CONSIDERATIONS ON LAND EVALUATION. CASE STUDY

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Abstract

Evaluation of urban or outside town land is governed by ANEVAR law (methodological guide for valuing land GME1 realized and recognized in the entire world). Indicated methodology is agreed with international valuation standards EVS) published by International Valuation Standards Council (IVSC).

Evaluation methods of vacant land, occupied by facilities or constructions are: CMA extraction market allocation, technical residual capitalization current rent / lease land (rent) and cash flow analysis updated (analysis plotting and development) derived from traditional methods of approach to real estate (market, income and cost).

The case study in this paper comply evaluation guide showing all the steps specified by international standards agreed by ANEVAR.

Key words: land's market value, valuation methods, direct comparison

Direct comparison is used to assess land available or considered to be free for evaluation purposes. The market value of the land is obtained from evidence of market trading price of some land similar or market value may be obtained from the analysis of market prices of land free comparable in the same area market were traded at a date close to the valuation date (IVS 2011).

Stages for evaluation using the direct comparison method of applying are:

- (A) collecting information from the market area of land subject about recent sales or the sale offers and purchase requests for similar land;
- (B) checking the reliability and objectivity of the collected information;
- © selecting comparison unit used by market participants (cost/ha or m²);
- (D) identification of differences in land characteristics comparable to those of land selected and subject;
- (E) correction in land prices comparable to reflect differences between characteristics of the terrain and subject. The corrections can be applied on the total price of comparable land on their unit prices or both.

Extraction method of marketing is to determine land value free as a figure remaining after the current price sale of the entire property (land plus construction) was low net replacement cost of buildings and establishments (IVS 2011).

Allocation method is based on the principle of balance and the contribution, according to which

there is an acceptable percentage ratio between land value and the value of the whole property, specific to different categories of properties.

Residual technique (the technique of direct capitalization of net operating income allocated land) is recorded in the income approach and is used when the income stream is generated by construction and land.

Direct capitalization of rent / land lease (rent) applies where the income is obtained from assignment of the right to use the land in return for rents / leases or rents. It is applicable for land with agricultural use assessment and evaluation of leased land.

Analysis of discounted cash flow (analysis plotting and development) consists of placing evaluator in position hypothetical a developer of an undeveloped land, considering that the improvements designed is the most likely land use (IVS, 2011; Real Estate Property Edition 13th ANEVAR 2012).

CASE STUDY

Theme of study: Land area of 15000 square meters, cadastral number T34, A693 (partially) outside town arable Holboca situated near Jassy airport fence); Market value is required for this date. The land is owned by airport in order to evaluate the compact land exchange at the same value. It makes the assumption that terrain is free.

Area description:

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- Real property appraised land is situated in the peripheral Holboca, close Jassy Airport, outside

town. In the area of real property is subject to evaluation Jassy International Airport (Photo 1,2).

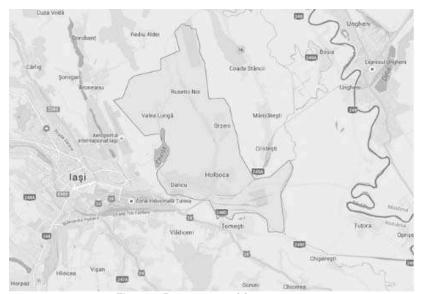


Figure 1 Property position on map



Figure 2 Property position, view in ortophotoplan

- Municipal facilities and existing services in the area are shown by several networks: electricity, water, sewer, gas, phone, internet, TV cable; These characteristics of the area are reflected positively on real property being valued land.

Site description

- Land use category evaluated: arable;
- The location: the peripheral village Holboca, Jassy County;
- Zone type: the location of the property is occupied spaces mostly agricultural land, free land;

- Information about title to the property: the land belongs evaluated with full ownership.

Physical features of the site:

- Land size: 15,000.00 sqm;
- Configuration of the land: regular shape in plan;
- Topography: flat slope full;
- Access to land: the site has access to dirt road.

Market data area, city, neighborhood and location

- Holboca is composed of villages: Cristesti, Dancu, Holboca, Orzeni, Rusenii Noi, Rusenii Vechi and Valea Lunga.The village is located in the East of the county, East of the city of Iasi, on the left bank of Bahlui River. DJ249A county is crossed by roads and DJ249C, both tying it to the South- West of Iasi. The first leads to the North-East at Ungheni and the second to Golaiesti. From DJ249A, Holboca branch DJ248D county road that leads south to Tomesti (where it intersects DN28) and Barnova (which ends DN24). Passing through the village and the railway Iasi - Ungheni, but that is not served by any station, the nearest being Iasi.

- In Holboca are Dancu -Iasi forest and the water accumulation Chirita, protected areas (forest first, second aquatic) where multiple tree species are protected or fish.
- According to the census conducted in 2011, Holboca population amounted to 11,971 inhabitants, up from the previous census since 2002.
- Commercial real estate market of Iasi County is characterized by competitive imbalance between demand and supply solvable in favour of the offer. Factors that influence the real estate market imbalance are economic and social: the purchasing power of the population, lack of bank credit difficult access to mortgages, the money coming from the labour force working in other countries than Romania.

The analysed area, since experienced a strong boom years 2002-2004, reaching a peak in 2008. Currently, due to the crisis situation, strong real estate market is in decline, the buyer becoming more cautious and more demanding and can be expressed as market one of the buyer, the seller was forced to accept a lower price.

Demand for real estate is similar medium, because of the economic situation generated by the economic crisis but also by the housing market downturn.

Market activity

The level of activity in any market will fluctuate. While it may be possible to identify a normal level of market activity over a long period of time, in many markets there will be periods in which the activity is significantly more intense or lower compared to the normal level . When demand is greater than supply, expect prices to rise, thus tending to attract more market entry sellers and therefore an increase in market activity. The opposite is the case when demand is low and prices fall. However, different levels of activity are rather a response to price movement than a cause of it. Transactions can take place and take place in markets which, currently, are less active than normal and what is important, prospective buyers will have in mind a price they are willing to enter the market.

Market participants

References in EVS, the market participants are made by all persons, companies or other entities that are involved in current transactions or intending to enter into a transaction with a specific type of asset. The decision to sell any views attributed to market participants are those specific buyers and sellers and potential buyers and sellers active on a market on the valuation date and not those specific to certain entities its people.

Similar offers in land's area are the following:

- Holboca to Ruseni, 17500 m^2 land, utilities nearby, 50 m from the road Holboca Ruseni, price is $1 \mbox{\'e}/m^2$
- -Terrain 4,600 m² located at the left end of the road at the entrance to the village Cristesti from Holboca, near the church on the plateau, price $1 \epsilon / m^2$
- Arable land Holboca town. Cristesti area, 3.2 ha, price $0.75 \in /m^2$.

Calculation

Using the direct comparison method must be mentioned for the analysed land:

- ✓ Land area (m²); the right price 0.95 €/m2
- financing conditions: cash, the right price 0.95 ϵ/m^2
- ✓ Sale conditions: the right price 0.95 €/m^2
- ✓ Market conditions: the right price 0.95 €/m²
- Location: T34, A693 (partial) Holboca, close airport, Jasi County; right price: 0.86 €/m²
- Energy utilities: 0.86 €/m²
- ✓ Physical properties of terrain: right price 0.86 €/m²
- ✓ Access to property right price $0.86 \text{ } \text{€/m}^2$
- ✓ Terrain classification: right price 0.81 €/m²
- ✓ Area destination: right price 0.86 €/m²
- ✓ Best use:right price 0.86 €/m²
- ✓ Design of land: right price 0.86 €/m²

Total Corrections:

- Correction total net -15%;
- -Total gross correction from selling price 15%.

The right price in our case study is of 12,825 \in as can be seen in *tabel1*.

	ERRAIN ARABLE AREA OF	- 15,000 MP, T34,	A693(partial), HOLB	OCA, COUNTY IAS	SI		
CURRENT NUMBER	Elements of comparison	The subject property	Comparable 1	Comparable 2	Comparable 3		
	Land surface (m ²)	15,000.00	17,500.00	4,058.00	31,700.00		
0	Price of tender/sale (EUR/m²)		1.00	1.00	0.38		
	Туре		offer	offer	offer		
	Correction %		-5%	-5%	-5%		
	Correction (EUR/m²)		-0.05	-0.05	-0.02		
	Price corrected (EUR/m²)		0.95	0.95	0.36		
	THE RIGHT PROPERTY SUBMITTED						
	The right property submitted	full	full	full	full		
1	Correction percentage		0%	0%	0%		
1	Correction value for property rights		0.00	0.00	0.00		
	Price corrected (EUR/m²)		0.95	0.95	0.36		
	FINANCING CONDITION	S					
	Financing conditions		cash	cash	cash		
2	Correction percentage		0%	0%	0%		
2	Correction value for financing		0.00	0.00	0.00		
	Price corrected (EUR/m²)		0.95	0.95	0.36		
	CONDITIONS OF SALE		T	T			
3	Conditions of sale		independent	independent	independent		
	Correction percentage		0%	0%	0%		
	Correction value for conditions of sale		0.00	0.00	0.00		
	Price corrected (EUR/m²)		0.95	0.95	0.36		
	MARKET CONDITIONS		1	T			
	Terms the market	9/1/2015	present	present	present		
4	Correction percentage		0%	0%	0%		
	The total correction to market conditions		0.00	0.00	0.00		
	Price corrected (EUR/m²)		0.95	0.95	0.36		
	LOCATION						
5	Location	T34,A693 (partial), Holboca commune, in the proximity airport, Iasi County	Ruseni village, Holboca commune, about 50m from the road Holboca- Ruseni, lasi County, the area most favorable	Cristesti village, Holboca commune, in the proximity the church, lasi County, the area most favorable	Cristesti village Holboca commune, in the proximity the church, lasi County, the are worst		
	Correction percentage		-10%	-10%	20%		
	Correction value for location		-0.10	-0.10	0.07		
	Price corrected (EUR/m²)		0.86	0.86	0.43		
6	CHARACTERISTICS PH		T	Γ			
а	Area (size) (m²)	15,000.00	17,500.00	4,058.00	31,700.00		
	Correction percentage		0%	-5%	20%		
	Correction value for size		0.00	-0.04	0.09		

b	Form (ratio scale) and opening	regular	regular	regular	regular	
	Correction percentage		0%	0%	0%	
	Correction value for formm and front		0.00	0.00	0.00	
С	Topography and category usage	plan, shows the gentle slope, A	plan, uneven patches, A	plan, uneven patches, A	plan, uneven patches, A	
	Correction percentage	gome crop c, v	0%	0%	0%	
	The total correction for topography		0.00	0.00	0.00	
	Price corrected (EUR/m²)		0.86	0.81	0.52	
	PUBLIC UTILITIES				<u> </u>	
	Utilities (electricity / water / sewer / gas)	The utilities around	The utilities around	The utilities around	without utilities	
7	Correction percentage	around	0%	0%	10%	
1	Correction value for utilities		0.00	0.00	0.05	
	Price corrected (EUR/m²)		0.86	0.81	0.57	
	ACCESS TO PROPERTY	I Y				
	Access to the property (front street)	the site has access to land road	location of land has land road access, paved about 50 m	location of land has land road access, paved about 20 m	site access road of land	
8	Correction percentage		0%	0%	0%	
	Correction value for		0.00	0.00	0.00	
	Price corrected		0.86	0.81	0.57	
	(EUR/m²) LAND CLASSIFICATION					
	Land classification	extravilan	extravilan	extravilan	extravilan	
	Correction percentage	extravilari	0%	0%	0%	
9	The total correction to classification		0.00	0.00	0.00	
	Price corrected (EUR/m²)		0.86	0.81	0.57	
	ZONING					
	Zoning - destination	agricultural	agricultural	agricultural	agricultural	
	Correction percentage	agricultural	<u> </u>			
10	Correction value for		0%	0%	0%	
	zoning Price corrected		0.86	0.81	0.57	
	(EUR/m²) BEST USE					
11	Type of possible legal and physical development	many possible uses	many possible uses	many possible uses	many possible uses	
	Correction percentage		0%	0%	0%	
	The total correction to best use		0.00	0.00	0.00	
	Price corrected (EUR/m²)		0.86	0.81	0.57	
	DESIGN OF LAND					
	Design of land	land is not	land is not	land is not	land is not	
12	Correction percentage	fenced	fenced	fenced 0%	fenced	
	The total correction to		0%		0%	
	design Price corrected		0.00	0.00	0.00	
	(EUR/m ²)		0.86	0.81	0.57	
	Correction total net	value absolute	-0.15	-0.19	0.19	

		% of the sale price	-15%	-19%	50%		
		value absolute	0.15	0.19	0.23		
	Total gross correction	% of the sale price	15%	19%	60%		
The market v	alue of selected (EUR/m²)	, poo			0.86		
The market v	alue of the land (without V	AT)			12,825 €		
			56,842 lei				
Course NBR to date of 01.09.2015 1 EUR =		4.4321 lei			30,042 101		
ELEMENTS (OF COMPARISON	JUSTIFICATION	CORRECTION				
NEGOTIATION		The spread for the negotiation of a property is between 5% -10%. It varies depending on the property type.					
THE RIGHT TO PROPERTY SUBMITTED		Property rights of comparable are similar to the subject property comparison element. This does not apply any correction.					
FINANCING CONDITIONS		Financing conditions are similar to those of the subject property. This does not apply any correction.					
CONDITIONS OF SALE		Conditions of sale comparable are similar to those of the subject property. This does not apply any correction.					
MARKET CONDITIONS		Market conditions are similar to those of the subject property. This does not apply any correction.					
LOCATION		Localizations comparable differ from the subject property; comparable 1 and 2 have superior location and apply a correction of -10% and is lower than the comparable three and apply a correction of 20%.					
CHARACTERISTICS PHYSICAL		The price of land offered for sale varies depending on the surface, with a percentage between 2% -25%. Located in rural areas for land prices per m² will be increased by as its surface is smaller. In this case apply for two comparable correction of -5% is higher as compared to the land plot assessed and comparability 3 applies a correction of 20% is lower as a batch.					
PUBLIC UTIL	PUBLIC UTILITIES		Adjustments for utilities targets a range between 0% -20%, depending on the lack of a network in the area and the distance to the site. In this case apply a correction of 20% for the comparable three.				
ACCESS TO PROPERTY		Adjustments for access to proprietary targets a range between 5% -20%, depending on the site to the front opening road category (mining, gravel, asphalt). In this case there shall be no correction.					
LAND CLASS	SIFICATION	Corrections for land classification, analysed recorded on the market, targeting a range between 5% -10%, depending on location within the locality. In the area analysed were identified land located outside town, so there was no correction made.					
ZONING		Zoning / destination comparable is similar to the subject property. This does not apply any correction.					
BEST USE	BEST USE		The best use of the property comparable is similar to the subject property. No correction does not apply here.				
DESIGN OF LAND		Adjustments to reflect design costs for equipping the land with concrete alleys, paving, fencing or concrete platforms. This does not apply any correction.					

CONCLUSIONS

Direct Comparison Method assume some possibilities or situations, after case, by example, negotiation within the limits of 5-10% of the price, location of compared land to similar conditions do not reflect exactly the site or facilities of any kind.

Land evaluation is performed most correctly using the market value (price) approach.

REFERENCES

Proca Gabriela, 2001, Constructii, MatrixRom, București
Sandulache G., 2009, Evaluare imobiliară, note de curs.