

REGARDING VALUATION METHODOLOGY FOR TAX ASSESSMENT OF REAL PROPERTY FROM THE PERSPECTIVE OF INTERNATIONAL VALUATION STANDARDS

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Abstract: *Appraisals for tax assessment of real property are the direction of valuation activities which is, by virtue of its purpose, of particular interest for central and local governments as well as for tax payers.*

The article discusses the substance of the term value when appraised as the tax base for real property tax, the valuation approaches to be applied for tax assessment as well as the approaches applied currently in the Republic of Moldova and internationally for tax assessment purposes. Its focus is in particular the analysis of the methodology applied, in terms of its compliance with best international practices, as reflected in the international (IVS), European (EVS) and US (USPAP) valuation standards, and on the development of suggestions regarding its improvement.

Keywords: *real property, tax assessment, mass appraisal, valuation methodology.*

1. Introduction

The topic of determining correctly the property value as the real property tax base has been of particular relevance since some years. Diverse property tax aspects are certainly of interest for the governments in many countries. The main goal is to ensure 'equitable' taxation of property, application of similar tax rates to all similar properties, whether owned by individuals or by entities, and to determine a uniform base for levying of the property tax.

Appraisals of real property for tax purposes should be considered as a system that combines organizational, methodological and information components. The Republic of Moldova has been performing appraisals of real property for tax purposes since 2004. The *ad valorem* property taxation system was implemented for certain categories of real property and the effectiveness of the system was tested and proved in practice during that period.

However, many methodological and institutional issues are yet to be resolved. In the Republic of Moldova a major property taxation problem is the lengthy transition from the property taxation based on land area, on book value of non-residential buildings and on cost-based value of residential buildings which is computed applying standardized statutory formulas to modern *ad valorem* taxation. This lengthy transition does not contribute to implementation of the equitable taxation principle; on the contrary, it gives rise to situations where some taxpayers are paying high tax amounts calculated from the market value of their property, while some other taxpayers are only paying a fraction of that amount because of the obsolete statutory 'value' rates applicable to their property.

Moreover, the question is still relevant if the appraisal methodology applied for tax assessment purposes is correct as such. Therefore, this paper is intended to examine the valuation methodology applied currently from the perspective of up-to-date approaches and best international practices outlined in international valuation standards.

2. Materials and Methods

The research used the following scientific cognition: (1) monographic method based on consideration of the principal directions of scientific research in the relevant field; and (2) systematic approach enabling to examine the task in terms of the composition, substance and relationship of the diverse elements forming the tax appraisal methodology.

Several directions can be identified in the up-to-date theoretical and applied research into various aspects of property valuation for tax purposes.

Joseph K. Eckert, Robert J. Gloudemans, Richard R. Almy and others support the Computer Assisted Mass Appraisal (CAMA) system widely used in the United States, Canada and some European countries. A number of monographs, manuals and practical guides have been developed on the topic of property valuations applying automated value calculation programmes. A manual considered one of the most popular in Central and Eastern Europe is the textbook under the general editorship of Joseph K. Eckert: *Property Appraisal and Assessment Administration* first published in the USA in 1990. This book was translated into Russian in 1997 and is very popular in Russia as well as in the other CIS countries (Eckert J.K. (1997)). This book was the first to cover all levels of tax administration comprehensively. It pays much attention to the mass-scale and individual appraisal methods and provides a detailed description of all stages of the mass-scale appraisal process.

The Lincoln Institute of Land Policy (USA) represents a slightly different direction of the research which dwells on the issues of real property valuation for tax purposes as well as on tax policies, the potential for improving the real property taxation effectiveness, the organisational aspects of real property taxation and the role of real property tax in revenues to the budgets of local governments. The Lincoln Institute also plays a very important role in the implementation of the framework for tax valuation of real property in Central and Eastern Europe. Since some years the Centre of Excellence in Finance in Slovenia has been hosting a very successful annual real property valuation and tax seminar for representatives of local public administrations, public officials and academic staff from Central and Eastern Europe. It should be pointed out that the mentioned institutions practise a somewhat give-and-take attitude to the valuation methodology, allowing the application of any tax base as long as the equitable taxation principle is observed. The works of J.H. Malme, J.M. Youngman (Malme J.H, Youngman J.M (2001)), W.J. McCluskey (McCluskey W.J. (2011)) who researched the developing property tax and property tax appraisals and undertook a comparative analysis of taxation policies in the diverse transit economies deserve special attention of researchers, politicians, economists and public officers entrusted with the task of developing and implementing tax policies in their respective home countries.

International and regional valuation standards have also been addressing this important valuation area. Since the publication of IVS 2011, the International Valuation Standards Committee has not published any standards for tax valuations of real property, explaining that national legislation and valuation traditions should be a primary consideration in the selection of the optimal valuation policy for tax purposes.

At the same time, the European Valuation Standards (European Valuation Standards S 2016) provide guidance on property valuation and in particular recommendations in the section *Technical Documents* on the application of automated valuation models (AVMs) to appraise property value, examining namely mass-scale property valuations whose results can be used for various purposes: to determine the amount payable as compensation to owners of the property expropriated for socially useful objectives; to determine the collateral value of

property; for the purposes of audits and credit risk assessments; for property tax assessment; to determine the amounts payable as notary fees and state duty for registration of transactions with real property. Automated valuation models (AVMs) can be defined as statistic-based computer programmes, which use property information (e.g. comparable sales and property characteristics etc.) to generate property-related values or suggested values. (European Valuation Standards, EVIP 4, pct. 2.1.).

With respect to mass-scale valuation methodologies, the EVS say that AVMs should rely on recognised valuation methods which are the comparison, income and replacement cost methods. The methods applied should reflect market practice and give the same priority to methods as if they had been applied by the valuer. (European Valuation Standards, EVIP 4, pct. 4.3.1.).

The most comprehensive standards have been developed for this area by the International Association of Assessing Officers (IAAO), a non-profit, educational, and research association. It is a professional membership organization of government assessment officials and others interested in the administration of the property tax. The IAAO will be the global leader and preeminent source of standards, professional development and research in property appraisal, assessment administration and property tax policy. The IAAO standards are widely used in many countries around the world.

Having applied a systematic approach to the valuation methodology, we can conclude that property valuation for tax purposes is a set of interrelated components, of which the principal ones are the methodology component and the institutional component. Tax valuation methodologies understood broadly should not differ from the methodologies for individual valuations. However, if we take into account that the state puts forward a number of specific requirements to property valuation for tax purposes, the implications and specifics of tax valuation methodology may be treated as an object of scientific research.

A systematic analysis of the experience gained by certain European countries (the Netherlands, Slovenia, Denmark, Sweden, Lithuania, Latvia, etc.) in the field of property valuations for tax purposes identifies the following general requirements to valuations of this type:

- Valuation simplicity;
- Valuation fairness;
- Maximum coverage of existing properties;
- Tight completion deadlines;
- Relatively low costs;
- Valuation efficiency.

Valuation simplicity means that the computation algorithm is logical, the most important value drivers and affecting factors are taken into account, the number of these drivers and factors is limited, the logic of computations is clear to both the valuer and the property owner as well as to representatives of the local public administration. Clarity of the valuation result means that it is interpretable.

Valuation fairness means that the valuation is objective and the most important factors reflecting the main specific features of the property being appraised have been taken into account. At the same time, the valuation result should also be fair from the social perspective. Costlier property will have a higher value and so its owner will have to pay a higher amount in tax.

Maximum coverage of existing properties: This requirement is linked with the fair valuation requirement on the one hand because all properties should be appraised and their owners should pay tax. On the other hand, this requirement may be treated as a condition

prerequisite for tax appraisal, meaning that all properties should be identified and duly registered and all property rights should be established in respect of these properties. However, At the same time, full coverage of all properties is not possible since the system for registration of real properties is imperfect and there are lots of illegally constructed buildings in many countries (in particular in Central and Eastern Europe) infringing or going round the applicable urban planning and technical requirements.

Tight completion deadlines and *relatively low costs*: These characteristics are also the attributes of tax valuations because these valuations are performed at the expense of the state budget or local public budgets.

Valuation efficiency is a core requirement pertaining to rational use of all types of resources and achievement of adequate results such as increased revenues to the local public budgets from payments of the property tax.

Having considered the above requirements to property valuations for tax purposes and the findings of research in the field of tax valuations, international and European standards, the IAAO standards, the author has obtained the results and come to the conclusions described in the next sections of this article.

3. Research Results

The tax bases can vary greatly depending on the property tax system applied in the given country. They can be divided generally into value-based and non-value-based types. The most common non-value-based characteristics is the area of the building, the isolated premises or the land being appraised. Other, less common, non-value-based characteristics are: the number of rooms in the apartment or the house being appraised; the length of the commercial property’s front wall of a commercial object, etc.

The object of this research is the value-based characteristics underlying tax valuation. This is a fundamental element of the tax valuation methodology which determines the tax value type. There is no consensus among scientists and practitioners in this respect. It can be stated that the exact value type appraised for tax purposes depends entirely on the tax policies of the state concerned.

The value types taken into account for tax valuation purposes can be subdivided into two groups - market values and non-market values (Table 1).

Table 1. Value types taken into account for tax valuation purposes

	Value group	Valuation concept	
		Exchange value	Value in use
Value types	Market	Market value Open market value	Market value in use Quasi-market value types: - appraised value (using an AVM); - cadastral value; - tax value
	Non-market	Book value for tax purposes Special value Present value Replacement value	Investment value Balance sheet value Initial value Depreciated value Special value Marriage [synergy] value

Source: Table developed by the author

In the Republic of Moldova the basis for the *ad valorem* property taxation is the so-called *appraised value*, which is in fact the market value determined employing the standard market analysis and valuation approaches. The law says that property tax valuation activities are covered by a state monopoly and can only be performed by cadastral authorities, which employ property valuers.

If the country uses an *ad valorem* taxation system that assesses the property tax amount depending on the market (or quasi-market value), two valuation types are used: mass valuation (in case of off-the-shelf or standardized properties) and individual appraisals (in case of unique property). One of the most important valuation methodology concerns is to set the criteria differentiating between mass valuation and individual appraisals. These two concepts are reflected in the national laws of the Republic of Moldova (Law no.989).

The two valuation types involve the employment of the relevant market approaches and valuation methods.

The property tax valuation methodology is described in Chapter V of the 2002 Law on Valuation Activities (Law no.989) and (in more detail) in the Regulation on Real Property Valuation for Tax Purposes (Resolution no.1303).

The mass valuation exercise is based on the data gathered during the mass property registration process and includes the following stages:

- Classification of similar properties into groups;
- Identification of the most significant property value drivers (for each property type);
- Development of a network of beacon properties or standard properties for each property type;
- Development of valuation models for each property group or type;
- Development of valuation zoning maps for each settlement, showing each property type within each settlement;
- Valuation of all properties;
- Notification of the valuation results to the owners of the reappraised properties to give owners an opportunity to challenge results; and the
- Input of the appraised values into the real property cadastre data base.

Each of these stages includes certain procedures, work processes and work types. For example, the first stage involves the development of the property classification to be employed. As mass valuations are undertaken within the framework of the real property cadastre, the property classification developed for valuation purposes should be the same as the cadastral classification.

4. Conclusions

The basic concepts and principles underlying the tax valuation methodology are generally similar to the general valuation principles, but where mass valuation is performed the result is a quasi-market value determined without account of the best use principle. The investment, expectations and balance sheet principles play a special role in tax valuations.

The following options are possible for further development of the tax valuation methodology:

1. Improvement of the valuation technologies, development and increasing of the number of valuation models; that will require higher financial investments in the development of an improved valuation system as well as continuous professional development of software developers and frontline officers
2. Simplification of the valuation technologies, models and algorithm, assuming that a minimum set of value drivers and factors with the strongest impact on the market value can be identified for each real property type. In this case, the valuation models will remain simple and concise; however, *more emphasis will obviously be placed on the requirement to improve the quality and the reliability of the information gathered.*

5. References

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