



June 10, 2005

Current Issues

Housing portfolios in Germany: Scene set for further divestment

- There are almost 40 million housing units in **Germany**, which thus constitutes by far the **largest residential property market in Europe**. More than half of this is rented property. Currently standing at 43%, the home ownership rate is one of the lowest in Europe.
- Companies and local authorities are increasingly disposing of their residential property, either because they need the proceeds from divestment or to concentrate on their core assignments. **In regulative terms this makes good sense**, given the unconvincing arguments for strong public-sector or corporate commitment on the housing market.
- At present buyers from the “Anglosphere” are particularly active on the market for housing portfolios. They possess substantial equity and can exploit extremely low rates of interest on borrowed funds. Besides which, **alternative international investments in the residential sector are limited at present**, as many housing markets in the world hold out little hope of further capital growth, or indeed there is a real possibility of speculative overheating. These markets are therefore unsuitable for a short-range investment.
- Besides the low interest rates on borrowed funds, commitments can also be fundamentally justified by the small volume of completions in recent years and the possibility of discounts, particularly on very large portfolios. **What is more, in some portfolios potential efficiency gains are arguably slumbering that could be tapped into by active management.**
- Of course, these benefits are given only where buyers **take regional portfolio specificities into account in their pricing**. These include restrictive tenancy law and the demographic trends in ageing countries with shrinking populations, which are already becoming apparent in outmigration areas.
- Investors pursuing a long-range strategy should also **have an eye to political sensitivities**. Nowadays, the socially compatible privatisation of housing is the best recommendation for follow-up transactions.
- We expect enthusiasm for German residential property to last at least another one to two years, with **portfolios totalling about one million units changing hands through 2010.**
- There are, however, signs of a pick-up in the prices of housing portfolios. With intermediate investors putting their portfolios onto the market in the coming years alongside public-sector and corporate divestors, **the market needs a flexible exit option if it is not to flag**. This is where REITs could come into play. If they are not introduced, the window of opportunity for profitable portfolio transactions could close sooner.

Authors:

Tobias Just, +49 69 910-31876 (tobias.just@db.com)

Samuel Reuther

**Editor**

Hans-Joachim Frank
+49 69 910-31879
hans-joachim.frank@db.com

Technical Assistant

Martina Ebling
+49 69 910-31710
martina.ebling@db.com

Deutsche Bank Research
Frankfurt am Main
Germany
Internet: www.dbresearch.com
E-mail: marketing.dbr@db.com
Fax: +49 69 910-31877

Managing Director

Norbert Walter

Contents

1. Introduction	3
2. The market for residential property in Germany	3
2.1 Structure of the German housing market.....	3
2.2 Market trends.....	7
2.3 Outlook for German residential property.....	11
3. Privatisation of residential property / Sale of housing portfolios	18
3.1 Economic benefit.....	18
3.2 The market for housing portfolios	24
4. Concluding remarks.....	32

1. Introduction

The German housing market has started seeing some movement again in recent years, with foreign investors showing interest in big German residential portfolios. The ball was set rolling at the end of 2000 with the sale of some 113,800 rail workers' apartments. More than half the parcel went to Deutsche Annington, then a subsidiary of the Japanese securities house Nomura and now a Terra Firma Capital Partners affiliate. Since then the corporate and public sectors have increasingly been selling off their residential real estate holdings, often with foreign investors as the takers: The three biggest portfolio deals in 2004 alone comprised more than 195,000 apartments, the most spectacular transactions being the sale of 82,000 apartments by building society GAGFAH to Fortress and the sell-off of roughly 66,000 residential units by Berlin's state-controlled housing corporation to Cerberus/Goldmann Sachs. Altogether in 2004 around 300,000 units changed hands in the course of portfolio transactions. So far there is little sign of foreign investors' enthusiasm for German residential real estate flagging in the coming years: In May 2005 Terra Firma bought 138,000 flats of Eon-daughter Viterra.

Yet a lot of German market players are surprised at this aggressive behaviour by foreign investors, most of whom are from the Anglosphere, given that many hard statistical facts would appear to argue against an investment in the German residential market: The German economy remained mired in stagnation between 2001 and 2003, and it was only the exceptionally high number of working days in 2004 that produced price-adjusted growth of 1.6%. Yet even this was again lower than in other European countries. Unemployment continues to climb, and German consumers are holding back on spending. Persistent economic weakness is evident not only in the retail trade, it is also impacting such far-reaching decisions as home buying. Consequently, in recent years inflation-adjusted rents and housing prices have not even edged up in the big west German conurbations. Multifamily housing construction has ground almost entirely to a halt; and finally, the demographic effects of sustained population decline are casting the first shadows, with a slight drop in the number of people living in Germany in both 2003 and 2004.

This research sets out to answer two questions: How attractive is the German housing market, and why are private equity investors now snapping up German residential property? And: Moving forward, how will the German market for housing portfolio transactions develop? For this, we begin with an overview of the structural and economic properties and determinants of the German housing market, going on to deduce future volume and price trends from this. Subsequently we shall show why the privatisation of living space and the sale of company-owned apartments basically makes sense, who benefits from transactions of this kind and how.

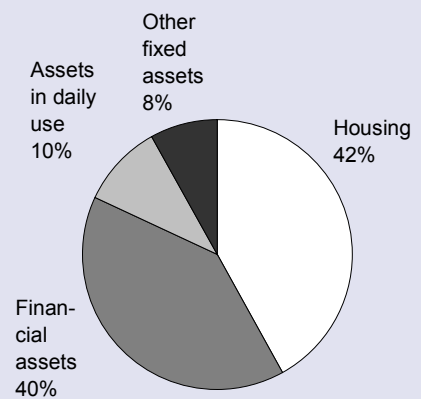
2. The market for residential property in Germany

2.1 Structure of the German housing market

At present there are around 39.4 million housing units in Germany, roughly 31.6 million in the former West Germany and not quite 7.8 million in the former East.¹ Net fixed assets in the form of housing

¹ The Federal Statistical Office reports a housing stock of 31 million units for west Germany in 2002 and 7.7 million units for east Germany. From the additions and retirements since 2002 the present number of housing units can be estimated at around 39.4 million.

Households' gross assets 2001

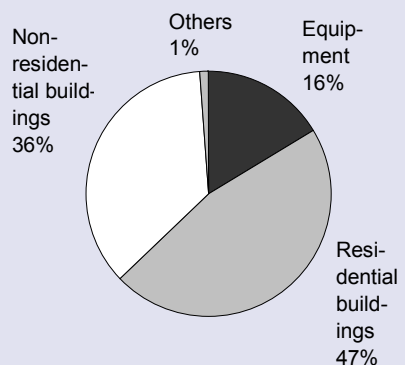


NB: Fixed assets are part of the assets of self-employed persons including commercial land. Housing also including land.

Source: Bundesbank

Gross tangible assets 2005

Total: EUR 10.9 trillion



NB: Gross tangible assets are equivalent to net tangible assets plus cumulative depreciation. Net tangible assets total roughly EUR 6.7 trillion.

Source: Federal Statistical Office



total an estimated EUR 3.3 trillion, equivalent to roughly 50% of the aggregate net fixed assets in Germany. Adding the accumulated depreciation to this figure, gross fixed assets in housing top EUR 5 trillion. That is more than twice Germany's gross domestic product for one year. The prominent position occupied by residential property is also reflected in the composition of households' assets: The Bundesbank calculates that residential property held directly makes up more than 40% of households' gross assets.²

Slightly more than half the housing is in apartment blocks, with only one out of every ten apartments located in buildings containing more than 13 units. The other not quite half is made up of owner-occupied houses, i.e. single- and two-family houses. In this segment single-family houses occupy a more prominent position, with nearly 10 million units, than two-family houses, of which there are roughly 6.5 million units.

East and west German housing stocks very different

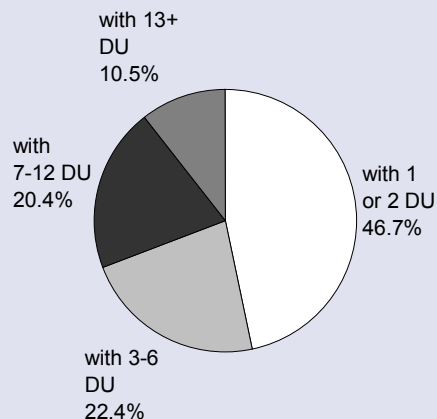
Although living conditions in east and west Germany have come swiftly into line since reunification, marked differences still exist: Whereas in west Germany one in every two apartments is found in single- and two-family houses, the figure in east Germany is only 38%. There, the after-effects of the state-controlled supply policy in the GDR, which for decades ignored the type of accommodation people wanted, are still being felt. Only since reunification has this gradually been corrected.

The enormous pent-up demand in east Germany is most apparent in the supply of living space. Nowadays east Germans have an average of roughly 38 m² per person – still almost 10% less than west Germans occupy. Even so, immediately after reunification the amount of living space per person in the New German States worked out at just 28 m², 25% below the west German level. However, the catch-up process in east Germany is patchy. Less striking are the regional discrepancies, more pronounced the differences in the provision of living space by age groups. Young households between Rostock and Dresden enjoy almost as much living space as west German households, while senior east German households occupy almost 30% less space than their west German contemporaries, notwithstanding their comparatively high pension entitlement. This is due to “remanence effects”: Older people do not move as readily as younger people. Remanence also implies that the process of adjustment in the supply of space will last for decades to come.

The housing stock in Germany is comparatively new. More than 70% of units were built after World War II, and only about 15% of all housing dates from the pre-Weimar Republic period, i.e. before 1918. However, the decades-long division of the country has led to very different development in the housing stock in east and west. In the former West Germany the stock of apartments in old blocks is relatively small, at around 25%; more than 50% of the west German housing stock was built in the first 30 years of the Federal Republic, and only slightly more than 10% of housing has been put up since reunification. In the east of Germany the proportion of old apartments is considerably higher, at about 43%. But as a result of the new construction work since reunification the share of new apartments, at roughly 14%, is higher than in the west of the country. These marked discrepancies are due mainly to different

² See Bundesbank (2002), The housing market during the nineties, in: Monthly Report January 2002, pp. 27-37.

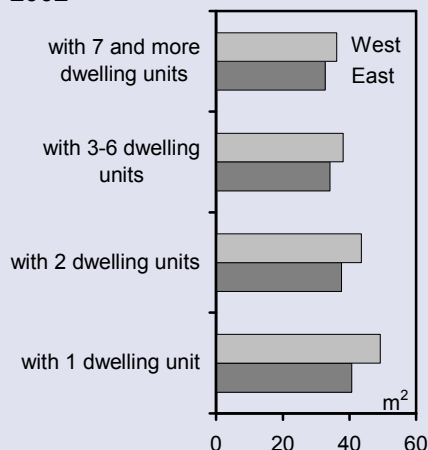
Occupied housing by building sizes - 2002 -



DU = dwelling units

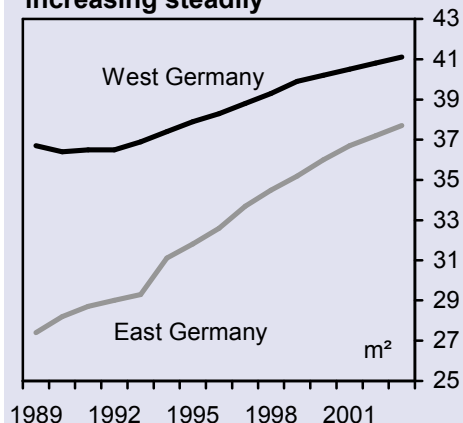
Source: Federal Statistical Office, microcensus

Living space per person (total) - 2002 -



Sources: Federal Statistical Office, microcensus, DB Research

Living space per inhabitant increasing steadily



Sources: Federal Statistical Office, ifs

population trends in east and west. Whereas the resident population in the Old German states has climbed by about 35% since 1950, the number of people living in east Germany has receded by some 20%. What is more, the GDR economic regime created considerable pent-up demand for better-quality property. This is evident both in average apartment sizes and in their floorplates: The average rented apartment in east Germany has about 10% less living space than a comparable property in the west.

Number and structure of households

There are about 39 million households in Germany today, roughly as many as there are housing units. So on the national level at least the housing market is balanced. However, it is worth taking a closer look at household structures and, most particularly, the development in their number. For years, the number of households has been growing considerably faster than the number of inhabitants. Between 1960 and 1990 the number of households (in West Germany) rose by around 45%, whereas the number of inhabitants increased by a mere 12.5%. Following reunification the population in Germany grew by only just over 3%, yet in 2003 some 10% more households were found to exist than immediately after reunification. This means that average household sizes are steadily falling: Statistically speaking, only 2.1 people now live in an average household, compared with 2.9 in 1960.

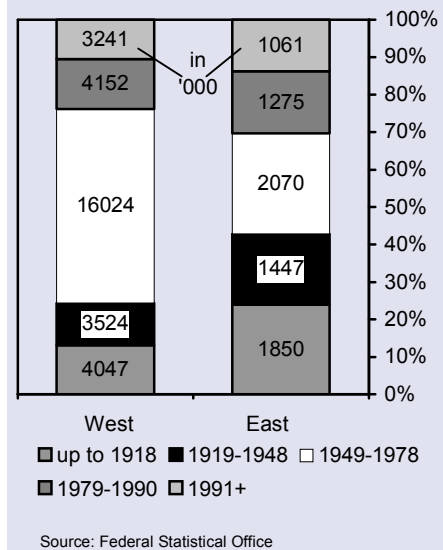
This trend is due partly to the fact that many young people wish to lead independent lives. Families are being started later and later, and the divorce rate is heading relentlessly north. At the other end of the scale, the proportion of senior households is rising, and as a rule older people live in one- or two-person households. The number of single-person households in West Germany soared by two-thirds between 1970 and 1990, growing by another 20% in Germany as a whole following reunification. In the pre-unification years new households were set up mainly by the age cohorts up to 45. From 1970 to 1990 the number of households with under-45s as their head increased by more than 150%. Meanwhile, though, the number of households in this age group in west Germany is ticking up only slowly. At last count in the Old German States the group of 45 to 65 year-olds was the fastest-growing. In east Germany there is still a great backlog of demand for younger households in particular: The number of households is growing mainly in the age group up to 45, and particularly strongly among the under-25s.

At the same time the number of multi-person households has dropped very sharply. In Germany as a whole there were 40% fewer five-member households in 2003 than 1970 in the former West Germany. The structure of housing seekers has thus been shifting for decades, with 70% of all households now consisting of a maximum of two people. Thirty years ago the figure barely topped 50%.

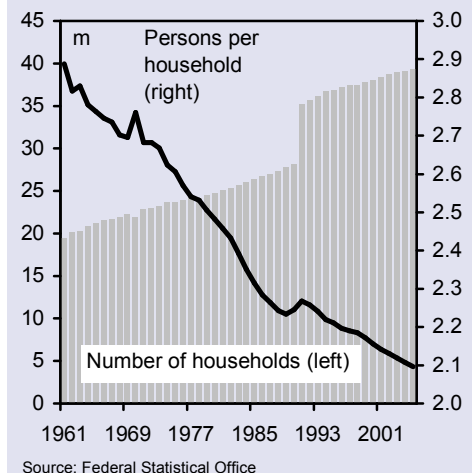
The trend towards ever smaller households has been more pronounced in east than west Germany since reunification, as young east Germans in particular have moved to the Old German States. In 1991 the average household size in the New German States, at 2.4 people per household, was still well above the west German statistic (2.25), but by 2003 it had fallen well below the level in the west, at just over 2 compared to 2.14. This explains the roughly 10% increase in the number of households in east Germany despite the strong population decline.

Of course, these averages mask very distinct regional differences in household sizes. The lowest level is recorded in Munich (1.7 persons), the highest in the borough of Cloppenburg (approx. 3

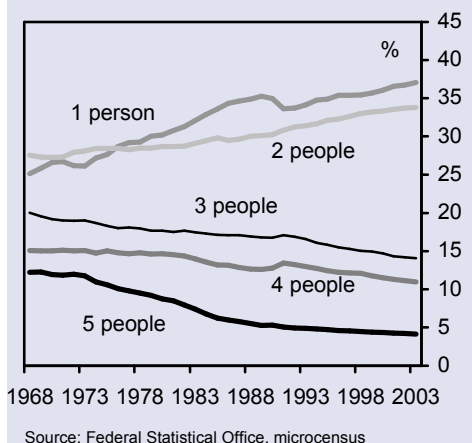
Age of residential property - excluding hostels -



Number of households rising



More and more small households - Share of total -

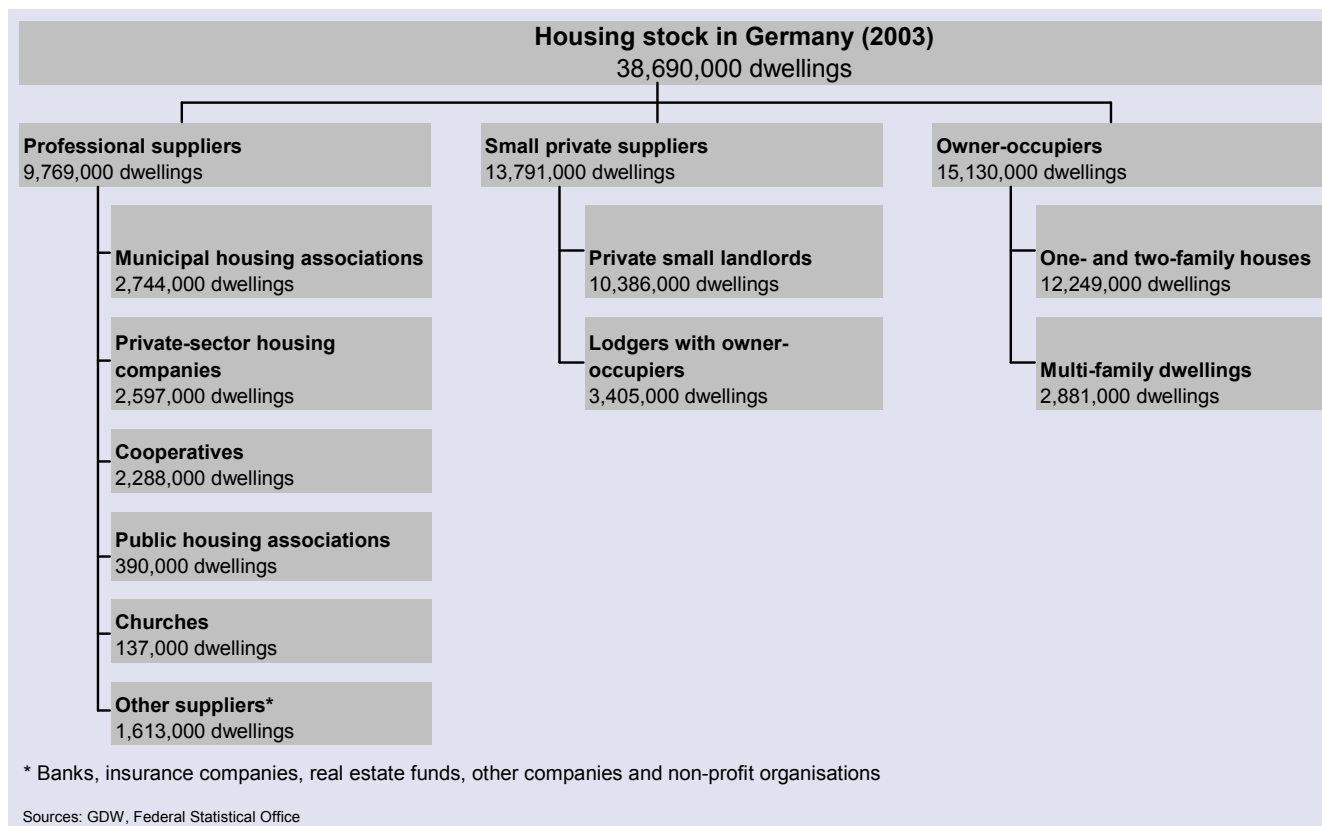
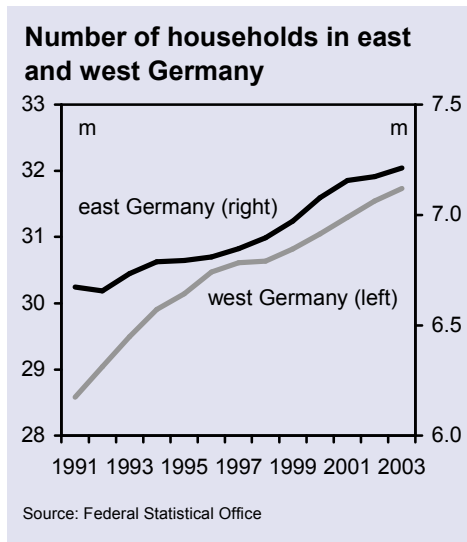


persons). As a general rule the small households tend to be in municipal districts (average size just under 2 people) rather than in rural boroughs (average size roughly 2.4). And there is naturally a clear connection between the proportion of elderly people and the average household size.

Ownership structure

Of the roughly 38.7 million dwellings shown in the last 2002 microcensus more than 15 million units are used by the owners themselves. The vast majority consists of one- and two-family houses. Slightly more than one-third of the housing is owned by private small landlords, meaning that altogether just over 28 million housing units are in the hands of private households. Of the almost 10 million units managed by professional providers a very large part is owned by public-sector corporations (more than 3 million units) and housing cooperatives (2.3 million apartments). Private housing companies own only 2.6 million apartments, just 7% of the total housing supply.

For the roughly 35 million occupied housing units (excluding hostels) the Federal Statistical Office reports an owner occupancy rate of approx. 43% – around 45% in the west of Germany and 35% in the east. Although the home ownership rate in Germany has edged up steadily, it is still very low by international standards. In France around 57% of households own their homes, in the UK two in every three households, and in Norway and Spain fully 85%.



The comparatively low level of home ownership in Germany is at least partly the result of the exceptional situation after World War II, which called for extensive state intervention on the housing market.³ Social housing (mainly apartment blocks) concentrated on the construction of rented property, and since state subsidised systems are politically a “good sell”, they generally outlive their economic justification. The result is that there are comparatively more apartment blocks and relatively few one- and two-family homes in Germany. It is a fact that there is a correlation between the proportion of single-family houses in a country and the home ownership rate: In Europe the highest levels of home ownership are found in countries with a large proportion of single-family houses. In Germany, too, more than 80% of the one-family houses are occupied by their owners, whereas owner-occupancy in multifamily dwellings with more than seven apartments works out at just 10%. This also explains why home ownership is higher in rural districts than conurbations: In Saarland and Rhineland-Palatinate the rate is almost 60%, in Hamburg around 20%, in Berlin and Frankfurt/Main only a little more than 10%.

2.2 Market trends

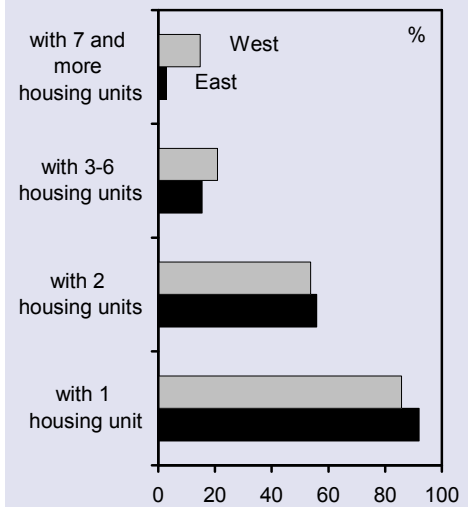
Rents and condominium prices

Average rents for newbuilds in German cities ranged in 2004 from just under EUR 5/m² in east German cities to EUR 11.5 in Munich. In 1994 rents for new apartments in Munich were even 5% higher than today, and 10 years ago the rents paid in many east German cities were a good 25% more than in 2004. The fluctuations in rents for secondary houses are not quite so extreme between the cheapest and most expensive city (between EUR 4.5 and EUR 10). Thirty years ago the differences were more marked. At that time Hamburg was the most expensive place to live, and the rent for a new apartment cost more than EUR 6/m². The cheapest (west German) city then was Passau, where EUR 2.3 per square metre was the going rate.

Over the past 30 years average rents for newbuilds have ticked up by around 2.5% a year and rents for relets by some 3.5% p.a. But developments were patchy. From 1975 to 1995 the rents for new apartments went up by almost 3.5% p.a. (with rents for secondary properties once more gaining by an extra percentage point). On average during this period rents rose more quickly than consumer prices. Consequently their weighting in the basket of commodities increased. In the years since 1996, however, rents have fallen by just under 0.5% a year (with marginal growth in rents for existing properties). The rents in east German cities have even eased by 2.5% a year over the past eight years, with newbuild rents under considerably more pressure than rents for relets. This means that in most cities the weighting of rents in the basket of consumer commodities has decreased, as rents there have risen more slowly than consumer prices.

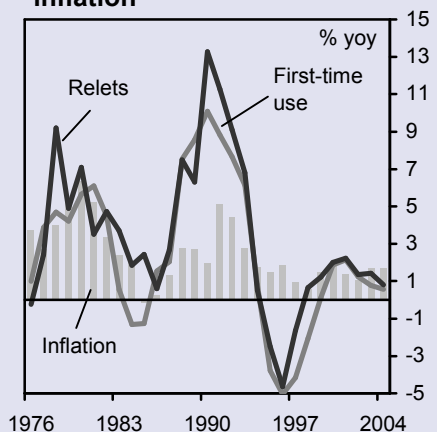
Owing to the lower dynamic of rents for newbuilds versus those for existing housing, rents for relet property have now reached almost 85% of newbuild rents. In 1975 the rents for new and old apartments still differed by around one-third. There are three factors driving this trend: First, the quality of existing property has been upgraded,

Home ownership rate by number of housing units - 2002 -



Source: Federal Statistical Office, microcensus

Development in rents and inflation



NB: Average for 49 west German cities

Sources: BulwienGesa, Federal Statistical Office

³ In towns and cities with more than 100,000 inhabitants, on average almost every second home had to be rebuilt – more than 2 million units in all (see Kucklick, C. (2003), *Terror gegen den Terror?*, in: *Geo* 2/2003, pp. 120-138).



eliminating one important reason for the price difference. Second, holders of housing stock have improved their tenant management. And third, competition for tenants, notably in regions with surplus capacities, is depressing newbuild rents. The rents for new apartments in east Germany in particular are consequently barely higher than for existing properties.

Condominium prices are moving broadly in sync with the cost of rented apartments, although on average since 1975 rents have risen half a percentage point a year faster than apartment prices. This means that initial returns – to put it simply the ratio of rent to price – have ticked up slightly. Particularly in locations where returns are low, rents have posted an above-average increase, whereas returns at the upper end have altered scarcely at all in the past 30 years. In real terms, though, condominiums have also seen value destroyed over the past eight years, with apartment prices rising more slowly than inflation. This means that the total return, defined as the sum of real capital growth and the rental yield, is relatively stable.

Price trends for one-family houses and terraced houses

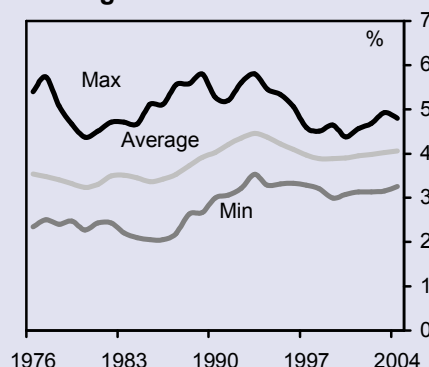
Up to the mid-1990s the prices of terraced houses picked up faster than inflation. It was only in the second half of the 1980s that the adverse population trend reined in the pace of increase. All told, an average terraced house registered price gains between 1976 and 1995 in the region of 3.5% p.a. Net of the overall rate of inflation, this left a real price increase of a good half percentage point a year. Land turned in considerably higher capital appreciation: From 1976 to 1995 building land commanded around 5.5% more a year, upwards of 2.5% after adjustment for inflation. Since the second half of the 1990s, however, the trend has slowed appreciably. The average rate of change in prices for terraced houses has turned slightly negative; adding inflation to the equation results in a 1.8% real annual average erosion in value. Even land prices have come under pressure, falling by around 0.5% p.a. over the past eight years net of inflation.

Prices for single-family houses have developed very similarly to those for terraced houses. In the first half of the 1990s there was at least still nominal growth, but since 1996 prices have dropped by about half a percentage point a year even in nominal terms.

Regional differences are evident in both house price levels and dynamics. In the two southern German states Bavaria and Baden-Württemberg average prices for terraced houses are roughly 20% higher than the mean for the other west German cities and almost 70% above the level in east Germany. These differences are even more striking in one-family houses and land prices. While the price gap between the south of Germany and the other Old German States has remained relatively constant since reunification, the difference to east German property has widened even further. This means that east German terraced and single-family houses have been more severely pressured than houses in west Germany.

The cities with the highest price increases of late are not only the usual candidates such as Munich, Frankfurt/Main or Bonn. In the case of terraced houses, places like Hagen, Aachen or Marburg top the list, and Aachen and Mainz in the one-family house segment. Part of this trend can be explained by below-average completion intensity (as with the town Hagen). It is also striking that Aachen, Marburg and Mainz are important university cities. That could have had a stabilising effect during a recession like the one in Germany between 2001 and 2003. On the other hand, price trends on the “worst” markets bring few surprises. The front-runners are east German cities and regions with a problematic economic structure.

Initial yields on the German housing market - new builds -



NB: Return calculated as the ratio of annual rent to housing price

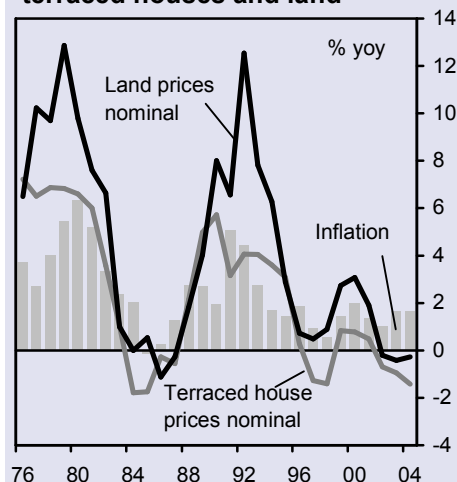
Max.: The maximum value of the 49 cities in one year

Min.: The minimum value of the 49 cities

Average: of the 49 cities

Sources: BulwienGesa, DB Research

Development in prices of terraced houses and land



Sources: BulwienGesa; Federal Statistical Office, DB Research

European comparison

The German housing market differs in many respects from the markets in other European countries. The most conspicuous factor is that house and apartment prices in Germany have detached themselves from the strong international upward trend. Whereas German prices today are no higher than in the late 1990s, house prices in Italy have jumped 9% p.a. during the past five years, and in France, Spain and the UK the annual rates of increase have been in the double-digit figures. But it is not only recently that the price trend has been uncorrelated with housing markets in the other industrial countries. In fact, German price increases are negatively correlated with many countries; in an internationally structured housing portfolio the inclusion of German residential property consequently helps to reduce the overall risk (or at least, it did so in the past).

There are several reasons for this variance in latter-year price momentum. For one, population growth in the other countries has been considerably higher than in Germany, and the population forecasts for most other countries are likewise more positive. That is important, because current property prices reflect not only the present state of scarcity, but invariably also expectations of the future. Strong population growth creates additional demand, and if supply remains constant prices move up. What is more, economic growth in Germany has been comparatively low. Since 2000 real GDP growth in Germany has been only half as fast as in France, reaching as little as one-third of the Spanish economy's average rate of expansion.

Given this scenario, it is hardly surprising that the number of housing completions in Germany has plummeted in the past few years. Even so, the supply of housing in Germany is still rising at almost the same rate as in Britain or Italy and only a little slower than in France. Supply in Germany is expanding considerably faster than the number of inhabitants, and in France at about the same rate, whereas average population growth in Britain has even been higher than the rate of expansion in housing supply.

Development in prices

Top 5

	Terraced houses		Single-family houses
Hagen	3.3%	Aachen	3.3%
Aachen	3.2%	Mainz	2.8%
Marburg	2.4%	Munich	2.8%
Albstadt	2.0%	Mönchengladb.	2.7%
Cologne	1.9%	Wiesbaden	2.5%

Bottom 5

	Terraced houses		Single-family houses
Suhl	-4.5%	Oldenburg	-5.4%
Flensburg	-4.2%	Regensburg	-5.1%
Görlitz	-3.9%	Chemnitz	-4.7%
Neumünster	-3.5%	Brandenb. (H.)	-4.5%
Gera	-3.3%	Minden	-4.4%

Explanation: Average rate of increase in prices over the past five years

Sources: BulwienGesa, DB Research

Correlations between international house prices

Period: 1987 - 2004, based on the average percentage price changes

	DE	NL	SE	GB	FR	ES	IT	US	CA	AU	JP
DE	1.00										
NL	-0.18	1.00									
SE	-0.07	-0.16	1.00								
GB	-0.31	-0.06	0.61	1.00							
FR	-0.06	-0.30	0.66	0.67	1.00						
ES	0.05	-0.42	0.80	0.61	0.86	1.00					
IT	0.55	-0.53	0.38	0.10	0.41	0.63	1.00				
US	-0.44	-0.30	0.49	0.70	0.80	0.64	0.10	1.00			
CA	-0.22	-0.17	0.50	0.73	0.64	0.64	0.03	0.77	1.00		
AU	-0.06	-0.22	0.58	0.79	0.64	0.73	0.39	0.61	0.60	1.00	
JP	0.59	-0.24	-0.14	-0.41	-0.45	-0.13	0.32	-0.57	-0.17	-0.31	1.00

NB: Correlation coefficients greater than 0.6 are highlighted in bold type.

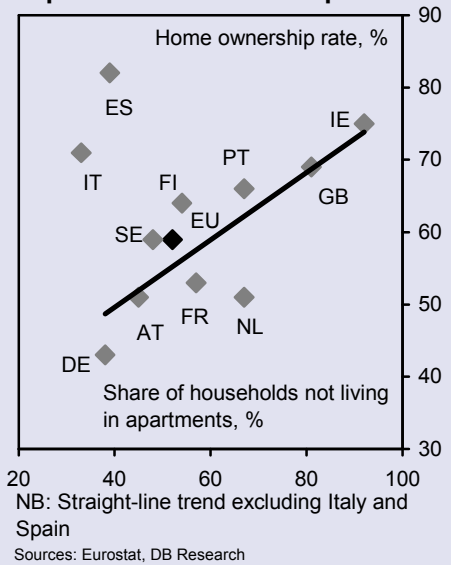
Sources: BulwienGesa, national statistical offices, Nationwide, Nomisma, DB Research



In the southern European countries in particular, substantial pent-up demand for quality property is driving up prices. At the last Eurostat survey in 1998 roughly twice as many households in Italy and Spain lived in cramped circumstances as in Germany.⁴ Consequently, the households in these countries are also larger on average than in Germany.

Finally, the significance of reunification for the German housing markets cannot be too heavily stressed. While leading to surges in demand for west Germany, most importantly it called for a historically unique effort to raise the east German housing supply to the west German level through state subsidisation. In terms of the quality of the property, this has been achieved in many parts. However, the construction boom overshot the mark; many derelict apartments standing empty at the beginning of the 1990s have been redeveloped into modern apartments still vacant today. This has automatically depressed prices in east Germany.

Number of single-family houses explains home ownership rate



Housing markets on a European comparison

	Germany	France	GB	Italy	Spain
Demography:					
Number of inhabitants 2004 ('000)	82,500	60,355	59,426	57,506	40,856
Population growth 1995-2004 average p.a.	0.1%	0.5%	0.4%	0.2%	0.6%
Population forecast 2000-2020 average p.a.	-0.1%	0.3%	0.3%	-0.1%	0.4%
Number of households (latest figures)	38,620	24,800	25,208	22,008	15,160
Number of people per household	2.1	2.4	2.4	2.6	2.7
Economic setting:					
Real gross domestic product per capita (2004) in EUR	25,418	23,859	26,490	18,276	14,340
GDP per capita in purchasing power parities (2004) EU-25=100	107.4	110.9	119.9	105.0	97.6
Economic growth 2000-2004 average p.a.	1.0%	2.0%	2.6%	1.3%	2.9%
Forecast economic growth 2005-2006 average p.a.	1.3%	1.9%	2.5%	1.4%	2.8%
Standardised unemployment ratio (ILO concept) 2004	9.8%	9.6%	4.7%	8.2%	10.8%
Structure of housing markets:					
Housing stock 2004 ('000)	38,700	30,055	25,313	28,062	22,120
Home ownership rate (latest official figures)	43%	57%	70%	73%	87%
Share of households living in single-family houses, 1998	38%	57%	81%	33%	39%
Share of households living in overcrowded accommodation, 1998	16%	17%	9%	32%	27%
Market reactions:					
Development in housing prices 2000-2004 p.a.	0.0%	10.5%	16.7%	9.7%	15.0%
Completions 2001-2004 average per year ('000)	247.7	303.5	170.4	207.7	549.5
Completions (Ø 2001-2004) per '000 existing dwellings 2004	6.4	10.1	6.7	7.4	24.8
Completions (Ø 2001-2004) per '000 inhabitants 2005	3.0	5.0	2.9	3.6	13.4

Sources: UN, ILO, Eurostat, Euroconstruct, BulwienGesa, Nationwide, national statistical offices, DB Research

⁴ We speak of cramped living conditions (overcrowded housing) when the number of people in a household is higher than the number of rooms.

2.3 Outlook for German residential property

Determinants

Real estate is extremely heterogeneous, differing in terms of location, size, architecture and features; and yet, housing markets can still be analysed at the macro level as well, because the central determinants are the same for all properties. Besides which, substitution relationships exist between many regional sub-markets: As property prices climb steeply in the conurbations, so the catchment area tends to widen. That dampens demand in the centre and boosts it on the periphery. Radiation effects of this kind from growth centres can extend over more than 100 kilometres, depending on the transport infrastructure and behavioural patterns.

The major determinant of demand for living space and, given constant incomes, also of the development in housing prices is the number of households in a region: More households need more living space. Of course, this only applies on the assumption that no other changes take place, i.e. that household and demand structures do not alter. In the short term this is approximately the case. But investors with a very long-range investment strategy must also keep an eye on changes in household structures. We shall deal with demography as an important determinant a little later in detail.

Higher incomes tend to push up prices

As their incomes rise, households seek more and higher-quality living space, which tends to lift residential property prices. For Germany, not only can a clearly positive parallel be drawn between the level of disposable incomes and the level of real estate prices, but prices also tend to move up more quickly in markets with high economic momentum than in an environment of stagnation.⁵ Two aspects should be heeded here, though: First, the level of disposable incomes is only one of many determining variables. There are huge differences between the affordability of property in individual cities. A simple affordability index, calculated as the ratio of single-family house price and disposable income per head per year, presents values in Germany ranging between ten (e.g. Bremerhaven, Osnabrück, Dessau or Suhl) and over 30 (Frankfurt/Main and Munich). Second, although there is a close interdependence between the prices of one-family houses and condominiums, the affordability indices for apartments and houses in German cities exhibit interesting variations in ranking: The indices for condominiums vary between around eight for Osnabrück, Bremen or Wolfsburg and over 17 for Berlin, Freiburg i.Br. and Frankfurt/Main.

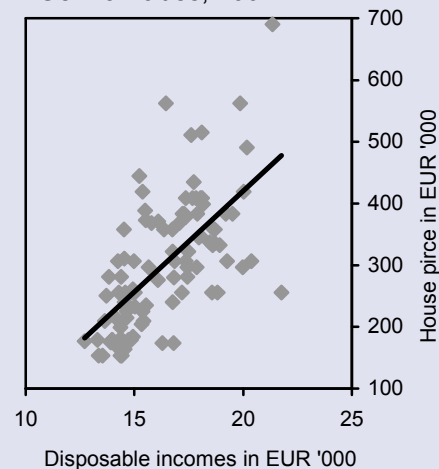
A glance at the first and last ten cities in the list of affordability indices is also revealing. In the index of single-family houses the ten cities with the highest index values are all in west Germany. Of the ten cities with the lowest index values eight are in east Germany. Notwithstanding pent-up demand for owner-occupied housing, because of the comparatively low incomes single-family houses in the New German States were cheap, at least in 2001. This is also remarkable inasmuch as only two east German cities ranked among the cheapest ten locations for condominiums and one (Potsdam) was included in the ten most expensive markets.⁶ Potsdam's special

⁵ Admittedly, in this case the economic determinant is reinforced by the demographic factor, because expanding regions attract above-average inward migration.

⁶ More recent state income statistics from the Laender at municipal level are not yet available.

Price of single-family houses and disposable incomes

- German cities, 2001 -

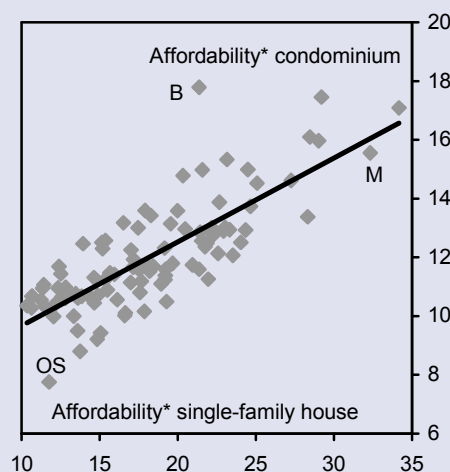


NB: Covering roughly 100 German cities, prices for an average single-family house, disposable incomes calculated per head.

Sources: VGR der Länder, BulwienGesa, DB Research

Affordability* of single-family houses and condominiums

- German cities, 2001 -



NB: Based on average property prices for roughly 100 cities. The living space was set a 100m².

* Affordability is defined as the price of the house or condominium in relation to the disposable income of a region. The index has no unit.

B = Berlin
M = Munich
OS = Osnabrück

Sources: VGR der Länder, BulwienGesa, DB Research



position could be explained by the exceptional locations available on the one hand and its proximity to Berlin on the other.

The short-range outlook for the development in disposable incomes is not very bright, as the domestic economy in Germany has failed to get back on track so far. Although signs are emerging that private consumption might pick up a little in 2005 for the first time in three years, strong income rises are unlikely in the next two years. This also severely narrows the price scope for residential property, at least from that quarter.

Moderate interest rate increase, if at all

Interest rates have a twofold impact on the housing market. Falling rates enable more people to finance their dream home. For buyers, softening interest rates, with long-range lock-in periods, consequently have the same effect as rising incomes – they push up demand. But since residential properties are consumer as well as capital goods, falling interest rates also tend to stimulate supply. On balance, therefore, the volume in demand on the market will increase; but the price impact depends on the relative strength of the two effects. On markets where supply is more sensitive to interest rates than demand, growth takes place mainly in construction, but a significant correlation between interest rates and property prices is not evident. This has been the case in recent years on most housing markets in Germany.⁷ But the UK, for example, exhibits a significant negative correlation between rate trends and house prices. There, supply evidently reacts less to rate changes than demand. As a result, lower interest rates in Britain cause house prices to pick up.

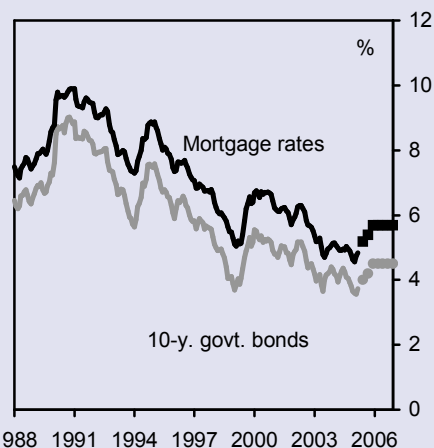
As a rule, mortgage rates track government bond yields. The average rate of interest on a ten-year mortgage has generally been one percentage point above a ten-year government bond. We expect the current, historically low, long-term rates to move up in the course of 2005. Average interest rates for housing loans should then climb from well under 5% at present to more than 5%. Of course, this would still put them clearly below the long-range median mortgage rate of about 7.1% in the past 15 years. The isolated interest rate effect thus remains expansive, although less so than in the past two years.

Less subsidisation, lower construction costs

State intervention is very strong on the German housing market. New housing construction, for example, benefits from the 4% declining balance depreciation arrangement applying in the first ten years after completion. In slack markets part of this subsidy is passed on to tenants in the form of lower rents. In east Germany, an investment grant for housing to let can also be applied for. However, these positive incentives are partly counteracted by the severely regulated tenancy law.

At the same time, public sector institutions subsidise the purchase and new building of owner-occupied property, for instance with owner-occupied housing allowances. A family with two children that does not exceed the income limits currently in force is entitled to altogether EUR 20,800. The acquisition of property is also fostered by state promotion for investment in home loan and savings

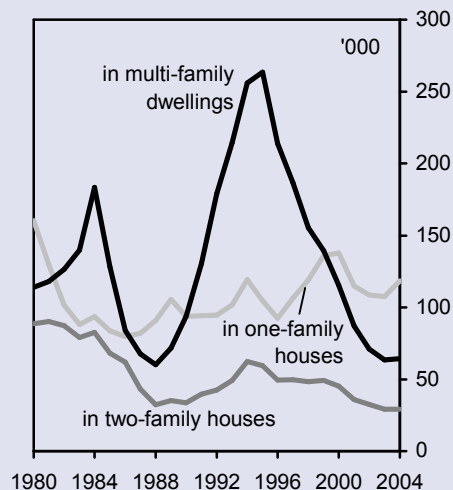
Mortgage rates and government bonds



NB: Through June 2003 mortgage rates are the average rate of interest on fixed, 10-year mortgage loans according to the old Bundesbank statistics. From July 2003 lending rates for house purchases with 5 to 10-year maturities according to ECB statistics

Sources: Bundesbank, ECB, DB Research

New housing completions - west Germany -



Source: Federal Statistical Office

⁷ See Döpke, J. (1996), Zu den konjunkturellen Bestimmungsgründen von Wohnungsbauiinvestitionen, in: die Weltwirtschaft 3/96, pp. 300-317, and Just, T. (2003), Bubble Trouble in the housing market?, in: Frankfurt Voice, February 2003, Deutsche Bank Research.

contracts (housing bonuses and savings premiums) and through various KfW promotion programmes (home ownership programme, modernisation programme and several programmes with an environmental focus). Finally, under a joint federal and Laender government scheme more than EUR 2.5 bn is being channelled between 2002 and 2009 into the *Stadtumbau Ost* programme of urban conversion in east Germany, mainly for the demolition of apartments. For west German outmigration areas research is already being carried out on 16 pilot cities with a view to a possible *Stadtumbau West*.

This amalgam of promotion programmes pursuing a host of "secondary social objectives", such as promotion for families and environmental protection, in addition to those related directly to housing construction, makes an impact analysis extremely difficult. Given the public authorities' precarious budgetary situation, it is understandable that this plethora of promotion is now up for review. Top of the list (and rightly so) is the owner-occupied housing allowance (*Eigenheimzulage*). Proposals for a further reduction in this allowance failed to pass the Bundesrat, the second chamber of parliament, at the last attempt; but since even the construction trade union has indicated that it is prepared to negotiate, the current level of this subsidy is unlikely to last for long.

A reduction in home ownership allowances does mean that some borderline households will be unable to finance a home of their own. But given the powerful windfall gains of the owner-occupied housing allowance in particular, and considering that less subsidisation will cause prices to fall, the impact should be limited. Moving forward, the price effect of curtailed promotion will be intensified by open services markets in Europe. Keener competitive pressure on the construction markets, too, will leave German building firms very little scope to put up their prices.

Very few completions at present

All told, roughly 278,000 housing units were completed last year in Germany, 3.7% more than in 2003, but a third less than on average for the past ten years. The slightly more positive trend in 2004 was down chiefly to the owner-occupied segment, with the announcement of plans to cut the housing allowance causing west German households in particular to bring their construction projects forward so that they could still benefit from the more generous promotion.

The number of housing completions in the Old German States climbed in 2004 by slightly more than 5% yoy; 118,000 single-family homes were built last year, 10% more than in 2003 – up a little even on the ten-year average. But only marginally more apartments in multi-family dwellings were created than in the previous year, with growth of 1.3% to 64,000 units; on a long-range average roughly twice as many apartments a year were built in apartment houses.

In east Germany, pull-forward effects triggered growth of only 5% in owner-occupied house building. And in 2004, completions of multi-family houses continued to drop at double-digit rates. A mere 5,000 units were finished, compared with almost 100,000 in 1997, since when decreases of at least 20% have been registered every year. Given the ongoing migration from east to west and 1.3 million dwelling units already standing vacant, this is hardly surprising. At the level already reached, further reductions are of little consequence.

All in all, the completion figures of the past three years are unlikely to be a lasting phenomenon. In the medium run we expect

New housing completions - east Germany -



Source: Federal Statistical Office

Completion intensity of living space by region

TOP 10 (2003)

Adm.-region	Land (state)	Completion intensity*
Weser-Ems	L. Saxony	12.4
Lower Bavaria	Bavaria	10.9
Lüneburg	L. Saxony	10.5
Upper Bavaria	Bavaria	10.1
Brandenburg	Brandenb.	9.8
Upper Palatinate	Bavaria	9.5
Koblenz	Rh.-Palatinate	9.1
Lower Franconia	Bavaria	9.0
Swabia	Bavaria	8.7
Tübingen	Baden-W.	8.7

BOTTOM 10 (2003)

Adm.-region	Land (state)	Completion intensity*
Saarland	Saarland	4.8
Thuringia	Thuringia	4.5
Hamburg	Hamburg	4.5
Halle	Saxony-A.	4.4
Leipzig	Saxony	4.2
Dessau	Saxony-A.	3.6
Chemnitz	Saxony	3.3
Dresden	Saxony	3.3
Bremen	Bremen	3.2
Berlin	Berlin	1.8

*Completion intensity measures the number of dwellings completed per 1,000 units of the existing housing stock in a particular region.

Sources: Federal Statistical Office, DB Research



apartment house construction to pick up again, particularly in the Old States. But with many people still dreaming of a house of their own, construction will presumably continue to focus on one- and two-family houses in the coming years, especially in east Germany. It is also important to note that the very low completion figures in Germany can be explained partly by the lack of demand for newbuilds in many outmigration areas. In Thuringia, Saxony and Saxony-Anhalt the ratio of at most five completions for every 1,000 units in the housing stock is now appropriate. Completion intensity in inward migration areas is much higher.

Limits to growth from long-range demographic trends⁸

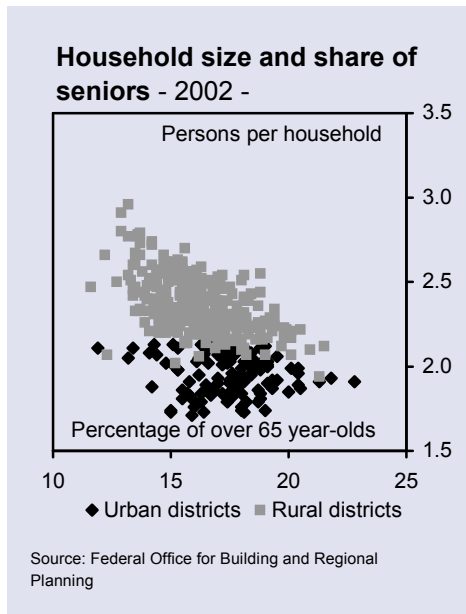
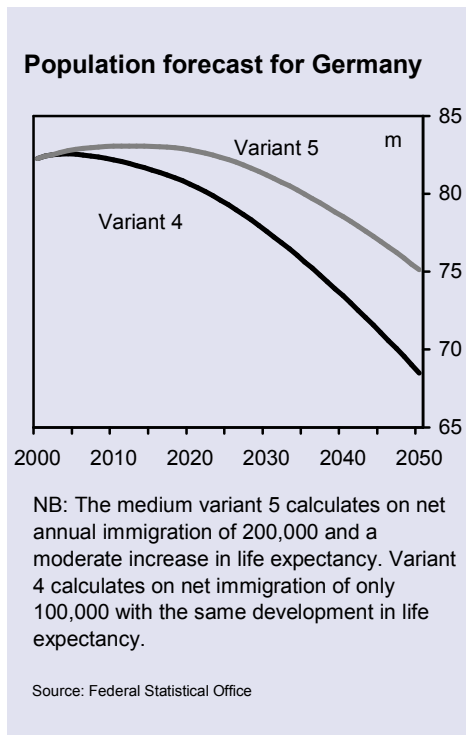
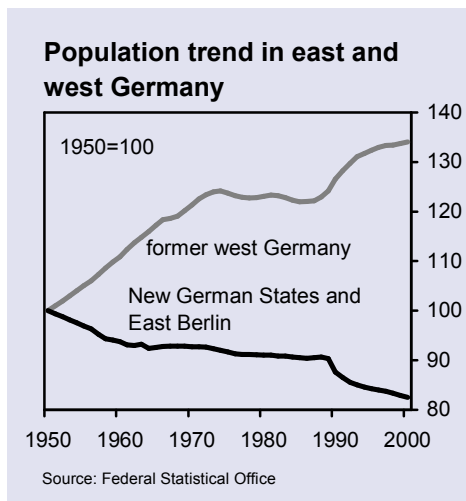
The demographic trend in Germany has been looming for decades: Since the early 1970s the birth rate, at barely 1.4 children per woman, has fallen well short of an economy's self preservation rate of roughly 2.1 children per woman. Thus far, Germany has managed to compensate the gradual uptick in the birth deficit through immigration. Going forward, this will be increasingly difficult. In its medium variant 5 of the 10th coordinated population projection, the Federal Statistical Office calculates that on the assumption of increasing life expectancy and persistently high immigration of 200,000 net per annum the decline in the resident population in Germany will begin to accelerate as from 2012. By the middle of this century roughly 10% fewer people will be living in Germany than at present. This medium scenario forms the basis for all further calculations here.⁹ At the same time the average age in Germany will soar, as a shrinking number of young people are confronted with a growing multitude of older inhabitants. At present roughly 16% of the population is older than 65. In the coming 40 years this percentage will almost double.

Both aspects of demographic change have far-reaching repercussions on long-range demand for housing. Of course it is worth making a few important distinctions, because all change implies opportunities as well as risks. That also holds true for demographic change.

For one thing, housing demand depends only indirectly on the number of inhabitants – the key factor is the number of households. In an ageing society average household sizes downshift, because most senior households consist of a maximum of two people. Official statistics for 2003 showed almost 39 million households. We expect this number to top the 41 million mark by 2020, even with the population already beginning to contract. The number of households will not begin to head down until the third decade, so that by 2050 there will be about 7% fewer households than at the 2020 peak.

Second, living space per capita is set to continue rising. Here, too, the greying of society plays an important part: So far most parents have not adjusted their demand for living space once their children have left home – motivated by a desire to stay in their familiar surroundings and deterred by the transaction costs involved in a move. Finally, many tenancy agreements in Germany are based on bonds of trust between tenant and landlord. In the case of longstanding agreements the rents often no longer reflect market prices, meaning that moving into smaller accommodation could even entail higher rental costs. Should this so-called "remanence

⁸ See Just, T. (2003), Demography sends tremor through German property market, Current Issues, Deutsche Bank Research.
⁹ Even so, the medium scenario is only one possible development. Should only 100,000 persons net move to Germany, the population will shrink by fully 17% up to the middle of the century.



effect” persist, average living space per head is likely to increase from a good 40 m² per capita at present to well over 45 m² per inhabitant by 2050. This effect will likewise curtail the drop in demand on the housing market. All told, we expect overall demand for living space (calculated in m²) to continue expanding through 2030 by altogether 14%, after which it will start to edge down. Even so, in 2050 9% more living space would still be absorbed than today, despite almost 10% lower population figures.

Demographic development regionally very diverse

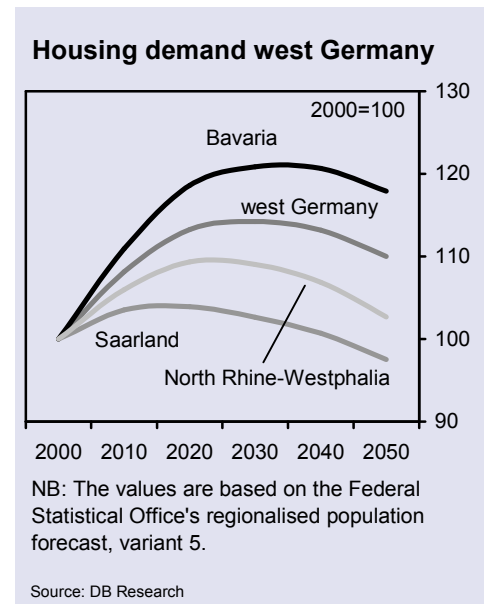
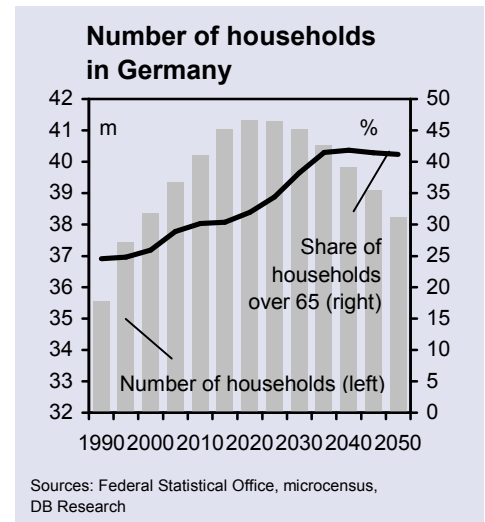
But the third aspect of demographic change is presumably the most important: the enormous regional differences.¹⁰ For instance, the birth rate in Germany fluctuates between 1.8 children per woman in Cloppenburg and 0.8 children per woman in Suhl. Nor is life expectancy the same everywhere. In the borough Leipziger Land women live 6.5 years longer on average than in Eisenach. Particularly profound, though, are people’s migration trends. Regions without an attractive jobs market are the most likely to lose their young, skilled inhabitants, creating a dangerous downward drag as the next generation of parents and the most creative talents increasingly move away.

In west Germany the number of households in 2020 will be 8% higher than in 2000 – again with very marked differences between the individual states. Those with a healthy economic structure will attract labour. Consequently, the number of households in southern Bavaria and Baden-Württemberg will grow by more than 15% beyond 2020, whereas in Saarland the maximum number of households is likely to be reached by around 2010. Developments in North Rhine-Westphalia and Bremen will presumably also be below par.

In the east German states, latter-year household growth will start to slow very soon. Although a slight uptick in the number of households is still expected in the coming ten years in Brandenburg, Mecklenburg-Western Pomerania and Thuringia, Saxony and Saxony-Anhalt will presumably reach the turning point this decade already.

This implies increasingly divergent development in housing demand. In west Germany demand for space will climb by 14% through 2030, with a marked downshift in the growth in living space in the coming decade already. While for structurally weak regions such as Bremen or Saarland only homeopathic growth in space is to be expected, the southern German states Bavaria and Baden-Württemberg in particular look set to need a good 20% extra living space through 2030. An increase in living space means housing prices will come under pressure only if supply is ratcheted up excessively. In other words, demographic adjustment pressure on property prices can be alleviated by restricting supply in immigration regions.

In east Germany, demand for living space will advance by almost 10% up to 2020 despite the adverse population trend. The backlog



¹⁰ The following calculations differ in some respects from the statements in: Just, T. (2003), Demography sends tremor through German property market, Current Issues Deutsche Bank Research. This is because the calculations here are based on the Federal Statistical Office's regionalised forecasts – data not yet available at the end of 2003. In view of this, at that time we produced a regional distribution formula of our own. Although the Statistical Office's regionalised forecasts are not necessarily correct, they do guarantee consistency in that only one source is used. In general, the Statistical Office's distribution formula is more favourable for west German states and less favourable for east Germany. The Statistical Office scenario thus corresponds more to the "persistent outmigration" scenario in the 2003 DB Research study.



of demand from senior households in particular will take decades to work off, thus boosting requirements. But as from 2020 the downward trend in the New States will gather momentum, with the result that Brandenburg, Saxony and Saxony-Anhalt will need less living space in the middle of this century than at the beginning. Indeed, Saxony-Anhalt will return to its 2000 level by 2020 already. Given the massive amount of property standing vacant, even in the long range there will only be need for newbuilds in individual segments (e.g. single-family houses, housing for the elderly).

Two aspects are extremely important here. First, regional population forecasts are much more difficult than economy-wide predictions, because ultimately they call for implicit assumptions on regional structural change. Trend extrapolations inevitably have to be used for this. But these do not always fit, given that within a 50-year time frame any still-young industry today will age, equally transforming the young, dynamic sectoral hubs of the present into structurally weak areas, unless they succeed in remaining open to new developments.

Second, even demographically distressed regions hold out opportunities for investors, provided demand does not plummet dramatically. This is particularly the case when demographic prospects draw all investors into the usual immigration regions. But investors must factor rising vacancy rates into their pricing. If prices properly reflect the demographic risk, there is still a chance of satisfying yields. Of course, the burden of adjustment is then shouldered by the seller.

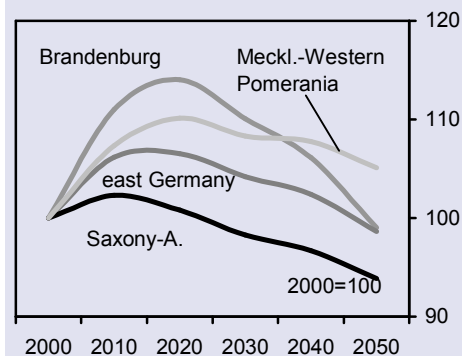
Future demand and price trends

Broadly, demand and price trends can be divided into six categories. Regionally, the growth centres must be distinguished from structurally weak outmigration regions, besides which Germany's current poor economic performance and the demographic development looming in the long term necessitate a distinction into short, medium and long timelines.

In the growth regions prices will bottom out in the course of this year, at the latest in 2006, and then begin clawing back. Indeed, housing prices in some cities already edged up slightly last year. Prices will be driven less by economic momentum than by the escalation in household numbers and by low interest rates. Given scant completions, this will automatically push up prices. In the medium term the interest rate stimulus will fade, and the probable reduction in state promotion will act as a drag; However, this will be more than compensated by the continued increase in the number of households and positive income growth. We expect housing prices to perk up again along their real-terms trend level of 0.5%. Depending on the rate of inflation, this will translate into nominal price gains between 1.5% and 3%. In the long term demographic developments will weigh on the business centres, too, eroding real appreciation even there. But this is not likely to become apparent until post-2030.

In structurally weak cities and communities the burden of adjustment will set in much sooner. Even now, outward migration is already depressing capital appreciation. Moreover, we expect a hefty cutback in the owner-occupied housing allowance in the foreseeable future, which will also negatively impact price trends in the weak regions; but the government urban conversion programmes will alleviate the pressure on prices in the medium term. Indeed, the net effect should even be positive, as urban conversion is a success only if supply falls faster than demand. In the long run, though, even the most swingeing conversion programmes will not reverse the

Housing demand east Germany



NB: The values are based on the Federal Statistical Office's regionalised population forecast, variant 5.

Source: DB Research

Property prices poised to pick up in growth regions

consequences of the demographic processes. Then prices and rents will soften further.

Price trends for German residential property (nominal)

Time horizon (years)	Growth regions			Regions with declining populations		
	1 - 2	3 - 10	10 - 50	1 - 2	3 - 10	10 - 50
Demography	+	+	0	-	-	-
Economic growth	0	+	+	0	0	0
Interest rate	+	0	+	+	0	+
Alternative investments	0	0	-	0	0	-
State subsidies	0	-	0	0	+	0
Production costs	0	-	-	0	-	-
Total	+	+	0 bis +	0	0	-

Source: DB Research

A brief aside: German property prices – an assessment model

Certainly, the above determinants are sound in theory, but ultimately we need empirical examination of the factors influencing German housing prices. For this we present regression models for the three variables being explained: rents for apartments, condominium prices and single-family house prices (new properties in each case).

As discussed above, the development in incomes is very important in terms of demand for the consumer product ‘housing’. We would therefore expect positive correlation between gross domestic product per head in a city and property prices. Also, population growth should be a price driver. Moreover, an increase in housing supply should cause prices to drop. Additionally, of course, a raft of economic, political and demographic factors influence price formation. Our models allow, for example, for the proportion of over 60 year-olds in a city. Given that older people are less inclined to move, property take-up will fall in an ageing society, which could dampen prices. We also introduce a dummy variable for east Germany and another for the development of the past three years.

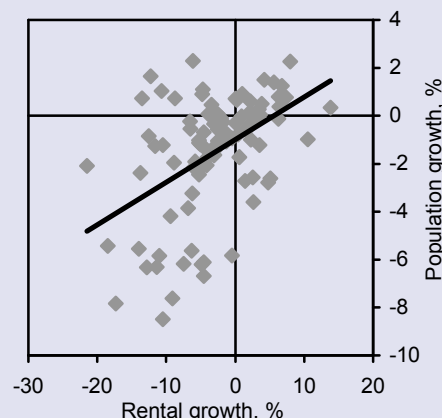
Data and method

We estimate a pooled ordinary least square (OLS) model for 93 German cities (27 of which are in the New States) on the basis of the last 15 years (where data is available), giving us roughly 350 data points. Given that prices on property markets react with a time lag, the time series are combined into three-year averages. All variables are entered into the models as differences of the logarithmed values, so that the estimated coefficients can be interpreted as elasticities.¹¹

Results

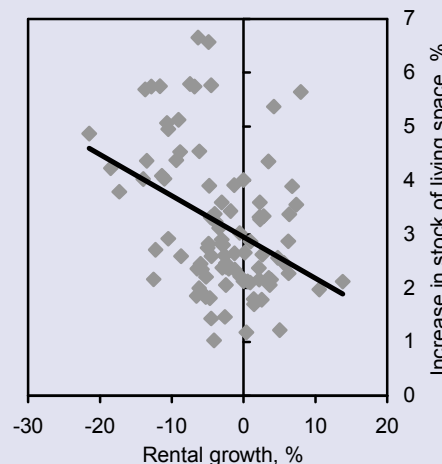
The results of our estimate underpin the correlations presumed: population growth and economic growth lead to rising rents and prices. And extra housing supply lowers property prices if all other factors are constant. Almost all estimated coefficients differ significantly from zero. Only in the single-family house price model is the supply variable insignificant.

Rents in relation to the population trends 1999-2001



Sources: BulwienGesa, DB Research

Rents in relation to the stock of living space, 1999-2001



Sources: BulwienGesa, DB Research

¹¹ Elasticities show the percentage change in the variable being explained (e.g. rents) where the explanatory variable (e.g. per capita GDP) increases by 1%.



Rents thus tick up by around 0.15% when per capita GDP expands by 1%. A 1% rise in the number of residents lifts rents by 0.7% and a 1% increase in the supply of housing depresses them by 0.9%. A significantly different trend in house and condominium prices that cannot be explained by the fundamentals was also identified between east and west Germany: East German condominium prices developed roughly 4% more slowly over the three-year period than west German apartment prices. Price changes in east German single-family houses likewise worked out systematically lower than for west German homes, although the growth discrepancy was slightly less, at -2.8% in three years. The constants range between 3.9 and 5.7%, indicating how strongly prices change within three years when all other explanatory variables assume the value zero. The constants are thus approximately on a level with the advance in consumer prices over a three-year period.

3. Privatisation of residential property / Sale of housing portfolios

The market for German residential property has picked up in recent years, with foreign investors buying large portfolios from the public sector and from private-sector companies wishing to dispose of that particular type of business. Analysis of these transactions should take account of two aspects. First the normative issue must be examined, i.e. whether it is in principle economically correct to privatise housing or hive it off from corporate structures. Second, positive analysis is important, i.e. how transactions of this kind are actually implemented. From the target/actual comparison we can then deduce who is likely to derive the greatest benefit from such transactions.

3.1 Economic benefit

Normative analysis must distinguish between portfolios held by the public and private sectors, because government and private holders of housing stock pursue different aims: Whereas private companies need only consider whether the housing portfolio serves their strategic corporate objectives and the aim of maximising profit, public-sector enterprises have social as well as business aspirations.

Social objectives may be concerned with distribution issues. These always capture greater attention when political decision-makers and/or their electorate are dissatisfied with market performance. On the housing market, rents may be perceived as disproportionately high, for example. We term this market rejection. Ultimately, distribution objectives can be construed only from value judgements, in which case economic analysis can do no more than pinpoint the consequences of intervention to depict the opportunity costs, and it can put forward suggestions on efficient achievement of the desired distribution goal. The goal itself is then up for discussion only indirectly. Economic analysis therefore centres on the question of when state intervention can result in better supply than on free markets. In this case we speak of market failure. Are, then, the German housing markets failing, so that government intervention leads to welfare gains for the economy?

Privatisation of public sector housing

With the privatisation of publicly held housing stock we make a distinction between formal and material privatisation. Formal privatisation merely involves changing the legal form of the company. A public law corporation is transformed into a private-sector company, but one still owned by the state. This is not genuine

Regression analysis results

	Dependent variables		
	Apartment rent	Price of condominium	Price of one-family house
Constant	0.057** [5.69]	0.039** [4.48]	0.038** [6.85]
Per capita GDP	0.146* [1.81]	0.173** [3.86]	0.167** [3.66]
Number of inhabitants	0.711* [1.91]	1.465** [8.96]	0.867** [4.42]
Stock of living space	-0.919** [-3.30]	-0.761** [-3.27]	
Percentage over-60s	-0.850** [-4.30]		
Dummy east G.		-0.041** [-4.50]	-0.028** [-2.70]
Dummy 2002-2004		-0.042** [-4.35]	-0.058** [-6.38]
R ² (adj.)	0.29	0.41	0.21
F-stat.	34.6	48.1	24.0
N	351	356	367

NB: All variables in differences of the logarithms
t-values in brackets
** Significant at the 1% level
* Significant at the 10% level

Source: DB Research

Distribution issues capture greater political attention

privatisation, since ownership is transferred only ostensibly. The following does not therefore discuss this type of ‘taking private’. Only material privatisation, in which ownership is actually transferred from the public sector to private enterprise, is important. Material change of ownership makes sense if the free market can provide adequate housing.

Basically, market failure can always be presumed when so-called ‘public goods’ are involved, when external effects arise in provision of the good, when the good can be produced at minimal cost through a monopoly, when shortcomings exist in adjustment of the market to change or when information asymmetries exist. In the following we examine whether these circumstances apply to housing markets.

Public goods: One characteristic of public goods is that it is not technically possible, or too expensive, to exclude consumers from their consumption. And there is no competition among users for goods of this kind. This means that any number of people can consume the good at the same time without disturbing each other. Both criteria patently do not apply to private housing; there are easy ways of exclusion and extremely intense competition in usage.

External effects: Economists speak of external effects when an activity, while influencing production or a person’s consumption, cannot be controlled within the price mechanism. A good with positive externality is then offered too cheaply on a market because no market price can be put on the additional positive effect. But most empirical studies rather tend to identify positive externalities from private ownership (stabilisation of the market system and residential environment), although these are admittedly very small.¹² The state therefore has no reason to act as a supplier of housing because of the possible external effects.

Indivisibility: In extreme cases very strong economies of scale in production may result in one single supplier monopolising the entire market because of its cost edge. In such a case it may be appropriate to regulate developments so that consumers can benefit from these cost advantages. Although scale economies do exist in the provision of housing, at most locations the cost-optimum size of housing companies permits functioning competition without any problem.

Adjustment shortcomings: As a rule markets react to altered framework conditions with a time lag, particularly in the case of such durable goods as real estate. If, for instance, inward migration causes demand to increase unexpectedly strongly, it takes time to create supply. The friction losses involved mean welfare losses. With housing it can be assumed that significant adjustment shortcomings do exist on the markets for the very reason that supply can only respond with a strong time lag. However, state intervention could correct this only if the state had better knowledge of future surprises than market participants. This is not the case, at least not systematically so. Besides which, political decision-making processes certainly do not run smoothly either. It is indeed probable that adjustment shortcomings are greater in state provision than in a free market system. We shall examine this in greater detail later.

Information asymmetries: Privately traded residential property in particular possesses properties of a credence good. The full value of a property cannot be perfectly gauged even with thorough

		Rivalry in consumption	
		yes	no
Exclusion possible	yes	Private goods e.g. food, housing	Toll or club goods e.g. cable television, motorways
	no	Communal goods e.g. inner-city roads	Public goods e.g. fireworks, external security

Source: Blankart

External effects are either marginal or argue even against state commitment

Adjustment shortcomings in both private and state provision

¹² See i.a. Aaronson, D. (2000), A Note on the Benefits of Homeownership, in: Journal of Urban Economics 47, pp. 356-369.

examination. The seller always has an information edge. Strong information asymmetries may lead to only the lowest quality being left in the market – the “lemons”.¹³ But since suppliers of premium real estate have ways of signalling the advantages of their property, for instance by offering guarantees, the private market does not automatically fail. What is more, the buyer could consult a surveyor to purchase additional knowledge.

Given that no approach reveals really conclusive indications of market failure, it may be assumed that private housing markets are capable of functioning efficiently. Efficient housing markets do not require direct state participation. This does not, of course, imply that the distribution result is necessarily satisfactory.

No conclusive indications of market failure

Market failure on the housing market

Failure for efficiency reasons	Failure (rejection) for distribution reasons
<p>Property as a public good? Property is a private good.</p> <p>External effects of public housing supply? More likely with private ownership. Not very pronounced and difficult to prove.</p> <p>Indivisibilities (national monopolies) Economies of scale are negligible and can also be realised privately.</p> <p>Adjustment shortcomings? Adjustment shortcomings do exist on private housing markets. But these cannot be corrected per se by state intervention since political players may cause additional adjustment shortcomings.</p> <p>Information asymmetries? Property is partly a credence good. So there are always information asymmetries. But an information deficit on the demand side can be limited (e.g. survey). A regulation requiring a mandatory surveyor's report may be meaningful.</p>	<p>While private housing markets do tend to produce more efficient results than state-controlled systems, they can lead to (politically) undesirable distribution effects (shortage of supply for financially weak households and groups on the fringe of society). But instead of providing living space, individual promotion in the form of financial support or property-based promotion through the reservation of occupancy rights would be more efficient here.</p>

Source: DB Research

¹³ See Akertof, G. (1970), The Market for Lemons: Quality Uncertainty and the Market Mechanism, in: Quarterly Journal of Economics 84, pp. 488-500.

Distribution-policy aspects

The weightiest political argument against privatisation is the fear that free markets cannot guarantee decent housing for all people. This concern is not unwarranted, as a completely deregulated housing market could systematically leave some sections of the population unprovided for. First, financially very weak households may not be able to afford a market rent. In cases like this, however, most economists favour individual rather than property-based assistance, i.e. housing benefits instead of social housing. As a rule personal assistance hits the mark more precisely; then unauthorised tenancies, requiring ex post controls and regulations, do not occur. Moreover, the provision of state housing does not exploit dynamic competitive advantages. Public-sector institutions generally lack powerful incentives to cut costs; as a result, with public providers of private goods the production costs are frequently too dear.

Second, groups on the fringes of society may have problems accessing free markets. By these, we mean sections of the population which, while in a position to pay market rents, nonetheless remain unprovided for owing to other reasons.

This may be because of specific living space needs (large families) or low social status, situations exacerbated by severely regulated tenancy law as cautious landlords are frequently more inclined to countenance the costs of vacant properties than to accept supposedly high-risk tenants whose rental agreement it is then difficult to terminate.¹⁴ Access problems of this kind cannot be solved by financial assistance. But state intervention does not have to take the form of direct housing provision either.

It would suffice for the public authorities to reserve the right to place people in housing on the basis of their social needs.¹⁵ Placement rights of this kind come at a cost, which can be determined like the price of a stock option. Against payment, the landlord assigns to the state his right to place tenants in his housing. When privatising (subsidised) public housing, the authorities should agree occupancy rights to avoid future shortages for risk households. This is normally already done. But the seller must expect these rights to lead to a discount on the selling price – also because of the external effects involved.

Housing as a political instrument

So there is no need for state housing supply. The information asymmetries can be corrected in conformity with the market and distribution targets more effectively achieved through direct fiscal transfers or occupancy rights.

In addition, the provision of housing by the state gives rise to regulatory concerns. Private companies have financial incentives to manage the accommodation efficiently as a good. Investment is not subject to the public budget situation or made with an eye to the next election date, but geared to achieving the best possible balance of interests between tenant and landlord. What is more, private companies constantly refine their organisation and financing. This lowers the costs of provision, and in a market economy the cost

Can private market guarantee decent housing for all

Occupancy rights have a value and consequently also a price

Market is dynamically efficient

¹⁴ See Just, T. (2002), Mietrechtsreform investitionsdämpfend?, in: Aktuelle Themen 225, Deutsche Bank Research, Frankfurt a.M.

¹⁵ See e.g. Eekhoff, J. (2002), Wohnungspolitik, 2nd ed., Tübingen.



benefit is shared between tenant and landlord.¹⁶ Since public providers follow other incentives, in most cases the provision costs are presumably too high. In a market economy it is not therefore the market that should have to be justified, but state intervention.

That the public authorities still play an extremely important part on the housing market is presumably due to the special properties of housing as a public good. Housing is a basic need which, if at all, can be substituted only in terms of quality. Changes in housing supply are therefore highly visible, and that makes the housing market an extremely interesting area for politicians. Housing policy can be used as a vote winner among constituencies that benefit directly from housing subsidisation, without the fear of heavy vote losses among the group of payers.¹⁷ Consequently, privatisations frequently follow not regulative logic but the fiscal pressure of disastrous local budgets.

A lack of efficiency is not the only major problem with this political instrumentalisation of housing supply; another is the imprecision of the measures. In other words, not all the funds used benefit the socially disadvantaged target groups they are intended for.¹⁸

Imprecision of state intervention unsatisfactory

Divestment of housing portfolios by private companies

Private-sector companies whose core business activity is not in real estate usually give two reasons for holding and managing housing property themselves: Workers' apartments can form part of employee compensation, and a housing management company may be part of a diversified industrial group. In this case it would make sense to sell off housing portfolios where these rationales are no longer convincing.¹⁹

Where rents are below market rents, the provision of workers' apartments constitutes a form of non-wage compensation. This arrangement is then also subject to the regulations on taxation of benefits in kind; for the employee at least, no notable tax benefit thus results from the different form of compensation. More, or better qualified employees will not be attracted to a specific location simply because the company offers rent-subsidised housing, since the alternative would be a proportionately higher salary to permit a desired standard of living. A company would only have a cost benefit from providing accommodation of its own if it were able to manage housing more economically efficiently than other providers.²⁰

Housing as part of employee remuneration

The question of possible cost advantages coincides with the question of diversification benefits at the corporate level. Do corporate conglomerates – enterprises operating on unrelated markets – enjoy any specific advantages? Literature on the subject essentially identifies three positive factors.²¹ The first is the

¹⁶ This does not necessarily lead to better quality supply, because sometimes it is precisely low-priced property that is wanted. But investment is geared to tenants' preferences and to what they are prepared to pay. Both under- and over-investment is a waste of resources.

¹⁷ See e.g. Mayer, A. (1998), *Theorie und Politik des Wohnungsmarktes*, Berlin.

¹⁸ See Eekhoff, J. (2002), *Wohnungspolitik*, 2nd ed., Tübingen. For years attention has been drawn to the distribution problems, see also Ulbrich, R. (1992), *Verteilungswirkungen wohnungspolitischer Instrumente*, Darmstadt.

¹⁹ Now and then, of course, property is sold by companies needing to free up capital. The following disregards this aspect.

²⁰ An at most theoretically interesting justification is that with such an offer a company can build up a distinct reputation for its social commitment, attracting exceptional talent as a result. This implies that some people set greater store by a EUR 100 rent subsidy than a EUR 100 pay increase.

²¹ See Shepherd, W.G., Shepherd, J.M. (2004), *The economics of industrial organization*, 5th edition, Long Grove.

possibility of using knowledge across industries. However, the more disparate the corporate units and the products and services produced there, the less knowledge spillover takes place. Second, it is presumed that conglomerates can respond better and faster to market changes and can consequently steer their capital more swiftly in the desired directions. This argument holds in imperfect capital markets on which serious information deficits exist. Although the academic debate on whether capital markets constantly process all available information just in time is by no means decided, it is presumably correct to say that global competition and modern information and communications services have also enhanced capital market efficiency, diminishing the advantages of internal capital market allocation within a diversified company. Third, unrelated industries may be subject to differing market cycles. Then the overall risk for an integrated company is less than the total of the individual risks. This argument transfers experience with portfolio management to the corporate sphere. Just as a wise investor will not place his entire capital in one single stock, choosing instead to spread his investment across several asset classes and securities to avoid risk concentration, so companies can also exploit the benefits of diversification by operating on more than one market.

Of course these benefits do not come free: Corporate conglomerates can cause serious inefficiencies. Each part of the company would have to attain the minimum optimal size to avoid cost disadvantages. This can be assumed for housing companies, given that the scale economies are not very large, as discussed above. But there are also control costs (agency problem), since specific market situations have to be simulated for each constituent enterprise within the conglomerate. By integrating companies into a group, more influence can also be taken on products needed, although this dispositive factor is important chiefly with vertical integration and less with conglomerates. Often, it can be achieved only at high administrative expense. Transaction costs therefore rise. This is especially true of unrelated operations, which call for coordination not only of the different products but also of entirely different corporate cultures. If market mechanisms cannot be modelled adequately, this gives rise to both static efficiency losses and to dynamic losses, which weigh far larger, with the absence of competitive pressure often diminishing innovativeness.

Finally, the capital market rewards specialised companies, whose strategy is easier to identify. The current trend to concentration on core competences can also be interpreted as an attempt to make companies more transparent – because a lack of transparency is penalised on the global capital markets.

So for a company operating on unrelated markets the advantages discussed must be weighed against the disadvantages. Housing companies produce what is in many respects a very special public good; in most businesses they will therefore presumably form a largely unrelated division. While this increases the diversification benefits, it equally decreases the benefits of possible transfers of knowledge. Most importantly it is likely to raise transaction costs and hamper communication with capital market participants. The inefficiencies will presumably quickly exceed the benefits of diversification, because in case of doubt the advantages of diversification can also be acquired with financial assets. Viewed in this light, the portfolio divestments we have seen by diversified corporations are understandable.

Advantages of corporate conglomerates limited, and ...

... advantages do not come for free

With housing, the disadvantages of integration into a diversified company are often greater than the advantages



3.2 The market for housing portfolios

In most cases it would therefore presumably be to the advantage of both the public authorities and conglomerates to hive off their housing portfolios entirely. But a functioning market is given only once there is sufficient competition on the demand side. The following begins by outlining the options open to buyers and possible strategies, before going on to analyse current market performance.

Asset deals and share deals

Basically we distinguish between two types of portfolio transaction: share deals and asset deals. In an asset deal, ownership of the property passes directly from the seller to the buyer with an entry in the land register, whereas in a share deal only the relevant company units are hived off, i.e. the property transaction comes about indirectly. Both management and operations are taken over. Ultimately the type of transaction will be decided on a case-by-case basis, because each method has its upsides and downsides.²² For example, asset deals are considered more inflexible; and particularly in the form of single asset deals, in which each property is traded individually, they entail extremely high transaction costs. In the case of share deals, on the other hand, in the run-up to acquisition both the property and the entire company must be thoroughly analysed. This increases the complexity of such deals.

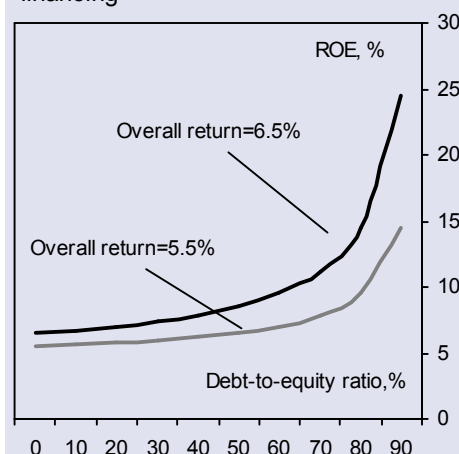
Players in property transactions²³

A portfolio transaction typically takes place in two steps. First the portfolio is acquired by an intermediate investor, usually a financial investor. These take on a comparatively high risk, operating with a large amount of capital when restructuring the portfolio in search of new buyers for reprocessed part-packages. To compensate for the higher risk the intermediate investor aims for up to 25% return on equity.²⁴ Given the extremely low rates of interest on debt finance at present, such high yields are achieved with the aid of the leverage effect. This creates rising returns on equity with falling equity ratios if the interest on the debt capital is lower than the overall return on a property. It is here that the strength of the comparatively stable German real estate market, where values fluctuate less than in other European countries, comes into play. The risk of a sharp drop in prices is considerably higher at present in most other European countries.

To take full advantage of the leverage effect, financial investors press for repayment to begin as late as possible or try to keep their debt-to-equity ratio high by raising fresh debt capital. At present the leverage in deals transacted by private equity funds is up to 90%. It is clear that on climbing interest rates either the leverage must be stepped up or the investor must switch to activities with comparatively higher risk (higher overall return). Of course, this

The leverage effect

- Return on equity dependent on debt financing -



NB: The ROE can be calculated as follows:

$$r_E = r + \frac{r \cdot F - r_F \cdot F}{E}$$

r_E = return on equity

r = overall return on capital

r_F = interest on debt capital

F = debt-to-equity ratio

E = equity ratio

The interest on debt capital has been set at 4.5%

Source: DB Research

²² See i.a. Müller, M. (2003), Die strategische Reduktion des Immobilienbestandes als Maßnahme zur Kapitalfreisetzung, in: Gondring, H. et al. [Editor], Real Estate Investment Banking, Neue Finanzierungsformen bei Immobilieninvestitionen, pp 501-534.

²³ See i.a. Kiesl, B. (2003), Real Estate Acquisition and Leverage Finance: Finanzierung von Immobilienportfolios und Immobilienunternehmen, in: Gondring, H. et al. [Editor], Real Estate Investment Banking, Neue Finanzierungsformen bei Immobilieninvestitionen, pp. 327-345.

²⁴ In practice the internal rate of return, IRR, ultimately often decides on the investment. The IRR determines the necessary minimum return for the expected payment stream from an investment to justify the price exactly.

applies only as long as the interest on debt finance is lower than the overall return. Otherwise prices must fall. The appeal of the German market for foreign investors is thus at least partly a reflex to the very dynamic property markets in other countries, which contain the risk of a price correction, and to the very low rates of interest on debt capital and new financing instruments.

Most intermediate investors are private equity investment funds that collect capital from financially strong institutional and private investors and then operate on local real estate markets. As a rule they rely on partners for this. So-called *Aufteiler*, companies that buy and divide up properties, and property developers who possess the local knowledge to implement the strategies, number among these. While *Aufteiler* are needed to carve up big portfolios, property developers are called on for the refurbishment of properties. At present property developers do not play a very prominent part.

In a second step strategic investors acquire the revamped property products. They can either engage in active facility management or hold the investment on a long-term basis. Holders of housing stock in particular are considerably more cautious, preferring a ready-structured product that suits a long-term real estate strategy. This makes them more akin to asset managers for whom the property forms part of an overall portfolio of assets. In this case the real estate is intended as a stabiliser. The expected return, at 5 to 9%, is consequently much lower than that for which financial investors aim. End investors on the German market tend to seek potential in the property portfolios themselves. Low apartment completion figures and the efficiency potential in a change of ownership from the public sector or a conglomerate are the rationale behind this.

Possible business models

Ultimately, there is not always a clear-cut distinction between intermediate and end-investors. At the moment, mainly private equity funds and opportunistic real estate funds are on the lookout. For both groups the typical ideal business models also tend to be more of the modular kind, from which a specific transaction can be put together. Any business model must ultimately answer two questions: What is to be done with the property (real estate strategy)? And how will the project be financed (financing strategy)? For intermediate investors, the second question must then also allow for a possible exit strategy. The aim is to increase revenues and reduce costs while at the same time maximising sales proceeds. This is accompanied by new financial instruments.

A real estate strategy can encompass the following three aspects:

1. **Tenant privatisation and sale to financial investors:** This is the most obvious privatisation strategy, attempting to sell the apartments individually from the portfolio. Direct sale to the present tenants is a likely option, as they will be very interested in staying in the apartment. They can also assess the property comparatively well, which reduces concerns over information asymmetries to the tenants' detriment. As a rule the return on each individual property is above-average, but whether the return on the overall strategy is satisfactory will depend on the quality of the portfolio. It is extremely unlikely that all the apartments can be sold by individual tenant privatisation, because each portfolio will contain good properties that are consequently easy to sell but also unsaleable apartments. It is for this mixture of good and poor qualities that a markdown is made on the total of the individual values. Besides which, in the currently still shaky economic situation many tenants will arguably decide against buying. Both aspects can cause a serious problem with

Appeal of German market is partly a reflex to the dynamic markets in other countries

Private equity funds mainly on the lookout at present



“leftovers”: What is to be done with unsaleable properties? Sometimes further splitting into partial portfolios is not an option, because complicated portfolio structures can arise as a result of comparatively successful tenant privatisation. An apartment house with tenants and owner-occupiers lends itself less readily to selling on than a fully let property. This means that the value of the non-privatised rented apartments falls when direct privatisation has been successful (“Swiss cheese problem”).

Problem of “leftovers“

2. **Active management:** As discussed above, there is considerable evidence to suggest that on average a private housing company operates more cost-effectively than a public-sector corporation, for example as a result of more active tenant management and/or facility management. It may also be possible to exploit scope for rent increases. This strategy can be a necessary step for intermediate investors preparatory to resale. More frequently, though, it forms the core strategy for end-investors with a long-term interest in the properties. Admittedly, given the regulatory environment on the German housing market, this strategy has its problems because of concerns over cost cutting (impact on the labour market). Moreover, the possibility of rent increases is a political issue in itself, especially when these are induced not by refurbishment, but by giving rein to market processes.
3. **Upgrading apartments:** One of the major fears of privatisation opponents is the alternative that the new company will extensively refurbish the housing stock and then seek to push through higher rents. In extreme cases, it is feared that longstanding tenants could be “crowded out”. But since the private company would only invest if there were a market for the upgraded apartments, this concern is at most justified where there is excess demand for prime properties in the city. This investment strategy may lead to high-class refurbishment, but it need not necessarily do so. In many places this is unlikely because the very locations make only a certain quality marketable. In cities where the municipal budget situation has not permitted adequate investment, it might even be worthwhile for a private company to upgrade the housing stock with a view to letting the apartments more easily. This will be the case particularly in locations with an adequate supply of housing, where competition between inner-city districts can be intense. The competition will naturally also restrict potential for rent increases.

Not necessarily high-class refurbishment

For the financing strategy, too, we can distinguish between three components:

1. **Refinancing:** Having promised their financial backers high returns on equity, intermediate investors in particular require high leverage. To keep the debt to equity ratio high over the entire period they can either agree delayed repayment or raise fresh capital. Asset backed securities and mezzanine financing, as hybrid forms between equity and debt financing, could come into play here. They include dormant holdings, for example. But an exit option for intermediate investors must always be built into this strategy in the event that the equity is not earned through repeated refinancing.
2. **Resale of partial portfolios:** These sales can be made either to smaller intermediate or to end investors, both before and after refurbishment of the property. Given market-adequate upgrading ahead of a sale, the value added will secure an extra return. But if refurbishment is not in line with what the market wants, no value is added, and the seller will not recoup the cost of investment. As with a first purchase, the portfolio markdown

theoretically rises with the size of a transaction, because more risk is transferred. The strategy is particularly interesting for intermediate investors with a very short investment horizon. They are then concerned less with the reserves in the properties than with the middleman's return. The number of en bloc sales is likely to jump rapidly if interest rates pick up unexpectedly strongly, making it more difficult for intermediate investors to refinance.

3. **Exit through real estate funds:** An attractive alternative to block sale is real estate funds, particularly if the intermediate investor has acquired management know-how as part of the property deal, because with a fund solution management can be retained. In recent months IPOs have also been raised as a possible exit alongside fund launches. Fortress plans to float GAGFAH as an exchange listed property management company within two years. This step could become even more interesting if German Real Estate Investment Trusts (REITs) are permitted. We shall deal with this in detail later.

Modular business models for housing privatisation

Operative plan		
Tenant privatisation	Active management	Repositioning
<p>Direct sale to tenant - relatively high returns</p> <p>But: often limited market size, and the problem of remaining lots lowers the value of the residual portfolio.</p>	<p>Increasing efficiency - vacancy management - cost reduction (facility management) - exploiting synergies - tenant management - preparing an exit strategy</p> <p>But: politically sensitive</p>	<p>Upgrading properties - refurbishment - special properties, freedom from barriers</p> <p>But: the costs can be recouped through higher prices only if there is demand for higher-quality properties</p>
Financing plans		
Refinancing	En bloc sales	Real estate funds/REITs
<p>Debt financing - securitisation - mezzanine financing (hybrid form between equity & debt financing)</p> <p>But: still not a final exit. Flexibility is also reduced.</p>	<p>Sales of partial portfolios - quicker and often easier than tenant privatisation</p> <p>But: added value is shifted to the next stage, and the returns fall.</p>	<p>Establishment of funds or listed companies - exit strategy on a grand scale - attractive returns - management can be retained</p> <p>But: high requirements of investors and limited market depth.</p>

Source: Deutsche Bank

Regard for political sensitivities

All these business models have in common that they are not pursued in a political vacuum. They must allow for the special political sensitivities of the housing market – not only because voters are keenly aware of housing as a basic need, but also because the public authorities have played a prominent role in this sector for



decades. Possible tenant dissatisfaction is consequently directed at politicians as well as private housing companies.

Investors wishing to play a long and active part on the German housing market take these sensibilities extremely seriously. "Social catalogues" have already been established. If the impression arises with the first transactions that tenants (voters) will be burdened by privatisation, future transactions become more difficult. "Socially compatible" privatisation is therefore also "business-compatible". The beauty contest has already begun, and it is therefore now a matter of building up a reputation as a reliable partner and good corporate citizen.

Important transactions since 2004

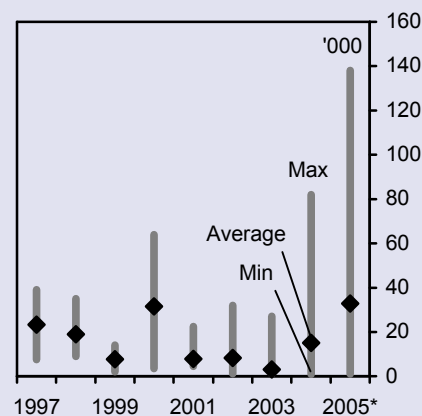
Around 300,000 housing units changed hands in 2004 as a result of portfolio divestments – some as asset deals, some as share deals – giving the market for portfolio transactions of this kind a distinct lift. Both public authorities and private corporations were on the selling side. The current public sector sell-offs mark the second post-reunification wave of privatisation, so to speak. After the fall of communism it was agreed that the state housing corporations would spin off between 50 and 80% of their properties by 1998.²⁵ Deutsche Post likewise sold several tens of thousands of apartments en bloc in the late 1990s. What is new, though, is the strong interest by foreign investors, notably foreign private equity houses, whose financial strength enables very big transactions.

The GAGFAH deal with around 82,000 apartments was awarded to the investment company Fortress and the more than 65,000 Berliner GSW apartments to a consortium of the Goldman Sachs fund Whitehall and the private equity firm Cerberus. Quite apart from the portfolio sizes, the pace of growth in transactions is equally breathtaking: In December 2004 alone seven big sales of more than 100,000 housing units in total were wrapped up with four American investors. And so far the trend shows no signs of reversing. In the new year 18,000 GEHAG apartments have changed hands, among others. Partial portfolios from larger holdings are also being traded already. In May then, we saw the largest portfolio transaction in German history: Deutsche Annington bought the Viterra portfolio with 138,000 managed apartments for EUR 7 bn.²⁶

So far mainly private equity firms and opportunity funds have been on shopping sprees in Germany. They include companies such as Blackstone, Cerberus and Fortress as well as Oaktree, Deutsche Annington and Morgan Stanley. Whereas a long-range property strategy can be ruled out with the former group, which is driven primarily by the idea of mobilisation and resale, the management strategy presumably weighs larger with the latter group. But even they will no doubt essentially pursue similar strategies to the private equity firms. All investors operate with high leverage and currently have ample funds at their disposal. Consequently their pricing differs from traditional asset managers, which is one reason why asset managers are still holding back. It is a fact that the average prices paid per housing unit have edged up steadily over the past few months. Of course, we should not read too much into this development, because portfolios can differ very considerably in quality. But this would then imply that increasingly superior portfolios

Political sensibilities are taken seriously

Development in housing portfolio transactions - Dwelling units traded per portfolio



*) Forecast from transactions expected and already known

Source: Deutsche Bank

²⁵ See Andersen, S., Mitropoulos, S. (1999), Privatisierung in Deutschland – neue Chancen, in: Deutsche Bank Research, Deutsche Grundbesitz, Frankfurt a.M.

²⁶ As of 31.12.2004 Viterra managed 137,671 apartments and sold 14,040 apartments in the course of 2004.

were being traded. Although this is possible, the more likely explanation is that mounting interest is pushing up prices.²⁷ Another parallel is also striking: In principle the average prices paid should be linked to the portfolio size; the bigger a portfolio, the lower the average unit price should tend to be. This is plausible, given the lower transaction costs for the seller. What is more, as the size of the portfolio increases, so does the problem for the buyer with "odd lots". The outcome could be a residual portfolio of unsaleable items. At the moment, though, hardly any discounts are being granted on large portfolios. Indeed, in some cases mark-ups are suspected. That would be rational if the investors needed a platform for property trading in Germany, in which case they would be buying not only the properties, but also a foothold in the market.

Acquisition of properties and a foothold in the market for property deals

Selected housing portfolio transactions 2003 to the present day

Date	Target	Buyer	Units	Purchase price (EUR m)	Ø purchase price (EUR)
May 05	Viterra	Deutsche Annington	138,000	7,000	50,725
Mar. 05	Peabody	GE Capital Real Estate	6,000		
Mar. 05	GEHAG (HSH Nordbank)	Oaktree Capital Management	18,000	1,000	55,556
Feb. 05	AMB Generali Group	Dewag	1,700		
Dec. 04	German Real Estate Opportunities GmbH	Austrian conwert Immobilien Invest AG	866	39	44,573
Dec. 04	DAL	Babcock & Brown	13,500		
Dec. 04	RWE	Deutsche Annington Immobilien GmbH	4,500	225	50,000
Dec. 04	Thyssen Krupp AG	Morgan Stanley / Corpus	48,000	2,100	43,750
Dec. 04	Jade GmbH (Dt. Bank)	Cerberus	8,209		
Dec. 04	WCM	Blackstone Group	31,000	1,390	44,832
Dec. 04	GBH	Cerberus	2,400		
Nov. 04		H.F.S. Immobilienfonds Deutschland		271	
Oct. 04	Cerberus / Whitehall	German Real Estate Opportunities GmbH	1,529		
Sep. 04	Degewo, Köwoge	Cerberus / Goldman Sachs	2,652		
Sep. 04	Mira Grundstücksgesellschaft	Wohnprojekt GmbH Essen	2,700		
Sep. 04	Mira Grundstücksgesellschaft	Häuser-Bau GmbH Bochum	1,500		
July 04	Bundesversicherungsanstalt für Angestellte (GAGFAH)	Fortress	82,000	3,495	42,618
May 04	Land Berlin (GSW)	Cerberus / Goldman Sachs	65,700	2,105	32,040
Mar. 04	Vastned Retail NV			165	
Jan. 04	Viterra	KGAL / Mira Grundstücksgesellschaft	27,000	550	20,370
Dec. 03	Bavaria Objekt- und Baubetreuung	Cerberus	3,500		
Sep. 03	DZ Bank, HSH Bank (76 %), small shareholders	Deutsche Annington Immobilien GmbH	10,000		

Source: Press releases, compiled by Deutsche Bank

²⁷ But since such correlations can, of course, only be calculated with reference to the data published, the possibility of a selection bias exists. This term is used to describe data distortion caused by systematic failure to record certain data. That would, however, imply that it is the companies who have paid relatively high prices that are most willing to publish their figures.



Potential for further transactions moving forward

Basically, the transaction potential for the coming years can be divided into two types. The private equity investors will definitely seek an exit for their temporary activities on the German market. At stake is the sale of around 300,000 to 400,000 apartments to ultimate investors or owner-occupiers. At the same time intermediate investors are signalling their willingness to buy up more property holdings. Just recently Fortress closed another fund with equity of USD 2 bn; reckoning on a debt-to-equity ratio of 80% for the transactions, we are talking of purchasing power in the region of USD 10 bn. Once again, the investment focus is the German housing market. The assets under management are sufficient for upwards of 200,000 apartments. This naturally gives rise to the question whether, moving forward, new apartments will be sold off by the public authorities and non-real estate companies to slake this investment hunger.

According to media and market reports, at least 100,000 apartments in various portfolios are already at an advanced stage of negotiation (after the Viterra deal now being made). Important forthcoming divestments are 48,000 units by WOBA in Dresden and around 30,000 units by NILEG in northern Germany. Volkswagen and Allianz with a total of 40,000 apartments are mentioned now and again as corporate divestors. There is word of further packages, including holdings of local corporations, with some 300,000 apartments in all, but immediate closures are not imminent. Even if all these transactions were to materialise, it would still leave more than 4 million units held by public-sector housing companies and cooperatives. Since the financial situation will scarcely change for many local authorities and the regulative arguments in favour of privatisation remain valid, the public authorities can be expected to hive off further packages. All told, we consider additional transactions in the region of one million housing units up to 2010 realistic – provided, of course, that the public sector chooses the route via intermediate investors and does not attempt to privatise more property directly to tenants. Eying the returns promised by private equity firms, some local councils might be tempted to develop sales strategies of their own. But they could generate higher net revenues only by following the laws of the free market. It may, for example, be necessary to invest ahead of tenant privatisation to make the properties marketable. But many local authorities cannot afford to do so. Also, the environment is conducive to selling at present, given the enormous buyer interest and extremely low interest rates. But were rates to accelerate more strongly in the medium term, the window of opportunity for sellers could close again.

We consider it very likely that corporations whose core business is not in real estate will sell off more of their residential property. Stock corporations in particular, subject to strict scrutiny by the capital markets, must explain to their investors why they are not putting their equity to more meaningful use in their core operations. Interestingly to note, that the conglomerate RAG announced, that they are interested in buying a THS apartment portfolio with 82,000 units, saying real estate is part of RAG's core business. This might mark a next step in the process of concentrating German residential portfolios, with a German non-financial player entering the scene.

How much of the potential outlined in the above can actually be exploited will arguably also hinge on whether the German REIT is available in future as another possible exit avenue.

Investors have been signalling their willingness to buy up more

Moving forward, about 1 million apartments will be resold

Present market environment conducive to selling

The G-REIT as an additional exit strategy for intermediate investors

The finance initiative *Initiative Finanzstandort Deutschland (IFD)* has been working since 2003 on a plan aimed at introducing Real Estate Investment Trusts in Germany (G-REITs) along the lines of the original US REIT model. The IFD blueprint presented in January 2005 is for listed German stock corporations engaging chiefly in real estate business. The special feature of a REIT stock corporation is its tax treatment. Drawing on the investment fund concept, the REIT stock corporation would be exempt from corporation and local trade tax. Instead, the dividends would be liable to tax, paid by the holders of the investment fund shares, subject not to the "half income system" taxing only half the value of the dividend payments, but at the investors' marginal rate of taxation.²⁸

To qualify for REIT status, in addition to its market listing a G-REIT must have invested at least 75% of its assets in real estate at the end of a business year and have generated 75% of its gross revenue from real estate transactions. Project developments would be permitted on a limited scale. Also, at least 90% of the profits must be paid out as dividends.

For investors, the G-REIT could make an attractive addition to the risk-return spectrum, combining the advantages of the capital market with the stability of the German real estate market. That is to say it offers the prospect of comparatively secure dividend yields with high transparency and moderate fluctuations in price. Although subject to strict IFRS accounting regulations and stock market reporting requirements to investors, it would achieve this by being given maximum possible business scope. This would include its own management in the form of a REIT executive board.

The REIT will be able to establish itself alongside the existing investment fund products only if its creators succeed in giving it its own specific risk-return profile. It must therefore generate higher returns, in return for which it may be slightly more volatile. The higher returns cannot be achieved primarily by higher leverage. Although the IFD proposal does not contain any special regulations on raising debt capital, experience from other countries shows that REITs seldom operate with more than 50% outside capital. They must therefore also build up a profile distinguishing them from private equity funds. However, REITs are likely to have a more regional and thematic focus than, for instance, open-ended real estate funds. Being less regulated, they can also respond faster and more aggressively to movements in the market than, say, open-ended funds.

Foreign investors eyeing G-REITs with interest

Foreign investors are extremely interested in REITs, which are now becoming the international norm. Introduced in 1960 by the United States, they debuted in the Netherlands in 1969 and in Australia in 1985. Belgium, Italy and Canada followed suit in the 1990s, and most recently Japan, Singapore, Hong Kong and France have launched REIT structures. An international standard reduces the transaction costs for cross-border investment, since the REIT label already carries important information on a product. Consequently, intermediate investors are observing the debate in Germany

G-REIT attractive addition to risk-return spectrum

REIT as international norm

²⁸ In May 2005 the IFD presented a new proposition of possible & workable tax regimes. The detailed proposition is available at: www.finanstandort.de and addresses main concerns of the German finance ministry about potential tax loopholes.



particularly closely, perceiving REITs as a possible attractive exit strategy. Parts of the portfolio could be floated directly on the stock market. Were German legislators to push-start the mobilisation of real estate in REITs with a reduced rate of taxation on hidden reserves as in France, REITs could absorb a large part of the transaction potential outlined in the above.²⁹

Fortress is already actively preparing its new affiliate GAGFAH for an IPO in two years. A newly founded *Initiative Deutscher Wohnimmobilien-REIT* is ready to do some extra convincing, the main problem being so-called "02 equity". Formerly non-profit housing companies, after the removal of their non-profit status, were able to write up their book values. The built-in gains in book values were offset in the equity category "02". These high book values permitted considerably higher depreciation in subsequent years. In the event of disposals tax book losses are regularly incurred, as a result of which these housing companies are largely tax-exempt. But since distribution of the tax-free profits gives rise to tax charges for shareholders, in the past dividends have frequently been waived. Without a legislative amendment for the previously non-profit housing companies, this structure makes the REIT status unattractive. The IFD therefore proposes giving these companies the option to write back the property values to market level and, in return, to release their "02 equity" tax-neutrally.

Discussion on the G-REIT is already far advanced. An in-principle decision is expected in the near future. Of course G-REITs would lend added momentum to the mobilisation of German residential property. But even if the negotiations were to break down, it would not mean the end of portfolio transactions in Germany. In the property privatisation toolkit the G-REIT would be a shiny new instrument, for sure – but not the *conditio sine qua non*.

4. Concluding remarks

This study set out to answer two questions: How attractive is the German housing market? And: Moving forward, how will the German market for housing portfolio transactions develop?

On the whole, the German residential market offers a host of advantages precisely for foreign investors. German rents and prices have been stable for a long while, indeed in latter years they have even softened a little. So there is no risk of a powerful price correction in Germany. Slight upward potential even exists in conglomerations, given the recent marked drop in completions, which are now below medium-range requirements. This sets the German market clearly apart from most other European countries, where swingeing price adjustments in the short to medium term can at least no longer be ruled out. Besides which, large portfolios hold out the promise of attractive price markdowns in that they relieve companies or local authorities of the transaction costs of individual sales. And since many of these housing portfolios were in the past deliberately shielded against market forces, there is presumably efficiency potential to be exploited, resulting either in reduced costs or rising rents (or even both) for these properties. One of the major levers, moreover, is the extremely low level of financing rates. As a rule a high debt-to-equity ratio produces considerably higher returns on equity.

Are Germany's housing portfolios interesting?

For

Stable property markets – most other European markets have already peaked or are close to their zenith. The German market is fluctuating very little and is scarcely correlated with other markets.

Companies and local authorities are considering selling property. The local authorities' financial plight and the corporate sector's necessary concentration on its core operations are making the en bloc disposal of apartments attractive and portfolio discounts possible.

Efficiency potential hitherto unexploited by the corporate or public sectors is slumbering in the housing portfolios. This creates the possibility of rent increases in the medium term.

German investors are still holding back on the German housing market.

The number of newbuilds is close to a historic low – in some German centres this will lead to shortages and hence to rising rents.

Exchange rate trend (further depreciation of the US dollar), but that applies to all euro area countries. However, the trend has not only lost momentum. For some weeks the Euro has depreciated markedly.

Interest rates are still very low.

Against

The growth in incomes has been very muted in recent years; there has been no improvement on the labour market. However, the adverse current situation also implies an opportunity, because the best time to invest is always shortly before the end of a period of weakness.

Large regional differences exist; regional expertise is indispensable.

Demographic trends are even more unfavourable than in most other countries.

International investors may underestimate the severe regulation on the German housing market (e.g. restrictive tenancy law).

In east Germany 1.3 million apartments are already standing vacant (16% of the stock).

State promotion for the construction and purchase of housing is likely to be scaled back further in the coming years.

Interest rates are about to go into reverse.

Source: DB Research

²⁹ At present the ministry is even considering facilitating mobilisation by means of a reduced tax rate on each transaction.

But these advantages must not be allowed to distort the view for the risks. Germany's economic growth is still not strong enough to create new jobs and lift household incomes on a higher basis. Very little change can be expected here in the next two years either. The structural reforms that are now liberalising the German labour market and the necessary reforms of the pension and health systems, while all pointing in the direction of higher trend growth rates for the future, are making consumers uncertain in the short term, and this is weighing heavily on the domestic economy.

What is more, the German housing market is regionally very heterogeneous: In outmigration regions, notably in the east of Germany, there is already a glut of living space, although not in all qualities. Meanwhile, in the prospering immigration regions the number of households will continue to rise and, in view of low completion levels, is likely to give rise to shortages. The demographic trends in the making for decades in Germany will presumably heighten these regional differences in the coming decades. This will not automatically make housing portfolios in outmigration regions unattractive per se, but a "demographic markdown" will be necessary if final investors are to earn satisfactory returns in the long run. The time window for disposal of these portfolios will consequently not be open for much longer. But in the attractive business centres there is no pressing need for action, with demand for housing continuing to tick up for several decades to come.

Foreign investors wishing to enter into commitments in Germany should make a point of obtaining local market expertise – not only because of the regional specificities; the tenant-friendly legislation and jurisdiction in Germany could otherwise also cause some unpleasant surprises. Finally, medium-range planning should not be based on the current level of state subsidisation, with the owner-occupied housing allowance currently under scrutiny and a reduction in the level of promotion looking extremely likely. Bearing these particularities in mind, the German housing portfolio market still offers the prospect of good returns for the coming years, though, particularly if an additional exit is opened up with REITs and politicians come to feel more comfortable about the social compatibility of privatisation. Under no circumstances should the political moment on the housing market be underestimated. Hesitation by local authority divestors entails significant opportunity costs, as some investors are prepared to pay a price mark-up at present to gain a foothold in Germany. They would then have easier access to other portfolios. But this added value might soon no longer be rewarded.

With interest rates at the long end set to rebound, it may be assumed that in the coming two years the holders of housing stock geared to the long-term will call the tune. Not that financial investors will disappear from the market, though, because in comparison to the US or UK private equity still has catch-up potential as a form of financing in Germany.

Authors: Tobias Just, +49 69 910-31876 (tobias.just@db.com)
Samuel Reuther

In outmigration regions the window of opportunity for portfolio transactions will not be open much longer

German market can still offer good returns if regional specificities are heeded

The political momentum should not be underestimated

Current Issues

Real estate market

Available faster
by e-mail!!!

Topics	published on
Housing Portfolios in Germany: Scene set for further divestment	June 10, 2005
Berlin property market: Heavily mortgaging the future	March 16, 2005
UK house prices: end of the rally in sight	October 15, 2004
Demographic developments will not spare the public infrastructure	June 7, 2004
Demography sends tremor through German property market	September 26, 2003

All our publications can be accessed, free of charge, on our website www.dbresearch.com.
You can also register there to receive our publications regularly by e-mail.

Ordering address for the print version:

Deutsche Bank Research
Marketing
60262 Frankfurt am Main
Fax: +49 69 910-31877
E-mail: marketing.dbr@db.com

© 2005. Publisher: Deutsche Bank AG, DB Research, D-60262 Frankfurt am Main, Federal Republic of Germany, editor and publisher, all rights reserved. When quoting please cite "Deutsche Bank Research".

The information contained in this publication is derived from carefully selected public sources we believe are reasonable. We do not guarantee its accuracy or completeness, and nothing in this report shall be construed to be a representation of such a guarantee. Any opinions expressed reflect the current judgement of the author, and do not necessarily reflect the opinion of Deutsche Bank AG or any of its subsidiaries and affiliates. The opinions presented are subject to change without notice. Neither Deutsche Bank AG nor its subsidiaries/affiliates accept any responsibility for liabilities arising from use of this document or its contents. Deutsche Banc Alex Brown Inc. has accepted responsibility for the distribution of this report in the United States under applicable requirements. Deutsche Bank AG London being regulated by the Securities and Futures Authority for the content of its investment banking business in the United Kingdom, and being a member of the London Stock Exchange, has, as designated, accepted responsibility for the distribution of this report in the United Kingdom under applicable requirements. Deutsche Bank AG, Sydney branch, has accepted responsibility for the distribution of this report in Australia under applicable requirements.

Printed by: Druck- und Verlagshaus Zarbock GmbH & Co. KG

ISSN Print: 1612-314X / ISSN Internet and ISSN e-mail: 1612-3158