

Development of Real Estate Mass Valuation Concept in the Republic of Serbia

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Key words: real estate value, real estate market, mass valuation, GIS

SUMMARY

Valuation of real estate market value in Serbia has characteristics of transition countries where the valuation is based on current market conditions and information that are available to the valuers. Transparency of the market is a very important condition for market economy development. Information from the real estate market, that is public available, will secure safer functioning of the market, more transactions and greater safety for market actors. Establishment of real estate cadastre as a real estate registry with law principles, constituency, transparency, reliability and obligation of registration, represents a good infrastructure base for speeding up and realization of many transition processes.

Real estate valuation approach should be in accordance with the economic theory and to generate valuations which represent reliable assumptions of transaction prices. Realization of this assumption is in establishing a system for registration of market/transaction data, integrated with real estate cadastre database and spatial data. Importance of modern technology for projecting and maintenance of transactions and information systems is reflected in data storage, which consolidates and integrates information from various sources and platforms and arranges them for further distribution to users. GIS secure development of system for real estate mass valuation and creates important opportunities for functioning of tax administration and their connection with state institutions. Valuation of real estates in the legal system of Republic of Serbia is organized with legal and normative procedures, and depending of the valuation purpose, the market value of real estate has also different "regulation" definitions.

The concept of the real estate mass valuation system is multidisciplinary, where the focus is not on a single real estate, but on an valuation model capable to include the influence of supply and demand on large areas, to develop, support and standardize the valuation and make statistical quality control. In the Republic of Serbia, real estate mass valuation is in a phase of research, pilot projects and development of new systems for real estate valuation.

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1. STANDPOINTS ON RESEARCH SUBJECT

Real estate mass valuation is a procedure, which provides data on real estate market value for all real estates of a country, serving as a base for determining real estate tax and various other purposes, for which the real estate market value may be used. Real estate mass valuation system had been introduced by nearly each European state, as a method to establish market value of real estate, i.e. buildings and construction, agricultural and forest land. Market value is being established either by taxation or by state cadastral organs, also being competent for establishing and managing register, i.e. database on real estates and property rights.

When market value is being determined by taxation organs, the main problem is that they do not have latest data on real estates and property rights, with sufficient quantity and accuracy, i.e. there is lack of links between taxation institutions and state cadastral organs in the sense of data exchange, and therefore in comprehensiveness and objectivity of taxation bases for calculation of real estate tax.

The very fact that state cadastral organs do have on their disposal modern databases on real estates, as well as updated data, is the basic assumption for the market valuation of real estate to be performed by such organs, in a more objective manner.

Cadastral institutions have on their disposal modern technique and technology for real estate data acquisition and registration in databases, use modern information systems for supporting spatial data management pertaining to real estates, including already implemented internet services for distribution of data, which highlights them and provides advantage against taxation organs. However, this advantage is not researched sufficiently – especially in Serbia.

2. BASIC THEORIES AND RESULTS

Real estate valuation is being performed in all countries with stable, market economy. Real estate valuation is being performed through procedures of so-called individual and mass valuation of the real estate value. For the individual valuation, known literature offers three valuation methods, with different names: cost approach (method to establish real value, using cost approach and statistical approach), sales comparison approach (comparative method, direct comparison of sales prices) and income capitalization approach (method for income valuation, revenue approach, dynamic approach).

At the moment, there is no unique and aligned approach, methodology and terminology in the European Union regarding real estate appraisal, therefore legal approaches and standards vary in different countries, and are mostly coordinated with own specific markets and needs. Developed real estate markets, with years of experience in the field of real estate sales and

leasing (USA, Germany, Netherlands, France, Canada, Australia, Austria, etc.) have legislation, standards, register and availability of data on transactions realized, objective statistical data, valuation monitoring and control, staff education, scientific institutes, etc.

However, there are local and global standards, presently accepted throughout the world, serving as a base for standardization of procedure and internationalization of real estate valuation processes. The International Valuation Standards Committee (IVSC), operating for past twenty years, had legislated the International Valuation Standards (IVS), with provisions therein defining the best international practice in this field. Those standards had also been passed as reinforcement and extension for local standards.

Rapid technological development in the field of databases and data processing development had provided the opportunity to realize valuation methods and data and process management. Production of digital vector and orthophoto maps, development of geo-information systems, especially techniques of statistical quality control, resulted in development of real estate mass valuation and significant changes and capabilities in tax administration operation and facilitating their connections with other state organs.

Taxation policy moves towards taxation based on real estate market values, shortening periods of valuation, using techniques of modern quality control in managing procedures performed in basic valuations, mass valuation and tax administration, since all of the above are on critical path for a successful and professional establishing and operation of real estate taxation.

Knowledge of mass valuation is necessary to establish the initial values. Knowledge in the field of basic (individual) valuation is particularly necessary for special-purpose real estate valuation and to verify appraised values for the purpose of taxation. Administrative skills are required for human and physical resources management in the organs performing valuation and taxation and quality assurance on each level of mass valuation process. Mass valuation, unlike individual valuation of real estates, requires development of market value valuation model, capable of including influences of offer and demand on large areas. Managing mass valuation system is both challenge and opportunity. To solve this task, appraisers use modern technology for mass valuation, in the form of computer assisted/aided mass valuation – CAMA. Such system provides possibility to increase efficiency and technical capacities of state organs and providing correct and fair valuation.

Real estate mass valuation had been introduced in the Republic of Serbia through the Law on State Survey and Cadastre (2009) and is currently in the phase of implementation and research (pilot projects), with only initial results achieved.

3. DEFINING MASS VALUATION SYSTEM IMPORTANCE

Real estate mass valuation system development entails development of a model for using the existing cadastral data, data on market value of real estate, production of data model for real estate valuation, development of procedures and techniques for real estate value calculation, using and distribution of value, organization of market value management, regulations,

standards, staff training, etc.

Research will in particular focus on application of geo-information technologies for real estate data acquisition and management, including distribution of market value data using WEB services, for the users which are not in direct contact with data on real estate and market values. At the same time, the need to appraise all types of real estate shall be researched and noted, including agricultural and forest land, which are taxed using cadastral revenue as a tax base in numerous countries.

In practice, calculation of real estate market value utilizes various mathematical models for establishing relations between market values determined in individual valuations and calculations of required market values of other real estate. Good mathematical models may provide better estimations of needed values, therefore it is important to research the existing models and propose the new ones. The effects of application of proposed methodologies and models shall be examined through research on particular models (pilot projects), followed by proposal for their further application in the Republic of Serbia.

4. GOAL OF MASS VALUATION SYSTEM DEVELOPEMENT

Initial foundation of development of concept for mass valuation system is given through the following statements:

- cadastral data are registered in databases of the real estate cadastre, which are more frequently updated than data on real estate held by the taxation organs, which provides for the opportunity of obtaining an objective valuation of the market value;
- data on previous market values, kept by taxation authorities, are not properly systemized, studied, indexed, etc; which indicates the need for those data to be kept by separate organs and to provide transparency and use of such data, both for the purpose of mass and individual valuation;
- modern techniques and technologies of spatial and other data on real estate acquisition and georeferencing provides for the real estate mass valuation to be performed in an efficient, updated and complete manner, for all real estate in the country, therefore permanently achieving objectification of appraised values, i.e. always providing the latest values for all the purposes they are used (real estate taxation, real estate market, spatial and urban planning, insurance, mortgages, conversion of real estate status to other forms, etc.);
- legal conditions to implement mass valuation had been established in Serbia, for the purposes of establishing real estate market value, and realization of this effort shall initiate development of an individual valuation and non-governmental associations of national licensed appraisers;
- establishing register of market values shall provide for real estate market transparency, local and international investment projects, making strategic decisions, etc.

Goal of mass valuation system development is to provide professional description and application of real estate mass valuation system on national level and to reinforce it as a part of integral concept of the Real Estate Cadastre applied in the Republic of Serbia. Researches

should enable the creation of a national database on real estate market value in order to upgrade system of taxation for all real estates. The goal is, in particular, to create conditions according to the obtained results and to replace the existing, outdated, ancient system of agricultural and forest land taxation according to the cadastral revenue in Serbia, with the real estate taxation system according to the market value.

5. FINAL CONSIDERATIONS ON CONCEPT FOR MASS VALUATION SYSTEM

Final considerations of research arising from defined goal are:

- research and establishing of national database on real estate market prices;
- development of mass valuation model for buildings, construction, agricultural and forest land;
- research of procedures for acquisition of data on real estates of importance for mass valuation model application;
- research and development of an appropriate mathematical model for determining market value of a real estate;
- research of services for data exchange and distribution (establishing national WEB information services, etc.);
- research and drafting regulations in the field of mass valuation.

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BIOGRAPHICAL NOTES

Stojanka Brankovic, Working in the Republic Geodetic Authority of Serbia (1995-2011)

2008 - Present: Assistant Director for Technical and Administrative Supervision

Previous positions at RGA: Head of organizational unit for Land Surveying Technical Supervision within Sector for Technical and Administrative Supervision, Supervision officer, Head of organizational unit for Land Consolidation within sector for Real Estate Surveying and other.

1986 -1995 was working in the Photogrametric Authority of Serbia as leader of geodetic works in land consolidation and geodetic project engineer.

Nenad Tesla, Working in the Republic Geodetic Authority of Serbia (1996-2011)

July 2008 - Present: Director General of the Republic Geodetic Authority, Serbia

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Cadastre

2003 – 2008: Assistant Director for Real Estate Survey

2002 – 2003: Advisor to the Director of the Republic Geodetic Authority

1996 – 2002: was working at various jobs within different Cadastral Offices, 2000-2001 was working with private geodetic organisation in Libya as Chief Geodetic Engineer.

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