ maintains the assets. The PPP-Renting-Model is a PPP-FM-Leasing-Model without the public call option at the end of the contract term. Therefore, the periodical payments reflect common local rent levels and a premium for facility management services. In summary, the private partner will not be able to recover investment costs during the contract period, but by the means of utilization of the assets. Concluding, realization risks are fully borne by the private partner.

- The **PPP-Contracting-Model** is designed for special projects that do not feature the construction of buildings, but the design, installation, optimization, operation and maintenance as well as financing of technical facility equipment (HVAC). The contract term is limited between 5 and 15 years, depending on the life cycles of technical facility equipment. The installation of the equipment is thought for upgrading existing assets. The ownership of the equipment is transferred back to the public body, while the private partner bears all related risks until the end of the contract term. This model focuses on the optimization of equipment life cycles and energy savings. Therefore, the investment costs of the private partner are remunerated through savings prior the optimization of technical facility equipment. The contract may also include energy supply through the private partner.

The following two models might be combined with the five models pointed out above. These two models might not be applied stand-alone:

- The optional **PPP-Concession-Model** (build-operate-transfer) can be applied to promote user financing (e.g. arenas, indoor swimming pools or exhibition centers or roads and fresh water supply). The concession given to the private partner, entitles him the right to levy charges from users of the service provided. Consequently, the private partner receives no regular periodical payments from the public body. Therefore, the private partner bears market risks.
- The optional **PPP-Joint-Venture-Model** features a common project company, of which the implementing public body and the private partner are joint shareholders. Rights and obligations of the partners are ruled inside the shareholder agreement in despite of a PPP-Contract. This makes it a so-called 'horizontal' partnership instead of a 'vertical' partnership in other PPP contracts. The model is well suited to urban development projects where the public body provides building grounds, determines development objectives and the private partner develops, designs, builds, finances, operates and markets the assets.

As pointed out above, the models applied in public real estate and road infrastructure are different. The following models are applied in road infrastructure:

- A-Model
- F-Model
- Municipal-Roads-Models

The **A-Model** ((design)-build-operate-transfer) is a concession model in the German road sector. The designated projects have in common that existing stretches have to be replaced and/or widened. The private partner builds, operates, maintains and finances stretches on German highways. The underlying contracts have a term of 30 years after which the assets fall back to the public bodies. The devolution is determined to special conditions of the assets. In the A-Model, the private partner receives the revenues from the federal HGV-toll of the specific stretch. Because the toll is levied by a separate company (Toll Collect), the revenues are passed through to the VIFG, who distributes stretch-specific revenues to the operators of the A-Model-Projects. Depending on the specific project, the operator might receive initial funding from the federal budget, if the toll revenues do not cover incurring costs over the life cycle of the specific project. In contrary to F-Model projects, the private Partner is not entitled to levy tolls by himself (real toll). In conclusion, there is no link between A-Model-Projects and the Federal Road Private Funding Act (FStrPrivFinG). The benefits of the A-Models are in line with typical PPP targets such as early realization, life-cycle approach, budget relief and user finance (in part).

The **F-Model** ((design)-build-operate-transfer) projects are based on the Federal Road Private Funding Act (FStrPrivFinG), since these models feature real toll levying by the operators. The F-Model-Projects are developed to design, build, operate and maintain crossings, such as bridges tunnels or mountain passes for a contract term of 30 years. The projects realized so far are entirely Greenfield projects that performed unsatisfying, as user financing in the German road sector is in desperate need for more acceptance. Unless the operator is entitled to levy toll from the users, he does not own the right to adjust tariffs. The tariffs can be adjusted upon requests to the responsible (toll ordinance) authorities. Analogous to the A-Model-Projects, the respective authorities can grant initial funding. The benefits of the F-Models are in line with typical PPP targets such as early realization, life-cycle approach, budget relief and user finance (in full).

Besides the A- and F-Model-Projects, there are several non-standardized initiatives for municipality roads. Realizing authorities are local municipalities and federal states opposing to the A- and F-Models that are realized by the federal states and the federal government. Basic characteristics of **municipal roads models** feature Brownfield characteristics with little demand for newly built assets and a strong focus on maintenance and sometimes operation. The models also feature availability payments, since the private operator or the local authority levies no toll. The benefits of the municipal road models are in line with typical PPP targets such as early realization, life-cycle approach and budget relief. Municipal roads models do not feature user finance and since they are focused on maintenance, they do not require high initial investments from the private partners. Realized projects so far own pilot project statuses.¹⁵

¹⁵ Korn 2008, p. 61–62.

6 German PPP Market

The German PPP market is dominated by strategic investors such as building corporations, respectively their investment-specific corporate divisions. Especially HOCHTIEF AG and Bilfinger Berger AG (as the largest national construction groups) compete with numerous foreign building corporations in the German PPP market. Competitors to HOCHTIEF AG and Bilfinger Berger AG are Austria-based STRABAG AG, Vinci S.A. from France and Royal BAM Group NV from the Netherlands that operate heavily active branches in Germany. On international level they also compete – among others – with France-based Eiffage SA, Colas SA and Egis SA as well as with Dura Vermeer Group NV from the Netherlands, Skanska AB from Sweden, Balfour Beatty plc. From the UK and Sacyr Vallehermoso SA from Spain.¹⁶ Nevertheless, HOCHTIEF AG and Bilfinger Berger AG must be considered strategic investors, since they built up project portfolios with 1.000 million euro, respectively 400 million euro of equity invested.¹⁷ These companies' concern is focused on direct business, operative and financial interest of the projects.¹⁸ Nevertheless, their equity investments are the means to an end in terms of the right to mandate their own construction branches to erect the physical assets of the projects. The same counts for SME's those are active in the PPP-Market as well. The big difference is that SME's are predominantly active in projects with forfeiting models and almost no need for equity investment. The corporations are focused on PPP-Projects that include project finance and seek for financial investors to take over equity investments partially. Active Germany-based SME-sized contractors in the PPP-Market are Goldbeck GmbH, Johann Bunte Bauunternehmung GmbH & Co. KG, Berger Holding GmbH, Otto Wulff Bauunternehmung GmbH & Co. KG, Theo Urbach GmbH & Co., Aug. Prien Bauunternehmung GmbH & Co. KG, Wiebe Holding GmbH & Co. KG, Bauunternehmen Gebrüder Echterhoff GmbH & Co. KG, Heitkamp BauHolding GmbH, A. Frauenrath Bauunternehmen GmbH, MBN Bau AG and Austria-based Alpine Bau GmbH. Still, they predominantly invest in projects with forfeiting models or they are junior-investment-partners to building corporations in projects involving project finance.

7 Deal Flow

Since 2003, the German market for PPP-Projects with a full life cycle approach has been growing constantly. Investments are focused on projects in the public real estate sector executed on municipal level, while only a few projects were realized

¹⁶ Because most of these corporations are management holdings, they might incorporate PPP activities under different brand names/ corporate divisions in Germany.

¹⁷ Bilfinger Berger 2009, p. 105 and Hochtief Concessions AG 2009, p. 175, 193, 202.

¹⁸ Tytko 1999, p. 23 and p. 47.

on federal level. Regarding the specific sector, these investments are heavily concentrated on schools, also because bundled projects were realized in this sector. Major experiences in the German PPP-market were made in the public real estate sector. Inside the sector, more than 150 projects with total investments of about 4.180 million euro were realized since 2003. The major stake of these projects is already in operation and a large number of projects are currently in tendering or in preparation. However, the estimated investment value of announced projects and projects in tendering show the growing importance of PPPs in the real estate sector among total public procurement. The following table shows that the actual project pipeline has a total estimated investment value of approximately 4.7 million euro, with a remarkably high proportion of school and hospital projects.

As already noted above, the road infrastructure sector is somewhat different from the real estate sector. Investments concentrated on federal level instead of federal state and municipal level. In addition, the investment volume of projects in tendering and announced projects strengthen the role on federal procurement in the road infrastructure sector. Because these projects have a higher investment volume, the number of projects is quite small compared to the real estate sector. Announced projects contain numbers for projects that will come to tendering until 2013 (Table 1).

The small number of F-Model-Projects and their poor performance are bound to the low acceptance of user financing and too optimistic traffic forecasts. Furthermore, these models did not feature an optimal risk allocation, since major construction risks and market risks remained with the private partner. Initially, the realized F-Model-Projects were pressed into the scheme, as no suitable projects were available at a point of time where PPP-Projects in road infrastructure should be realized. In conclusion, the political support of these projects was lacking. Finally, realizing authorities were open for renegotiations of the original contract, so that bankruptcies were avoided. The adapted means were extensions of the contract terms up to 20 years, totaling in contract terms of up to 50 years. Further means for

Table 1 Past and coming PPP-projects in the German real-estate sector as of 01.08.2010

	Awarded projects	Projects in tendering	Announced projects
	Investments [Million Euro]	Expected investments [Million Euro]	
Schools/ higher education	1,610	660	665
Administration buildings	665	100	515
Prisons	200	50	50
Hospitals	565	1,105	425
Sport/ Culture	700	265	175
Other (Parking/ logistics)	125	130	35
Total real estate projects on federal state and municipal level:	3,865	2,310	1,865
Other real estate projects on federal level	315	60	460
Total real estate projects	315	60	460

Sources: Hauptverband der Deutschen Bauindustrie (2010) and Alfen and Leupold (2006)

Table 2 Past and coming PPP-projects in the German road sector as of 30.10.2010

	Awarded projects	Projects in tendering	Announced projects
	Total investments [Million Euro]	Expected total investments [Million Euro]	
A-Model projects	1,990 (4)	600 (2)	1,950 (7)
Total road projects on federal level	1,990 (4)	600 (2)	1,950 (7)
F-Model projects	450 (2)	0	1,550 (2)
Other road projects	n/a (2)	n/a (4)	n/a (1)
Total road projects on federal state and municipal level	>450 (4)	>0 (4)	>1,550 (3)
Total road projects	>2,440 (8)	>600 (6)	>3,500 (10)

Sources: Hauptverband der Deutschen Bauindustrie (2010), Alfen and Nyga (2010) and Tegtbauer (2010)

future projects may include availability payments, more flexible initial funding or state guarantees (Table 2).

Compared to the F-Model-Projects, the A-Model-Projects have proven to be successful inside the market. Developments reaching back to 2002, the A-Model-Projects are crucially linked to the German HGV-Toll and the separate toll collecting company Toll Collect. Since A-Model-Projects also feature partial market risks, the overall risk allocation and general package seems more attractive and thoroughly designed than F-Model-Projects. The four projects that have been tendered so far were soaked up by the market and involved big interest from investors and contractors outside of Germany. The projects currently in tendering and in preparation will feature re-designed contracts with higher levels of standardization and fierce competition for the projects. The average investment costs for one A-Model-Project amounts to 500 million euro. Hence, international infrastructure investors seek for ways to invest into these projects.

In consideration of the financial market crisis from 2007 and induced developments, the German PPP market could not match up with expectations from the construction industry and financial investors. Some of the developments in the course of the financial market crisis have affected the German PPP market. Firstly, lower tax receipts impaired the financial situation of German municipalities and secondly, the Federal stimulus packages promoted conventional procurement, so that the urge, especially for municipal investments was relieved through other means than PPPs. This led to postponed or abandoned projects, as the private sector was experiencing problems to arrange debt financing for projects in the stage of implementation. As the federal stimulus packages run out in 2010, the impact of the stimulus packages will hold on to early/mid 2011.¹⁹ For the times after mid 2011, a crucial downturn inside the construction industry is expected.

¹⁹ The legislation period ended in 2009. The government consisted of CDU (christian democratic union) and SPD (social democratic party).

8 Outlook

After the federal election in 2005, the 16th German government²⁰ referred to PPP in its coalition agreement as an alternative procurement method of increasing importance that was expected to be applied to up to 15% of the overall public procurement. The future deal flow remained hard to anticipate, since most of the projects in numbers are executed on municipal level in the public real estate sector. Currently not more than 4% of the public procurement in public construction has been realized by a PPP approach. After the federal election in 2009, the 17th German government²¹ did not take up such a clear position in favor of PPPs inside their initial government declaration. It is rather that opponents to PPP models receive more attention in the media. Then, temporarily developments caused by the stimulus packages are actually supporting the arguments of the PPP opponents. Their criticism leaves out the highly visible benefits of implemented PPP-Projects and achieved standardizations. Still, restrictions of public budgets on any administration level are growing and they will reveal after the impact of stimulus packages faded out. Because the stimulus packages did not change structures, the investment backlog in any infrastructure sector is still growing. In conclusion, the pressure to apply alternative methods of public procurement, including PPP models, will grow. This is due to the consideration of the decreasing impacts of the financial market crisis and the stimulus packages and due to keener supervision of public debt limits.

References

- Alfen Consult GmbH (2010). (German) *Experience with PPP-projects in the roads sector. Lecture at the City of Jelgava*, Latvia; April 26th–27th 2010.
- Alfen, H. W., & Leupold, A. (2006). Public Private Partnership (PPP) in the German Public Real Estate Sector, Assets, Industry trends, Market Players. In *Germany real estate yearbook 2007*. Europe Real Estate Publishers B.V., pp. 206–213.
- Alfen, H. W., & Nyga, I. (2010). PPP bei der Straßenerhaltung. Lecture at the Deutscher Straßen- und Verkehrskongress 2010; Mannheim, Germany; September 15th–17th 2010.
- Berger, B. (2009). *Bilfinger Berger AG: Geschäftsbericht 2008*. Germany: Mannheim. 2009.
- Blanc-Brude, F., & Strange, R. (2007). *Risk pricing and the cost of debt in public-private partnerships: Evidence from the syndicated loan market*. (Research Paper: 45). Kings's College London, Department of Management.
- Blecken, U., & Meinen, H. (2007). *Quantitative ökonomische Modelle für PPP- und BOT-Projekte*. Issue 1 of the journal series from the chair of Construction economics published by Prof. Dr.-Ing. Mike Gralla. Werner-Verlag 2007, Dortmund.
- Braune, G. D. (2006). Finanzierung. In L. Frank & S. Franz-Josef (Eds.), *Public Private Partnership im öffentlichen Hochbau* (1st ed., pp. 263–319). Stuttgart: Kohlhammer Verlag.

²⁰ The government consists of CDU (christian democratic union) and FDP (free democratic party).

²¹ Stiepelmann 2009, p. 2.

- Clifton, C., & Duffield, C. F. (2006). Improved PFI/ PPP service outcomes through the integration of Alliance principles. *International Journal of Project Management*, 24(2006), 573–586.
- Dastig, M. (2009). How can EU-Funds be used to finance Public-Private Partnerships? *European Public Private Partnership Law Review (EPPPL)*, 4(3), 158–170. published by Lexxion Verlagsgesellschaft mbH, Berlin, Germany.
- Devapriya, K. A. K. (2006). Governance issues in financing of public-private partnership organisations in network infrastructure industries. *International Journal of Project Management*, 24, 557–565.
- Ertl, M. (2004). *Aktives Cashflow-Management – Liquiditätssicherung durch wertorientierte Unternehmensführung und effiziente Innenfinanzierung* (1st ed.). Munich: Verlag Franz Vahlen, 2004.
- Eurostat. (2004a). New decision of Eurostat on deficit and debt – Treatment of public-private partnerships. In: Eurostat News Release, Issue 18/2004, published by Eurostat, European Commission, Brussels, Belgium, February 11th 2004.
- Eurostat. (2004b). *ESA95 manual on government deficit and debt – Part IV: Long term contracts between government units and nongovernment partners (Public-private-partnerships)*, published by Eurostat, European Commission, Brussels, Belgium, 2004 Edition, August 30th 2004.
- Grout, P. A. (1997). The Economics of The Private Finance Initiative. *Oxford Review of Economic Policy*, 13(4), 53–66. published by Oxford University Press, 1997.
- Hauptverband der Deutschen Bauindustrie. (2010). *Positionspapier des Hauptverbandes für ÖPP-Projekte in Deutschland – Wirtschaftliche und wirtschaftspolitische Rahmenbedingungen*. Position paper published by Hauptverband der Deutschen Bauindustrie (HDB), August 2010.
- Hausmann, L., & Rudolph, B. (2008). Partnerschaften Deutschland launched to counsel the public sector and further promote PPP in Germany? *European Public Private Partnership Law Review (EPPPL)*, 3(3), 156–159. published by Lexxion Verlagsgesellschaft mbH, Berlin, Germany, 2008.
- Henschel-Bätz, M. (2005). *Eigenkapitalbeschaffung aus Sicht mittelständischer Bauunternehmen*. Workshop documentation: “Strategien der Eigenkapitalbeschaffung für PPP-Projekte” from September 22nd 2005 in Berlin; published by Hauptverband der Deutschen Bauindustrie e.V., Berlin, 2006.
- HOCHTIEF Concessions AG. (2009). Wertpapierprospekt zum Börsengang der HOCHTIEF Concessions AG, Essen.
- Hopfe, J., Napp, H.-G., & Bergmann, S. (2008). *Kapitel 4 – Finanzierung*. In PPP-Handbuch: Leitfaden für Öffentlich-Private-Partnerschaften; published by Bundesministerium für Verkehr, Bau und Stadtentwicklung (BMVBS) and Deutscher Sparkassen- und Giroverband (DSGV), pp. 130–175. April 2008, Berlin.
- Korn, M. (2008). PPP in the Sector of Road Infrastructure on the County and Municipal Level in Germany: A Story for the Future? *European Public Private Partnership Law Review (EPPPL)*, 3(2), 58–63. published by Lexxion Verlagsgesellschaft mbH, Berlin, Germany, 2008.
- Leland, H.E. (1998). *Agency costs, risk management, and capital structure*. In: The Journal of Finance: Papers and Proceedings of the Fifty-Eighth Annual Meeting of the American Finance Association 53(4), published by Blackwell Publishing for the American Finance Association, August 1998, pp. 1213–1243.
- Littwin, F., Weihnacht, A., & Michelmann, J. (2003). *Public Private Partnership im Hochbau. Organisationsmodelle. Public Private Partnership-Initiative*. Düsseldorf: Public Private Partnership-Initiative NRW. August 12th 2003.
- Müller, R., & Turner, J. R. (2005). The impact of principal-agent relationship and contract type on communication between project owner and manager. *International Journal of Project Management*, 23, 398–403.
- Newell, G., & Peng, H. W. (2008). The Role of U.S. Infrastructure in Investment Portfolios. *Journal of Real Estate Portfolio Management*, 14(1), 21–33. published by American Real Estate Society.

- Pfnür, A., Schetter, C., & Schöbener, H. (2008). *Risikomanagement bei Public Private Partnerships*. Experts Report by order of Initiative Finanzstandort Deutschland (IFD), Darmstadt, Germany, August 29th 2008.
- Probitas Partners (2007). *Investing in infrastructure funds*. Published by Probitas Partners, September 2007 <http://probitaspartners.com/pdfs/infrastructure.pdf>
- PwC/FBD/VBD/BUW/CC. (2003). PPP im öffentlichen Hochbau; Experts Report on PPP in Public Real Estate published by PricewaterhouseCoopers (PwC), Freshfields Bruckhaus Deringer (FBD), Beratungsgesellschaft für Behörden GmbH (VBD), Bauhaus-Universität Weimar (BUW) and Creativ Concept (CC), 2003.
- Schöne, F.-J. (2006). Ausgewählte Rechtsfragen/Vertragsrechtliche Aspekte. In L. Frank & S. Franz-Josef (Eds.), *Public Private Partnership im öffentlichen Hochbau* (1st ed., pp. 98–118). Stuttgart: Kohlhammer Verlag.
- Sester, P., & Bunsen, C. (2005). Vertragliche Grundlagen – Finanzierungsverträge. In W. Martin, S. Michael, & H. Friedrich Ludwig (Eds.), *Praxishandbuch Public Private Partnership* (pp. 436–497). Beck Munich: Verlag C.H.
- Spackman, M. (2002). Public-private partnerships: lessons from the British approach. *Economic Systems*, 26, 283–301.
- Tegtbauer, T. (2010). *Gestaltung der nächsten Generation von ÖPP-Modellen unter Einschluss von F- und Verfügbarkeitsmodellen*; lecture at the 10th Betriebswirtschaftliches Symposium Bau; Weimar, Germany; March 17th–19th 2010.
- Tytco, D. (1999). *Grundlagen der Projektfinanzierung* (1st ed.). Stuttgart: Schäffer-Poeschel Verlag. 1999.
- VIFGG. (2006). Gesetz zur Errichtung einer Verkehrsinfrastrukturfinanzierungsgesellschaft zur Finanzierung von Bundesverkehrswegen (Verkehrsinfrastrukturfinanzierungsgesellschaftsgesetz - VIFGG). Issued on June 28th 2003 (BGBl. I S. 1050), updated by article 283 of the Verordnung from October 31st 2006 (BGBl. I S. 2407).
- Weber, B., & Alfen, H. W. (2009a). *Infrastructure as an Asset Class* (1st ed.). London: Wiley & Sons Ltd. 2010.
- Weber, B., & Alfen, H. W. (2009b). *Infrastrukturinvestitionen – Projektfinanzierung und PPP* (2nd ed.). Cologne: Bank-Verlag Köln.
- Weber, M., Moß, O., & Schwichow, H. (2004). *Public Private Partnership im Hochbau. Finanzierungsleitfaden. Public Private Partnership-Initiative*. Düsseldorf: Public Private Partnership-Initiative NRW. October 2004.