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# Development of Residential Property

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## 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's was amongst the lowest in Europe. The actual development proved the business plans, based on these assumptions, by and large wrong. The investors missed out, that more or less stagnating prices and the low home-ownership rate are the result of the structural framework. 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 recovering from its low, the importance of institutional investors is increasing, supporting the stable performance of the German residential sector already seen in the past.

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## Keywords

House prices • Housing completions • Rental market • Home ownership

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## 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 significant changes in ownership structures of the institutional stock,

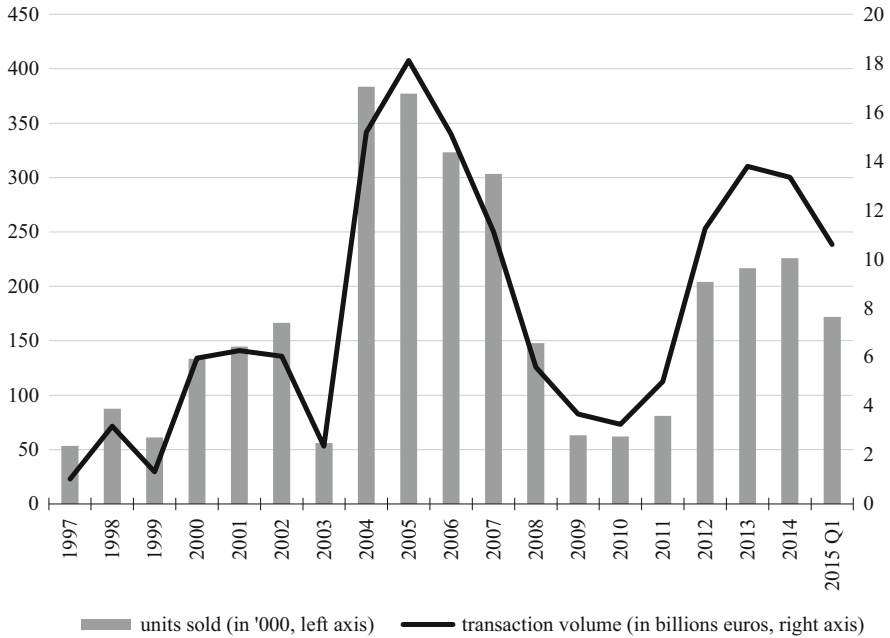
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which were not without political controversy. The results of these investment activities were huge portfolio transactions between 2005 and 2007. Approximately 175 portfolios each with more than 800 apartments were sold during this time. However, the 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, but the market made a real comeback in 2012. The publicly rescued Landesbanken BayernLB sold DKB Immobilien AG to TAG (25,100 apartments) in 2012 and GBW AG to a consortium of institutional investors led by PATRIZIA (29,400 apartments) in 2013 and Landesbank Baden-Württemberg also sold LBBW Immobilien GmbH to a consortium of institutional investors led by PATRIZIA (21,000 apartments). In addition DeWAG GmbH (13,000 apartments) and TLG WOHNEN GmbH (11,400 apartments) were sold and a number of IPOs happened, e.g. LEG Immobilien AG and Deutsche Annington SE. Consolidation became a major driver of transaction activity on the German residential market, starting in 2013 with the takeover of GSW Immobilien AG by Deutsche Wohnen AG. Deutsche Annington SE was the major player in the consolidation game in the years 2014 and 2015 with the takeover of Vitus Gruppe (30,000 apartments) in 2014 and GAGFAH Group as well as Südwewo (formerly LBBW Immobilien GmbH) in 2015 (Fig. 1).

After the period of the mainly opportunistic interest in the German residential market ended with the financial crisis, institutional investors like insurance companies and pension funds as well as other long term orientated (national and international) players are now the dominant buyers and drivers of the institutional 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 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 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



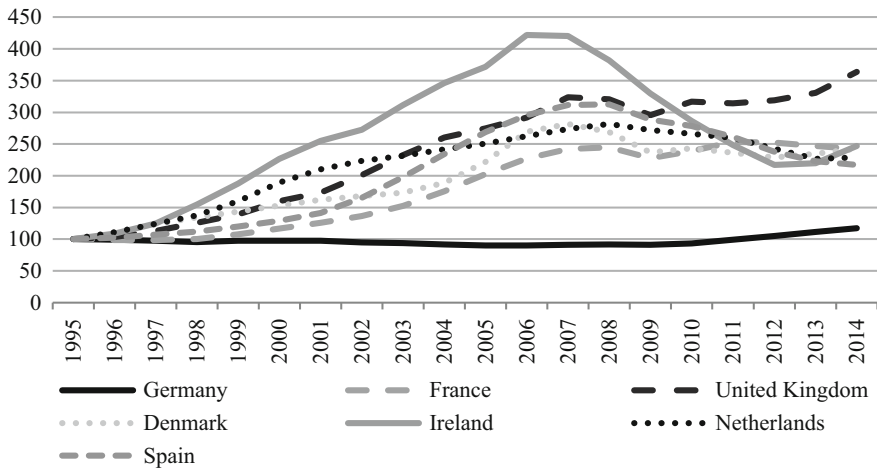
**Fig. 1** Portfolio transactions in Germany. *Source:* CBRE

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 change of strategy 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

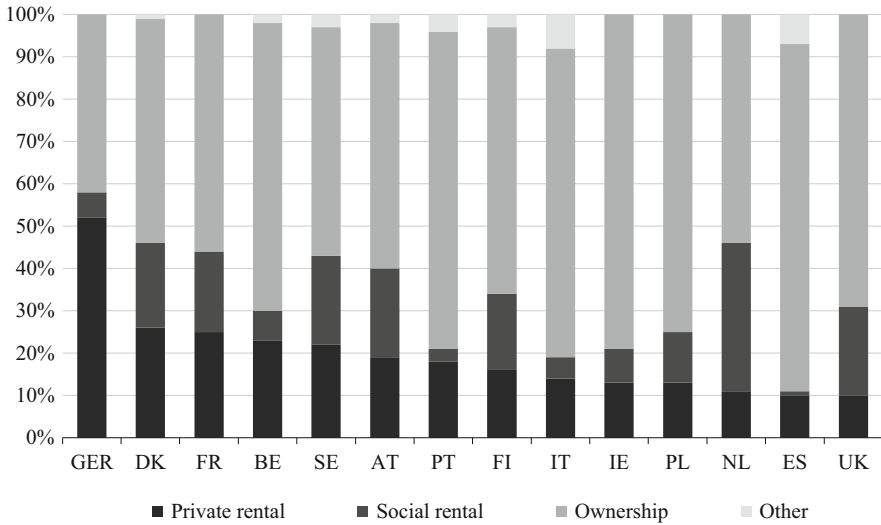


**Fig. 2** Nominal house prices in Europe (Index 1995 = 100). *Source:* OECD, own calculations

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 by and large wrong, which were primarily based on the assumption of rising prices. In 2014 German wide house prices are still only slightly above the level of the mid 1990s, although contrary to the development in most European countries German house prices have continuously been rising, albeit very slowly, since 2010 (Fig. 2).<sup>1</sup> Most of the portfolios bought by opportunistic investors between 2004 and 2006, due to a change in strategy, therefore form the basis of the portfolios of today's large residential landlords, e.g. Deutsche Annington SE and Deutsche Wohnen AG.

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 underestimated the power of Germany's regulatory environment. The ownership rate in Germany rose only slightly to about 43 % and there are no signs that this will change fundamentally in the coming years. A major reason for this is the regulation

<sup>1</sup>For a discussion about the quality and availability of German house price indices see e.g. ZIA (2010) and Voigtländer (2016).



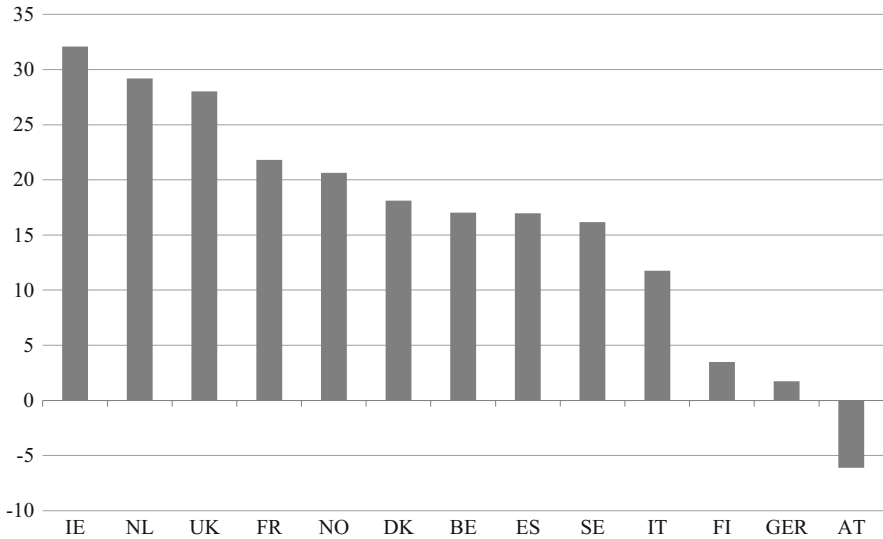
**Fig. 3** Tenure split in Europe. *Source:* Housing Europe (2015)

of the residential rental market in Germany, which makes renting quite attractive for large parts of the German population (Fig. 3).<sup>2</sup>

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. 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 due to historical developments, as is suggested by the very high ownership rates in some countries, then almost all the demand for housing is focused on the 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 till 2013 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.

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

<sup>2</sup> For a discussion of the German regulation of the residential market in a European comparison see Haffner et al. (2007) and O’Sullivan and De Decker (2007). For an explanation of the low German home-ownership rate see Voigtländer (2009).



**Fig. 4** House price gaps in 2008 (in percent). *Source:* IMF (2008)

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 have changed 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, but at the same time it is an explanation why German house prices behaved differently compared with most European countries.

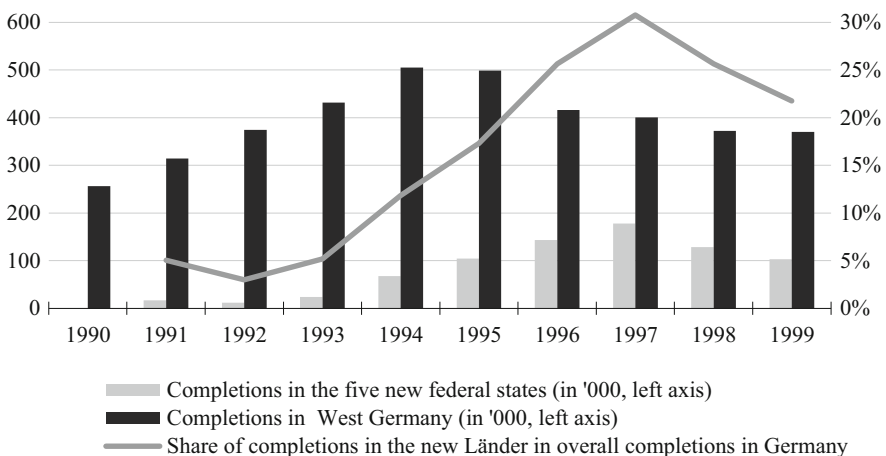
### 3 The German Reunification and Its Effect on the Residential Market

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,

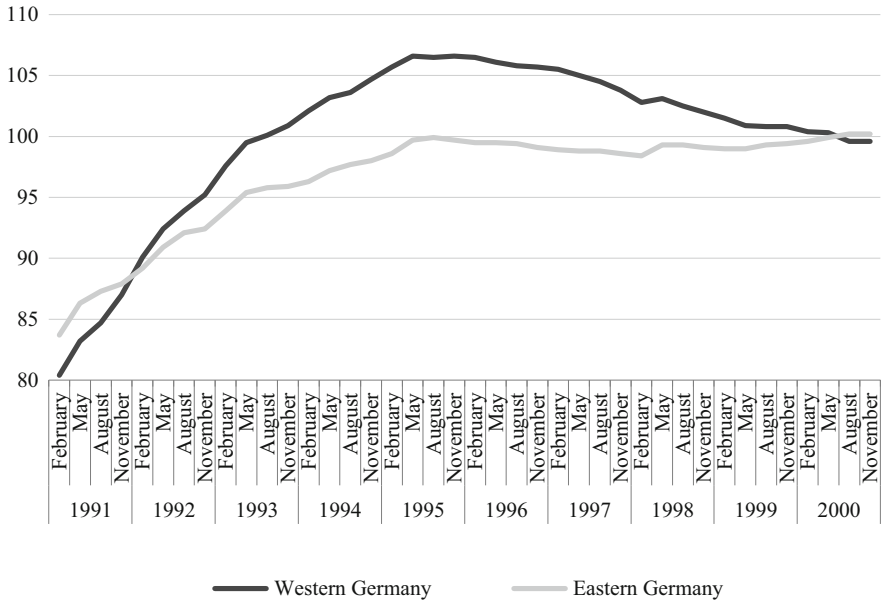
especially of building permits and completions, has to take these developments into account to avoid “comparing apples with oranges”.

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 5484 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).

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 temporarily (strongly) rising rents and prices in the early 1990s 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. 5** Housing completions in Germany in the 1990s. *Source:* Federal Statistical Office, own calculations



**Fig. 6** Construction price index for residential buildings (quarterly figures, Index 2000 = 100, incl. VAT). *Source:* Federal Statistical Office

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 (Fig. 6). 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.

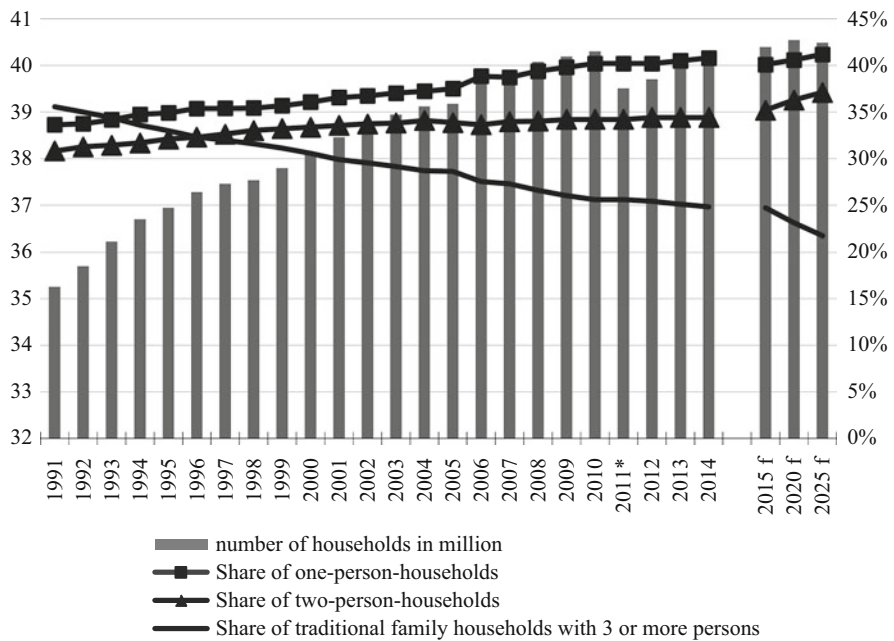
## 4 Development of Residential Demand

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, notwithstanding the population growth in the years 2012–2015 due to especially intra European migration from Europe’s peripheral countries related to the aftermath of the financial crisis. According to the new 13th coordinated population projection of the Federal Statistical Office from 2015, the German population might decline to not more than 68 to 73 million by 2060.<sup>3</sup>

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 particular, it is the number of single-person households that has grown significantly over the past two decades. The share of one-person households has grown from 35 % in 1990 to more than 40 % in 2014. 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 25 %. Consequently, the average household size has continuously declined from 2.28 persons per household in 1991 to round about 2.0 persons per household in 2014. This trend is projected to continue in the future. In 2030 the share of one-person and two-person households



**Fig. 7** Number of households by household types. \*Zensus 2011, from here the new census data form the basis for updating. *Source:* Federal Statistical Office (2015a, b), own calculations

<sup>3</sup> For detailed results of the 13th population projection see Federal Statistical Office (2015a, b) and Just (2016).

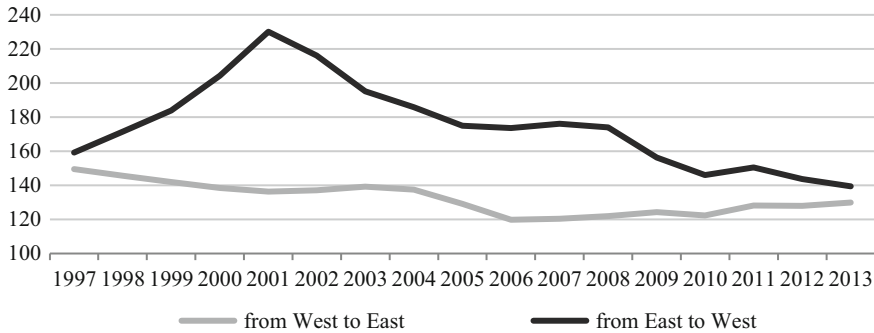
will be 43 % and 37 % respectively, reducing the share of traditional family households to about 20 %. At the same time, the average household size will have declined further, to only 1.88 persons per household (Fig. 7).

These nationwide numbers mask the strong regional differences that follow from the federal structure of the country. Internal migration is an 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 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.

The development of the number of households and average household size, as well as the changes in the age structure of the persons forming these households, 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 increasing living space per apartment and inhabitant (see Just 2016). 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.

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, 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 economic performance measured by GDP-growth 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 in the past decade.



**Fig. 8** Internal migration patterns in Germany (in '000). *Source:* Federal Statistical Office (2015a, b)

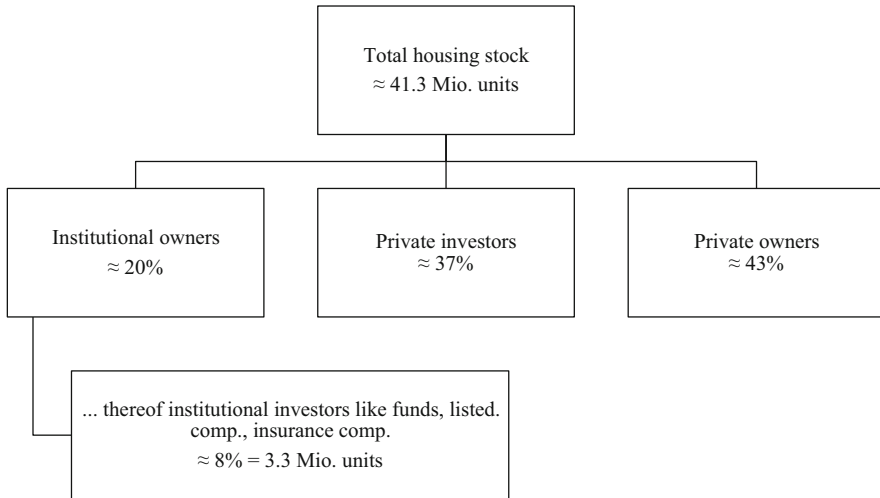
Nevertheless, on a regional scale, especially the third effect is and will be a strong driver for housing demand in Germany. In general, internal migration in Germany is still biased towards West Germany, with the resulting positive and negative effects on housing demand in western and eastern Germany, respectively, but it evens out increasingly (Fig. 8).

## 5 Supply Situation

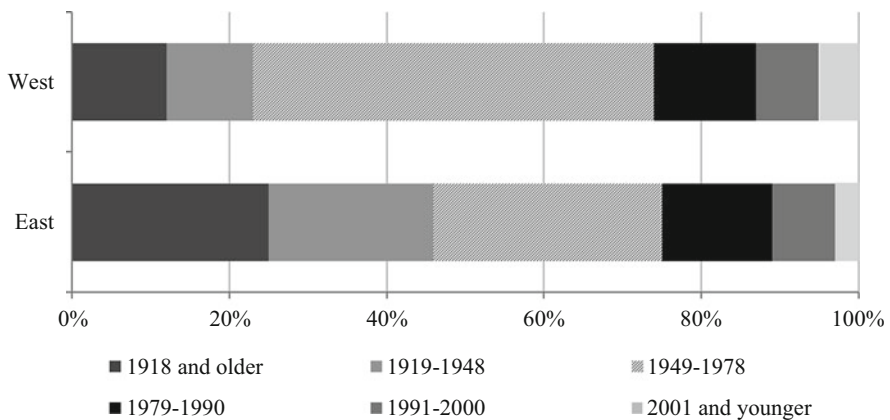
According to official data from the federal statistical office based on the new Census, there were approximately 41.3 million dwellings in Germany at year end 2014 in residential and non-residential buildings. Of these dwellings, nearly 50 % are in single- or two-family houses. The largest part of the German housing stock, roughly four fifth, is owned by private individuals. This includes approximately 17.3 million owner-occupied dwellings, or 43 % of the total stock (GdW 2015). The remaining fifth is in the hands of institutional owners. Thereof barely half is in the hands of institutional investors such as funds, listed companies and insurance companies, which correspond to about 3.3 million dwellings. The other half is owned mainly by the public sector, cooperatives and the church (Fig. 9).

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 West Germany is a result of the different handling of war damage to buildings. While in West Germany the damaged buildings were often demolished and new buildings were constructed, in East Germany the buildings have been repaired and restored. In addition the differences are also the result of strong construction activity in the area of social housing in West Germany between 1949 and 1978. 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 to 4 % of all dwellings were built in the new millennium (Fig. 10).

Both, housing permits and completions in Germany were characterized by a marked downward trend since the turn of the millennium up until 2010, which was



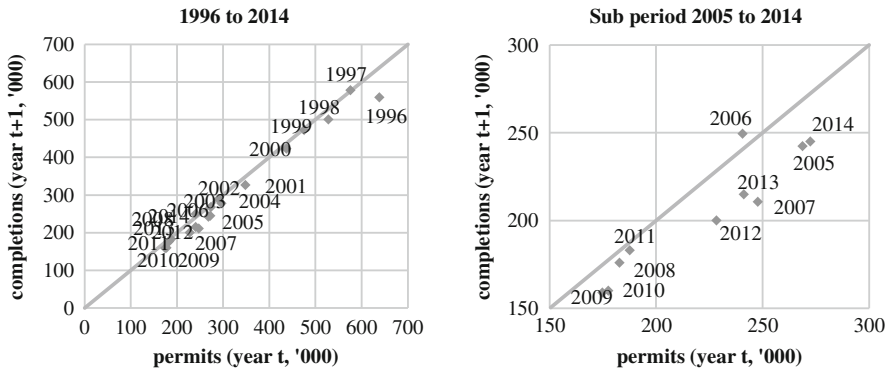
**Fig. 9** Ownership structure of the German housing stock. *Source:* GdW (2015)



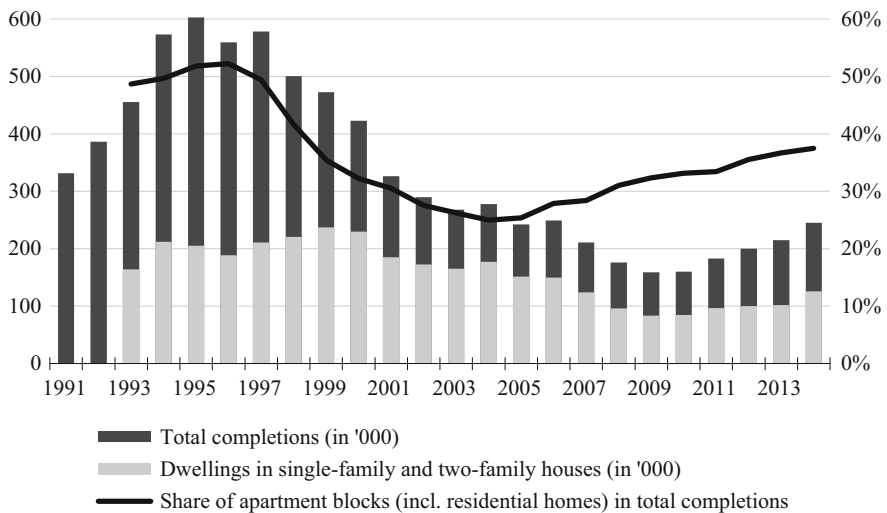
**Fig. 10** Age structure of the German housing stock. *Source:* Federal Statistical Office (2015b)

interrupted only when the legislative environment for private buyers changed, e.g. due to the 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. Since 2010 permits and completions are rising again, but at a slow pace. As Fig. 11 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



**Fig. 11** Permits and completions in  $t + 1$  (years refer to the time of completions). *Source:* Federal Statistical Office (2015a, b)



**Fig. 12** Housing completions in Germany. *Source:* Federal Statistical Office (2015a, b) own calculations

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 just below 40% in 2014.

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 started to rise in 2010. These completions are 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. 12).

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.

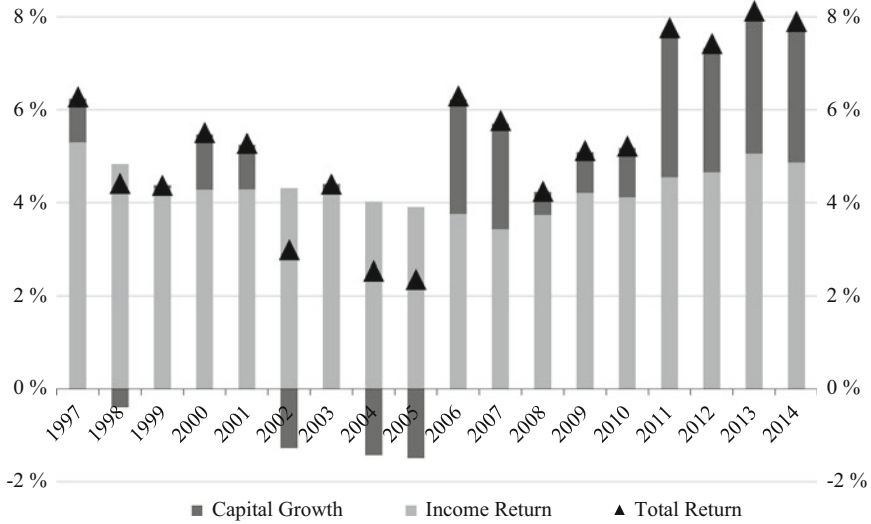
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## 6 Market Performance

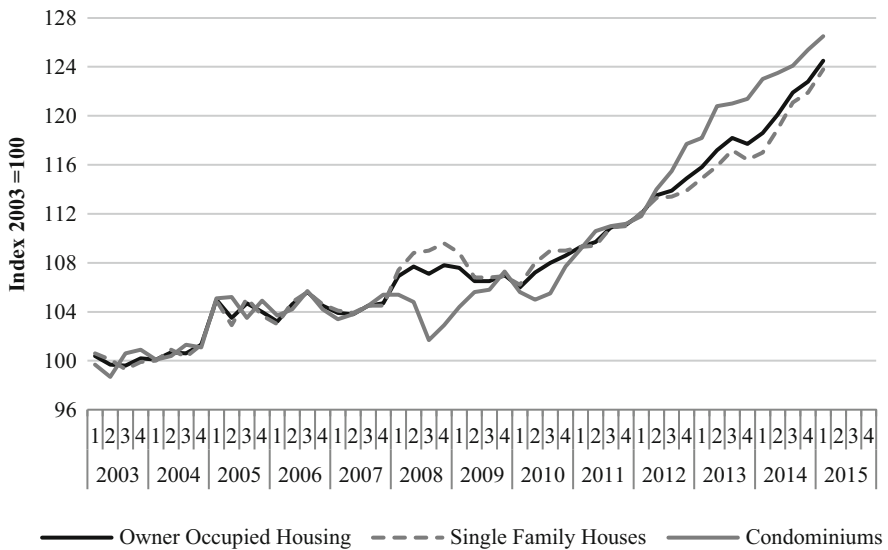
Based on this demand and supply situation, it is not surprising that the returns of institutional portfolios of German residential properties showed a stable performance in the past, when compared with the office and retail sector in Germany or with international real estate returns. Capital growth was on average almost non-existent in the years up to 2010, evidenced by an annual increase of only 0.4 %. Since 2011, with the massive return of the institutional investors to the German residential market after the financial crisis, capital growth has started to increase, averaging 2.9 % in the years 2011–2014. The income return was roughly 4 % per year during the entire period. This brings the average annual total return to about 5.3 % over the whole period (Fig. 13).

Since these total return figures are based only on the data reported by institutional portfolio holders to MSCI, 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 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. The index is based on transaction details from real estate financings provided by German financial institutions participating in the transaction database of the vdp. Like the OECD numbers shown earlier, these hedonic indices show a distinct price increase for owner occupied housing in Germany during the last 6 years (Fig. 14).

Regarding the market for multi-family houses targeted by institutional investors and family offices an interesting development of rents and capital values can be seen in Germany. Residential rents started a slow but continuous increase of between 1 and 2 % p.a. from 2006 onwards, accelerating to levels of 4 and even 5 % p.a. in the years 2012, 2013 and 2014. This speeding up of rent increases was

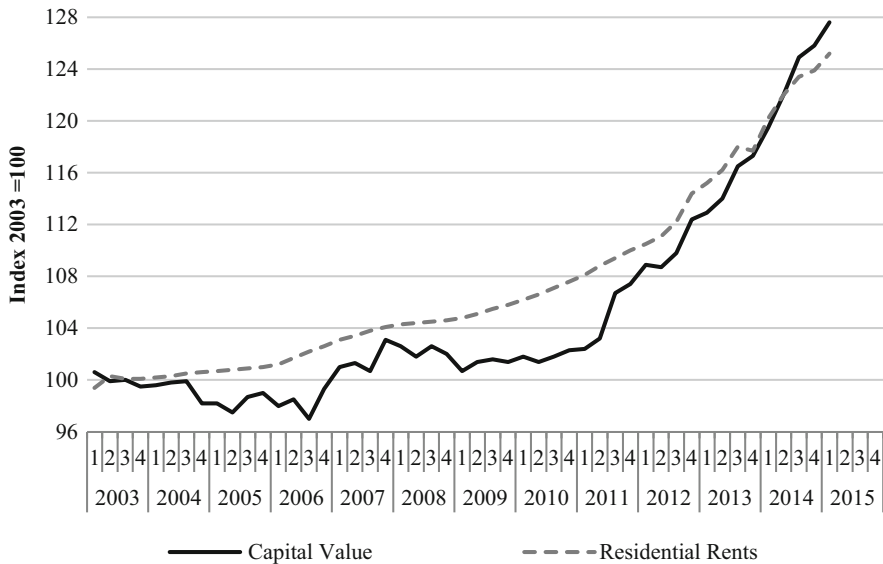


**Fig. 13** Residential total return in Germany and its components. *Source:* MSCI/IPD (2015)



**Fig. 14** vdp price index for owner occupied housing in Germany. *Source:* vdpResearch

one of the main reasons for introducing the rent brake (“Mietpreisbremse”) in 2015 (see Usinger 2012). In contrast to the rents capital values of multi-family houses stayed more or less stable up until mid 2011 despite the observed rental growth. Since then, capital values have been rising significantly, not only driven by the



**Fig. 15** vdp price index for multi-family housing in Germany. *Source:* vdpResearch

described rental growth but also by substantial cap rate compression due to the high interest in German multi-family housing from long term investors around the world (Fig. 15).

Nevertheless, 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

It is 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 continue to increase in the coming years, but not 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 living space priced between 6 and 8 euros/m<sup>2</sup> per month in the urban areas. The rental brake introduced in 2015 will not solve this problem related to the housing shortage in the urban areas, as it only fights the symptoms. 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.

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