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SCHRIFTENREIHE

DES VERBANDES DEUTSCHER PFANDBRIEFBANKEN

Rental Housing Market and Home Ownership

– TWO ANALYSES –

by Dr. Michael Voigtländer
and Thomas Hofer

VOL. 26
VERBAND DEUTSCHER PFANDBRIEFBANKEN • BERLIN

vdp

Schriftenreihe
des Verbandes deutscher
Pfandbriefbanken

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Foreword

Is the home ownership ratio suitable as an indicator of the state of the housing market? Put in other words: Is a low ownership ratio a sign of an underdeveloped housing market? At roughly 43%, Germany's comparatively low home ownership ratio is often criticized, giving rise to a call for subsidies.

In debate at European level, too, it is claimed that home ownership promotes economic growth by stimulating private consumption to the benefit of the economy as a whole. To exploit these mechanisms, it is essential in the view of the European Commission to have especially efficient housing finance instruments in place. It is against this background that the Commission's Green Paper on Mortgage Credit in the EU must be considered. In the consultative paper, the questions put up for debate are how obstacles to an integrated single market might be eliminated and what measures at European level could enhance the efficiency and competitiveness of the mortgage credit markets.

The inter-relationships between housing market, housing finance and the development of the economy as a whole have been studied in depth where the Anglo-Saxon countries are concerned. Yet hardly any comparable studies have been conducted for countries of Continental Europe, in particular for Germany.

Commissioned by the Association of German Pfandbrief Banks (Verband deutscher Pfandbriefbanken, vdp), the Institute of the German Economy in Cologne (IW Köln) has now studied these inter-relationships and analyzed why the ratio between let and self-used living space in Germany shows rented homes to be in the majority. The most important conclusion drawn here is: Germany's relatively low home ownership ratio compared with other European countries is not a measure of the efficiency of the housing market. Instead, to gauge efficiency, access to residential use should serve as the yardstick. In Germany, this access is given in that both a rental housing market and a home ownership market exist side-by-side. And also as far as housing finance s concerned, Germany is in a sound state of health thanks to the competitive situation. Germany is one of the countries with the lowest interest rates for mortgage credits anywhere in the EU.

Besides the analysis by IW Köln, this volume of the vdp's Series of Papers contains a report on the vdp survey on the structure of the financing of single-family homes in 2006. Compared with the previous study of 2002, this latest survey, which the vdp conducted among its member institutions as well as Dresdner Bank and Commerzbank, reveals that the financing terms for households have changed very much in their favor. Despite the tendency to take advantage of the low level of interest rates for higher loan to value ratios, the debt charge in relation to the net disposable household income fell from 33% in 2002 to 27% in 2006.

Both contributions in this publication, the IW analysis and the vdp survey, show that the markets function according to borrowers' requirements and do not require any further regulation.

Berlin, February 2007

Dr. Louis Hagen
General Manager

Achim Reif
Department Head
Domestic Property
Finance, Valuation

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Dr. Michael Voigtländer
Cologne Institute for Economic Research (IW Köln)

Cologne, November 2006

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1. Introduction

The home ownership ratio is one of the ratios most often cited to describe the residential property market. It is general knowledge that Germany, with a home ownership ratio of some 43 percent, takes a place in the lower reaches of international rankings. By contrast, the home ownership ratio in countries such as the United Kingdom or Spain is almost 70 percent or as high as 80 percent respectively. This fact is often presented as a weakness of the German property market and is consequently used to add weight to the political call for subsidies; or the low home ownership ratio is referred to as proof of the alleged inefficiency of the mortgage credit markets.

The problem with this ratio is that it presents a one-sided view. A high home ownership ratio is considered a success, although it entails on the other hand a poorly developed rental housing market. The question arises, therefore, whether it really is desirable for a society to largely forego the rental housing market and bank primarily on the purchase of self-used properties. The reasons for the relatively low home ownership ratio are, moreover, often neglected. The object of this study, therefore, is to close this gap and to gauge the economic significance of the home ownership ratio. To this end, we will proceed as follows:

After giving a brief overview of ownership development in Germany and of Germany's main European neighbors, Chapter 3 will set out first to illustrate the basic interdependence between the home ownership market and the rental housing market. Proceeding from this theoretical point of view, this study will then take a closer look at the main determinants for creation of home ownership. These include, for instance, the point of departure for housing policy after the Second World War, interventions in the rental housing market, the tax situation for self-users and tenants as well as access to mortgage financing. Subsequently, we will set out in Chapter 4 to examine whether a high home ownership ratio is potentially beneficial to the economy. The question will be discussed whether a high level of creation of home ownership has a positive impact on social stability and on the formation of savings, and whether high home ownership ratios are beneficial to the business cycle. Moreover, the interaction between home ownership and the labor market will be considered. The study will close with a synopsis.

2. The home ownership ratio: definition and international comparison

The home ownership ratio expressed in terms of numbers of households has established itself as an indicator of how widespread home ownership is in society. This is to say that the number of households living in owner-occupied residential property is juxtaposed with the total number of private households. One alternative is the person-related home ownership ratio, whereby a ratio is formed between the number of persons in self-used property and the total population. As a rule, the home ownership ratio calculated on a household basis is lower than that on a person basis because families live in their own four walls to an over-proportional

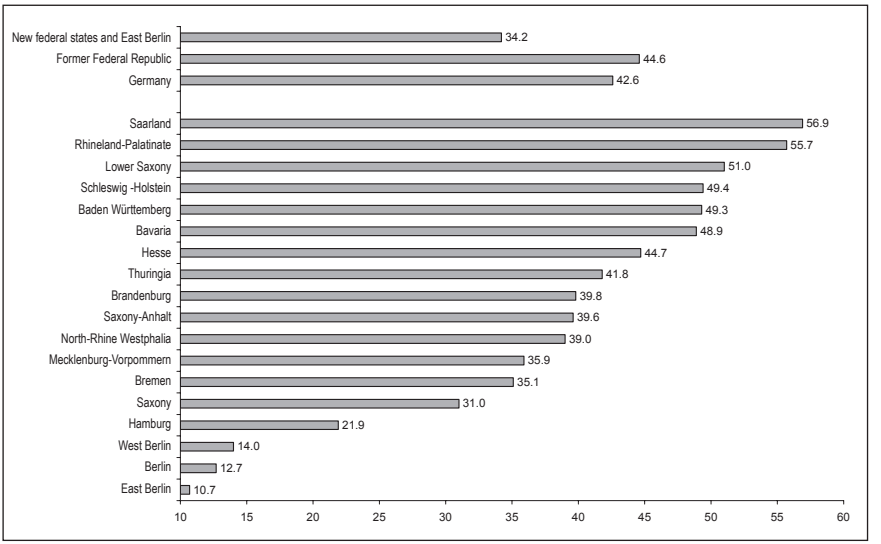
extent. Thus, in Germany, households of self-users consist of 2.5 persons on average, whereas tenant households consist of an average of only 2.2 persons.

From a statistical viewpoint, however, the concept of the home ownership ratio is not without its shortcomings given the lack of complete surveys on the living situation. For this reason, the Federal Statistical Office fixes the home ownership ratio according to the household concept on the basis of an additional survey for the microcensus, whereby data of 1 percent of the population are collected. However, this additional survey is conducted only every four years, the last one going back to 2002. According to the findings then, the home ownership ratio in Germany was 42.6 percent. In addition, the home ownership ratio can also be calculated from the Sample Survey of Income and Expenditure (EVS), an approach pursued by the likes of Braun and Pfeiffer (2004). On the basis of this data source they calculate a figure of 44 percent for the home ownership ratio; the person-related home ownership ratio is estimated at 52 percent. However, it is questionable whether the data can provide an undistorted picture, particularly against the background of an international comparison. For this reason, only the official data of the Federal Statistical Office and the corresponding European institutions will be used in the following.

Although the data are not up-to-date, it is possible to identify structural differences and trends, all the more as the data are also available over a longer period of time. Since, moreover, the housing market is a market with a given stock and living conditions are only seldom changed, the data can convey a picture of creation of home ownership that is adequate for the purposes of this study.

Within Germany, large differences exist with respect to the distribution of residential property, especially between east and west Germany and between the territorial and city states. The highest home ownership ratio on a household basis (hereinafter referred to as home ownership ratio) is to be found in Saarland, with a ratio of 56.9 percent, closely followed by Rhineland-Palatinate with a ratio of 55.9 percent. By contrast, an especially high share of tenants is to be found in the cities of Berlin (87.3 percent) and Hamburg (78.1 percent). Of the territorial states, Saxony takes up the rear with a home ownership ratio of 31 percent (Chart 1). The share of households owning their own homes has risen particularly strongly since the 1970s. Whereas the home ownership ratio for west Germany in 1972 was 35.8 percent, it rose to 44.6 percent by the year 2002. Creation of home ownership advanced at an especially strong pace during this time in North-Rhine Westphalia. The east German home ownership ratio is still appreciably below the west German level. However, the ratio has risen by almost 8 percentage points since 1993.

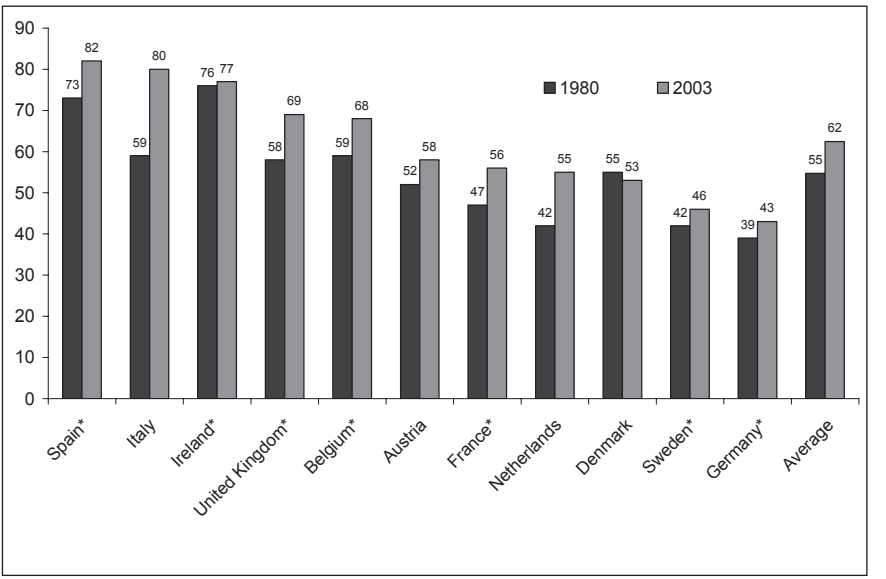
Chart 1: Home ownership ratios in the federal states in percent in the year 2002



Sources: Federal Statistical Office; IW Köln

Viewed from an international perspective, which is usually the main focus of interest, the German market is, however, characterized by a low ownership ratio and a strong rental housing market. Within the EU15, Germany shows the lowest home ownership ratio, and taking all industrial nations into account, ownership development is even less widespread only in Switzerland. It is striking in this context that the differences prove to be relatively constant over a very long time period even though creation of home ownership has risen in Germany, too. Yet whereas the west German ownership ratio grew by approx. 5 percentage points from 1980, the home ownership ratio as an average for the countries actually rose by 7 percentage points over the same period, causing Germany to fall even further – albeit slightly – behind in home ownership creation (Chart 2). Only in Denmark did the home ownership ratio recede slightly in the period 1980 to 2003. Internationally, therefore, there is a clear trend towards creation of home ownership.

Chart 2: Home ownership ratios in select countries of the EU



* SP: 1981; IR: 2002; UK: 1981, 2001; B: 1981, 2002; F: 1978, 2002; SE: 2001; D: 1980 only west Germany, 2002.

Sources: National Board of Housing et al., 2005; European Mortgage Federation, 2005; IW Köln

To gauge the strength of this trend, not only the growth rates in the home ownership ratios but also the growth rates in owner households should be considered. Of 36.23 million households in Germany in 1993, 38.8 percent lived in owner-occupied residential property. By the year 2002, this figure had climbed to 42.6 percent (38.72 million households). In the period 1993 to 2002, therefore, the number of owners had increased by 2.384 million households, whereas the number of tenant households rose by only 52,520. In terms of the owner households, this is equivalent to a growth of 17.3 percent or an annual increase of 1.8 percent. Of course, the increase is even stronger in our neighboring countries. Looking towards the Netherlands, the home ownership ratio there rose from 48 percent to 55 percent between 1995 and 2003. This increase is attributable to an annual rise in owner households of 2.7 percent paired with a decline in tenant households of 0.8 percent per annum. Yet the picture is more strongly relativised when one considers also the transaction volume on the residential property market. Assuming roughly 540,000 transactions are carried out on the German residential property market every year (GEWOS), this means that in the period under review approx. 72 percent of the residential properties were bought for self-use in each case. For the Netherlands, the corresponding ratio of close to 75 percent is only slightly higher than this level. Thus, the stronger increases in the case of owner households are attributable above all to the – relatively speaking – higher transaction volume in the Netherlands. To relativize, it must however be borne in mind that the purchase of rental properties

often involves several dwelling units whereas self-users naturally buy only one dwelling unit each.

Nevertheless, these figures illustrate that in Germany too, at least in past years, there has been a trend towards residential property the momentum of which is by all means comparable with that in other European countries. Moreover, it may be seen that there is still a considerable difference in the level of creation of home ownership and that this structural difference, owing to the low ratio of transactions to existing properties, can at best be reduced slowly.

3. Reasons for a low home ownership ratio in Germany

Having taken stock of the empirical evidence, the question should now be considered as to why Germany shows such a low home ownership ratio compared with the other European countries. What is more, an analysis of the current general conditions will help us to assess whether the trend towards creation of home ownership will continue or weaken.

3.1 Rent or buy: two sides of the same market

Many textbooks on the residential property market begin by listing the special attributes of the residential property market such as, for instance, the heterogeneity of the properties, the opaqueness of the market, the regional distinction between the submarkets and the long useful life of properties. These attributes do not, however, run counter to the functionability of the market, i.e. supply and demand respond to shortage in the same way as on other markets. But compared with other markets – notably the capital market – a slower speed of adjustment must be expected, above all because the construction of new properties is time-consuming, so that surplus demand can be reduced in the short term only by way of price increases.

Because of the potential use of residential properties the housing market can, moreover, be subdivided into two markets which are in a close relationship of interaction: the rental housing market and the home ownership market. Anyone intending to buy a property can in principle decide whether he will use the property himself or let it. Both the price for the property and the rent are determined on the market by supply and demand. Because a close substitution relationship exists between renting and buying and because no-one ultimately can dispense with a dwelling, prices for both types of use may be expected to balance out. Thus, in a state of market balance, the following must apply to a comparable dwelling unit:

Rent = cost of self-use

The cost of self-use is determined by many factors. Mention should be made first of the interest, as the owner must either still pay interest on borrowed funds or he loses interest on the capital market because the capital is tied up in the real property. Moreover, tax-related factors also exert great influence, for example in the form of allowances, the deductibility of interest payments or of real estate and property tax. Further, depreciation and possible increases in value also have to be taken into account. This gives rise to the following equation:

$$M = P*(i+t+a-w)$$

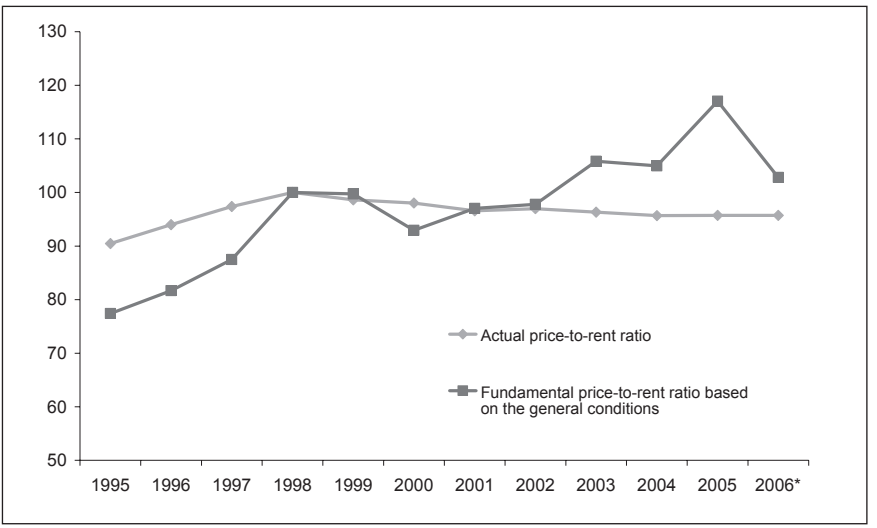
where M: rent; P: property price; i: interest; t: tax and allowance rate; a: deprecation rate; w: appreciation rate

Property market imbalances may be readily identified using this approach by Poterba (1984), which today is regularly applied also by the OECD (2005a) to analyze the property market. The formula can be modified to produce an equation for the price-to-rent ratio (here: P/M) that is easy to check by empirical means:

$P/M = 1/(i+t+a–w)$

In this way, it may be examined whether the observable price-to-rent ratio on the left-hand side of the equation corresponds with the fundamental valuation on the right. In fact, due to the long adjustment processes, the market is only rarely in a state of balance, as Chart 3 illustrates. However, the market does not constantly move away from its fundamental valuation but, viewed over the long term, tends repeatedly towards a state of balance. This follows from the rational calculations of property owners and home seekers. If properties are undervalued, for example, more and more tenants will buy property, thereby raising the demand for real estate. On the other hand, property developers will build more and more properties for rental purposes because a higher return may be expected from letting. These market reactions will ultimately push the price-to-rent ratio back towards a state of balance.

Chart 3: Development of the price-to-rent ratio on the west German housing market



Box: The index values are set at 100 for the year in which the actual price-to-rent ratio was closest to the 30-year average. The following must apply in a state of balance: Rent (M) = property price (P)*(interest rate(i)+tax and allowance rate(t)+depreciation rate(a)–appreciation rate(w)). Thus: P/M = 1/(i+t+a–w). Actual value = fundamental value.

* estimated value.

Sources: Bulwien Gesa AG; Deutsche Bundesbank; IW Köln

The development of the price-to-rent ratio in Germany in recent years is unusual in this respect because the price-to-rent ratio has remained very stable, and because it is rather the fundamental valuation that fluctuates around the actual valuation. However, this has to do with the fact that, for the period shown in Chart 3, Germany was at first characterized by an overvaluation of the property prices, which then slowly melted away as a result of falling interest rates. When the interest rates dropped even further, the property prices did not follow suit; this was due, above all, to the time lag of the property price adjustments and, perhaps, to pessimistic expectations. Interest rates are currently picking up again slightly and the scope for price increases is again limited.

Generally speaking, market reactions not only have an effect on the prices but also on the ratio of tenants to owners. If, for instance, promotion of home ownership is introduced, it is worthwhile for tenants to move into their own four walls. Once accommodation costs in both forms of use have again converged due to increased demand for self-owned residential property, there are no longer any incentives for the tenant, with the exception of personal preferences, to create ownership. At the end of the process the percentage of owners will, however, have increased.

A comparison of the institutional conditions on the property markets now makes conclusions possible with regard to the ownership ratio. Insofar as the tax situation for homeowners in Germany, for instance, are less favorable than in neighboring countries, this can help to explain the relatively low home ownership ratio compared with the other countries. Yet not only the tax aspects are of relevance; the terms on the rental and mortgage market are also significant. If the functionability of the rental housing market is permanently impaired, households are de facto deprived of their freedom of decision, making them dependent on the purchase of residential property. If, on the other hand, access to the mortgage markets is impaired, households are deprived of the possibility to acquire ownership, forcing them to resort to rented dwellings. In the following, therefore, the terms on the respective markets will be analyzed for Germany and be compared with other countries. Because of the sluggishness of the market, however, not only the current influencing factors are relevant as an explanation for the home ownership ratio but also the initial equilibrium. For this reason, a rough overview of the housing market after the Second World War is called for.

3.2 The starting point for the German housing market

After the Second World War, the housing shortage was one of the most pressing problems facing Germany. On the territory of the old federal states, some 2.25 million homes were destroyed during the Second World War (Peters, 1984), reducing the stock of housing by almost 20 percent. In addition, a further 2 to 2.5 million homes sustained damage. The housing scarcity was increased by the flood of refugees and displaced persons, most of whom came to the west of Germany from the Soviet-occupied areas. It is estimated that up to the year 1959, the number of displaced persons, refugees, immigrants and ethnic German resettlers in the old federal states rose to as high as 12.3 million. This constellation resulted, in 1950 alone, in a shortage of more than 4.5 million homes.

Given the vast scale of destruction and of lost private assets as well as an inadequate capital market, it was obvious that this housing scarcity could not be solved quickly

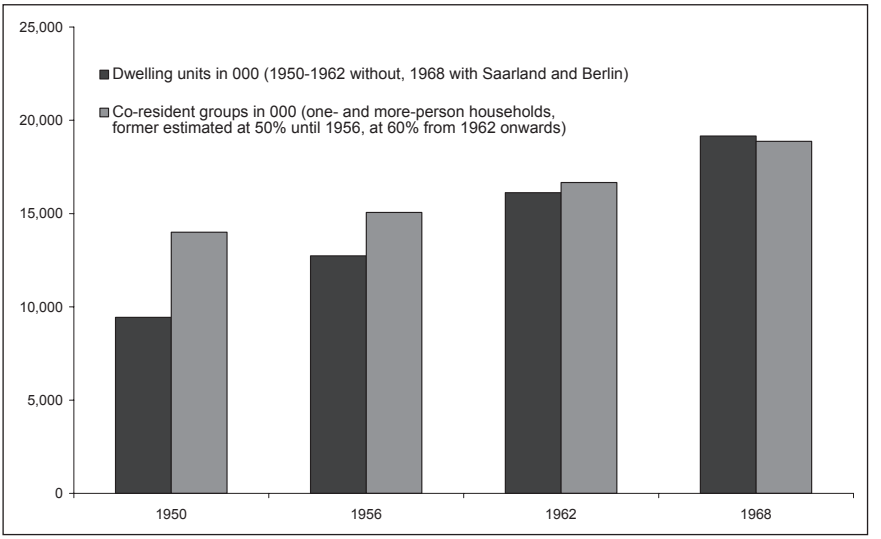
enough by private-sector commitment: hence the decision, with the First Housing Law, to promote the construction of homes which "in terms of their fittings, size and rent are intended and suitable for the broad sections of the people". With that, the construction of "social" or publicly assisted housing was embarked upon in Germany.

The construction of social housing was promoted both by direct subsidies and guarantees (public-sector promotion) and by applying diminishing balance depreciations and exemptions from real property tax (tax-privileged housing construction). In return for the subsidies, the building owners had to observe certain standard sizes and specifications concerning the dwellings. Moreover, they could not act freely with respect to the rent and the choice of tenants. Apart from the early days of social housing, when a standard rent to be charged was fixed by the authorities, landlords were only permitted to demand a rent based on costs; this rent was to be calculated in such a way that the tenants were charged the recurring costs of use according to defined principles. In most cases, this costs-based rent was appreciably below the market rent. The tenants, for their part, upon moving into the social housing unit, had to furnish proof that their income was below the limit up to which liability to insure existed under the obligatory employee's insurance.

Germany was able to reduce its housing shortage relatively quickly thanks to the launch and the expansion of social housing construction (Chart 4). By 1956, the housing shortage had been more than halved, to 2.3 million units, and in 1962, there was a shortfall of only 658,000 homes – despite the marked increase in the number of households.

Social housing, then, proved to be very effective. Up to 1959, more than 50 percent of all new buildings had at all times been erected with funds allocated to social housing. At the beginning of the 1950s, only a very small fraction of building activity was accounted for by privately financed housing construction and the erection of owner-occupied properties. However, the evaluation of the efficiency of the social housing program and its merits for the economy are quite another matter, as Keil (1996) and Eekhoff (2002), for example, demonstrate. Moreover – and this point is central to the question being pursued here – the foundations for a developed rental housing market were laid with the advent of social housing.

Chart 4: Development of the housing shortage in west Germany



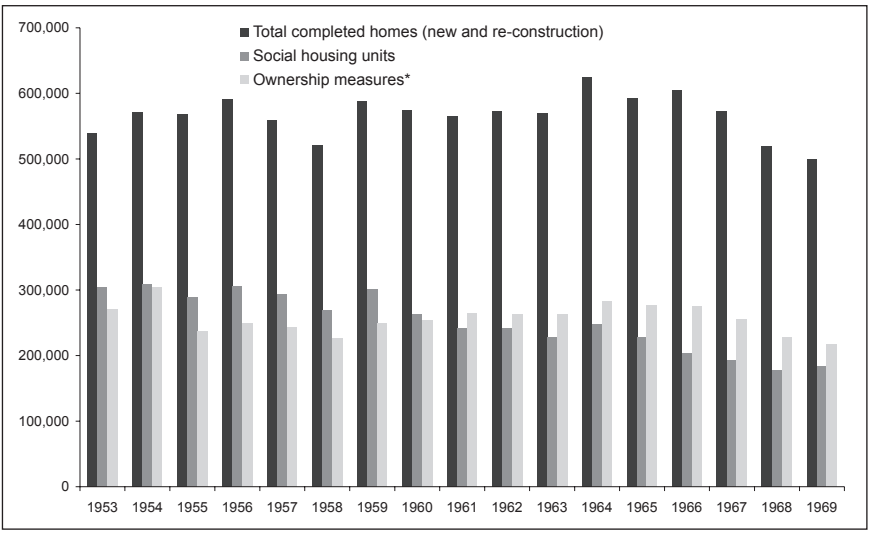
Sources: Blumenroth, 1973; IW Köln

A subsidy program such as the social housing program automatically entails a crowding-out effect. Public-sector investments make private investments unprofitable or, quite simply, superfluous, with the result that a free market is unable to establish itself. This cannot be denied, also where social housing is concerned. However, with social housing, the principle of equal treatment was observed from the outset, i.e. the funds were made available not only to public-sector and non-profit housing companies but also to private investors. Whoever met the requirements could take part in the construction of social housing. Thus, freely financed investments were squeezed out by subsidized investments, but not the private investors. The subsidized dwelling units passed to the free market after the commitment period, so that the basis for a private rental market and, with that, private supply was laid.

The social housing program also created a basic tendency towards the rental housing market on the demand side. Since the benefits of social housing were largely passed on to the tenants, it was often less expensive to rent living space than to build or buy a owner-occupied property. The Second Housing Law of 1956 also supported owner-occupied housing construction according to similar principles as for social housing, but the number of new dwelling units for the rental market nevertheless always exceded the number of new owner-occupied properties in the 1950s (Chart 5). This is probably due, above all, to the fact that the market for private mortgage finance did not yet manage to establish itself, meaning that households had to put up between 35 percent and 40 percent equity. Yet very few households were able to raise so much capital, all the more as the formation of private wealth had to develop again after the Second World War. Only in rural areas, where the necessary equity could be compensated for by neighborly help or the like, did property ownership programs meet with greater acceptance. It was not until the early 1960s

that the construction of owner-occupied homes exceeded that of social housing units and, in some cases, the construction of rental dwellings.

Chart 5: Housing completions



* In the case of apartments in multi-family dwellings, it was assumed that one apartment is used by the private building owner himself.

Sources: Blumenroth, 1973, 407; IW Köln

The great acceptance social housing met with in the post-war years cannot, however, be explained by the financial benefits alone. These dwelling units were popular also because relatively high standards of quality were set, in terms both of their size and of their fittings and fixtures. Over time, the standards of quality were raised more and more, until it was impossible to tell the difference between homes under the social housing program and freely financed homes. For this reason, a stigmatization of the tenants, which social housing was often seen to produce in other countries, did not occur. On the contrary, social housing even attracted tenants primarily from the middle classes. The income limits were generous in any case, since social housing was intended for broad sections of the population. What is more, the tenants' income was only checked when they moved in. If the income rose during the term of the rental agreement, there were no consequences for the tenant. It was therefore to the financial advantage of the rising middle class in particular to stay in these dwellings and defer their plans, if any, to create home ownership.

There were, of course, social housing programs in other countries too, particularly of course where a large part of the housing stock had been destroyed. In many cases, however, social housing did not lead to a strengthening of the rental housing market; on the contrary, the market was weakened, giving rise to a greater need to create home ownership. In the United Kingdom, massive subsidies were poured

into the social housing program, which was inspired by developments in Germany. In some cases, more than 80 percent of homes were erected under this program (Donner, 2000). But the funds for the British social housing were granted solely to public-sector and local government companies and to non-profit building societies. As a result, private investors were squeezed out of the market from the beginning, with the exception of investors in segments commanding higher prices. Moreover, a cap was put on the costs and rents for social housing units. In order to meet these specifications, savings continuously had to be made in costs for fittings and living space. Consequently, social housing homes differed – in some cases, greatly – from private residential properties in terms of quality, with the result that the tenants were often stigmatized. Since the private rental housing market was stifled, also because of rent controls, the only option often left to households was owner-occupied property. What is more, the social housing dwellings were not passed into the private rental housing market but sold to the tenants at substantial discounts. Two million homes were privatized in this way alone (Braun/Pfeiffer, 2006). To date, such subsidized privatization projects of social housing through sale to tenants have been witnessed only in east Germany, following reunification.

There is another major difference in housing policy between Germany and its neighboring countries. In the 1960s, in addition to social housing, housing benefits were introduced. These enabled lower-income households to find affordable housing on the private rental housing market as well. By strengthening demand, this also contributed towards the development of a private rental market.

3.3 Rental housing market interventions

The starting situation of the German housing market and the design of social housing are central factors in explaining the low home ownership ratio in Germany. Yet this offers only a partial explanation of why home ownership has developed more slowly in Germany, also since the 1960s or 1970s, than in other countries. In Spain, for example, more than half of all households lived in rented housing in the 1950s. Yet Spain today has one of the highest home ownership ratios at over 80%.

One key in understanding the lasting importance of the rental housing market in Germany is undoubtedly the functionality of the market. Preliminary theoretical thought given to the issue proceeded from the premise that households have a free choice between the self-use and renting of living space. But if the market for rented housing is disrupted or if the supply is rationed, many households are unable to make a free choice. To obtain the dwelling they wish, they have to purchase property. This situation probably applies to Spain, and to the United Kingdom and Austria, until well into the 1980s, and so helps to explain the higher home ownership ratio in these countries.

Housing was highly regulated in almost all European countries after the Second World War. Often, rents for old buildings were frozen at pre-war levels and new buildings, too, were subject to strict regulation. This was also true of Germany. But as early as 1958, Paul Lücke, then Minister of Housing, set in motion a move towards liberalizing the housing market (Peters, 1984). Though his far-ranging approach was watered down in the political process, what he did achieve was that rents in the so-called “white districts” were deregulated by degrees from 1961

onwards. The term "white districts" referred to towns and districts in which the housing shortage was below 3 percent. At first, only 52 such districts were liberalized; but by the end of the 1960s, almost all districts were liberalized with the exception of a few urban concentrations such as Berlin. This liberalization process was slowed down in the 1970s by, for example, further restrictions imposed on rental agreement termination and by the "Vergleichsmietenregelung" (comparable rents system). Under this system, rents may be increased only if they have not been raised in the last year, and if the landlord can prove by referring to a rental index or comparable accommodations that the rent is below the local rent level. Since the rental index is always calculated on the basis of past rents, the rent level is always below the actual market level where an environment prevails in which rents are rising on the whole. By and large, however, the private rental housing market has always been given enough scope to make it attractive for new investors. Very early on, for example, it was possible for newly concluded rent agreements to be freely negotiated; moreover, improvement costs can be passed on to tenants under certain circumstances and rents can at least be kept close to the market level by way of the comparable rents system.

The situation was different in many countries which today have a particularly high home ownership ratio. In Austria, there was a *de facto* stop on rent increases for existing properties until 1982 (!). Rents for new buildings were also regulated until 1968; only after that year could such rents be negotiated freely. Since 1982, current rents may be raised to the appropriate level, which is to say that a system exists similar to that practiced in Germany. However, special regulations still apply to old agreements. Moreover, highly restrictive protection against termination was in place for a very long time, which made it almost impossible for landlords to end a rental agreement. In particular, the possibility to pass on rental agreements to relations – above all, to children – on the same terms combined with the stop on rent increases deprived landlords of any basis for an economic use of the properties. In Vienna this constellation led, moreover, to a situation in which – usually high – compensation payments were demanded when an apartment in an old building was relet (Aufhauser/Fischer/Schönhofer, 1991).

The regulations in Spain posed even greater problems. Only since 1994 is it permissible to raise rents under rental agreements concluded before 1964. Since it was possible in Spain to bequeath rental agreements to two generations, landlords were often unable to derive any economic benefit from the properties. For a long time, moreover, the costs for maintenance and improvement could not be passed on to the tenants. Consequently, more and more residential properties fell into disrepair until they were finally taken off the market or bought by self-users. Liberalization of the rental housing market gained momentum following the so-called Boyer Decree of 1985. Yet many pre-1985 rental agreements are still subject to special regulations regarding, for instance, the amount of the rent. In Barcelona alone, the share of such old agreements is roughly 50 percent (OECD, 2005b). Moreover, a minimum rental agreement term of five years was introduced under the tenancy laws reform of 1994. Faced with these regulations, many landlords are hesitant about letting their properties, preferring instead to wait for a buyer. Consequently, the 14 percent vacancy rate in the Spanish housing market is much higher than the average for the EU (OECD, 2005b).

In the United Kingdom, too, which has a reputation in Germany of having a very liberal market, the supply of rental housing was decimated, at least in the 1960s and 1970s, by interventions in tenancy laws. After rents had been frozen up to 1957 and were then gradually liberalized, the Labour government in 1965 introduced the fair rents system. Under this system, rents were to be set by independent rent officers, who as a rule had no special training, as if there were no shortages on the rental housing market. The outcome was that in 1981, rents were 54 percent below the market price level (Coleman, 1988). In the years 1970 to 1986, fair rents rose 18 percent more slowly than consumer prices. The fair rents system offers a good example of the evasive reactions such a system provokes. Initially, the rent restrictions applied only to unfurnished dwellings; not until 1974 were furnished dwellings included in the system. Many landlords tried, therefore, to rent their dwellings on a furnished basis or to declare them as holiday homes in order to dodge the restrictions. The success of their actions is illustrated by the fact that in 1980, when the regulations were abandoned for furnished dwellings, holiday homes and furnished rooms accounted for roughly 50 percent of all existing tenancy agreements (Donner, 2000, 493).

Whether in the United Kingdom, Spain or Austria, the response to such massive interventions is always the same. Where no possibility of evasion can be found, for example by declaring furnished rooms, investors withdraw from the market as they do not obtain an adequate return on their capital. This withdrawal takes the form either of dispensing with maintenance work, of selling the property (with self-users almost the only potential buyers) or a combination of these strategies. The supply of rental housing decreases as a result and would-be tenants, though willing to pay an appropriate rent, are unable to find a dwelling for rent and are forced to buy residential property. Rental agreements are often long-term and the legal framework is changing all the time. Thus, the investors' withdrawal from the market is proceeding slowly but unremittingly, so that the effect of interventions is difficult to prove (Arnott, 1988).

The effect is just as difficult to correct, however, as investors' confidence first has to be restored; moreover, the renting of living space must again be perceived as an option by home-seekers. For this reason, despite the liberalizations in the late 1980s and the 1990s in the countries under review, the rental housing market has developed only very slowly. This is due also to the fact that existing tenancy agreements are only gradually expiring. Certainly, it may be seen in the United Kingdom that through the liberalizations at least, the share of households in privately owned rented housing has been kept steady, whereas the share accounted for by social tenants has dropped perceptibly. Moreover, the share in a number of large towns and cities has risen again, and considerably more young middle-class households are again renting (Ball, 2005). This trend is likely to become even more pronounced due to the discontinuance of tax privileges for owner-occupied housing.

German tenancy laws cannot be described as liberal. Protection against termination is too restrictive in that it makes it difficult for landlords to end the tenancy prematurely, even if the tenant has long since stopped paying rent. Termination due to personal need of the Landlord is another constant cause for dispute.

Nevertheless, compared with other countries – especially those with a high ownership ratio, German tenancy laws present themselves as being moderate. Adjustments towards the market level were permitted very early on and rental agreements across generations were dispensed with. This allowed the private rental housing market to develop further and ensured the availability of a continuous supply. Thus, German households have always had an alternative to home ownership, and they have apparently been glad to make use of it.

3.4 Taxes and subsidies

The tax treatment of owner-occupied residential property has a central bearing on the form of housing chosen. Where the revenue authority favors owner-occupied housing over renting, the share of houshold with owner-occupied property will be greater assuming the other conditions are the same. If, on the other hand, landlords receive privileges and these are passed on to the tenants through competition – as may generally be assumed to be the case (Expertenkommission Wohnungspolitik (Experts' Commission on Housing Policy), 1995) – the share of tenant households will tend to be greater. Thus, one crucial factor is how the owner-occupied property is treated in terms of tax in relation to other real estate investments.

Basically speaking, owner-occupied residential properties may, for tax purposes, be put into one of two categories. Either they are regarded as an investment good or as a consumer good. In the case of the investment good solution, the purchase of a property is treated in terms of the objective in precisely the same way as with landlords. Consequently, the profit from the investment, which is made up of the income in the form of the rents saved, the imputed rents, minus costs, is taxed. The most important costs to be mentioned in this context are wear and tear and interest paid on borrowed funds. No profit is determined, on the other hand, with the consumer good solution. The property is purchased, like any other consumer item, using taxed income and is thereafter not subject to any further taxation. Hence, the possibility to claim a tax allowance for costs does not apply either.

Specialist literature contains an extensive debate on which model is more favorable for the household (Expertenkommission Wohnungswirtschaft, 1995). With the consumer good model, the household does not have to pay tax on the profit; this must be considered a privilege as the capital also yields a return in home ownership. After all, owners profit from the rent they have saved, the so-called utility value, and the appreciations in value. However, the distribution of the tax payments can prove to be less advantageous under the consumer good model. The purchase of a property often entails initial losses, because high interest on borrowed funds has to be paid and further investments and maintenance work are necessary. Over time, when the property is increasingly disencumbered, the gains rise, i.e. the utility value exceeds the running costs. Since most households have higher marginal tax rates at the age at which they buy property than at retirement age, shifting the tax liability into the future can be considered advantageous with the investment good model. This applies only, however, if the property is financed with a high share of borrowed funds. On the other hand, households buying a home with a large share of equity are always better off with the consumer good model. Thus, it depends on the merits of each individual case which model is the more favorable.

From the tax point of view and in terms of the overall financial burden, however, both models may be regarded as being on a par with each other.

Both models have been practiced in Germany: first, until 1986, the investment good model and subsequently the consumer good model. Up to the end of 2005, however, the consumer good model was always supplemented by an additional subsidy – initially, by the possibility to claim depreciation or special expenditure and, from the mid-1990s, by the granting of the government allowance for home-buyers ("Eigenheimzulage"), which is not progression-driven. Yet the investment good model contained an implied subsidy in that the imputed rent was as a rule set very low. This is a basic problem that the investment good model poses. Because valuation problems always crop up when determining the utility value, giving rise to dispute, the income from the owner-occupied residential property was always set at a very low level. This caused most countries to do away with the investment good model. Unlike Germany, however, debt interest tax relief was retained in most cases, so that the property owners were subsidized in this way (Table 1).

With the exceptions of France, the United Kingdom and Germany, in all the countries considered here, debt interest tax relief is allowed although in the majority of cases rents are not taxed. With regard to France, and more particularly to the United Kingdom, it must moreover be said that debt interest tax relief was abolished only recently. There, too, property buyers previously profited from the subsidies. Today, as in the past, subsidizing is still most pronounced in the Netherlands. Whereas the imputed rent was set at 1.25 percent of the market value up to the year 2000, the figure has been set at only 0.8 percent of the market value since 2001. This means that only a small part of the actual return is included in the basis of assessment. The interest on borrowed funds, on the other hand, can be claimed as a deduction from taxable income without any restriction.

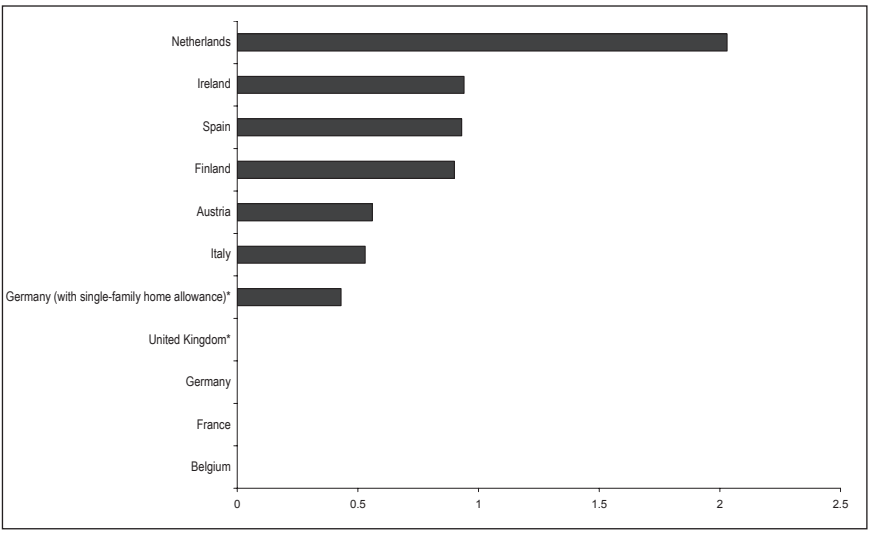
Table 1: Taxation of owner-occupied housing in Europe

Country	Taxation of the imputed rent	Debt interest tax relief
Belgium	Yes, on the basis of average rents	Yes; although the deduction possibilities decrease over time.
Denmark	No (this tax was replaced by local wealth taxes in the year 2000.)	Yes, but only from the capital income
Germany	No (abolished in 1986)	No (abolished in 1986); limited deduction in the period 1990 to 1992
France	No (abolished in 1965)	No (abolished in the period 1991 to 2000)
Italy	Yes, but with wide-ranging exceptions	Up to 19 percent of the interest payments can be claimed as a deduction on taxable income
Netherlands	Yes, basis of assessment: up to 0.8 percent of the market value of the property	Yes, without restriction up to a maximum of 30 years
Austria	No	Yes, although the deduction possibilities decrease with the income.
Spain	No	Yes, although with ceilings and decreasing over time
United Kingdom	No (abolished in 1963)	No (abolished in several stages in the period 1983 to 2000)

Sources: Wolswijk, 2005; IW Köln

A study conducted by Noord (2003) for the year 1999, in which the impact of the tax regime on financing costs was examined, also reveals the high extent of subsidization under the tax system of the Netherlands. For the purposes of said study, the mortgage rate was in each case compared with the effective after-tax interest cost. The difference in this cost, referred to as the tax wedge, may be interpreted as the advantage homeowners have compared with landlords. However, this presupposes that the investment in rented properties is not subsidized. It should also be borne in mind that the subsidies benefit not only the buyers but also the sellers of the properties, as the property price includes at least part of the advantages.

Chart 6: Tax privileges for homeowners
As a result of the tax rules, the effective interest charge for mortgage loans fell by … percent points in 1999.



* Own calculations, the year 2000 was considered for the United Kingdom.
Sources: Noord, 2003; IW Köln

The tax advantage is greatest by far in the Netherlands (Chart 6). Here, the effective financing costs fell by more than 200 basis points. Proceeding from a mortgage rate of 4.63 percent in 1999, the effective financing costs were therefore only 2.6 percent. In Ireland, Spain, Finland, Austria and Italy, too, all of which are characterized by a high home ownership ratio, financing costs dropped by a half to 1 percent point due to debt interest tax relief. The United Kingdom was also to be found in this group of countries before debt interest tax relief was abolished there.

According to the study by Noord (2003), the finding for Germany was a neutral result. However, his calculations did not adequately take the government allowance for home-buyers into account. On the basis of an average terraced house in west Germany in 1999 and assuming a family of four, the tax advantage amounted to

an equivalent of 43 basis points. In east Germany, where real estate is less expensive on average, the interest advantage was 48 basis points. On the whole, it may be said that the German subsidies were not insubstantial either, although there are two differences between German allowances for home-buyers and the debt interest tax relief as it was, and in some cases still is, practiced in other countries. First, the effect of the government allowance for home-buyers depended on the value of the property. Prior to 2004, in the case of new buildings up to 5 percent of the acquisition and production costs were assumed up to a ceiling of EUR 2,556. If the price of the property was clearly above this value, correspondingly less than 5 percent of the funds used was paid out by way of the allowance. Thus, it was possible to lower the financing costs considerably more if property prices were low than with very high prices. Not least for this reason, there was for a long time a tendency for buyers to move into the surrounding area, where property prices were often a good deal lower. This also explains the pronounced rise in the creation of home ownership in east Germany and there, too, in areas surrounding larger towns and cities. Second, the government allowance for home-buyers and the depreciation possibilities were granted only once or a maximum of twice in each householder's lifetime. For this reason, it was not worthwhile buying a property to live in for only a few years. Thus, the German promotion model encouraged households to wait before buying a property until they could afford one that met all their requirements. This, too, has contributed to the fact that German households are on average older than their European counterparts as first-time homebuyers.

Finally, until now it has been assumed that investments by landlords were not tax-privileged. As a matter of fact, however, there was for a long time a tendency particularly in Germany to grant depreciation allowances as an incentive to build. New building activity was most recently stimulated in this way in east Germany after reunification. In this context, subsidization is given when the tax depreciation rate is above the economic depreciation rate, i.e. when a higher level of wear and tear can be claimed for than actually occurred. Especially when combined with tax-free sale this gave landlords, and consequently also tenants, a tax advantage (Eekhoff/Menzel/Voigtländer, 2004). Such subsidization was less pronounced in other countries on account, in part, of the tax system. In the United Kingdom, for instance, properties are always stated at market value, with the result that there can be no discrepancy between the respective tax and actual depreciation rate. In Austria only social housing was promoted, whereas private housing was not.

Today, meanwhile, both homeowners and landlords in Germany are hardly subsidized. On the contrary, they are even placed at a disadvantage in some respects compared with other investors (Eekhoff et al., 2003). Apart from the fundamental effect of the consumer good solution, therefore, from the tax viewpoint there are no incentives either for or against the creation of ownership. In many other countries too, with the exception of the Netherlands, a tendency may be observed in the direction of tax neutrality. Yet it could in the past be assumed that the massive subsidies granted in many European countries acted as a major driver of home ownership creation.

3.5 The role played by property finance

Property finance has recently also been made partly responsible for Germany's low home ownership ratio. Beyerle and Milleker (2005) state, for example, that the high equity requirements demanded by German banks and the high early repayment penalties payable when mortgage loans are repaid prematurely help to keep the German home ownership ratio below the European average. In actual fact, the mortgage market can be an obstacle to the creation of home ownership: for when access to mortgage loans is denied households, they can finance a property only with great difficulty and are therefore dependent on rented homes. Yet nor, on the other hand, should the effect of a smooth-functioning mortgage market on the creation of home ownership be overestimated. Denmark, which is reputed to have a highly efficient and varied mortgage system (Mercer Oliver Wyman, 2003), is also below the EU average with a home ownership ratio of 51 percent.

In Germany, properties are usually financed as follows. The banks finance 60 to 80 percent of the mortgage lending value, whereby the mortgage lending value reflects the long-term, sustained collateral value and is on average 10 to 15 percent below the current purchase price. The remainder of the financing takes the form of the buyer's equity or loans taken out with a building society. As a rule, the mortgage loan is a long-term facility and in most cases the interest rate is fixed for a period of five to ten years. The greater part of mortgage loans is funded via deposits, uncovered bonds or Pfandbriefe. Funding through Pfandbriefe is an instrument of great importance to the German mortgage market. Pfandbriefe are issued by the lenders and guarantee the reflows (payments of principal and interest) from the mortgage loans for the investors. The claims of the Pfandbrief holders are covered both by the properties and by the reflows from the real estate loans. The Pfandbrief is a standardized and therefore highly liquid funding instrument with a very long tradition. The requirements to be met by the Pfandbrief and the issuing institutions are set forth in detail in the German Pfandbrief Act (Deutsche Bundesbank, 2006).

In connection with the fixed-rate loan, there has been debate recently about the early repayment penalty. If a mortgage loan is repaid prematurely, the bank ceases to receive interest payments whereas the claims of the investors such as, for example, the Pfandbrief holders continue to exist and are satisfied further. Any bank that grants long-term loans is confronted with this matter. In the case of the Pfandbrief, the holder's claim consists of a fixed interest payment, and no provision is made for termination. For the bank, the premature repayment of a mortgage loan does not pose a problem only if the agreed interest rate is equivalent to or lower than the actual market rate, as then the repaid funds can be reinvested to yield at least the same return, and the bank can meet the investors' claims without any additional costs. If the market rate is below the agreed interest rate, however, the bank sustains a loss of interest income and a loss of margin, as the return on a new investment is lower than before. The customer is charged the total loss incurred as a result. If the bank were to forego charging such a fee the customer would have an incentive to renegotiate the debt when interest rates fell, as he would then be able to save interest costs. This is quite common in Denmark or the US. However, banks and investors charge a risk premium for this renegotiation option. In Denmark, where

there are fixed-rate loans both with and without an early repayment penalty, the interest markup is between 30 and 80 basis points (Sorensen, 2006).

A comparison of the German mortgage system with the systems of other economies reveals several distinct differences (Table 2): The share of long-term financings is the largest by far in Germany. Long-term fixed-rate loans also predominate in the Netherlands, Denmark and France, although not nearly to the extent recorded in Germany. In Spain and the United Kingdom, on the other hand, floating-rate loans are widespread. Early repayment penalties are regu-lated almost everywhere, so that it is scarcely possible for borrowers to take out mortgage loans in the same way as with the German model. The consequence is that in many countries fixed-rate loans are more expensive than in Germany (Jäger/Voigtländer, 2006). In terms of the mortgage lending values, it may be seen that in Germany the loan amounts are slightly lower in relation to the market values than in many other European countries. In southern Europe, represented here by Spain, the loan-to-value ratios are lower still. By contrast, in the Netherlands and the United Kingdom even financings in excess of the market value of the property are not uncommon.

Table 2: Characteristics of select mortgage systems

Country	Share of floating-rate mortgage loans (fixed-interest period one year or less) in percent	Early repayment penalty	Typical (maximum) loan-to-value ratios in percent of the market value (MV) and the mortgage lending value (MLV) respectively
Germany	1	Early repayment penalty is confined to the first ten years and fixed-rate loans	60-80 (100) MLV
Denmark	14	There are fixed-rate loans with and without early repayment penalty	80 (80) MV
Netherlands	7	10 percent of the tied up capital can be repaid without early repayment penalty (self-commitment on the part of the industry)	87 (125) MV
Spain	75	Maximum of 0.5 percent of the residual debt in the case of floating-rate loans; with fixed-rate loans, usually 2.5 to 5 percent of the residual debt	65 (80) MLV
France	14	Maximum interest for three months in respect of the residual debt or 3 percent of the residual debt	78 (100) MV
United Kingdom	72	Maximum of 1 percent of the residual debt per year	70 (110)

Sources: Köndgen, 2006; Jäger/Voigtländer, 2006; IW Köln

According to the hypothesis of Beyerle and Milleker (2005), the offering terms on the German mortgage market do not correspond with customers' wishes. It would be easier for households to create property ownership if the mortgage lending

limits could be expanded to the British or Dutch level and the early repayment penalties ruled out. Generally speaking it may be said that German banks, too, could offer property finance as it is offered abroad, irrespective of the funding. Early repayment penalties can also be precluded within the scope of the Pfandbrief system provided the banks are prepared to bear the risk themselves or pass it on to the capital market in the form of derivatives. Alternatively, mortgage loans can be financed through Mortgage Backed Securities (MBS). This securitization instrument allows banks both to take mortgages off their balance sheets entirely and to pass on to investors the risk of early repayment of the loan. In the US, callable mortgage loans are for the most part financed through Mortgage Backed Securities.

In addition to the refinancing possibilities, banks would also be able to offer higher loan-to-value ratios under the German mortgage system; in this case, however, subordinated parts of loans could not be funded through Pfandbriefe but, for example, through uncovered bonds. Such offerings are not subject to any regulatory restrictions, and given the intense competition on the mortgage market (Mercer Oliver Wyman, 2003), one might expect that this supply-side gap will be filled. But mortgage loans are complex products with a high degree of standardization, which is to say it is only worthwhile distributing a new product once a critical volume of demand has been reached.

It is precisely here that the reason for the development of the German mortgage market may well be found. At least where the past is concerned, it may be assumed that the supply of mortgage loans took its bearings from the wishes of the typical German property buyers. Since, at the latest, the switch to the consumer good model in 1986 it has not been worthwhile due to the tax situation to opt for a high share of borrowed funds in Germany. The position in the Netherlands, for example, is different. Here, loans are structured in such a way as to allow households to secure for themselves the maximum tax advantage. Moreover, the government allowance for home-buyers has always been looked upon as equity, as a result of which lower loan to value ratios could on average be set than in other countries. And because most households wanted to use the property on a permanent basis, the option of calling the mortgage loan prematurely was of secondary importance. Thus, a long-term loan with a fixed interest rate gave households maximum planning reliability. In the United Kingdom or Spain, by contrast, households buy several properties during their life cycle. Floating-rate loans are especially favorable for these households, as they can be called with only a small early repayment penalty having to be paid. The minor importance of the sub-prime market also becomes clear in light of analyses to date. Both Mercer Oliver Wyman (2003) and London Economics (2005) come to the conclusion, for Germany, that there are relatively few mortgage offerings for households with very little equity, an irregular income and earlier loan difficulties. Yet a loan would always entail a risk markup for such households. Comparatively speaking, it is likely to be more favorable for them to rent living space than to buy residential property. Thus, demand for loans of this type does not arise in the first place. In the United Kingdom, on the other hand, households from this segment are dependent on buying their own property, and the financial sector has developed suitable offerings to meet such a demand. To

sum up, it may be said that mortgage supply is likely to have adjusted to the majority of customers' wishes.

Further factors corroborating this viewpoint are that, recently in particular, the supply has adapted to the changed overall situation. The government allowance for home-buyers was abolished in 2005. What is more, the pension level of the statutory pension scheme has been cut back further, with the result that private provisioning for old age, including the creation of home ownership, has gained in importance. Finally, the sharp decline in interest rates in recent years has also made home ownership creation more attractive. The first market players have already adapted their product range accordingly and are offering loans at a loan to value ratio of 100 percent and more. Other financial intermediaries are offering banks mortgage insurance based on the British model to offload the risks resulting from higher loan-to-value ratios (Dous, 2006). Loans with a floating interest rate and short fixed-rate periods of up to one year are also rising in importance. According to statistics of the Deutsche Bundesbank, the share accounted for by such loans of all new mortgage loans in the period 2003 to 2006 was 16 percent. By comparison, the share in the case of existing contracts was only 1 percent (Table 2).

Considered as a whole, then, it may be said that the German mortgage market plays, at most, a minor part in explaining the home ownership ratio. It can generally be assumed that as long as the market is not restricted by regulations, the supply of mortgage loans is determined by the wishes of the households. Customer demand, on the other hand, is largely determined by the offerings on the rental housing market and the tax situation. However, as is demonstrated by Spain, a liberalization of mortgage financing can give a boost to the creation of home ownership. Mortgage financing has gained rapidly in importance following measures which facilitate passing land charges on to the capital market and other deregulations in 1994 (Manzano, 2005). Whereas in 1995, the share of mortgage loans in terms of the gross domestic product was approx. 17 percent, it rose to more than 45 percent up to 2004. More intense competition on the mortgage market led to lower interest rates and a broader selection of products. This, in turn, made access to home ownership easier, particularly for younger households. The home ownership ratio has therefore risen, also in recent years, despite the improved supply on the rental housing market.

3.6 Other factors

Besides the influencing factors mentioned above there are, of course, other factors that encourage or discourage home ownership creation, yet which must be considered as being of somewhat lesser consequence. For the sake of completeness, however, some of these factors should be looked at briefly.

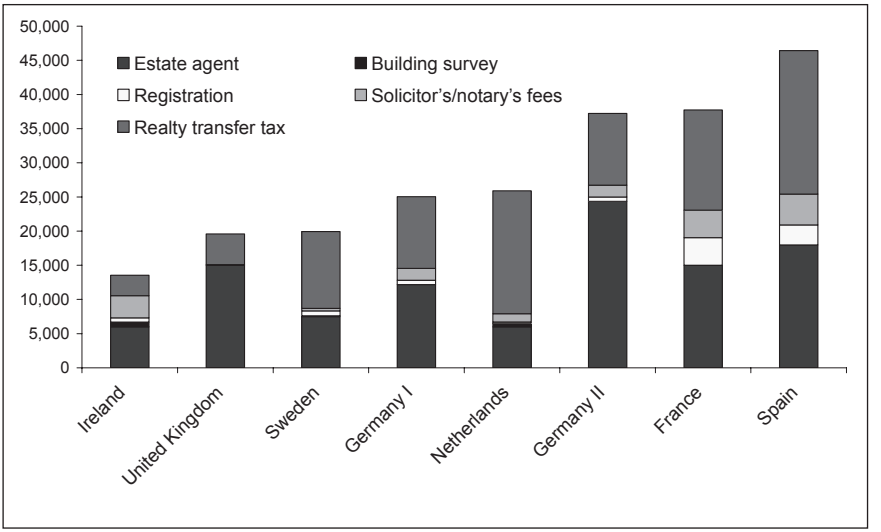
One aspect worthy of mention is undoubtedly the social importance of home ownership. For example, in many south European countries it is still not uncommon for children to receive a property, usually located near the parents' home, as a wedding gift (Earley, 2004). Children often live with their parents until they marry. This tradition makes it very difficult for a rental housing market to develop, and home ownership becomes the predominant form of living. Moreover, this tradition is encouraged by the limited functionability of the housing market, as the situation in Spain clearly demonstrates.

However, the social importance of home ownership can also be politically driven. In the United Kingdom, both the Labour Party and the Conservatives helped British households create home ownership, albeit for different reasons. The Labour Party saw landlords in the 1960s and 1970s as potential exploiters, and so turned the mood against the rental housing market. The Conservatives, on the other hand, emphasized home ownership as a pillar of a liberal society and promoted the creation of home ownership further. The Bush administration also promotes home ownership in a similar way, with its commitment to an ownership society. Yet the political parties have influenced not only the social moods but also, by intervening in the markets, citizens' decisions. Rent controls in the 1960s, for example, did lasting damage to the rental housing market and favored the tax subsidization of home ownership creation.

The transaction costs involved in buying a house, which are determined by realty transfer tax, estate agents' fees, notaries' fees and the cost of credit as well as the entry in the land register, also have an influence. Basically, transaction costs have a damaging effect on home ownership, as they increase the purchase costs. What is more, they cause a lock-in effect: because the costs are payable each time property is purchased, it is worth buying a new property only if the advantages offered by the new property compared with the present property are sufficient to cover the transaction costs as well. The higher the transactions costs, therefore, the lower the willingness to move house.

According to a study by the European Mortgage Federation (2006), the transactions costs for a typical property purchase in Germany are about average for Europe. In total, the transaction costs make up roughly 4.5 percent, excluding estate agents' fees. When they are included, however, the picture is altered because in Germany, depending on the region, estate agents' fees of between 3 and 6 percent of the purchase price are charged (Chart 7). Thus, the purchase of a property worth EUR 300,000 can entail transaction costs of up to EUR 37,235.

Chart 7: Transaction costs when purchasing a property worth EUR 300,000 in euros



For Germany I, estate agents' fees amount to 3 percent, for Germany II, 6 percent of the purchase amount.

Sources: Faller/Heising/Dübel, 2006, 26; IW Köln

In Spain, Italy and Greece, all of which have a very high home ownership ratio, transaction costs are even higher. But since households have – or for a long time had – hardly any alternative to home ownership, this does not seem to have affected home ownership creation. In France, however, the transaction costs are likely on the whole to have hampered home ownership, although this effect is overlaid by other factors such as tax promotion, which existed in France for a long time. In the Scandinavian countries and the United Kingdom, transaction costs are lower on the whole. Particularly in the United Kingdom, the low transaction costs are likely to have facilitated the purchase of residential properties and, above all, moving from one property to the next.

A survey recently published by Braun and Pfeiffer (2006) offers two more reasons for the low home ownership ratio in Germany. First, they refer to zoning restrictions and second, to the high purchase prices for residential properties. In this context, it must be stated that zoning restrictions affect both the rental housing market and the home ownership market. Only if a condensed form of construction (multi-storey apartments) is correlated with a tendency towards renting does a low ownership ratio result. There is empirical evidence to back this up, and it also seems reasonable from a theoretical viewpoint that owners prefer small dwelling units such as one- and two-family houses. After all, cooperation with a community of flat owners can be just as difficult as the relationship with a landlord. Yet it remains debatable whether the zoning really is restrictive and what criteria are to be applied to gauge

this. On the whole, however, it is not implausible that the willingness to create home ownership is generally less strong in densely populated areas.

A further problem cited by Braun and Pfeiffer (2006) as an obstacle to home ownership creation are the high purchase prices for properties in Germany. German households have to spend between five and six net annual incomes to buy their own home, whereas in other countries, it often takes only three to four net annual incomes to do so. But in this context, too, the same principle applies as was referred to for property finance: demand determines supply. In Germany, great importance was attached from the outset to a high standard of fixtures and fittings – also in social housing. What is more, the result of German tax promotion is that households put off purchasing a residential property and buy one only if it will satisfy their life circumstances over a longer term. This has an effect on the quality and, subsequently, on the prices of self-owned homes. In the United Kingdom or Spain, by contrast, simple self-used homes are also needed in order to meet the demand. Thus, the average price in these countries is below the German level. However, following the sharp price increases outside Germany, notably in Spain, the United Kingdom and the Netherlands, prices have probably converged in the vast majority of cases in the meantime.

4. The significance of the home ownership ratio to the economy

Now that the main determinants of the home ownership ratio have been set forth, and special consideration has been given to the question why the home ownership ratio in Germany is relatively low, this chapter will examine whether a higher home ownership ratio is desirable in terms of the economy. Or, seen from another angle, whether economic disadvantages result from a low home ownership ratio. As has been shown above, there is also in Germany a trend towards the creation of home ownership, and this trend may be expected to continue. However, it is unlikely that Germany would reach a level comparable with that in the United Kingdom or Spain without interventions in the residential property market. Thus, the question arises as to whether state intervention aimed at increasing the home ownership ratio can be justified.

As the study so far shows, the instruments that might be availed of for this purpose are either interventions in the rental housing market or tax subsidies. The creation of home ownership could be readily stimulated if the functionability of the rental housing market were upset. Yet it should be immediately obvious that a restriction of the economic use of rented properties cannot contribute towards an increase in economic prosperity. For this reason, rental housing market deregulations were consistently carried out in all countries. Thus, the sole remaining alternative is to expand tax subsidization, for example by reviving the government allowance for home-buyers, by permitting a tax deduction for borrowed funds or by selling building lots to potential homeowners at reduced prices.

All these measures have to be financed through taxes. Taxes, in turn, place a burden on households and provoke evasive reactions. Consequently, it can no longer be

assured that households and companies will use resources to their best economic effect. In a nutshell: taxes are harmful to the economy and have to be fully justified. With regard to the promotion of home ownership creation this means that not only the benefits of creating home ownership need to be explained; these benefits must also carry such weight that they can compensate for the disadvantages of higher taxation.

Proceeding from this thought, four arguments will be discussed in the following, three of which emphasize the economic benefits of home ownership and one describes how home ownership is to the disadvantage of the economy.

4.1 Social stability and the creation of home ownership

"Are Homeowners Better Citizens?". This was the headline given by DiPasquale and Glaeser (1999) to a well-known article on the significance of the home ownership ratio. Their view is that homeowners demonstrate greater social commitment and care more about their living environment. Tenants also benefit from these activities, which contribute to the formation of what is called "social capital". The Federal Office for Building and Regional Planning (Bundesamt für Bauwesen und Raumordnung) (2003) has also covered this topic and examined the significance of home ownership creation for the social stability of housing areas. Green and White (1997), on the other hand, emphasize the positive effects on children. For instance, they see them as having advantages at school from living in a more stable environment. However, this effect has no impact where tenant households are concerned; this is to say that where home ownership actually does have a positive impact on the success of children at school, this constitutes a private return and not an effect benefiting the economy, which is also of benefit to others. Moreover, the subsidization of homeowners does not seem to be a precise instrument for improving education. Direct education subsidies would appear to be more accurate. Consequently, this aspect of home ownership creation will not be pursued further.

The starting point when considering social stability or more generally with regard to the provision of social capital is always the greater immobility of homeowners compared with tenants and the objective of keeping or even raising the value of the property. Since the majority of home-owners want to live in their home for a longer period of time, they have an interest not only in preserving their own living space but also in caring for local amenities, improving relations between neighbors and becoming involved in school or local policy issues. This commitment does not benefit only the homeowners: tenants in the neighborhood also benefit from a living environment that is looked after and from the increased level of social commitment. Seen from this perspective, the creation of home ownership therefore also has positive external effects which are a necessary – but in themselves not necessarily a sufficient – prerequisite for justifying the payment of subsidies.

In their panel study of US households, DiPasquale and Glaeser (1999) actually reach the conclusion that, where the conditions are otherwise identical, owner households invest more commitment in the community. Thus, the probability that homeowners will tend their garden is 11.6 percent greater than in the case of tenants. And with regard to participation in local elections (+15.3 percent) and working to solve local problems (+6 percent), the probability in the case of owners

is greater than that of tenant households. Moreover, home ownership increases by 9.6 percent the probability of knowing the name of the school head, which is also considered to be an indication of social commitment. One interesting finding in this context is that the effects as a whole are lower when the duration of residence is explicitly taken into account. This means that the assumed effects are not owed, at least in part, to ownership but to local ties.

DiPasquale and Glaeser also ran a check of their theory for Germany, using the data of the German Socio-Economic Panel (SOEP). It is remarkable here that a positive connection was found to exist also for Germany between home ownership and the indicators that point to greater social capital. However, the correlation turns out to be far lower compared with the US. In Germany, then, homeowners are only 2.4 percent more likely to participate in voluntary activities and activities performed in an honorary capacity; with regard to participation in local politics, the figure is 3.4 percent. Only with regard to working in the garden and house repairs is the probability 10.3 percent higher and so at a level similar to that in the US. Further, it is also true of Germany that the effect decreases considerably when the duration of residence is taken into account. These findings suggest that the benefits of the creation of home ownership to social stability are rather limited in Germany. Since German tenants often intend to remain in their apartment or house on a permanent basis, they have an interest – like owners – in becoming involved in the community. In the US, by contrast, renting is always seen as a temporary solution, with the result that the effects are much stronger here. As far as investing in the living environment is concerned, it is understandable that tenants show less commitment than homeowners. After all, it is always the owner's responsibility to look after a property. Thus, most investments in this area are made by small landlords or housing companies with an interest in keeping their dwellings attractive. Large landlords even have the advantage in this respect that they can coordinate their activities better and so realize bigger investments. Communities of flat owners, on the other hand, often face the problem of being unable to agree on joint measures.

The Federal Office for Building and Regional Planning (Bundesamt für Bauwesen und Raumordnung) (2003) ultimately also comes to the conclusion that the creation of home ownership is not of decisive importance to social stability. That the social stability of an area is often increased by a larger circle of homeowners has less to do with the ownership situation but rather with the fact that a different clientele moves into the area. The incomes, level of education and family stability of owner households are often higher, which can have a stabilizing effect on the neighborhood. Yet this effect can be realized not only by a higher home ownership ratio but also by the availability of attractive, high-quality rental units.

On the whole, there is no justification for home ownership creation on the basis of the above aspects. Inasmuch as there is in fact a significant impact on social capital as a result, it will hardly be sufficient to outweigh the negative effects as a result of a higher tax burden. Moreover, it is not certain whether the assumed indicators are adequately representative of social commitment and what benefit for the economy results from the assumed activities. What is more, these findings suggest for Germany that social commitment hinges more on the planning horizon

of the households – and in this respect there appears to be little difference between tenants and homeowners in Germany due to the acceptance of the rental housing market.

4.2 Citizens' mobility

The previous section suggests that the greater immobility of homeowners tends to entail benefits because immobile households are more likely to show social commitment. Yet immobility also has its dark side, as it can have negative implications for the labor market.

For the prosperity of the economy it is crucial that employees are put to work where they can put their skills to the best effect. Because the labor market is highly heterogeneous and untransparent, it is often difficult for the "right" employee and employer to find one another. In specialist literature, this point is also discussed under the keywords "matching" or "search unemployment". On the whole, matching is improved when the households have good qualifications and, above all, are flexible; and that, of course, includes mobility. The greater immobility of homeowners can have an adverse effect on the functionability of the labor market in two respects.

Viewed on its own, home ownership can make the search for a new job difficult. Over time, owners often invest a great amount of work and money in their property. Yet these investments are in some cases highly individual and therefore do not raise the market value of the property in proportion to these investments. For example, very few buyers will be prepared to pay more for structural adjustments or elaborate sanitary facilities. Thus, selling the property often means a loss from the owner's viewpoint. Moreover, transaction costs in the form of taxes, land register entries and notary's fees are incurred when changing a property. As a result of all these factors, moving house involves higher costs for a homeowner than for a tenant. Consequently, the owner is less willing to seek a new job supraregionally, which in turn reduces the probability of finding a job that matches his qualifications. Evidence shows that in the United Kingdom, too, where properties are often less individual and transaction costs are very low, homeowners move less frequently to take on a new job (Henley, 1996). This is particularly true in times of falling property prices, as the total of outstanding loans can exceed the value of the property. In such a case, homeowners would have to raise additional funds to repay their mortgage; but this is often too great a financial strain for households and so prevents them from moving. This scenario is currently less likely in Germany because the loan amounts are mostly below market prices. But if the trend towards higher loan-to-value ratios continues, German households could also be affected in this way.

Yet the low degree of willingness to look for a new job supraregionally is not necessarily a problem for society. Since strong sanctions have been built into the "ALG I" and "ALG II" unemployment benefits in the meantime, owners must as a rule themselves bear the consequences of this lower level of supraregional job-seeking activity. Over and above this, homeowners are said to be especially highly motivated because of the investments made. Because in the event of unemployment their losses would be higher than those suffered by tenants, they go to great lengths to keep their jobs, which is why they ultimately become unemployed less often

(Bover/Muellbauer/Murphy, 1989). Nevertheless, an individual problem remains in the event of unemployment that must be regarded as serious particularly when the household is forced to create ownership, i.e. not voluntarily, due to external circumstances such as an inadequate rental housing market.

Besides this rather more individual problem, homeowners' immobility can also have repercussions for other employees, particularly in phases of an economic upswing (Ortalo-Magné/Rady, 2002). The purchase of a property is ultimately also an insurance against rising rents, i.e. homeowners react less sensitively to market movements than tenants. If one considers, for example, a metropolis such as London and assumes that the demand for workers rises due to an upswing, the demand for housing will also rise. This will cause rents to rise, which will induce some tenants who are not dependent on living centrally for their jobs to move to the surrounding area. Some owners may move house because the rising property prices make a sale more attractive. On the whole, however, it may be assumed that the fewer households leave the metropolis, the higher the ownership ratio is. This means that when the home ownership ratio is high, the market for households moving into the metropolis is small, resulting in a stronger rise in rents. This, in turn, will stop some households from moving to the metropolis, hampering the matching process on the labor market.

When one considers this question as a whole, therefore, home ownership can also contribute towards higher search unemployment with the result that the best workers are not chosen to fill vacancies. This can intensify in particular structural problems on the labor market (Haavio/Kauppi, 2000). Since a very high level of flexibility is demanded of employees today, and this is accompanied by changing jobs, it cannot be ruled out that a high home ownership ratio is having an increasingly negative impact on the labor market. Certainly, the transaction costs involved in buying a house are growing increasingly more relevant in this context.

4.3 Saving and home ownership creation

To buy a property, a loan usually has to be taken out which is repaid over a long time period. Particularly in the past, banks demanded an initial repayment of at least 1 percent of the principal amount or, alternatively, that the capital for repaying the loan in its entirety was formed by means of another saving process such as a life insurance policy. Moreover, the loan should as a rule be repaid by the beginning of retirement age. This means that because of these circumstances, homeowners are under an obligation to save which is often in excess of what comparable tenant households save on a voluntary basis. On the strength of data of the Income and Consumption Sampling Procedure ("Einkommens- und Verbrauchsstichprobe") from the year 1998, Grunert (2003) calculated that the personal savings ratio of owner households with residual debt was roughly 21 percent, whereas tenant households saved roughly 8 percent. However, these calculations do not take the different incomes of owners and tenants into account. By adjusting the calculations for the income effect using a regression procedure, the savings ratios shown in Table 3 for tenants and owner households are derived.

Table 3: Savings ratio in percent depending on household income

Monthly spendable household income	Owner households				Tenant households	
	with residual debt		without residual debt			
	West	East	West	East	West	East
EUR 1,500	-5.4	-1.5	-7.2	-2.0	0.9	4.2
EUR 2,500	12.9	17.6	11.1	16.0	12.5	14.0
EUR 3,500	20.7	25.8	19.0	23.7	17.5	18.1
EUR 4,500	25.0	30.4	23.4	28.0	20.3	20.5
EUR 5,500	27.8	33.3	26.1	30.8	22.0	21.9

Sources: Grunert, 2003; IW Köln

For the sake of comparability, the calculations were based on spendable income. Spendable income is equivalent to the disposable income less rent costs or less imputed rents for owned property. In the case of households with a spendable income of less than EUR 1,500, the savings ratios of owner households are negative, whereas those of tenants are slightly positive. This is probably due to the fact, above all, that this income group is likely to contain an overproportional number of overindebted households which, owing to unemployment, insolvency or other events are no longer able to pay the installments on their loans or, if they are already free from debt, have to use up their assets. In the income bracket up to EUR 2,500, the savings ratios are very close together. At 12.5 percent, the savings ratio for west German households in this income bracket is only 0.4 percent points below the savings ratio for homeowners. It is only when incomes increase that the savings ratio for owners clearly exceeds that of tenants. Another noteworthy point is that the savings ratio of owners without residual debt in the higher income bracket is higher than that for tenants. Thus, households that no longer have to repay loans – and are therefore under no obligation to save – save on average more than tenants. Braun and Pfeiffer (2006) attribute this finding to an habituation effect, i.e. the households are so used to saving that they continue to save even without outside pressure. In addition, owners continue to save to be able to afford any repairs that may have to be made to their property. In consequence, owners as a rule have much more wealth than tenant households. Braun and Pfeiffer (2006) in particular consider this a major benefit of home ownership creation.

Whether the higher savings ratio really is a benefit is, however, debatable. For households, saving is not an end in itself: it serves the purpose of consumption smoothing between the phase of gainful activity and retirement. Because households want to attain a level of income in retirement similar to that during the gainful activity phase, they have to save part of their earned income. The creation of home ownership is one such possibility, as the rent costs that are saved in retirement are equivalent, economically speaking, to the payment of a monetary pension as in both cases the household has greater consumer potential. Compared with other investment classes, however, the creation of home ownership involves a number of specific risks. First, the household can only invest in one property as a rule, so that there is no possibility to diversify risk. The property value can fall as a result

of unfavorable infrastructure decisions, demographic trends or other external effects, with the result that the return on the investment drops well below the level for comparable investments. Second, the property market is less liquid than the capital market; sometimes, therefore, the owner may not find a buyer for the property or has to sell the property at less than fair value. Over and above these considerations, any sale and the purchase of a new property always entail transaction costs that must also be included in the calculation. And third, the household has to take into account that a residential property also needs maintenance or modernization work, and that reserves have to be built up to cover these costs. All these factors indicate that to safeguard a certain level of provisioning, the homeowner ultimately has to save more than a tenant household, which saves for instance through life or disability and pension insurance. Thus it may be conjectured that the empirical observation of higher savings ratios for owners is due at least in part to the specific risk entailed in old age provisioning through home ownership. The fact that so many households nevertheless prefer home ownership may be explained by the special characteristics of home ownership. After all, one's own home is not only an investment good but also a consumer good that already benefits the owners in the phase of gainful activity, i.e. in the saving phase, and is also always a form of self-fulfillment. Homeowners' higher savings ratios and higher volume of wealth must be seen in relation to these factors because they also include the value of the consumption benefit associated with owning one's own home. After all, the value of purchased cars or yachts is not included in the case of tenants.

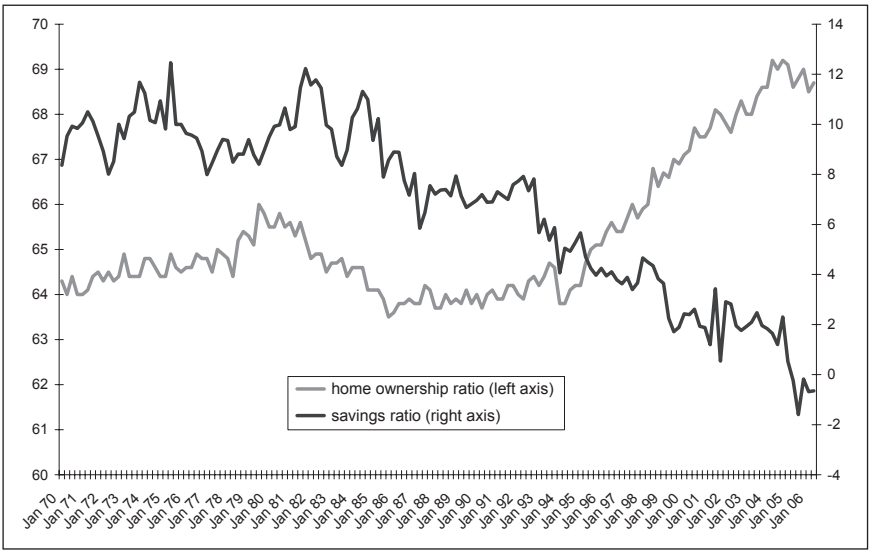
The benefit of a higher savings ratio to the economy may also be doubted. A high propensity to save can have a positive impact on the overall economic development if, through it, capital is made available for investments and if, as a result, more jobs and/or more innovations materialize. This presupposes, for example, that the capital does not flow out of the country. When home ownership is created, a distinction has to be made between repayment and asset formation through property ownership. In terms of the economy, the repayment of a loan is a zero-sum situation as the amount saved by the household in the form of the repayment is preceded by the taking out of a loan, i.e. a dissaving. The position is different with regard to an increase in the value of the property. If the property appreciates over time, the capital employed yields a return with the result that, on the whole, more capital is available for investments. For the time being, however, the capital stays tied up in the property and does not pass to the capital market, through which the funds can then be steered into investments. This is to say that new investments can only be stimulated if the property is sold or the tied-up capital is released by way of a withdrawal of equity. If the capital remains in the property, however, this benefits the economy as much as money kept under the mattress. Thus, savings may be considered to be economically relevant primarily if they go beyond asset accumulation in the owner-occupied property, i.e. for example the formation of savings for maintenance and improvements at a later date.

Moreover, it must also be doubted whether the positive correlation between home ownership ratio and savings ratio is actually universal, or whether it is not a German or temporary phenomenon. To be able to assess this, it is necessary to examine developments in the US more closely. The US is especially well suited for this

purpose because the U.S. Census Bureau has been recording home ownership ratios on a quarterly basis since the 1960s.

As Chart 8 illustrates, the US home ownership ratio has risen particularly strongly since the late 1980s. The savings ratio dropped appreciably over the same period. This on its own does not serve as an explanation, as the savings ratio is determined by a great many factors. Yet the idea suggests itself that the correlations in the US might be different than in Germany.

Chart 8: Development of savings ratio and home ownership ratio in the US



Sources: OECD; U.S. Census Bureau; IW Köln

To analyze this more closely, the influence of the home ownership ratio on the savings ratio was estimated using a regression model; the unemployment rate, disposable income and the long-term interest rate were also taken into account as further explanatory variables. The results are shown in Table 4.

Disposable income is the most important determinant in explaining the savings ratio. This is also suggested by the results shown in Table 3. If, moreover, the home ownership ratio is also considered, one first derives the result that this factor plays an insignificant part in explaining the savings ratio. It is not plausible, however, that a change in the home ownership ratio has a direct effect on savings behavior. It is rather to be expected that this effect kicks in with a time lag. For this reason, if one considers the change in the home ownership ratio of two years before, a significant effect is found and the regression coefficient is negative. This means that an increase of the home ownership ratio leads to a decrease of the savings ratio. This result is confirmed by various expansions of the model. It may therefore be stated that in the US, in contrast to Germany, homeowners tend to save less than tenant households.

Table 4: Effect of the home ownership ratio on savings in the US

Dependent variable:	Savings ratio					
Explanatory variables						
Disposable Income	0.008*** (7.89)	0.007*** (7.69)	0.008*** (7.95)	0.013*** (13.18)	0.013*** (13.4)	0.013*** (14.97)
Home ownership ratio		0.017 (0.08)				
Home ownership ratio two years before			-0.37* (-1.68)	-0.42** (-2.39)	-0.39** (-2.26)	-0.38*** (-2.65)
Unemployment rate				-0.083*** (-8.79)	-0.08*** (-8.83)	-0.023*** (-2.99)
Long-term interest rate of the previous period					0.25*** (2.8)	0.31*** (4.85)
Savings ratio of the previous period						0.45*** (5.49)
Adjusted R^2	0.3	0.29	0.31	0.56	0.58	0.71
Durbin-Watson Test Statistics	1.78	1.77	1.76	1.67	1.76	2.08

Remarks: Use was made of quarterly data of the OECD and the U.S. Census Bureau for the period 1st Quarter 1970 until 2nd Quarter 2006. As all variables are non-stationary with the exception of the unemployment rate, the rates of change of the corresponding variables were used. The regression coefficients are given, whereby ***/**/* mean significance at the level 1%/5%t/10%; the corresponding t-values are in parentheses. For the last regression model, the available income of the previous period as well as an AR(1)-term were taken into account by way of addition, which are also highly significant in each case.

Source: IW Köln

How is this result to be explained? One reason that can certainly be given is the lesser obligation to save. Redemption-free loans are much more common in the US than in Germany. Moreover, far from every mortgage loan in the US is repaid in full by retirement age. Instead, the property is sold and the proceeds used to buy a smaller property or a reverse mortgage is agreed on with the bank. Here, the owner sells the property to a bank and in return he receives a life annuity and a right of abode for the rest of his life (Eschtruth/Tran, 2001). The property passes to the bank at the owner's death. An important aspect in this context is the mortgage equity withdrawal (Greenspan/Kennedy, 2005). In the US it is customary for mortgage loans to be increased or even expanded by homeowners wishing to make larger purchases or investments. Although mortgage equity withdrawal is also possible in Germany, it has not been actively marketed to date. For this reason, German households must as a rule either raise more expensive consumer credits or make additional savings.

As a whole, therefore, a different view is taken of residential property in the US than in Germany. In Germany, residential property is primarily a consumer good that ultimately plays only a minor role in economic planning. In the US, by contrast, residential property is an investment good that is lent against again, sold or put to other economic use depending on the respective homeowner's requirements. Often, US households also expect values to rise, given above all previous boom phases on the property market. This is why homeowners feel wealthier than corresponding

tenant households, even though their capital gains are unrealized. This, too, explains in part why US homeowners tend to consume more.

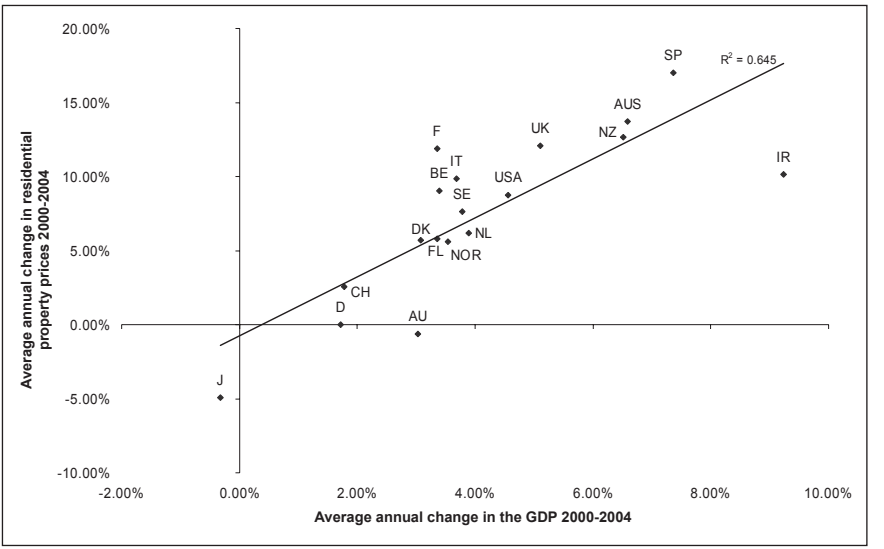
A further explanation could have to do with German inheritance tax laws. Real estate is usually subject to appreciable tax privileges when it is bequeathed because, among other things, valuation markdowns are made for tax assessment purposes. This makes residential property particularly attractive for individuals with a strong motivation to bequeath. If there really is a close connection between the creation of home ownership and the motivation to bequeath, it would follow that homeowners have on average a stronger tendency to save, even after the residual debt has been paid off. Moreover, one cannot rule out the possibility that, in Germany, primarily households with a high motivation to save create personal property, so that the correlation between home ownership creation and the formation of savings does not represent a causal connection but is the result of self-selection processes. In the US, by contrast, where home ownership is much more widespread, properties are bought both by thrifty and by less thrifty households, for which reason owner households do not show a higher savings ratio here.

This paper can only begin to explain the differences in savings behavior between US and German owner households. The decisive point is, however, that the example of the US shows that home ownership does not as a general principle teach owners to be thrifty. Assuming that the picture of home ownership will change also in Germany and the owner-occupied property is increasingly perceived as an investment good in this country, above all because private provisioning will grow in importance as a whole, it is not to be expected in Germany either that a rise in the home ownership ratio will spur on the formation of savings. Considering, moreover, the general difficulty in identifying homeowners' savings as being of benefit to the economy, it becomes immediately clear that the subsidization of home ownership creation as a means of stimulating the formation of savings is misguided.

4.4 The interaction between home ownership creation, property finance and the economy

An increasing focus has been placed on the residential property markets in recent years because there is obviously a close connection between economic development and the development of residential property market prices. Chart 9 presents this correlation more clearly.

Chart 9: Housing prices and the GDP are moving in step



Sources: Hüther/Voigtländer, 2006; IW Köln

In most of the above countries, the economic upswing went hand-in-hand with strong price increases on the residential property market. And in countries in which the economic development was sluggish, for example in Germany and Japan, the property prices stagnated too. This may be explained, first, by the fact that the demand for property grows with incomes. Second, however, the home ownership market has considerable implications for the overall economic development. This becomes especially clear when considering the US.

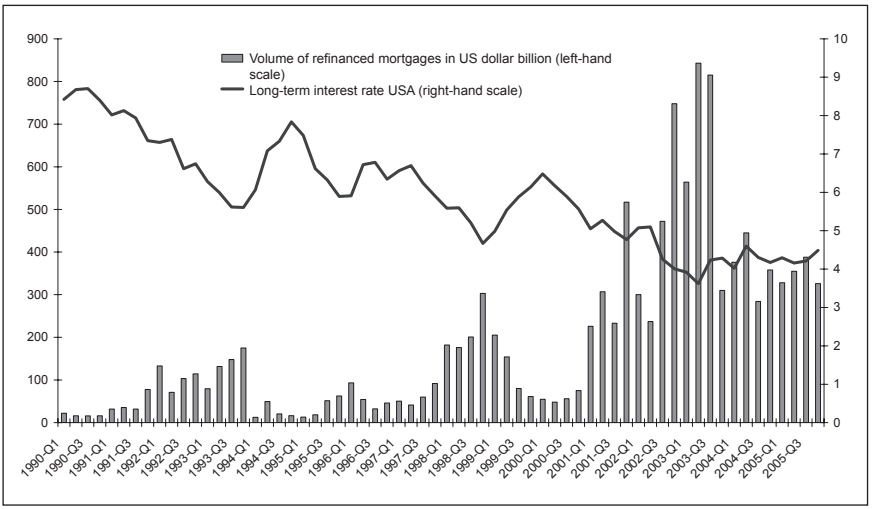
When, in the year 2000, prices of the New Economy stocks plunged, there were fears that the US would be gripped by a serious recession. After all, many US households had invested in the IT sector, as had European households. As a matter of fact, however, an economic downturn was prevented when the Federal Reserve Bank cut interest rates drastically, stimulating consumption by homeowners.

Interest rate cuts generally have a positive impact on property prices because financing costs fall as a result, so that demand for properties increases. What is more, real estate and other assets become more attractive as safe investments on the capital market become more unattractive. One peculiarity where property price increases are concerned is that they do not usually make anyone worse off (European

Central Bank, 2003). Since interest rates have no (direct) influence on rents, tenants are not adversely affected by rising property prices. Potential buyers do have to borrow a larger sum to buy property; on the other hand, they can finance the purchase on more favorable terms when interest rates fall. Homeowners, on the other hand, profit from rising property prices and realize a capital gain, which can have an effect on their consumer behavior. Provided the property is financed with a floatingrate loan or refinancing possibilities exist, owners also profit from falling monthly charges. This, too, raises consumer potential and has an additional positive impact on property prices.

The conditions for such a constellation are ideal in the US. First, the home ownership ratio is almost 70 percent, so that the majority of the population were among the winners. Second, every long-term loan in the US can be refinanced at low cost; this means that every homeowner with a residual debt was in a position to profit from interest rate cuts. Chart 10 shows that intensive use was made of these possibilities, so that one prerequisite for a rapid economic recovery was met. The home ownership ratio in Germany, by contrast, is barely 43 percent, and fixed-rate loans without a possibility to refinance before the end of the fixed-rate period – i.e. with an early repayment penalty – predominate. Consequently, the chances of a recovery of the economy in this specific situation were considerably lower in Germany than in the US. By contrast, Spain and the United Kingdom, where properties are for the most part financed at floating rates and the home ownership ratio is very high, homeowners were likewise able to profit from the fall in interest rates to a particular extent.

Chart 10: The mortgage refinancing boom in the USA



Sources: OECD; Mortgage Bankers Association; IW Köln

Against this background the question arises as to whether a high home ownership ratio is beneficial to the economy after all, as through it an interest rate policy-

driven stimulus can be transmitted to the economy in an especially effective way. For the US, the high home ownership ratio in combination with the rate cuts and the refinancing possibilities was undoubtedly of substantial benefit after the New Economy bubble burst. Nevertheless, the beneficial nature of the home ownership ratio in this economic context should not be generalized.

First, there is also a phase after interest rates are cut – when, in most cases, rates rebound. Just as lower rates in interaction with the property market can give a boost to economic activity, interest rate increases have a severely dampening effect on the economy. Particularly countries with largely floating-rate mortgages are vulnerable to interest rate hikes. It is hardly surprising, then, that the United Kingdom in particular is susceptible to pronounced boom and bust cycles on the property market (Miles, 2004). This heightens the market players' insecurity and is detrimental to a constant development of overall economic activity. Moreover, the danger of overin-debtedness is especially great in the case of households with floating-rate mortgages (Wolswijk, 2005).

The situation in the US is somewhat different. Here, fixed-rate mortgages are considerably more widespread than in the United Kingdom. What is more, the study by Jäger and Voigtländer (2006) shows that US households are particularly likely to choose floating interest rates when rates are high, whereas they tend to opt for fixed-rate loans when the interest rate level is low. In this way, households profit in the trend from falling rates and protect themselves from rising rates. This also has a positive effect on the business cycle as upswings are supported and downswings are checked. Yet this does not offer complete protection: for some time now, the International Monetary Fund has been warning (2005) about the consequences of a property crisis that may be triggered by property prices overheating. So far, however, the US economy has proven to be relatively stable, also because long-term financings are widespread.

But there is also a snag with the long-term loans in the US. Generally, no early repayment penalty is due with mortgages in the US, only charges for refinancing the loan. These amount to roughly 1 percent of the principal (Deep/Domanski, 2002). This is the precondition that enables all mortgage borrowers to refinance and so to profit from falling interest rates. Yet this option is not cost-free: the banks take it into account when granting the loan. This is to say that, in the trend, the loans become more expensive as a result. In times of high interest rates, when the probability that interest rates will fall in future is great, the customer may wish to buy the option, although here, too, floating rates are the more favorable alternative. When the interest rate level is low, however, and there is little probability that rates will fall further, the purchase of the early repayment option is a superfluous financial burden. Thus, when taking out a mortgage loan, US households are subject to pressure to buy or forced consumption, which limits their scope for consumer spending or debt repayments. However, the price of this option is smaller the more unlikely market participants consider the probability that rates will continue to fall.

In this context, a further objection arises to the transferability of the US debt refinancing boom. The interest rate cuts, in particular the magnitude of the cuts, caught market participants off-guard. The prices for the refinancing option were

set too low, with the result that buyers of Mortgage Backed Securities ultimately sustained a financial loss while mortgage borrowers profited. It may therefore be expected that the price for the refinancing option will be higher in future when rates are on the increase. This, too, will have the effect of dampening economic activity.

Moreover, the question arises whether a constellation such as that witnessed following the New Economy bubble in the US or in a number of other European countries can be repeated. It is generally assumed that the interest rate level will grow more constant in future (International Monetary Fund, 2006; Bank for International Settlements, 2006). This has already been dealt with in specialist literature under the heading "The Great Moderation" (Summers, 2005). The main forces behind this easing of interest rates are globalization, the heightened effectiveness of measures to combat inflation and the increasing credibility of the central banks. Property markets lose some of their economic significance in this scenario. Since the economy can no longer be strengthened by stimulating consumption by homeowners, the home ownership ratio is also of correspondingly less relevance.

Finally, it must also be said that the Fed pursued a bold strategy. Since property markets react with a time lag, the effect of the monetary policy impulse could have been too strong or could have kicked in at the wrong time. Moreover, it remains to be seen whether the strategy will be long-term, i.e. whether the US will actually remain on a path to stronger growth. At present it looks as though the strategy has turned out a success, although a final assessment will not be possible until a later point in time. Certainly, there is absolutely no guarantee that this strategy will be successful in other constellations.

What does this mean for Germany and the home ownership ratio? The example of the US shows that in specific situations a high home ownership ratio can potentially have a positive impact on the economy. Yet situations of this kind are rare and will probably become even more unlikely in future because interest rates are pursuing an, on the whole, increasingly more constant course. This does not mean that the key interest rates will no longer be changed or that short-term interest rates will no longer fluctuate. However, long-term rates should grow even more stable than in the past as inflationary expectations are leveling out. Because long-term property finance will continue to predominate in Germany and gain in importance in other countries such as the United Kingdom or Spain, this means that the economic significance of the property markets will recede. In this connection, the home ownership ratio will also become less relevant. Indeed, the German home ownership market is already largely decoupled from short-term economic fluctuations. This gives the market players planning reliability and fosters steady economic development. Other property markets will probably also develop along similar lines. As far as property finance is concerned, it may be assumed that the refinancing option will grow less relevant in an environment of constant interest rates. By contrast, the classic fixed-rate loans and floating-rate loans will retain their relevance.

Yet even if the general appraisal of how interest rates will develop in future is not followed, but substantial interest rate fluctuations continue to be expected, the

subsidization of home ownership creation as a means of strengthening economic activity nevertheless appears counterproductive. Subsidization, after all, necessitates higher taxes, which always have negative implications for consumption. Consequently, to generate a short-term and uncertain stimulus, a lasting weakening of growth would have to be taken into account. That this is ultimately a losing game in terms of the economy ought to be immediately obvious.

5. Synopsis

In contrast to many other European countries, the rental housing market and home ownership market in Germany co-exist on an equal footing. As the above study has shown, this is due primarily to three factors:

1. The result of social housing is that the German housing market contains a larger market share accounted for by rental housing. The high standard of quality of social housing and the inclusion of private investors served as the foundation for a larger private rental housing market.
2. Homeowners in Germany did not benefit from such high subsidization as in other countries such as Spain or the Netherlands. For this reason, there is less of a bias in the decision-making process towards home ownership. What is more, most assistance measures were granted only once or twice, so that households usually decided at a relatively late stage for home ownership.
3. Finally – and this is probably the most important reason – the German rental housing market was not rendered inoperative by excessive interventions in rents as was the case in countries such as Spain and the United Kingdom. Though the German market can hardly be described as liberalized or ideal, the "Vergleichsmietenregelung" (comparable rents system) has always given landlords the possibility to adjust rents in the direction of the actual market level.

Thus, Germany is characterized by a very strong rental housing market; this tends to benefit the functionability of the labor market. Does the low home ownership level also entail disadvantages? As the discussion in Chapter 4 suggests, there is ultimately no argument to justify the subsidization of home ownership and the associated tax burden. The benefits as a result of the greater immobility of homeowners in the form of higher social capital are, in the final analysis, negligible, and are indeed offset by the disadvantages this gives rise to on the labor market. The notion that owners save more than tenants does not apply universally, as the example of the US demonstrates. It is debatable, moreover, whether higher savings on the part of homeowners actually produce a benefit for the economy. And the benefits of creating home ownership in connection with monetary policy and economic activity are ultimately strictly limited, and may possibly be of even less relevance in future. Thus, this line of argument likewise fails to convince.

Germany therefore suffers no disadvantage and ultimately benefits from the fact that the country's citizens are not forced into home ownership. Rather, households are free to decide either for or against the creation of ownership solely on the basis of their needs and preferences.

Looking to the future, we can expect home ownership ratios in Europe to converge slightly. Spain, the United Kingdom, Austria and other countries besides have liberalized their rental housing markets and cut back tax privileges for owners. This will give impetus to the rental housing market and curb the creation of home ownership. However, it will take a long time before households again perceive renting as a true alternative and investors again pluck up the courage to invest in the market.

In Germany, by contrast, the trend towards home ownership creation may be expected to continue, albeit at a low level, despite the abolition of the government allowance for home-buyers. The main factors that argue in favor of a continued rise in the home ownership ratio are the greater importance attached to private provisioning. In former times, when the level of pensions under statutory disability and pension insurance was roughly sufficient to maintain one's standard of living, the creation of home ownership from the investment point of view was often superfluous. Today and in the future, by contrast, rent-free housing in old age will grow in importance as a component of an individual strategy for old age provisioning. In addition, the ongoing privatization of publicly and company-owned dwellings will have a positive impact on the creation of home ownership.

At the same time, property finance will also be affected by this development. In principle, property finance adjusts itself to the wishes of the majority of customers. This explains why, on the whole, higher loan to value ratios may already be ascertained. In future, when real property is more strongly perceived as being an investment good, products such as mortgage equity with-drawal or reversed (or lifetime) mortgages may also be expected to gain a foothold in Germany.

All things considered, the residential property market and the mortgage market in Germany are in good shape to face future developments. This means there is no justification for interventions in the markets. On the contrary, superfluous intervention – be it in tax or product-specific form – could impair the functionability of the markets and so restrict the citizens' freedom of decision. Indeed, one of the strengths of the German market is the freedom citizens have to decide for or against creating ownership and the possibility of the mortgage markets to adjust to customers' wishes. This ought not to be jeopardized by regulations or interventions, either from Berlin or from Brussels.

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Financing Structures of Home Ownership Creation 2006

Findings of the survey on the financing of single-family homes among the member institutions of the Association of German Pfandbrief Banks (vdp) as well as Commerzbank AG and Dresdner Bank AG

by Thomas Hofer
Association of German Pfandbrief Banks

Berlin, December 2006

Contents

Abstract

The residential property market is still of great political significance, and yet very little information is available which provides a consistent picture of costs, amounts of funds borrowed, debt burden or affordability of residential property. To fill this gap at least in part, the Association of German Pfandbrief Banks (vdp) in 2006 conducted for the eighth time since 1984 a survey among its member institutions on the financing structures in home ownership creation. As participants in the latest survey the vdp was able to win, in addition to its member banks, Commerzbank AG and Dresdner Bank AG.

The latest survey shows only very small changes in the level and the regional and sectoral structures of residential property prices and household incomes. Since the financing terms are clearly more favorable than in 2002, however, the affordability of property for potential homebuyers has improved substantially. The fact that the development of the property ownership market has nevertheless been rather subdued in recent years is to be explained by a weakness in demand caused by various factors.

In total, customers of the credit institutions participating in the survey spent an average of approx. EUR 277,000 for a residential property in 2006, which was the same amount as in 2002. To finance the property purchases, funds were borrowed averaging approx. EUR 198,000, or 72%. This means that the trend observed in previous surveys towards higher loan to value ratios was continued to a slight extent.

As a result of the interest rate level, which in the first half of 2006 was considerably more favorable than in 2002, the borrowers' monthly charge was less than EUR 1,000, compared with close to EUR 1,200 in 2002. The debt burden ratio was down markedly versus 2002 (falling from 33% to 27%).

Clear disparities are to be found with regard to regional or sectoral characteristics. Buyers of newly built self-owned homes have to invest, on average, an amount that is approx. 25% more than buyers of existing properties. However, the net household incomes of house-builders are below those of buyers of used properties. Whereas the former put up a 33% share, the corresponding share in the case of buyers of used single-family houses is markedly less (24%). The debt burden ratio for house-builders is approx. 29%, which is also higher than that for buyers (25%). Examining the debt charge by income quartiles, it may be seen that the top earners have a clearly lower burden to bear in relation to their incomes than members of the lower income quartiles.

The survey also reveals pronounced regional disparities in property prices. A clear west-east differential as well as a south-north differential may be identified. This is the result, in particular, of the differences in building land prices, whereas the differences in construction costs are of little consequence.

A comparison of the structures in west and east Germany reveals smaller disparities in terms of property prices and household incomes than is the case with other surveys. The reasons for this are, on the one hand, that buyers of residential property in the new federal states have lower levels of equity, requiring them to earn above-

average incomes; on the other, the region of Berlin/Potsdam, which is more highly priced than other regions in the new federal states, is a regional point of focus of the sample.

Comparison with corresponding information published by the Deutsche Bundesbank shows that home-buyers looked at in the vdp sample have somewhat more favorable loan terms than homebuyers as a whole in Germany. A marked difference is found where fixed-interest periods are concerned. Roughly nine-tenths of the loans covered by the vdp survey show a fixed-rate period of more than five years. According to the Bundesbank's statistics, the average for all of Germany is only approx. seven-tenths.

In the vdp residential property surveys from 1984 to 2006, the house price-income ratio was always between 6:1 and 7:1. The latest survey shows this ratio to be 6.2:1. Although residential property prices have risen considerably in most other countries in recent years and the ratio is moving towards that in Germany, this is still a very high value by international standards.

As far as the structures are concerned, the findings of this survey confirm the results of the previous survey. With regard to absolute values, of course, slight differences are discernible. Readers will find a detailed overview of the individual results of the survey in the following. The annex contains a comparison of the findings of this survey with those of previous surveys.

1. Introduction

Residential property enjoys high political status. This is made clear not only by debate concerning the abolition of the government allowance for homebuyers ("Eigenheimzulage") or the inclusion of self-used property in private provisioning for old age, but also by the EU Commission's Green Paper on Mortgage Credit.

Despite the great political significance, very little information is available on costs, amounts of funds borrowed, debt charge or affordability of residential property. The vdp survey on the structure of the financing of residential property goes a long way towards closing this information gap.

In the year 2006, the Association of German Pfandbrief Banks conducted for the eighth time since 1984 a survey on the financing structures in home ownership creation among its member institutions. The survey design was only slightly modified compared with the previous study. Two large banks which are not members of the vdp also participated in the survey: Commerzbank AG and Dresdner Bank AG. Thanks to the resultant greater regional spread of the lendings observed, the survey may be assumed to have a high degree of representativity.

The findings of the surveys do not reveal any abrupt changes over time, but slow and steady lines of development. This may be taken as a further indication of the stability and resilience of the survey results.

In the following, first the survey procedure will be described. The main results pertaining to the regional and sectoral structures of residential housing financing

will then be set forth in a subsequent section. And finally, residential property finance will be presented against the background of the borrower's financial situation.

2. Survey methodology

Within the scope of the 2006 vdp survey on residential property financing, each participating institution was asked to collect data on 50 randomly selected lendings from the first half-year 2006 and convey them to the vdp, where the data were brought together, made plausible and systematically analyzed.

After adjusting the original data for implausible or incomplete record sets, the vdp was able to include 669 loans for owner-occupied residential properties in the survey. With that, the analyzable record set was approx. one tenth larger than for the previous survey from the year 2002 (cf. Table 1).

Table 1: Development of the sample size 1984-2006

Year	Number of record sets	
	Total	of which new buildings
1984	343	183
1987	464	283
1990	374	223
1992	472	232
1995	972	508
1999	738	397
2002	605	306
2006	669	311

Source: vdp residential property survey

Of the 669 record sets, 311 were accounted for by new buildings. Given that the newly built and existing properties are approximately uniformly distributed, the partial samples for both segments are sufficiently large to generate resilient results. As with the previous two surveys, the latest survey examined lendings from the first half-year. For the purpose of the survey, residential properties are defined as self-used, detached single-family houses, semi-detached houses and terraced houses. Owner-occupied flats were explicitly not included.

The vdp residential property survey refers in particular to the following aspects:

- Property
  - Property type
  - New or existing building
  - Plot size
  - Living area
- Region (federal state, municipality)

- Structure of costs and financing
  - Total price (new building: break-down construction costs – plot costs)
  - Borrowed funds – equity (own funds)
  - Household income
  - Charge resulting from borrowed funds
  - Fixed-rate period, interest rate

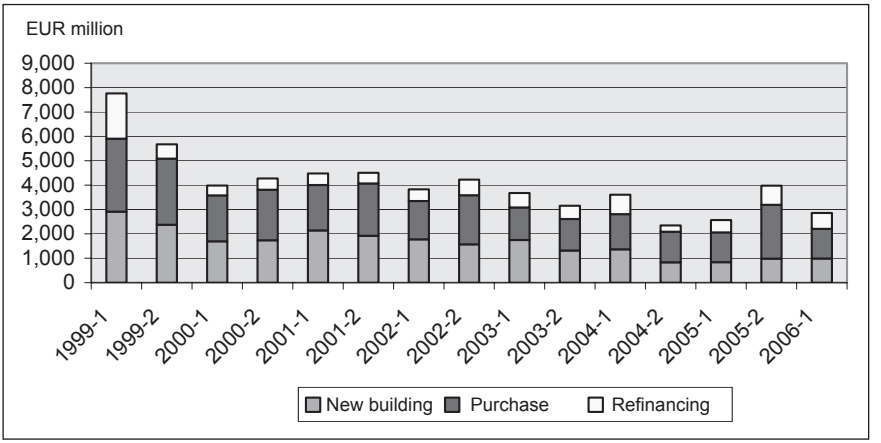
Compared with the previous surveys, the scope of the survey was changed only slightly. Thus, with regard to most categories, intertemporal comparisons are possible. Only with regard to the structure of the loans were questions concerning the establishment of a fixed interest rate and the interest rate added to the survey sheet.

3. Regional and sectoral structures of residential property financing

The development of demand for funds to finance the construction or purchase of self-owned homes has, like the development of the property market, been rather sluggish since the previous survey in 2002 (cf. Chart 1). Although the financing terms have again become appreciably more favorable in the meantime (in the first half-year 2006, the interest rates for the residential property loans included in the study averaged 4.4%), private households' propensity to invest was dampened by various factors. First, mention should be made in this connection of the household incomes, which have fallen in real terms in recent years; second, safety considerations play an important part in the process of deciding to build or buy residential property. In times of labor market uncertainties, households give very careful thought to whether they want to take on the potential risk of no longer being able to service their loan in the event of job loss.

Moreover, changes in home ownership promotion have had an effect on the course of property finance. For instance, as at the end of 2005, the announced abolition of the government allowance for homebuyers triggered a marked increase in borrowings, in particular to buy existing properties.

Chart 1: Single-family home financings by vdp member institutions



Source: vdp statistics

One especially noticeable fact when comparing the results of the current survey with those of the previous survey is that it was not possible to claim the government allowance for homebuyers for properties bought in 2006; this was still possible in the observation period of the previous study.

In total, customers of the credit institutions participating in the survey spent an average of approx. EUR 277,000 on their own home in 2006; this is the same amount as in 2002 (cf. Table 2). It should be borne in mind in this connection that the property prices stated are based on figures in the financing plan. To avoid the need for supplementary financing, incidental costs (outdoor installations, realty transfer tax, notary's fees and, in the case of existing buildings, renovation costs) are also included in these figures.

Table 2: Property and financing data 2006 and 2002 (overall results)

	2006	**2002**
Plot area (m^2)	753	635
Living area (m^2)	139	142
Total property value (EUR)	276,633	276,550
Equity (EUR)	78,828	81,314
Borrowed funds (EUR)	197,805	195,236
Equity share	28%	29%
Total monthly charge (EUR)	991	1,182
Monthly net household income (EUR)	3,721	3,633
Debt burden ratio	27%	33%

Source: vdp residential property survey

On average, borrowed funds of approx. EUR 198,000 were availed of for financing purposes (2002: EUR 195,000); this is equivalent to a borrowed funds share of 72% (2002: 71%). With that, the tendency observed in the previous surveys towards higher loan to value ratios was again continued to a small extent. This development is attributable not least to the lower level of interest rates, which gives private households capacity to repay principal also when they take out larger loans.

Because the interest rate level in the first half-year 2006 was markedly more favorable (4.4% as against 5.8% in 2002), the monthly charge borne by borrowers is less than EUR 1,000, whereas it was just under EUR 1,200 in 2002. With a slight rise in the average net household income, this leads to a debt burden ratio that is clearly below that in 2002 (27% as opposed to 33%).

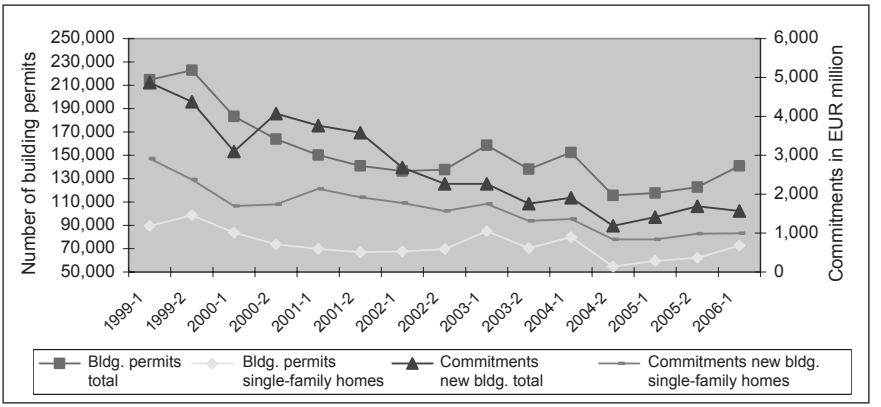
When interpreting these overall results, one must bear in mind that there is no equal distribution with regard to property prices and household incomes. Indeed, the distribution is skewed right, i.e. the mean value is above the median, the value that divides the sample into two halves. For property prices, the median is approx. EUR 242,000, whereas the mean value is just below EUR 277,000. The median household income is roughly EUR 3,100, whereas the mean value was determined to be just short of EUR 3,700. This phenomenon occurred to a similar extent in the previous surveys.

3.1 Sectoral structures

New buildings and existing properties

Home ownership creation has become increasingly oriented towards existing properties since the previous survey in 2002. In terms of loan commitments granted by the vdp member institutions, the share accounted for by loans for new buildings in the single-family home segment was 35% in 2006, compared with 46% in 2002. This is a reflection, not least, of the development of new building activity. In recent years, the new construction of single-family homes has has risen strongly due to the effect, induced by debate on the reduction or abolition of the government allowance for homebuyers, of bringing home ownership measures forward. This has ultimately impacted the development of residential property construction as a whole (cf. Chart 2).

Chart 2: Building activity in Germany and construction financings extended by vdp member institutions



Source: vdp residential property survey

Since the previous survey, both the total number of building permits and the number of building permits for single-family homes have emerged from a trough (2004/2005). They rose strongly again in the first half-year, whereby this increase was due not least to the effect of bringing property purchases forward before the government allowance for homebuyers was abolished as from January 1, 2006. As at end-2005, the number of building permit applications filed (which is a central criterion for granting the government allowance for homebuyers) was clearly up. A large number of building permits were granted in the first half of 2006 on the strength of these applications. The financing activity of the vdp member institutions underwent a similar development over the same period.

On average, buyers of newly built single-family homes have to invest an amount that is one quarter greater than buyers of existing properties (cf. Table 3). Whereas families with children tend to invest in new buildings, older, higher-earning households prefer to buy existing properties. For this reason, the net household incomes of housebuilders are below those of used property buyers. Whereas the financing structure in the case of the former group shows an equity share of 33%, buyers of used single-family houses employ considerably less equity in absolute and in relative terms (24%). The debt burden ratio for the housebuilder category is, at 29%, also above that for housebuyers (25%). As far as the structures are concerned, these results fully confirm the results of the previous survey, although there are of course minor differences with regard to the absolute values. The tables contained in the annex provide a detailed overview of the individual results of the last surveys. The most recent survey confirms, moreover, that plot sizes for new buildings are generally smaller than those of existing properties.

It is possible, with regard to newly built single-family homes, to break down the property prices into construction costs, land costs and incidental costs. Of the new buildings covered by the most recent survey, 68% of the property price was accounted for by construction costs, 25% by the plot of land and 7% by incidental costs.

Table 3: Property and financing data – new building and purchase of existing property 2006

	New building	Purchase of existing property
Plot area (m^2)	699	800
Living area (m^2)	141	138
Total property price (EUR)	308,344	249,086
Equity (EUR)	101,323	59,286
Borrowed funds (EUR)	207,021	189,800
Equity share	33%	24%
Total monthly charge (EUR)	1,032	955
Monthly net household income (EUR)	3,602	3,825
Debt burden ratio	29%	25%

Source: vdp residential property survey

Differences between property types

Besides detached single-family homes, the survey covered semi-detached and terraced houses (cf. Table 4). Costing an average of EUR 291,000, semi-detached houses are the most expensive, whereas detached single-family houses are, at EUR 279,000, close to the overall average of EUR 277,000. The price for terraced houses is approx. EUR 248,000. The monthly net household incomes show a similar gradation.

It is striking that although they offer considerably larger plot areas and living areas, detached properties are less expensive than semi-detached houses, and their buyers have a somewhat lower income. This may be explained, not least, by the fact that detached single-family homes – unlike the other two property types – are to a greater extent built in less densely populated regions where the price level is lower than in core towns.

Table 4: Property and financing data by property type 2006

	Detached house	Semi-detached house	Terraced house
Plot area (m^2)	992	427	276
Living area (m^2)	144	131	128
Total property price (EUR)	279,020	291,247	248,244
Equity (EUR)	84,576	68,966	61,263
Equity share	30%	24%	25%
Monthly net household income (EUR)	3,753	3,855	3,411
Debt burden ratio	26%	29%	28%

Source: vdp residential property survey

3.2 Regional structures

Differences between groupings of federal states

A comparison of the property, plot and construction costs of single-family homes by large region illustrates a number of regional disparities in the residential property market. In this connection, groupings of federal states are taken to be spatial units which are formed by grouping federal states together. For the purpose of this analysis, 4 groupings were formed comprising the following states:

- *North Germany:* Schleswig-Holstein, Hamburg, Bremen and Lower Saxony
- *Central Germany:* North Rhine-Westphalia, Rhineland-Palatinate, Saarland and Hesse.
- *South Germany:* Bavaria and Baden-Württemberg
- *East Germany:* Brandenburg, Mecklenburg-Vorpommern, Saxony, Saxony-Anhalt, Thuringia and Berlin.

The latest survey also shows the west-east and south-north differential already determined in the previous survey. In central and south Germany the values are above, and in east and north Germany clearly below, the average. This applies both to existing and to newly built properties. The price disparities are not so much due to the construction costs but, above all, to the land prices. Whereas construction costs in the individual groupings of federal states deviate by only a maximum of 14% below or 10% above the average, the lowest value in the case of land prices is 56% below, and the highest 46% above, the average. Compared with the previous survey, the change in the west-east differential and the south-north differential is only minor.

It is noticeable that property prices for newly built properties in the east are higher than those in the north. This may probably be explained, not least, by the fact that the region Berlin/Potsdam, which as a metropolis region is characterized by a higher price level than many other areas in the new federal states, is strongly represented in the sample.

Table 5: Prices, land costs and construction costs by large region 2006 (amounts in EUR)

Large region	Property price total	Property price existing building	Property price new building	Land costs per m²	Construction costs per m²
West Germany	**285,810**	**258,471**	**320,632**	**135**	**1,564**
North Germany	229,724	215,194	257,865	83	1,306
Central Germany	282,091	248,603	323,091	155	1,588
South Germany	344,268	338,702	354,250	142	1,666
East Germany	**228,432**	**176,519**	**264,798**	**47**	**1,331**
Germany	**276,633**	**249,086**	**308,344**	**106**	**1,517**

Source: vdp residential property survey

Comparison between west and east Germany

Although the economic structures in west and east Germany are gradually converging, a comparison of west and east is still instructive, notably with regard to questions pertaining to the property market. As a comparison of the average property prices shows, the vdp survey does not generally reveal such strong differences between parts of the country situated in the west and the east as do other studies or surveys. The property price indexes of the estate agents associations or analyses based on same for the new federal states show values that are roughly one third below those for the old federal states. According to a study conducted in 2006 by GEWOS and commissioned by the Institute for Urban Development, Housing and Saving Schemes ("Institut für Städtebau, Wohnungswirtschaft und Bausparwesen") on the development of prices for residential property in Germany, the difference in level is approx. 40%. The absolute price level, according to GEWOS' figures, is approx. EUR 173,000 in the west and approx. EUR 99,000 in the east. In view of the fact that the basis for the calculations consists of all property transactions in ordinary business, it may be assumed that a very strong price differential does indeed exist.

The vdp survey shows the price level to be substantially higher, and the differential is only one fifth (cf. Table 6). The higher price level is attributable to several factors. First, as has been mentioned above, the vdp survey considers prices according to the financing plan, which in some cases also include incidental costs. Second, the survey only covers investments or purchases in the case of which borrowed funds had to be employed. Moreover, the spatial distribution of the properties in the vdp survey shows a tendency in favor of urban, and therefore more expensive, regions.

Table 6: Property and financing data for west and east Germany 2006

	Germany	West Germany	East Germany
Plot area (m^2)	753	702	1,018
Living area (m^2)	139	139	142
Total property price (EUR)	276,633	285,810	228,432
Equity (EUR)	78,828	79,940	72,988
Borrowed funds (EUR)	197,805	205,870	155,444
Equity share	28%	28%	32%
Total monthly charge (EUR)	991	1,036	750
Monthly net household income (EUR)	3,721	3,744	3,604
Debt burden ratio	27%	28%	21%

Source: vdp residential property survey

In the previous three vdp surveys it was found that the income differentials between house-buyers in west and east Germany were very small. This is also seen in the latest survey. Whereas the monthly net household income in the western parts of the country was EUR 3,744, it was only 4% lower in the east German states, at EUR 3,604. One must take into account here the fact that Berlin was wholly allocated to east Germany, and that the Berlin region accounts for a large share of lendings. Yet not only the specific regional structure of the financing activity is of significance here but also the fact that the private households in the new federal states cannot fall back on savings to the same extent as households in the west. Thus, home ownership creation is to a greater degree an option for households with an above-average income.

Break-down by settlement structure type

Although the data on which the survey is based do not permit analyses for smaller spatial units such as rura districts and cities, they are sufficient to perform analyses for certain settlement structure types. To categorize the settlement structure types, a break-down by the Federal Office for Building and Regional Planning ("Bundesamt für Bauwesen und Raumordnung" (BBR)) is used, according to which all administrative districts and self-administering cities are allocated to the following settlement structure types:

- **Urban agglomerations** (e.g. Ruhr area, Rhine-Main area, Berlin)
  - core towns and cities
  - highly concentrated districts
  - concentrated districts
  - rural districts
- **Urbanized areas** (e.g. Münster, Freiburg)
  - core towns and cities
  - concentrated districts
  - rural districts
- **Rural areas** (e.g. Emsland, Ostvorpommern)
  - rural districts with higher concentration
  - rural districts with lower concentration

The basic tendencies found in previous surveys have also been confirmed by the latest survey. A comparison of property prices by settlement-structural district types generally reveals a decreasing price level paired with a decrease in the concentration ratio. By contrast, the average plot sizes have risen (cf. Table 7).

Table 7: Property figures by settlement structural district types

District type	Number	Plot area (m^2)	Living area (m^2)	Property price (EUR)
Urban agglomerations				
core towns and cities	108	556	156	361,507
highly concentrated districts	191	577	134	285,242
concentrated districts	65	735	131	274,245
rural districts	48	707	126	250,703
Urbanized areas				
core towns and cities	20	575	129	257,862
concentrated districts	108	826	150	262,298
rural districts	59	1,258	139	226,739
Rural areas				
rural districts with higher concentration	51	736	135	218,770
rural districts with lower concentration	19	2,095	124	192,828

Source: vdp residential property survey; district types according to BBR (2000)

The break-down of the vdp survey by settlement structure type shows, moreover, that rural agglomerations account for approx. 62% of the lendings covered by the sample. Considering that roughly half of the population lives in this type of region, and that the share of single-family homes found in this type of region is likely to be slightly less in relation to all single-family homes, the above-mentioned distortion of the sample in favor of the urban regions due to the spatial business structure of the vdp-member institutions becomes apparent.

4. Financing structures and conditions

Financing structure and debt charge by income quartile

It was already seen in the previous survey that house-buyers often conclude loan contracts with more than one bank. Whereas the share of such cases was 53% in 2002, it rose slightly in 2006 to 57%. Loans raised with third parties accounted for 37% of borrowed funds (2002: 46%). In terms of the sample as a whole, the share of total borrowings represented by loans raised with other property finance providers was 16% (2002: 26%).

As has been explained in the previous chapters, there is a divergence in the ratio of own funds (equity) to borrowed funds both in a comparison by property type (new buildings are financed with a higher share of equity than purchased existing properties) and in a comparison of large areas (in the new federal states, relatively more equity is used than in the old states). When examining the financing structure by income quartile (cf. Table 8), it is noticeable that the equity share rises the lower the income. Whereas the equity share in the two upper income quartiles is 26% and 27% respectively, it is 34% for borrowers belonging to the lowest income quartile.

At the same time, the debt charge in the case of this group is highest (34%). With the other income groups it decreases steadily as the incomes increase, to 24%.

Table 8: Residential property financing by income quartile

	Monthly net household income in EUR			
	up to 2,354	*2,355-3,137*	*3,138-4,283*	*4,284 and more*
Plot area (m^2)	658	642	758	954
Living area (m^2)	127	135	131	165
Total property price (EUR)	208,292	238,406	261,814	398,431
Equity (EUR)	70,629	70,571	68,493	105,668
Borrowed funds (EUR)	137,662	167,835	193,321	292,763
Equity share	34%	30%	26%	27%
Total monthly charge (EUR)	613	799	967	1,586
Monthly net household income (EUR)	1,799	2,743	3,618	6,737
Debt burden ratio	34%	29%	27%	24%

Source: vdp residential property survey

Interest rates and fixed-rate periods

In the scope of the latest survey it was possible for the first time to gather information on the loan terms. The participating institutions were asked to state the fixed-rate period and the interest rate for each loan. The sample showed the interest rates to be, depending on the fixed-rate period, between 4.1% and 4.6% (cf. Table 9). Long-term financings predominate among residential property loans granted by the vdp member institutions. In terms of the total volume of new lendings, the categories with a fixed-rate period of more than 5 years accounted for 91% of the loans. The category comprising loans with a fixed-rate period of 5 to 10 years alone accounts for roughly two-thirds of the total volume. Within this group, a fixed-rate period of 10 years was agreed on for the vast majority of the loans. Short- and medium-term financings play an insignificant role.

Table 9: Fixed-rate periods and interest rates in the first half-year 2006

	Fixed-rate period			
	≤ 1 year	>1 ≤ 5 years	>5 ≤ 10 years	>10 years
vdp sample				
Interest rate	4.1%	4.3%	4.4%	4.6%
Share of volume	5.4%	3.4%	65.2%	26.0%
Bundesbank				
Interest rate	4.8%	4.6%	4.7%	4.5%
Share of volume	14.9%	14.9%	39.9%	30.3%

Sources: vdp residential property survey, Deutsche Bundesbank, own calculations

Since the interest rate statistics for EMU member states were introduced, the Deutsche Bundesbank has published monthly interest rate figures for residential property loans to domestic private individuals by fixed-rate period, and estimates

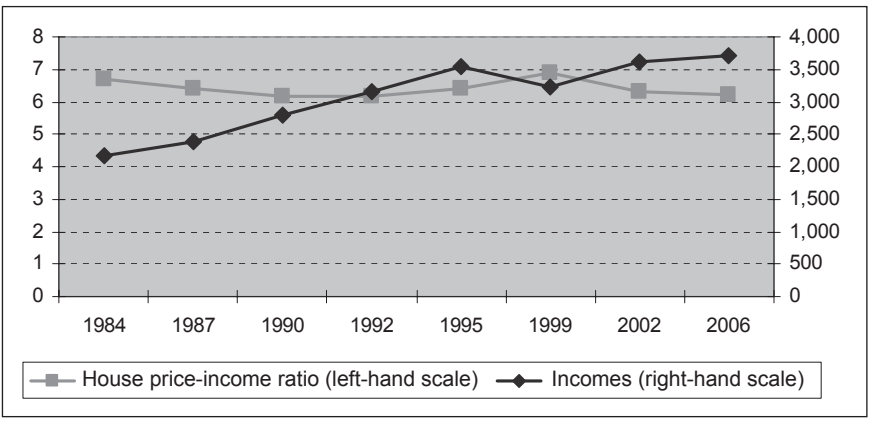
of the respective volumes of new lendings (Deutsche Bundesbank's Monthly Reports). Information may be derived from these figures that may be compared with the vdp survey. Although the comparability is limited due to the different definitions used (in contrast to the vdp survey, the Bundesbank includes prolongations and renegotiations), a comparison nevertheless offers interesting information. First, it is noticeable that the interest rates determined within the scope of the survey are in general somewhat lower compared with the market as a whole, although this is not true of all categories. In contrast, larger differences are to be found with regard to the shares of short- and long-term loans. In terms of the market as a whole, the share accounted for by short- and medium-term loans (loans with a fixed-rate period of a maximum of 5 years) is, at 29.8%, more than three times that in the vdp sample (8.8%).

The average interest rate level measured for the sample is 4.4%, which is appreciably lower than that in the previous residential property surveys. According to surveys conducted by the vdp on interest rates for retail customers and to Bundesbank statistics, the interest rate level at the beginning of the 1990s was roughly 10%. By 1995, it fell to approx. 8%, and in 2002 it was roughly 6%. Thus, the financing terms for residential property have improved markedly where interest rates are concerned. As a result, the debt charge borne by borrowers has decreased although the share of borrowed funds has increased.

House price-income ratio

Although house prices have risen only slightly since the mid-1990s (by only 3% compared with the 1995 survey; according, to information by GEWOS, by 6% in respect of the market as a whole), the ratio of house prices to households' annual net incomes has changed only marginally due to the development in wages and salaries, which has likewise been very weak. In all vdp residential property surveys from 1984 to 2006, the house price-income ratio was between 6:1 and 7:1 (cf. Chart 3). In terms of the overall survey, this ratio came in 2006 to 6.2:1, which is a low value on the basis of a long-term comparison.

Chart 3: Incomes and house price-income ratio 1984-2006



Source: vdp residential property survey

Within the scope of the vdp residential property surveys, a downward trend was ascertained from the mid-1980s to the beginning of the 1990s. In 1995 and 1999, the ratio rose to as high as 6.9:1. Since then, the trend has receded again.

Other studies present similar results. Rußig and Dorffmeister (ifo-Schnelldienst 13/2005), for example, found that the ratio of prices for terraced houses and owner-occupied flats to the average per capita annual income fell over the same observation period. Given that property prices have almost stagnated since the mid-1990s (prices have dropped in real terms according to the ifo Institute for Economic Research) and that the development of incomes has been somewhat more favorable, the amount needed by private households to buy residential property has grown less.

By international standards, however, the house price-income ratio is at a very high level. Published in 2006 by the German Institute for Provision for Old Age ("Institut für Altersvorsorge"), a study on residential property creation in Europe arrives at similar results (data as of 2004). A somewhat lower ratio is reported for Germany (5-6:1). Although property prices in Great Britain experienced a very dynamic development up to then, house prices were found to be only four to five times the net annual income of a private household. Only in the Netherlands and Sweden were house prices found, at that time, to be up to seven times higher than the households' net annual income.

The above-mentioned ratio determined from the latest vdp survey applies only to the sample as a whole. When the ratio figures are broken down by region or by reason for finance, in some cases considerable differences may be ascertained (cf. Table 10). For instance, the house price-income ratio in the case of existing properties is, at 5.4:1, clearly below average, whereas more than seven times the annual income has to be raised to buy new buildings. Clear differences are also to be found between the old and new federal states. Whereas house prices in the states in west Germany averaged 6.4 times the net annual income, the ratio in the east German states was appreciably lower at 5.3:1.

Table 10: House price-income ratio 2006

	Total price according to financing plan	Net annual income	House price-income ratio
Germany			
All	276,633	44,657	6.2 : 1
New building	308,344	43,227	7.1 : 1
Existing building	249,086	45,898	5.4 : 1
West Germany			
All	285,810	44,925	6.4 : 1
New building	321,183	42,307	7.6 : 1
Existing building	258,471	46,948	5.5 : 1
East Germany			
All	228,432	43,246	5.3 : 1
New building	260,681	46,641	5.6 : 1
Existing building	176,519	37,781	4.7 : 1

Source: vdp residential property survey

5. Summary

In terms of the development and level of single-family house prices and household incomes, the latest survey on financing structures of home ownership creation has generally confirmed the picture presented by the previous survey from the year 2002. Regional and sectoral structures show only slight changes. In the latest survey, too, marked differences are to be found between the market segments new building and existing building, and significant differences between west and east Germany remain.

Both property prices and household incomes have developed weakly in recent years, with incomes experiencing a somewhat more favorable development than prices. Thus, the house price-income ratio has improved slightly, i.e. the relative amount needed to buy a house has decreased.

The affordability of residential property has developed especially favorably compared with previous surveys. The debt service required is down perceptibly due to the – compared over the long term – very low level of interest rates for mortgage loans. On average, the debt charge amounts to 27% of the net household income, as against 33% in the previous survey. At that time, promotion was still in place in the form of the government allowance for homebuyers, which was abolished for new loans with effect from January 1, 2006. For borrowers who were able to avail themselves of this allowance, the debt charge dropped to 26% of their income. Consequently, the purchase of residential property in 2006 was just as low a burden for private households as it was in 2002 only for households who were able to claim the government allowance for homebuyers.

The fact that the residential property market has developed rather weakly in recent years although the financing terms have been very favorable is probably to be explained by a number of factors. For one thing, demand has been weak in quantitative terms in the last few years. The baby-boom generation to a large extent already owns their homes, and the number of persons in the subsequent generation is clearly lower. Moreover, unfavorable developments on the labor market and the resultant income uncertainty has had a dampening effect on demand. Debate conducted – primarily, though not exclusively – in public on demographic trends in Germany and on the future prospects of the residential property market has produced an exaggerated pessimism; this has led to a severe lack of confidence in the future development of the property market and has subsequently curbed propensity to invest. Further factors such as the rising interregional mobility of the workforce are possibly also having an impact. Private households who live with the possibility of having to move house for occupational reasons want to avoid the effort associated with selling residential property, and instead satisfy their needs on the rental housing market.

Annex

Table A1: Property and financing data (overall) for Germany as a whole, west and east Germany 1995-2006

	Year	Number of loans	Plot area in m²	Living area in m²	Property value in thous. EUR	Equity in thous. EUR	Borrowed funds in thous. EUR	Equity share	Total monthly charge in EUR	Monthly net household income in EUR	Debt burden ratio
Germany as a whole	1995	972	764	138	269	101	168	38%	1,168	3,483	34%
	1999	738	634	136	263	85	178	32%	1,049	3,211	33%
	2002	605	635	142	277	81	196	29%	1,182	3,633	33%
	2006	669	753	139	277	79	198	28%	991	3,721	27%
West Germany	1995	639	716	140	273	105	168	38%	1,204	3,538	34%
	1999	574	583	136	270	89	181	33%	1,076	3,229	33%
	2002	515	569	142	286	86	200	30%	1,209	3,657	33%
	2006	562	702	139	286	80	206	28%	1,036	3,744	28%
East Germany	1995	334	1,072	135	243	83	160	34%	1,114	3,404	33%
	1999	164	812	133	238	73	165	31%	957	3,146	30%
	2002	90	1,017	139	224	52	172	23%	1,027	3,493	29%
	2006	107	1,018	142	228	73	155	32%	750	3,604	21%

Source: vdp residential property surveys

Table A2: Property and financing data (new buildings) for Germany as a whole, west and east Germany 1995-2006

	Year	Number of loans	Plot area in m²	Living area in m²	Property value in thous. EUR	Value of land in thous. EUR	Equity in thous. EUR	Borrowed funds in thous. EUR	Equity share	Total monthly charge in EUR	Monthly net household income in EUR	Debt burden ratio
Germany as a whole	1995	509	764	138	269	59	101	168	38%	1,168	3,269	36%
	1999	397	578	132	273	67	86	187	32%	1,074	3,075	35%
	2002	306	539	142	297	75	97	200	33%	1,180	3,487	34%
	2006	311	649	141	308	74	101	207	33%	1,032	3,602	29%
West Germany	1995	272	690	141	276	67	112	164	41%	1,155	3,169	36%
	1999	295	504	134	282	72	91	191	32%	1,096	3,032	36%
	2002	249	513	144	313	80	105	208	34%	1,221	3,565	34%
	2006	245	570	141	321	79	107	214	33%	1,077	3,526	31%
East Germany	1995	238	848	135	261	50	88	173	34%	1,184	3,383	35%
	1999	102	790	129	247	57	71	176	29%	1,013	3,212	32%
	2002	57	657	134	226	50	60	166	27%	1,000	3,144	32%
	2006	66	1,176	142	261	53	81	180	31%	863	3,887	22%

Source: vdp residential property surveys

Table A3: Property and financing data (purchase of existing single-family homes) for Germany as a whole, west and east Germany 1995-2006

	Year	Number of loans	Plot area in m²	Living area in m²	Property value in thous. EUR	Equity in thous. EUR	Borrowed funds in thous. EUR	Equity share	Total monthly charge in EUR	Monthly net household income in EUR	Debt burden ratio
Germany as a whole	1995	463	921	139	256	94	162	37%	1,178	3,737	32%
	1999	342	699	139	250	85	165	34%	1,018	3,367	30%
	2002	299	734	141	256	65	191	25%	1,184	3,783	31%
	2006	358	800	138	249	59	190	24%	955	3,825	25%
West Germany	1995	367	736	140	270	101	169	37%	1,240	3,811	33%
	1999	279	666	139	257	87	170	34%	1,055	3,440	31%
	2002	266	622	141	260	69	191	27%	1,198	3,743	32%
	2006	317	804	138	258	59	199	23%	1,005	3,912	26%
East Germany	1995	96	1,626	134	199	68	131	34%	941	3,454	27%
	1999	62	848	140	220	77	143	35%	862	3,039	28%
	2002	33	1,627	148	222	38	184	17%	1,072	4,096	26%
	2006	41	763	140	176	59	117	34%	568	3,148	18%

Source: vdp residential property surveys

ISBN 978-3-9811273-7-9