

# The German Valuation Model

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## Real Estate Appraisal

### The Need for Real Estate Appraisal

Real estate appraisal is the practice of developing an opinion of the value of real property, usually its market value. The need for appraisals arises from the particularity of property as asset class: no two properties are identical, and all properties differ from each other in their location – which is probably the most important key driver of property value. The absence of a market-based pricing mechanism for properties (there is no market place for trading properties as there is for daily goods or corporate stocks) determines the need for valuation of real estate.

### Types of Value

There are different types and definitions of value, of which the Market Value (or Fair Value) is the most common and relevant one.

*Market Value* is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion.<sup>1</sup>

Other types of value as value-in-use, insurable value or liquidation value may help for specific questions but do not reflect the actual market state.

Fair Value is a concept used in finance and economics, defined as a rational and unbiased estimate of the potential market price. There are discussions about differences between Fair Value and Market Value, for our needs they are on a par.

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<sup>1</sup> RICS Red Book, PS 3.2

## Price versus Value

The price of a property may or may not represent the property's market value. Special considerations may have been present, such as a special relationship between the parties, or else the transaction may be part of a larger set of transactions in which buyer and seller are engaged. Owners of a neighbouring property may be willing to pay a premium over and above market value, because by combining the two properties they could obtain economies of scale. Therefore it is important to distinguish between market value and price.

## Three Approaches to Value

There are three general groups of methodologies for determining value, which vary widely from one situation to the next.

The *cost approach* estimates the value by summing the land value and the depreciated value of any improvements. In practice, appraisers use replacement costs and then deduct a factor for functional disutility associated with the age of the subject property. This method tends to become less reliable for older properties, but is often the only reliable approach when dealing with special use properties.

The *sales comparison* approach examines the price of similar properties being sold. This approach is generally considered reliable if adequate comparable sales exist.

The *income approach* is used to value commercial and investment properties by reflecting and modeling the expectations and behaviors of typical market participants. An income stream is capitalized into a value indication by using revenue multipliers or capitalization rates to the first year Net Operating Income. Alternatively discounted cash flow analysis arrives at a present value indication. The income approach is the most appropriate method for investment properties.

## Valuation at Akelius Germany

### Property Valuation at Akelius Germany

Property valuation at Akelius Germany is in line with IFRS standards for investment properties. According to IAS 40 an investment property is a property held to earn rentals or for capital appreciation or both. Investment property is initially measured at cost, including transaction costs. Following IAS 40 enterprises can choose between

- a fair value model, and

- a cost model

to value the properties, but one method must be adopted for all of an entity's investment properties. Change in method is permitted only if this results in a more appropriate presentation, but it is highly unlikely for a change from fair value to cost model. Gains or losses arising from changes in the fair value must be included in net profit or loss for the period in which it arises.

### **Quarterly Valuation**

A quarterly valuation of all German properties is done by Akelius staff, as a crosscheck a sample of eight to twelve properties per quarter is valued externally. The market value of our internal valuation is based on the today net operating income, adjustments are done for vacancy rate, rental level and deferred maintenance. The internal valuation is an excel-model which is structured as following.

### **Akelius Valuation Sheet**

The core part is the valuation sheet which is structured the following:

Part I:	Property key data
Part II:	Today income situation
Part III:	Yield demand
Part IV:	Calculation of NOI
Part V:	Adjustments
Part VI:	Results

**INTERNE BEWERTUNG**

<b>Region:</b>	Ost	<b>Wert:</b>	16.250
<b>Objektnummer:</b>	7010	<b>Wert/qm:</b>	834
<b>Stadt:</b>	Berlin	<b>Rendite:</b>	4,78%
<b>Immobilie/Adresse:</b>	Arosener Allee	<b>IST-Faktor:</b>	14,27
<b>Bewertungsstichtag:</b>	2008-12-31	<b>Fluktuation:</b>	11,72%

	<b>Anzahl</b>			
	WE	STPL	GE	Insg.
Insgesamt:	401	0	0	401
Leer:	13	0	0	13
Leerstandsquote:	3,2%	0,0%	0,0%	3,2%

	<b>Quadratmeter</b>			
	WE	STPL	GE	Insg.
Insgesamt:	19.481	0	0	19.481
Leer:	720	0	0	720
Leerstandsquote:	3,7%	0,0%	0,0%	3,7%
Durchschnittsgrösse:	49	0	0	

	<b>Miete, T€</b>			
	WE	STPL	GE	Insg.
SOLL:	1.183	0	0	1.183
SOLL/qm o. SOLL/Einheit:	5,06	0,00	0,00	5,06
IST	1.139	0	0	1.139
IST/qm oder IST/Einheit:	5,06	0,00	0,00	5,06
Leerstandsquote:	3,7%	0,0%	0,0%	3,7%
Anteil von IST-Miete:	100,0%	0,0%	0,0%	100,0%

	<b>Renditeforderung</b>			
	WE	STPL	GE	Insg.
Renditeforderung:	4,75%	4,75%	6,00%	4,75%

	WE		STPL		GE		Insg.	
	T€	€/qm	T€	€/einheit	T€	€/qm	T€	€/qm
SOLL-Miete:	1.183	60,7	0	0	0	0,0	1.183	60,7
Leerstand:	-44	-2,2	0	0	0	0,0	-44	-2,2
Leerstandsquote:	-3,7%		0,0%		0,0%		-3,7%	
<b>Mieteinnahmen:</b>	<b>1.139</b>	<b>58,5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0,0</b>	<b>1.139</b>	<b>58,5</b>
Instandhaltung:	-194,8	-10,0	0,0	0	0,0	0,0	-195	-10,0
Administration, Extern:	-108,3	-5,6	0,0	0	0,0	0,0	-108	-5,6
Administration, Intern:	-58,4	-3,0	0,0	0	0,0	0,0	-58	-3,0
<b>Kosten, Insgesamt:</b>	<b>-362</b>	<b>-19,6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0,0</b>	<b>-362</b>	<b>-19,6</b>
<b>Nettoergebnis:</b>	<b>777</b>	<b>39,9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0,0</b>	<b>777</b>	<b>39,9</b>
<b>Wert vor Anpassungen:</b>	<b>16.365</b>	<b>840</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16.365</b>	<b>840</b>
<b>Rendite:</b>	<b>4,75%</b>		<b>0,00%</b>		<b>0,00%</b>		<b>4,75%</b>	
<b>Angepasster Leerstand</b>		<b>3,5%</b>						
<b>Anpassungsfaktor Miete</b>		<b>10%</b>						
<b>Anpassungen:</b>								
Instandhaltungsrückstau:	-300	-15	0	0	0	0	-300	-15
Leerstand:	49	2	0	0	0	0	49	3
Neuermiet-/Marktmiete:	136	7	0	0	0	0	136	7
<b>Anpassungen insgesamt:</b>	<b>-115</b>	<b>-6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-115</b>	<b>-6</b>
<b>Wert nach Anpassungen:</b>	<b>16.250</b>	<b>834</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16.250</b>	<b>834</b>
<b>Rendite:</b>	<b>4,78%</b>		<b>0,00%</b>		<b>0,00%</b>		<b>4,78%</b>	
SOLL-Faktor:	13,74		0,00		0,00		13,74	
IST-Faktor:	14,27		0,00		0,00		14,27	

**Internal Valuation, Valuation sheet**

All relevant data can be taken from this valuation sheet, a comprehensive summary for external purposes is also available.



Year of Constr.:	1925-1933
Floors:	3
Elevator:	none
Balconies:	partly
Heritage listed:	yes
Inherit. b. Right:	none
Public Subsidies:	none
Plot:	4.849 m <sup>2</sup>

► Market Value:	<b>16.250.000 €</b>
► Market Value per m <sup>2</sup> :	<b>834 €</b>
► Total Yield:	<b>4,78%</b>
► Multiplier on current rent:	<b>14,27</b>

GFZ:	4,8	GRZ:	1,6
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	Units	Leasable area	∅ leasable area	Vacancy units	in %	Vacancy m <sup>2</sup>	in %
Res.	401	19.481 m <sup>2</sup>	49 m <sup>2</sup>	13	3,2%	720 m <sup>2</sup>	3,7%
Com.	0	- m <sup>2</sup>	- m <sup>2</sup>	0	0,0%	- m <sup>2</sup>	0,0%
Parking	0	-	-	0	0,0%	-	-
TOTAL	401	19.481 m <sup>2</sup>		13	3,2%	720 m <sup>2</sup>	3,7%

	Current rent (T€)	Potential rent (T€)	∅ EUR / m <sup>2</sup>	New lease agreements	Market rent EUR / m <sup>2</sup>	Difference between new leases and current rent
Res.	1.139	1.183	5,06	5,48	5,50	8,3%
Com.	0	0	0,00	0	0	0,0%
Parking	0	0	0,00	0	0	0,0%
TOTAL	1.139	1.183				
Part of res. + park.	100,0%					

Mietspiegel	
under 40 m <sup>2</sup>	5,15 4,06-5,92
40 m <sup>2</sup>	4,77
up to 60 m <sup>2</sup>	4,22-5,47
60 m <sup>2</sup>	4,66
up to 90 m <sup>2</sup>	4,22-5,47
90 m <sup>2</sup>	4,56
and more	3,90-5,20

► Comment:

► Date of valuation: 2008-12-31

### ***Internal Valuation, Summary***

Individual valuation of each property is aggregated in an overview file of the whole German portfolio which gives relevant parameters of each property for the actual and the last four quarters. This overview over the past quarters is also a check for inconsistency and helps to identify changes in basic assumptions and trends which influence the value of each property.