

The logo for vdp (Verband der Deutschen Grundbesitzer) is displayed in white lowercase letters on a dark red rectangular background.

PROPERTY PRICE

INDEX

Q3.2017_ Increase in German property prices unbroken in 3rd quarter of 2017

Owner-occupied residential housing: + 6,1 %*

Multi-family houses: + 9,2 %*

Office properties: + 9,5 %*

Retail properties: + 2,5 %*

* compared with the corresponding quarter the previous year

Real estate prices in Germany followed the already familiar trend in the third quarter of 2017: they rose again. The vdp's overall property price index advanced by 7.7% compared with the corresponding quarter one year earlier. Once again, this increase was driven in particular by growth in prices for multi-family houses and office properties. These two asset classes were yet again the focus of German and foreign investors' interest. The strong demand for condominiums and owner-occupied houses was likewise unbroken, which led to a further hike in prices.

Prices for German residential properties climbed by 7.8% compared with the third quarter of 2016, with prices for owner-occupied dwellings up by 6.1%. This increase, which by far exceeds growth in consumer prices, reflects continuing high excess demand for owner-occupied houses and condominiums in Germany. Although purchase prices are in some cases very high, many market participants still consider home ownership to be a sound investment. Among other things, the reason for this undoubtedly lies in the hope that prices will keep on rising. Broken down by property type, prices for condominiums are 7.4% higher than in the third quarter one year ago, while those for owner-occupied houses are 5.6% more expensive.

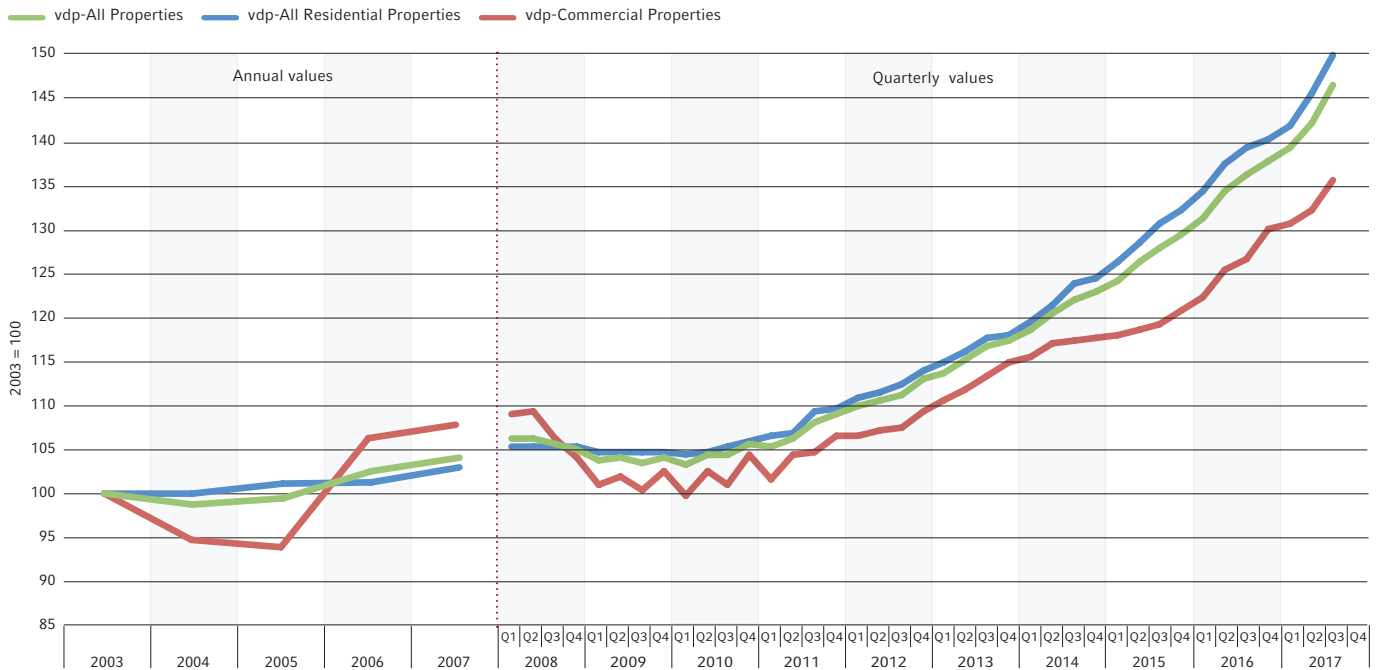
The capital values for multi-family houses saw, in the third quarter, a year-on-year increase of 9.2% on average for Germany as a whole. Roughly one-third of this increase is attributable to higher rents and two-thirds to lower cap rates. The very low level that cap rates have reached in the meantime therefore indicates that buyers of multi-family houses are accepting initially low returns in order to acquire ownership of such properties. In other words, there is a shortage of alternative investments and/or buyers expect to see distinct gains in value or a further increase in rents.

These processes are also pushing up the capital values of commercial properties, which appreciated by 7.2% against the third quarter of 2016. The market for office properties recorded a particularly strong increase. Rising rents (+3.2%) go hand in hand with declining cap rates (-5.8%), with the result that capital values for office properties surged by 9.5% in the third quarter compared with the same period one year earlier. In this context, the rise in office rents is the logical outcome of a substantial drop in vacancy rates, moderate new construction activity and economic growth that is causing the number of (office) jobs to rise further.

Compared with the third quarter one year before, prices for retail premises went up by 2.5%. Investor interest remains strong in this market segment, too. As a result, cap rates were down in this segment, too, the cap rate index dipping by 0.9%. Rents for retail properties recorded an increase of 1.6% over the same period.

Real estate market as a whole:

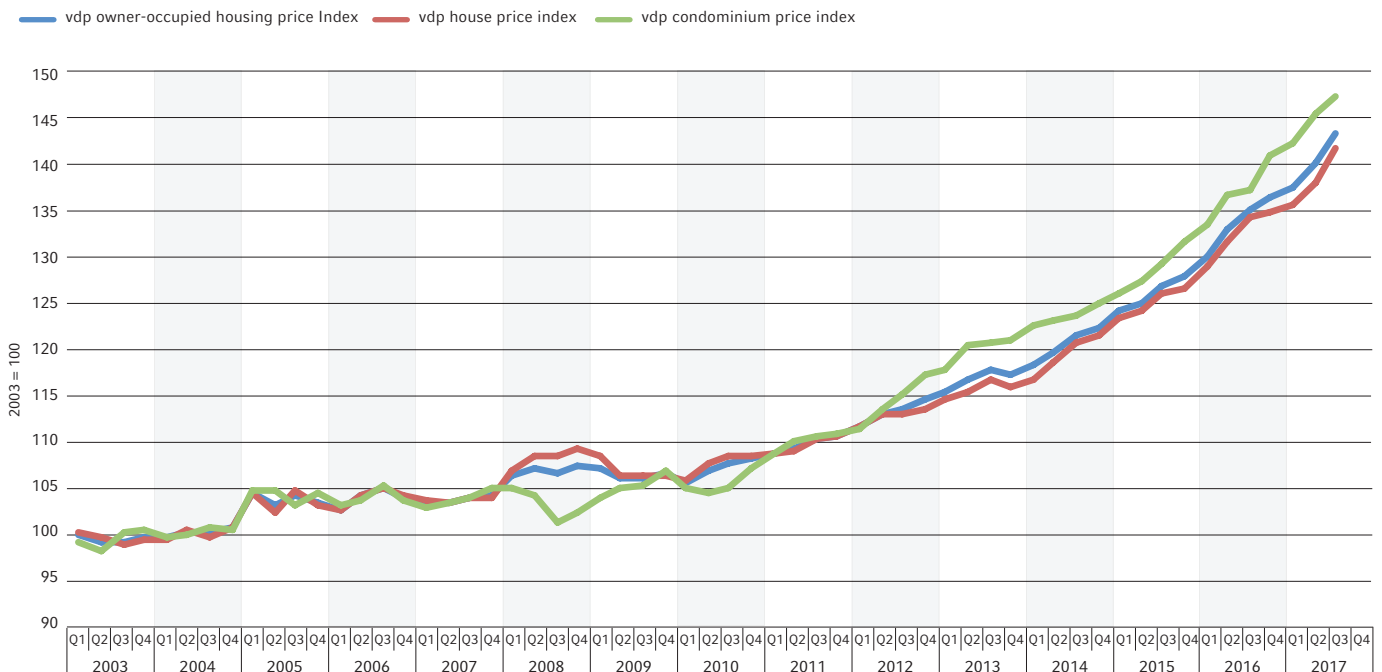
Shortage of supply sends prices up still further in all segments



Year	All properties		All residential properties		All commercial properties	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2006	102.5	3.1	101.3	0.1	106.3	13.3
2007	104.1	1.6	102.9	1.6	107.9	1.5
2008	105.2	1.1	104.8	1.8	106.6	-1.2
2009	103.2	-1.9	104.0	-0.8	100.8	-5.4
2010	103.8	0.6	104.6	0.6	101.2	0.4
2011	106.6	2.7	107.5	2.8	103.7	2.5
2012	110.6	3.8	111.7	3.9	107.1	3.3
2013	115.2	4.2	116.2	4.0	112.1	4.7
2014	120.6	4.7	122.0	5.0	116.4	3.8
2015	126.6	5.0	129.2	5.9	118.7	2.0
2016	134.8	6.5	137.7	6.6	125.8	6.0

Quarter	All properties		All residential properties		All commercial properties	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2015 Q4	129.1	5.3	132.0	6.2	120.3	2.6
2016 Q1	131.2	5.8	134.2	6.4	122.1	3.8
2016 Q2	134.3	6.7	137.3	6.9	125.2	5.8
2016 Q3	136.1	6.7	139.2	6.7	126.3	6.4
2016 Q4	137.6	6.6	140.1	6.1	129.7	7.8
2017 Q1	139.1	6.0	141.9	5.7	130.3	6.7
2017 Q2	142.2	5.9	145.5	6.0	132.1	5.5
2017 Q3	146.6	7.7	150.0	7.8	135.4	7.2

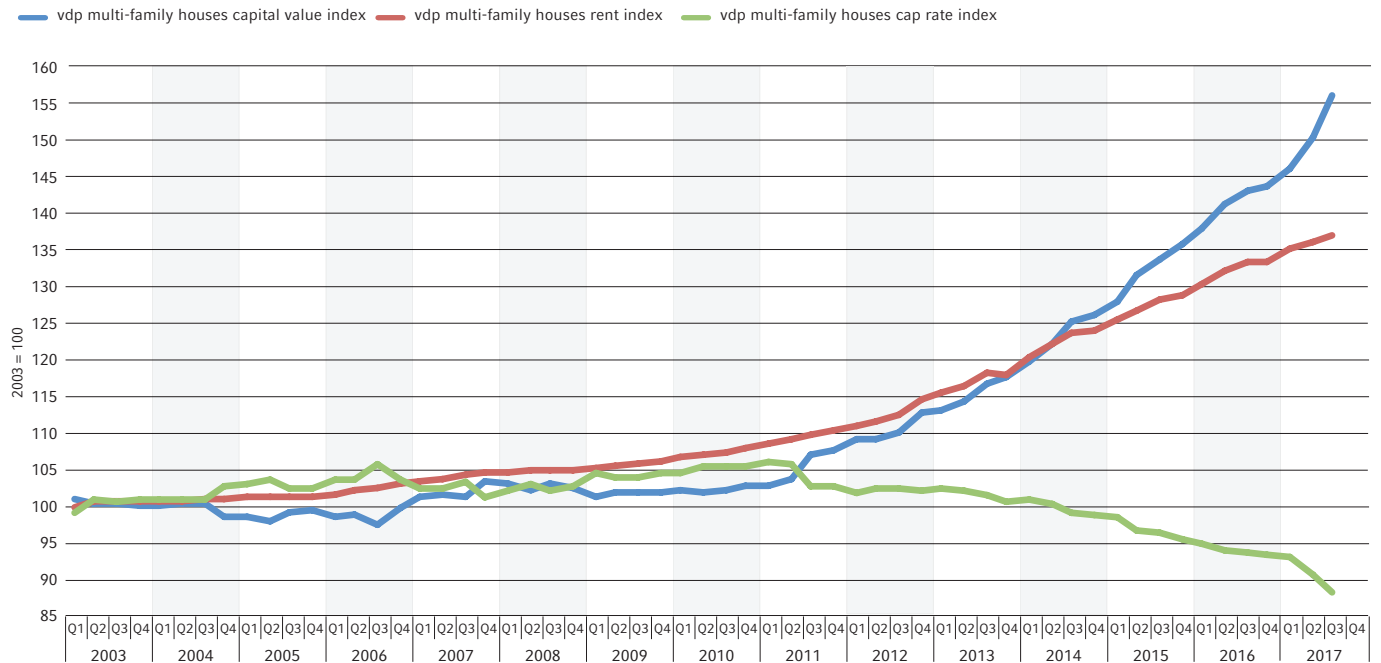
Owner-occupied housing: Price growth continues to go from strength to strength



Year	Owner occupied housing		Single family houses		Condominiums	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2006	104.5	0.2	104.5	0.3	104.4	-0.3
2007	104.3	-0.2	104.2	-0.3	104.3	-0.1
2008	107.4	3.0	108.7	4.3	103.7	-0.6
2009	106.9	-0.5	107.3	-1.3	105.8	2.0
2010	107.5	0.6	108.0	0.7	106.0	0.2
2011	110.2	2.5	110.2	2.0	110.5	4.2
2012	113.6	3.1	113.2	2.7	114.8	3.9
2013	117.2	3.2	116.1	2.6	120.4	4.9
2014	120.9	3.2	119.7	3.1	124.0	3.0
2015	126.3	4.5	125.4	4.8	128.9	4.0
2016	133.9	6.0	132.7	5.8	137.3	6.5

Quarter	Owner occupied housing		Single family houses		Condominiums	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2015 Q4	128.2	4.4	126.8	4.0	131.9	5.2
2016 Q1	130.4	4.7	129.2	4.4	133.7	5.7
2016 Q2	133.3	6.3	132.0	5.9	137.0	7.3
2016 Q3	135.3	6.4	134.5	6.5	137.4	6.0
2016 Q4	136.6	6.6	135.0	6.5	141.2	7.1
2017 Q1	137.7	5.6	136.0	5.3	142.4	6.5
2017 Q2	140.3	5.3	138.3	4.8	145.8	6.4
2017 Q3	143.5	6.1	142.0	5.6	147.6	7.4

Multi-family houses: Upsurge in prices persists

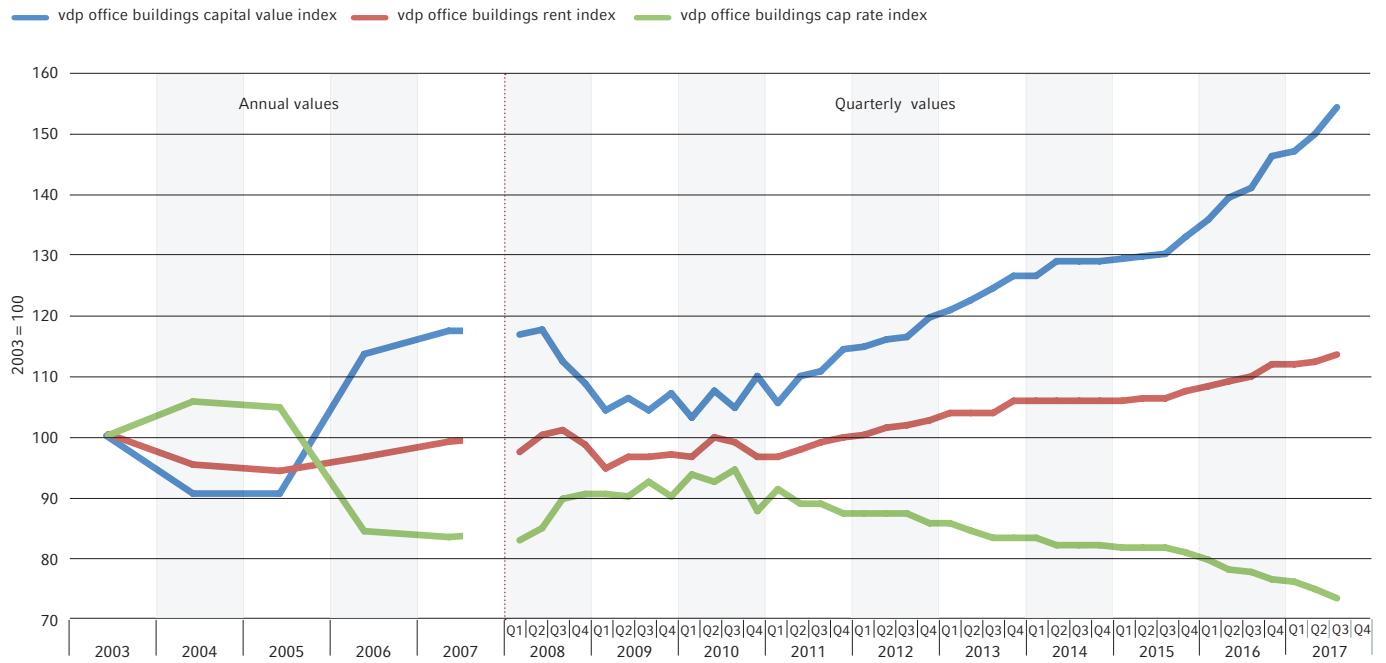


	Year	Capital value		Residential rents		Cap rate	
		Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
INDEX: 2003 = 100	2006	98.2	-0.2	101.9	1.0	103.8	1.2
	2007	101.5	3.4	103.6	1.7	102.1	-1.6
	2008	102.3	0.8	104.5	0.9	102.2	0.1
	2009	101.3	-1.0	105.3	0.8	104.0	1.8
	2010	101.8	0.5	106.9	1.5	104.9	0.9
	2011	104.9	3.0	109.1	2.1	104.0	-0.9
	2012	110.0	4.9	112.1	2.7	101.9	-2.0
	2013	115.2	4.7	116.8	4.2	101.4	-0.5
	2014	123.1	6.9	122.4	4.8	99.5	-1.9
	2015	132.0	7.2	127.1	3.8	96.3	-3.2
2016	141.4	7.1	132.2	4.0	93.5	-2.9	

	Quarter	Capital value		Residential rents		Cap rate	
		Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
INDEX: 2003 = 100	2015 Q4	135.6	7.8	128.8	4.0	95.0	-3.6
	2016 Q1	137.8	8.0	130.2	4.0	94.5	-3.7
	2016 Q2	141.1	7.5	132.1	4.5	93.6	-2.8
	2016 Q3	143.0	7.1	133.1	4.0	93.1	-2.9
	2016 Q4	143.5	5.8	133.3	3.5	92.9	-2.2
	2017 Q1	146.0	6.0	135.2	3.8	92.6	-2.0
	2017 Q2	150.5	6.7	135.9	2.9	90.3	-3.5
2017 Q3	156.2	9.2	137.0	2.9	87.7	-5.8	

Office and administration buildings:

Office premises again more expensive for users and investors

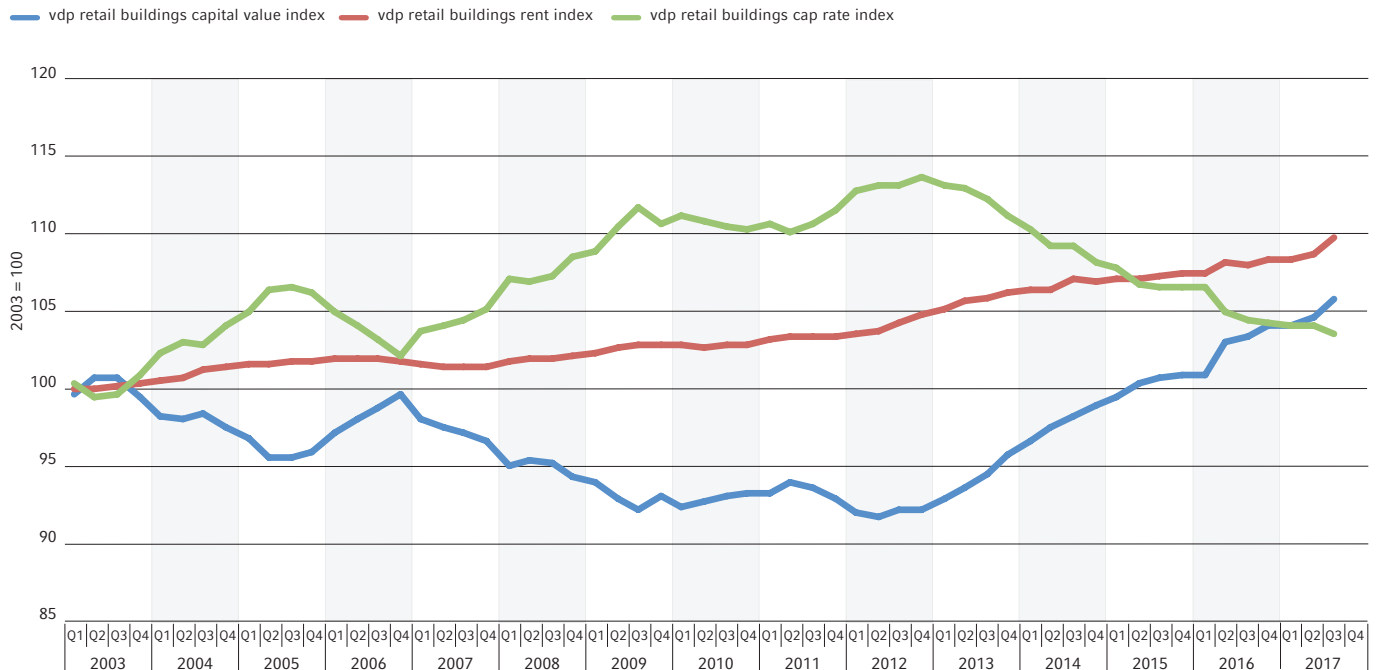


Year	Capital value		Residential rents		Cap rate	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2006	111.7	20.9	97.3	1.4	87.1	-16.2
2007	115.0	3.0	99.1	1.8	86.2	-1.0
2008	114.4	-0.5	99.7	0.6	87.3	1.3
2009	105.9	-7.4	96.6	-3.1	91.2	4.5
2010	106.7	0.8	98.4	1.9	92.3	1.2
2011	110.5	3.6	98.7	0.3	89.3	-3.3
2012	117.2	6.1	102.0	3.3	87.1	-2.5
2013	124.1	5.9	104.8	2.7	84.5	-3.0
2014	128.9	3.9	106.3	1.4	82.5	-2.4
2015	131.1	1.7	106.9	0.6	81.6	-1.1
2016	141.2	7.7	110.4	3.2	78.2	-4.2

Quarter	Capital value		Residential rents		Cap rate	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2015 Q4	133.4	3.0	107.9	1.5	80.9	-1.5
2016 Q1	136.3	5.0	108.9	2.3	79.9	-2.6
2016 Q2	140.0	7.4	109.6	2.8	78.3	-4.3
2016 Q3	141.7	8.3	110.4	3.3	77.9	-4.7
2016 Q4	146.9	10.1	112.5	4.3	76.6	-5.3
2017 Q1	147.8	8.4	112.6	3.4	76.2	-4.6
2017 Q2	150.5	7.5	112.9	3.0	75.0	-4.2
2017 Q3	155.2	9.5	113.9	3.2	73.4	-5.8

Retail buildings:

Investor demand is high, leading to further drop in cap rates



Year	Capital value		Residential rents		Cap rate	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2006	98.3	2.5	101.7	0.1	103.5	-2.3
2007	97.2	-1.1	101.4	-0.3	104.3	0.8
2008	94.9	-2.4	101.8	0.4	107.3	2.9
2009	93.0	-2.0	102.5	0.7	110.2	2.7
2010	92.9	-0.1	102.7	0.2	110.5	0.3
2011	93.4	0.5	103.2	0.5	110.5	0.0
2012	91.9	-1.6	103.9	0.7	113.0	2.3
2013	94.1	2.4	105.5	1.5	112.1	-0.8
2014	97.7	3.8	106.6	1.0	109.1	-2.7
2015	100.3	2.7	107.1	0.5	106.8	-2.1
2016	102.8	2.5	107.9	0.7	105.0	-1.7

Quarter	Capital value		Residential rents		Cap rate	
	Index	y-o-y change in %	Index	y-o-y change in %	Index	y-o-y change in %
2015 Q4	100.8	2.0	107.3	0.5	106.4	-1.6
2016 Q1	100.8	1.5	107.3	0.4	106.4	-1.1
2016 Q2	102.9	2.6	108.0	0.9	104.9	-1.6
2016 Q3	103.3	2.7	107.9	0.7	104.4	-2.0
2016 Q4	103.9	3.1	108.2	0.8	104.1	-2.2
2017 Q1	104.0	3.2	108.2	0.8	104.0	-2.3
2017 Q2	104.5	1.5	108.6	0.6	103.9	-1.0
2017 Q3	105.9	2.5	109.6	1.6	103.5	-0.9

Methodology

Data basis

German financial institutions participating in the transaction database provide transaction details from their real estate financing business for input into the database. The database has been maintained since 2004 and provides statistically evaluable information on actual real estate transactions. Data are captured by the participating institutions in the form of appraisals of market and mortgage lending values that are prepared in the course of their mortgage lending activities. Property valuations are determined within each financial institution by certified property valuers or specially trained bank personnel. In addition to purchase price and date of purchase, the appraisal includes information about the property's macro and micro location, its age, layout and other price-influencing variables. In the case of certain types of property, information is also collected with regard to rental agreements and the date they were concluded. Information used to derive market and mortgage lending values is ascertained partly from submitted documentation and partly by valuers working in accordance with codified procedures. Table 1 provides an overview of the variables most frequently applied in the specification of individual indices for various market segments.

Table 1: Variables from the vdp's transaction database

Variable	Scaling	Characteristics
Macro location	Nominal	District or town in Germany
Micro location	Ordinal	Very good - good - average - moderate - poor - catastrophic
Living /usable space	Metric	Living or usable space m ²
Plot size	Metric	Plot size of property in m ²
Year built	Metric	Year property built
Layout	Ordinal	Very good - good - average - moderate - poor - catastrophic
Condition	Ordinal	Very good - good - average - moderate - poor - catastrophic
Saleability	Ordinal	Very good - good - average - moderate - poor - catastrophic
Sub-property type	Nominal	Division of market segment into sub-segments
Purchase price	Metric	Purchase price of property in Euros
Rent	Metric	Contractual rent of property in Euros per m ²

Substantive definitions of individual variables are coordinated with financial institutions via the contractual relationship between them and the vdp. In addition, property valuation in Germany is subject to strict regulations, which ensure that the valuation processes of individual institutions are harmonised to the greatest extent possible, especially as a result of the *Verordnung über die Grundsätze für die Ermittlung der Verkehrswerte von Grundstücken* (Regulation on the Principles for Determining the Market Value of Property – abbreviated to ImmoWertV) and the *Beleihungswertermittlungsverordnung* (Regulation on the Determination of the Mortgage Lending Value – abbreviated to BelWertV). Because the purchase prices and significant price-influencing characteristics of individual properties are determined in a uniform manner and because they are input into a uniform database structure, it is possible to analyse the data with the help of complex statistical procedures.

Calculation

As a result of the distinct heterogeneity of real estate properties and in order to be able to measure pure price changes, it is necessary to take account of the varying quality of the properties concerned when measuring prices. Various procedures exist which take explicit account of the differences in the quality of individual properties in order to be able to measure pure price changes.

All vdp real estate indices are calculated by making use of so-called hedonic models. The hedonic model is based on the idea that heterogeneous commodities can be described by reference to their characteristics. In other words, a commodity can be represented as the sum of its characteristics. With regard to real estate, this means that this set of attributes might include, for example, details of physical characteristics such as plot size, living area, year built and details as to the property's location. Each of these named attributes has a specific influence on the price of the property, but there is no market for the attributes themselves; they cannot be sold separately and therefore cannot be viewed in isolation. It is possible, nonetheless, implicitly to determine the proportion of the overall price of the property which each individual attribute makes up by examining real estate supply and demand. Multivariate regression models are used for this purpose, helping to provide a statistical estimate of the marginal contribution of each attribute. It is assumed that the model incorporates all relevant attributes and that deviations occur simply by coincidence and are not indicative of any systematic structures.

Weighting

The overall index is the weighted arithmetical average of the various price indices for residential and commercial real estate. The weightings used correspond to the share of monetary turnover in the German real estate market constituted respectively by residential and commercial real estate. Based on details provided by valuer committees (Gutachterausschüsse), these averaged 75.6% and 24.4%, respectively, between 2007 and 2012.

The price index for residential real estate is the weighted arithmetical average of the price index for owner-occupied housing and the capital value index for multi-family houses. The weightings used correspond to the proportion of private households in Germany that own dwellings or land. In 2003 this amounted to 48.8%. It therefore follows that the proportion of households that did not own dwellings or land amounted to 52.2%.

For the commercial property price index, the weightings attributable to the office property capital value index and the retail property capital value index correspond to the proportion of loans in the accounts of Pfandbrief Banks that were granted to these two categories. The figures for office property and retail property amount to 60% and 40%, respectively.

Publication

All vdp real estate price indices are published on a quarterly basis. Each year's first quarter index figures are published on 10 May of the same year (six weeks after the end of the quarter under review). Other publication dates are as follows:

- 10 August, 2nd quarter
- 10 November, 3rd quarter
- 10 February of the following year, 4th quarter (including figures for the year as a whole)

The index figures are released at 2:00 p.m. on the respective publication dates. Where the publication date falls on a Saturday, Sunday or public holiday, the index figures are published on the next working day at 2:00 p.m.

The accompanying press releases are published in German and English on the websites of the Verband deutscher Pfandbriefbanken e.V. (vdp) www.pfandbrief.de and vdpResearch GmbH www.vdpresearch.de. They are also published via press agencies.

Contact



Dr. Franz Eilers
Head of Real Estate Research
Tel.: +49 (0)30 206229-16
eilers@vdpresearch.de



Andreas Kunert
Indices Project Manager
Tel.: +49 (0)30 206229-17
kunert@vdpresearch.de

Liability disclaimer

The data and information contained in this publication are based on the transaction database, which we regard as reliable. However, we are unable to guarantee the accuracy and completeness of the data. All opinions expressed reflect the current assessment of vdpResearch GmbH. No warranty is given with regard to the content of these opinions and prognoses. In particular, no liability can be assumed for future economic and technical developments. Data and information contained in this publication can change in the future without prior notice.

Copyright

Content, especially where it relates to information, data, texts and maps, is protected by copyright. Reproduction requires the prior consent of vdpResearch GmbH.

vdp-MEMBER INSTITUTIONS

Aareal

Bayern LB

Berlin Hyp



COMMERZBANK



DEUTSCHE/HYPO
Ein Unternehmen der NORD/LB



saar LB



VALOVIS BANK

WestImmo



The member institutions of the **Association of German Pfandbrief Banks** (Verband deutscher Pfandbriefbanken, vdp) have been the market leaders in commercial real estate finance in Germany and hold sizeable market shares in residential real estate finance as well. As the representative of its member banks, the vdp performs this function vis-à-vis all executive bodies of politics on both the national and the European stage and a wider public.

The vdp's know-how is tailored towards the specific interests of the Pfandbrief issuers, namely, the Pfandbrief business and the underlying business fields property finance, public-sector lending, ship and aircraft finance. The vdp assists its member banks also in regulatory matters and represents them vis-à-vis national regulatory authorities. By means of group governance, member institutions exchange information and experiences in vdp committees, which are then summarized and developed into market standards. The vdp also assists its member banks in the efficient structuring of their specialized loan or issuance businesses.

Verband deutscher Pfandbriefbanken e V.

Georgenstrasse 21, 10117 Berlin

Phone +49 30 20915-100

e-mail: info@pfandbrief.de

www.pfandbrief.de

vdpResearch GmbH, a subsidiary of the Association of German Pfandbrief Banks (vdp), works intensively on compiling, analyzing and forecasting real estate prices in the context of real estate finance. Its remit includes measuring and forecasting trends in rents and prices in the residential and commercial property sectors on a regional and national level.

In measuring the development of rents and prices, vdp Research draws on a unique transaction data-base that is also used to supply property-related comparative prices, comparative rents and other valuation parameters. The parameters the company provides are central to specifically developed software solutions for valuing standard and individual properties and are fully compliant with regulations governing market and property valuations.

For many credit institutions, the products and services of vdpResearch are a key component in evaluating and assessing property and market risks. The Germany-wide property price indices it prepares for the vdp are directed at an interested public and offer an overview of general price trends in the real estate markets in Germany.

vdpResearch GmbH

Georgenstrasse 22, 10117 Berlin

Phone: +49 30 206229-17

e-mail: info@vdpresearch.de

www.vdpresearch.de



**VERBAND DEUTSCHER
PFANDBRIEFBANKEN**
Association of German Pfandbrief Banks