The German market valuation model

Jörg Wildförster, 10/01/2011

Real estate appraisal

The necessity of real estate appraisal

Real estate appraisal is the practice of developing an opinion of the value of a property, usually its market value. The need for real estate appraisals arises from the heterogeneous nature of properties as an investment. All properties vary from each other, meaning that there are no two identical properties. Hence there is no market place for trading properties as there is e.g. for stocks. The absence of a market-based pricing mechanism determines the necessity for valuation of real estate. Generally in many countries a real estate appraisal is performed by a licensed or certified appraiser.

Types of value

There are quite a lot of types and definitions of value. Some of the most relevant are introduced below.

Market value is the estimated amount for which a property should exchange on the date of valuation between an educated buyer and a reasonably motivated seller in an arms-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without undue influence.

Value-in-use is the net present value of cash flows that an asset generates for a specific owner under a specific use. Hence the value is to one particular user and could differ from the market value of a property.

Investment value is the value to one particular investor. In general it is above the market value of a property.

Insurable value is the value of a property covered by an insurance policy. Normally it does not include the site value.

Liquidation value is a sought value in bankruptcy proceedings. It assumes a seller who is forced to sell after an exposure period which is less than the typical market timeframe.

The market value is the most common and relevant one. All the other types of value such as value-in-use, investment value, insurable value or liquidation value may help for specific questions but do not reflect the actual market situation.

Price versus value

It is important to differentiate between market value and price. A price for a specific property may or may not represent that property's market value. There could be several circumstances that will lead to differences between price and market value. For instance a special relationship between the buyer and the seller could exist or the transaction may have been part of a larger set of transactions in which the parties had engaged. Another possibility is that the owner of a neighbouring property may have been willing to pay a premium over and above the market value, because by combining the two properties they could obtain economies-of-scale.

Three approaches to valuation

There are three methods for calculating value which are generally independent from each other:

The cost approach
The sales comparison approach
The income approach

Taking into consideration the specific characteristics of the subject and the market the appraiser will determine which one of these approaches may be applicable.

The cost approach in the past was called the summation approach. The theory is that the value of the property could be estimated by adding the value of the land and the depreciated value of any improvements. The value of the improvements is often determined by taking the depreciated reproduction respectively replacement costs. Reproduction refers to reproducing an exact replica. Replacement refers to the costs of building an improvement which has the same characteristics and deduct a factor for any functional non-utility 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 is mainly based on the principle of substitution. The assumption of this approach is that a buyer would not pay any more for a property than for a comparable property. The approach recognizes that a typical buyer will compare asking prices and will purchase the property that fulfils his or her needs for the lowest cost. The approach is only reliable if adequate comparable sales exist.

The income approach is used to value commercial and investment properties by reflecting the expectations of typical market participants. This approach is generally the most applicable valuation model for income-producing properties. An income stream is capitalized into a value indication by using revenue multipliers or capitalization rates applied to the first year net operating income. Alternatively a discounted cash flow analysis could lead to a present value indication.

The German market valuation model

The principles of valuation at Akelius Germany

Property valuation at Akelius Germany is in line with IFRS. 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 costs, including transaction costs. Such costs should not include start-up costs, abnormal waste or initial operating losses incurred before the investment property achieves the planned level of occupancy. IAS 40 permits entities to choose between

a fair value model and
a cost model

in order to value the properties. Please observe that 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; however, it is unlikely for a change from fair value to cost model. Profit or losses arising from changes in the fair value must be included in profit and loss statement of the corresponding period.

The German valuation procedure

Each quarter an internal valuation of all German properties is done by Akelius staff. In addition to that, each quarter a selection of 1/12 of the total property portfolio is valued by our external valuation partner CB Richard Ellis for verification purposes.

The market value of the internal valuation is based on the actual net operating income, the required yield, and adjustments. The *net operating income* consists of actual gross rental income adjusted for actual vacancy costs which equals to actual net rental income, maintenance and administration costs. Maintenance and administration costs are not actual costs, rather standardized costs which reflect a typical market level. The *required yield* reflects the expected return the property must offer in order to be a worthwhile investment. The *adjustments* consist of deferred maintenance, investments in apartments, net present value from investments, vacancy potential, market rent potential, condominium potential and transaction market adjustments. *Deferred maintenance* has a negative impact on the market value since there is any deferred maintenance in a property. If all the deferred maintenance is removed the impact is zero. *Investments in apartments* also have a negative impact on the market value since there are some apartments left that do not fulfil the requirements of Akelius standard in apartments. If all the apartments are refurbished the impact is zero. The *net present value from investments* has a positive impact on the market value since there is an investment. Normally an investment at Akelius has a positive net present value since it would not be executed if it does not increase the value of the property. The *vacancy potential* is based on the comparison between the actual vacancy and the assumed long term vacancy ratio. If the actual vacancy is lower than the long term ratio, then it will have a negative impact on the market value (in such case there is simply no potential, but rather a risk for higher vacancy). If the actual vacancy is higher than the long term ratio, then this will have a positive impact on the market value (there is a potential to decrease the vacancy). The *market rent potential* is based on the comparison between the actual rental level and the market rental level. If the actual rental level is lower than the market rental level, then it will have a positive impact on the market value (there is a potential to increase the rental level). If the actual rental level is higher than the market rental level, then this will have a negative impact on the market value (in such case is there simply no potential, but rather risk for decreasing rental level). The *condominium potential* is not included in the market valuation yet. Basically it should reflect an upside potential above the market value that is given by selling the apartments as condominiums. In *transaction market adjustments* any relevant (soft) factor for the valuation may be taken into account that was not included in another way. For example positive development of a certain city district or difficult tenants.

Akelius valuation sheet

The main part of the German valuation model is the valuation sheet which is structured as follows:

Part I: Property key data
Part II: Actual income situation
Part III: Required yield
Part IV: Calculation of net operating income
Part V: Adjustments
Part VI: Results of market valuation

INTERNE BEWERTUNG

Region:	**Ost**	**Wert:**	**1.234**
Objektnummer:	**7032**	**Wert/qm:**	**1.044**
Stadt:	**10557 Berlin**	**Rendite:**	**5,48%**
Immobilie/Adresse:	**Lüneburger Straße 13**	**IST-Faktor:**	**13,72**
Bewertungsstichtag:	**2010-10-01**	**Fluktuation:**	**16,00%**

I

Anzahl

	WE	STPL	GE	Insg.
Insgesamt:	25	6	0	31
Leer:	1	3	0	4
Leerstandsqoute:	4,0%	50,0%	0,0%	12,9%

Quadratmeter

	WE	STPL	GE	Insg.
Insgesamt:	1.182		0	1.182
Leer:	31		0	31
Leerstandsquote:	2,6%		0,0%	2,6%
Durchschnittsgrösse:	47		0	

Miete, T€

II

	WE	STPL	GE	Insg.
SOLL:	91	2	0	94
SOLL/qm o. SOLL/Einheit:	6,42	34,20	0,00	6,60
IST	89	1	0	90
IST/qm oder IST/Einheit:	6,42	34,20	0,00	6,51
Leerstandsquote:	2,6%	50,0%	0,0%	3,8%
Anteil von IST-Miete:	98,6%	1,4%	0,0%	100,0%

III

	WE	STPL	GE	Insg.
Renditeforderung:	4,75%	4,75%	6,50%	4,75%

IV

	WE		STPL		GE		Insg.	
	T€	€/qm	T€	€/Einheit	T€	€/qm	T€	€/qm
SOLL-Miete:	91	77,1	2	410	0	0,0	94	79,1
Leerstand:	*-2*	*-2,0*	*-1*	*-205*	*0*	*0,0*	*-4*	*-3,0*
Leerstandsquote:	*-2,6%*		*-50,0%*		*0,0%*		*-3,8%*	
Mieteinnahmen:	**89**	**75,1**	**1**	**205**	**0**	**0,0**	**90**	**76,1**
Instandhaltung:	-11,8	-10,0	0,0	0	0,0	0,0	-12	-10,0
Administration, Extern:	-6,8	-5,7	-0,2	-30	0,0	0,0	-7	-5,9
Administration, Intern:	-3,5	-3,0	0,0	0	0,0	0,0	-4	-3,0
Kosten, Insgesamt:	**-22**	**-18,7**	**0**	**-30**	**0**	**0,0**	**-22**	**-18,9**
Nettoergebnis:	**67**	**56,4**	**1**	**175**	**0**	**0,0**	**68**	**57,2**
Wert vor Anpassungen:	**1.402**	**1.186**	**22**	**3.688**	**0**	**0**	**1.424**	**1.205**
Rendite:	**4,75%**		**4,75%**		**0,00%**		**4,75%**	
Anpassungen:								
Instandhaltungsrückstau:	-72	-61					-72	
Investitions WE:	-114	-97					-114	
NPV von Investitionen:	5	4					5	
Leerstand:	11	10		0		0	11	10
Mietpotential:	-20	-17		0		0	-20	-17
WEG-Potential:	0	0					0	
Marktanpassung:	0	0		0		0	0	0
Anpassungen Insgesamt:	**-190**	**-161**	**0**	**0**	**0**	**0**	**-190**	**-161**
Wert nach Anpassungen:	**1.212**	**1.025**	**22**	**3.688**	**0**	**0**	**1.234**	**1.044**
Rendite:	**5,50%**		**4,75%**		**0,00%**		**5,48%**	
SOLL-Faktor:	13,30		8,99		0,00		13,19	
IST-Faktor:	13,66		17,97		0,00		13,72	

V

VI

In addition to the valuation sheet a summary of all relevant facts is included in the valuation file of each property.

10557 Berlin **7032**
Lüneburger Straße 13

Year of Constr.:	1961
Floors:	5
Elevator:	none
Balconies:	yes
Heritage listed:	none
Inherit. b. Right:	none
Public Subsidies:	none
Plot:	808 m²

► **Market Value:**	**1.250.000 €**
► **Market Value per m²**	**1.044 €**
► **Total Yield:**	**5,48%**
► **Multiplier on current rent:**	**13,72**

GFZ:	1,8	GRZ:	0,4

	Units	Leasable area	Ø leasable area	Vacancy units	in %	Vacancy m²	in %
Res.	25	1.182 m²	47 m²	1	4,0%	31 m²	2,6%
Com.	0	m²	m²	0	0,0%	m²	0,0%
Parking	6	-	-	3	50,0%	-	-
TOTAL	**31**	**1.182 m²**		**4**	**12,9%**	**31 m²**	**2,6%**

	Current rent [T€]	Potential rent [T€]	Ø EUR / m²	New lease agreements	Market rent EUR / m²	Difference between new leases and current rent
Res.	89	91	6,42	6,96	7,00	8,4%
Com.	0	0	0,00			0,0%
Parking	1	2	34,20			0,0%
TOTAL	**90**	**94**				
Part of res. + park	100,0%					

Mietspiegel	
under 40 m²	5,24 3,54 - 7,30
40 m² up to 60 m²	4,77 3,73 - 6,13
60 m² up to 90 m²	4,88 3,78 - 6,24
90 m² and more	4,67 3,52 - 5,95

►**Comment:**

► **Date of valuation:** **2010-10-01**

To get an overview of the total portfolio the individual valuation of each property is aggregated in an overview file which consists of all the relevant parameters of each property for the current 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.