

## *Real Property Assessment and Taxation in the Republic of Moldova*

**BY OLGA BUZU, PH.D.; WILLIAM J. MCCLUSKEY, PH.D.;  
AND RIEL C.D. FRANZSEN, PH.D.**

Many of the countries in Central and South East Europe that were part of the former Soviet Bloc still retain area-based property tax systems. This article describes the successful property tax reform implemented in Moldova that replaced the existing area/inventory-based property tax system with an ad valorem based tax. The process of reform involved creation of a legal cadastre to identify all real property and owners, the adoption of mass appraisal techniques, and passage of underpinning legislation. To some extent, the success of the reform can be measured against taxpayer acceptance of the new system and the high level of payment compliance.

### **Background**

The case for the property tax as a significant revenue generator has been well made by many eminent scholars in public finance. It nonetheless remains a tax that is underutilised in many transition countries (Bahl 1998; Bird and

Slack 2004; McCluskey and Plimmer 2007). Taxes on land and buildings were introduced or re-introduced within the Central and Eastern European (CEE) as well as South East European (SEE) countries shortly after their various declarations of “independence” (Kelly 1994). For example, Poland introduced taxes on agricultural and forestry land and urban land and structures in 1985, whilst for the majority of the other countries, these taxes were not implemented until the early or mid-1990s (Almy 2001). However, more recently, Bird and Slack (2008) have found many of the transition countries have been revisiting their property taxes with a view to reform.

Historically, local governments in these countries tended to levy communal taxes based on property size (rather than value) and on the gross sales revenue of and/or employment in local businesses. The emergence of property markets offered opportunities to shift to a more realistic and substantial basis for the taxa-

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**Olga Buzu, Ph.D.**, heads the Real Property Valuation Department, Agency for Land Relations and Cadastre in the Republic of Moldova.

**William J. McCluskey, Ph.D.**, is on faculty at the Built Environment Research Institute, University of Ulster, Northern Ireland, United Kingdom.

**Riel C.D. Franzsen, Ph.D.**, is director of the African Tax Institute, University of Pretoria, South Africa.

tion of property—that is, property value, albeit with all the attendant problems of valuation and revaluation (Malme and Youngman 2001; McCluskey and Plimmer 2007).

Privatisation programmes have largely been completed within all of the countries, hence creating an enhanced tax base upon which the property tax can be levied (Malme and Youngman 2001). Most of the CEE and SEE countries have adopted special laws to reestablish the property rights that were expropriated during the Soviet era. This process of restitution began in the early 1990s and provided citizens and their descendants with the opportunity to reestablish their proprietary rights in property (Sulija and Sulija 2005). This restitution process, along with the privatisation of state-owned enterprises, to a large extent created the environment for the beginnings of the real estate market. These programmes were generally accompanied by the creation of new legal and fiscal cadastres, which effectively created the inventory for a real property tax. Legal ownership was established through title registration, which involved identifying parcels and property boundaries and the legal user or owner of each property.

Having secure, defensible, and transparent property rights backed by the force of law creates the opportunity for trading in real estate. The necessary processes and procedures, however, inevitably take time to develop and mature. Establishing a proper value-based property tax therefore is dependent upon these and other systems, such as a well-functioning banking and finance system and a reliable legal system as well as the availability of qualified valuers/appraisers. This, however, has not prevented many of the countries in these regions from developing a property tax based on one of two main approaches: area (land and buildings) or normative/official/cadastral/inventory value (Yuan, Connolly, and Bell 2008). Many transition countries inherited features from

the Soviet property taxation system in which land and buildings were identified and appraised for taxation purposes as separate taxable objects. Taxation of land, as a general rule, was based on area whilst buildings were appraised by reference to some subjective opinion of value (e.g., some measure of depreciated cost).

Real property taxes are often cited as “good” candidates for independent subnational administration; in fact, the property tax is considered as almost the “perfect” local tax. It offers a predictable and durable revenue source for local budgets, fosters local autonomy, and provides a fiscal mechanism for decentralisation (Bird and Bahl 2008). Indeed, few fiscally significant taxes are more well suited to local administration than the property tax (Bird and Slack 2004; Mike-sell 2003). The immovability of the tax base makes it clear which government is entitled to the tax revenue and makes it difficult for taxpayers to avoid. The tax captures for local government some of the increases in the value of land that are partially created by public expenditures. As McCluskey (1999) points out, real property is visible, immobile, and a clear indicator of one form of wealth. The property tax is especially attractive when compared with other potential sources of local tax revenue (Bird and Bahl 2008). If well administered, it can represent a nondistortionary and highly efficient fiscal tool.

Market-based *ad valorem* property tax systems are generally thought to score best on fairness and equity because property values tend to reflect ability-to-pay considerations better than an area-based property tax. Brzeski and Frenzen (1999) take the view that the simplicity of the area-based option makes it subject to generalisation over broad geographical areas resulting in a regressive tax. An area-based tax is not related to ability to pay as the same burden falls on the same-sized land in the same or prescribed geographical location. Similarly, Bird and Slack (2004) argue that area-based

assessment results in a relatively greater burden on low-income taxpayers than high-income taxpayers compared to value-based assessment.

Area-based systems, on the other hand, have the advantage of administrative simplicity. Calculating property tax based on area requires only area measurements, thus obviating the need for costly collection and analysis of market data as well as periodic revaluations. In addition, the measurement of area is more objective than estimations of property market value because assessors make judgments about comparable properties on which to base their estimates of market value (Bahl 1998). Area-based valuation, therefore, is less contestable than market-based valuation (Zorn, Tesche, and Cornia 2000).

A trade-off seems to exist in the implementation of an area-based valuation method. Area-based systems often use adjustments to improve the fairness of the tax. Adjustment factors may vary the rates per square metre according to the use of the property, its location, soil quality, the building age and condition, or other characteristics. However, the adjusted rates apply to groups of properties with the associated characteristic and do not account for individual differences between properties (Bird and Slack 2002). Most, if not all, countries in transition are migrating to a market-based economy. However, these emerging markets tend to be developing, unregulated, and non-transparent (Mahoney, Dale, and McLaren 2007). Transaction and other relevant property data are not properly collected, maintained, and applied. Table 1 shows the basis of the property tax in several countries within the CEE and SEE regions.

International organizations such as the World Bank and International Monetary Fund recommend that the transitional economies of South East and Central Europe should modernize their tax systems and increase the importance of the property tax. It is generally recognized

**Table 1.** Basis of the property tax in CEE and SEE countries

Country	Basis of Property Tax	Comments
Albania	Area	
Azerbaijan	Area	
Belarus	Area	
Bosnia and Herzegovina	Area	
Bulgaria	Area	Inventory values
Croatia	Area	Transitioning to market value
Czech Republic	Area	Considered market value, but did not implement
Estonia	Market value	Only land values are used
Georgia	Area	
Hungary	Area	Transitioning to market value
Kosovo	Market value	
Latvia	Market value	
Lithuania	Market value	
Macedonia	Area	
Moldova	Market value	Some sectors in transition to market value, inventory values still used
Montenegro	Market value	
Poland	Area	Considered market value, but did not implement
Romania	Area	Inventory values
Russian Federation	Area	Transitioning to market value, currently inventory values
Serbia	Area	Inventory values
Slovak Republic	Area	
Slovenia	Area	Transitioning to market value
Ukraine	Area	

Source: Compiled by authors based on data from *Doing Business* (2010).

that revenue from property tax should be expanded in Eastern and Central European countries, and that this tax

can make a significant contribution towards achieving both fiscal and nonfiscal goals of local governance (Brzeski and Frenzen 1999; Mauer and Paugam 2000).

### **The Republic of Moldova**

Moldova is a small (33,851 square kilometres) land-locked country located to the northeast of Romania and to the southwest of the Ukraine. The population is approximately 4.3 million. The capital is Chisinau, a city with a population in excess of 650,000. With an estimated per capita gross domestic product (GDP) of only US\$ 2,500 (CIA [Central Intelligence Agency] 2012), it is one of the poorest countries in the region. With an urban population estimated at 47 percent, it is also one of the region's least urbanized countries. Not surprisingly, the economy is heavily dependent on agriculture.

At the subnational level, there are 32 *raions* (i.e., administrative regions, which can consist of the main town (*raion* centre), several small towns, and from 20 to 50 villages). There are three major cities (Chisinau, Balti, and Bender) and two territorial units (Transnistria and Gagauzia, of which Gagauzia enjoys considerable autonomy). After World War I, Moldova was part of Romania and after World War II, it was incorporated into the former Soviet Union. It regained its independence in 1991 (CIA 2012).

### **Origins of Property Taxation in Moldova**

The historical foundations of property taxation in the Republic of Moldova can be traced to the end of the nineteenth century when it was known as the province of Bessarabia, then a constituent part of the Russian Empire. In 1893, Alexander III signed the first Russian law for the assessment of all types of immovable property. In Bessarabia, real property assessment for the purposes of taxation began in 1899 and continued until the outbreak of World War I. From

1914 until the early 1990s, there was no system for real property assessment for taxation purposes in the Republic of Moldova. During the Soviet period (1945–1991), all immovable properties, with the exception of individual dwelling houses, were state owned. Given the supremacy of state ownership, there was no need to determine the market value of real property. The notion of market value did not exist and under socialism, the concept of value only made sense in relation to the refurbishment of buildings and other structures. Insurance value was evaluated by the state-run Bureau of Technical Inventory (Capehart 2007).

Even before independence in 1991, Moldova had begun its transition to a market-based economy. As an important step, the right of private ownership to immovable property was proclaimed by the *Law on Ownership* (1991). The law recognised certain rights in immovable property including:

- Rights of ownership;
- Rights of management authority;
- Rights of operational management;
- Rights of enjoyment including permanent right of enjoyment, right of leasehold interest, right of inherited-property enjoyment, lifelong right of habitation, right of enjoyment of nonresidential premises, right to mortgage, right of servitude, and right of trust management.

These rights are subject to state registration and are recorded in the register of immovable property objects in compliance with the *Law on Immovable Property Cadastre* (1998). The *Law on Privatisation*, also passed in 1991, served as the basis for the transfer of state property into private ownership and established the framework for the introduction of a system of property taxation.

The tax base was inventory value for residential properties, book value for buildings and structures belonging to businesses, and area and use for land parcels irrespective of whether they were in the possession of individuals or juristic persons. The basis of inventory value was the replacement cost of a property with an allowance for physical depreciation. The main problem with this methodology was that the value did not take into account the location of the property. Therefore, for example, the value of similar houses in the capital city, Chisinau, and in a remote rural village was the same. To ameliorate this deficiency, the inventory value was adjusted by applying differential tax rates to reflect the location of the residential property (0.3 percent for the capital city and large towns, 0.2 percent for medium-sized towns, and 0.1 percent for rural villages).

Book value reflected the construction cost of buildings and other structures as of the date of their commissioning or their transfer to an enterprise's balance sheet. This value was adjusted to reflect physical depreciation. The book value of buildings and structures was not modified with a time adjustment and as a result, the amount of tax gradually became symbolic.

The tax base for a land parcel was the surface area of that parcel (with a fixed amount of tax established for one hectare [ha] of agricultural land or for 100 square metres of land located within the precincts of localities). The value of agricultural land also reflected such factors as soil fertility or bonitation, a quality measure for land that does not have a fertility rating. These quality ratings are assigned as points per hectare. The average bonitation in Moldova is 65 points per hectare.

For parcels for which soil quality has been determined, the land tax is calculated using the following formula:

$$LT = FA \times B \times S$$

where

LT = land tax,

FA = fixed amount of tax per 1 point-hectare,

S = area of a parcel (in hectares),

B = level of fertility or bonitation of a parcel in points per hectare.

For parcels with no yield class (soil quality), fixed amounts of tax per hectare are specified depending on the use of the land (for example, pasture or arable land). This rate is an "artificial" amount which allows a comparison of the land tax paid for one hectare of land with known bonitation and one hectare of land with unknown bonitation.

The property tax on immovable property was only introduced once the privatisation of buildings and structures began. The majority of apartments in multistorey houses were privatised from 1993 to 1995, whereas industrial and commercial buildings were privatised for the most part between 1994 and 1998. Sales of land began after the enactment of the *Law on Standard Price and Procedure of Land Purchase and Sale* (1997).

As the real property market began to develop during the mid-1990s, it became important that the existing basis of the property tax should be improved because the inventory value used at the time did not correlate to the market value of immovable properties. From 1999, step-up factors were used to adjust tax rates on residential property in which the total floor area of the basic construction was 100 square metres or more. The effect of this change was to double the tax on large dwelling houses.

### **A New Direction for Property Tax Policy**

Moldova, in establishing the foundations of a market economy, has systematically carried out reforms in all sectors of the economy. Tax reform was codified in

the *Tax Code* adopted in 1997. The new system of immovable property taxation was included in part VI of the *Tax Code* with the *Law on Immovable Property Tax*, enacted in 2000. This law introduced the new ad valorem system of immovable property taxation based on the market value of real property. Mass appraisal processes were first utilised for the assessment of property in 2007. What is important is that the law has established the foundation for a progressive system of immovable property taxation which is similar in methodological and organisational principles to those applied for the assessment and taxation of real property in many developed countries.

The essential policy elements of the new immovable property taxation system are as follows:

- The basis of the tax is the capital improved value (reflecting in one assessment the combined value of land and improvements).
- The valuation methodology employs standard market methods in determining the assessed value.
- The object of taxation is immovable property which includes land parcels and/or improvements thereon. These improvements can consist of buildings, apartments, structures, and other detached property. Also included are improvements in the process of construction which are at least 50 percent completed.
- The taxpayers are natural and juristic persons (including residents and non-residents of the Republic of Moldova), who are owners or holders of any real property rights.
- A minimum and maximum tax rate is established by legislation. Local bodies of public adminis-

tration can set a specific tax rate within that range depending on the economic circumstances prevalent within their jurisdiction and local budgetary requirements.

At present, the Republic of Moldova is in a period of transition from the “old” system of property taxation based on inventory value to the new ad valorem system. Properties registered within the cadastral system are being taxed under the ad valorem system using mass appraisal methods for valuation. For those categories of property not yet registered or included in the cadastre, the old system of taxation is still being applied as an interim measure. The primary objective of the new property tax system is to provide an equitable basis of taxation through market value assessment.

### **Implementation of New System**

An immovable property taxation system is based on the identification of a taxpayer and a taxable property. During the Soviet era, there was a stringent process for recording all real property parcels and buildings in urban areas within the Republic of Moldova. Each building and structure had an inventory file that included a detailed description of the construction characteristics along with parcel maps and floor plans. In rural areas, however, the inventory of buildings and other constructions was less comprehensive. In 1998, the Republic of Moldova began development of the immovable property cadastre with the goal of registration of all real property objects and creation of a unified land information system.

The process of mass-scale registration of all real properties, the assessment of immovable property (based on immovable property cadastre data), and the introduction of a new system of property taxation are closely interrelated. As the mass registration of real property is being carried out gradually, the new real

property taxation system also is being introduced on an incremental basis (see table 2). As of 2011, approximately 15 percent of properties still need to be registered. This group includes dwelling houses in rural areas, land used for agricultural purposes, and special-purpose objects. In terms of numbers, approximately 400,000 houses in 650 municipalities, 400,000 land parcels used for agricultural purposes, and 20,000 special-purpose objects have yet to be registered.

### Assessment Methodology

Assessment for taxation purposes is undertaken by the Agency for Land Relations and Cadastre which applies a standardised valuation methodology throughout the country. The valuation implementation strategy and meth-

odology are developed by the agency; however, the actual assessment is undertaken by the Cadastre State Enterprise which has offices located throughout the country. Upon completion of the assessment, the valuation lists are passed from the Agency for Land Relations and Cadastre to the Central State Tax Inspectorate which has the responsibility of calculating the amount of taxes to be paid. This information is then passed on to the territorial tax inspectorates.

### Current Assessment Methodology

In accordance with property tax legislation, the assessment of standard property types is made using mass valuation methods while for unique objects, an individual assessment is made essentially on a case-by-case basis. The assessed value is determined by market standard

**Table 2.** Implementation timeframe of immovable property mass registration, mass assessment, and the new system of taxation

Type of Real Property Objects	Number of Objects	Date of Registration (period of time)	Assessment for Taxation (period of implementation)	New Taxation System (year of implementation launch)
Individual apartment units	335,000	2000–2002	2004	2007
Individual dwelling houses in urban areas	180,000	2001–2003	2005	2007
Garden plots with or without structures	80,000	2006–2007	2006–2007	2010
Garages	50,000	2006–2007	2006–2007	2010
Commercial and industrial objects	90,000	Registration in progress	2006–2009	2010
Land for agricultural use	4,095,000*	2000–2005	Incomplete	Not being applied
Dwelling houses in rural communities	850,000	400,000 objects registered	Incomplete	Not being applied
Special-purpose objects/other objects	20,000	Partially registered	Incomplete	Not being applied

Source: Compiled by authors from information obtained from the Agency for Land Relations and Cadastre

\* The large number of plots for agricultural use is a result of the privatisation of land of former collective farms. Each ex-member of a kolkhoz—depending on his or her record of service and salary or wages—was entitled to and received ownership of a share of land averaging 1.5 hectares. In practice, that portion of land included a certain number of separate parcels each with an area of 0.2 to 0.7 hectares (i.e., a portion of arable land, a portion of a vineyard or an orchard, and so on). At present, a process to consolidate small holdings to form larger properties is underway. During the period 2008–2011, transactions involving agricultural land averaged between 60 percent and 80 percent of the total number of transactions in immovable property.

methods of assessment including the comparative, income, and cost-based methods.

Assessment methodology is outlined in detail in the Rules on Valuation of Immovable Property for Taxation Purposes as adopted under Government Resolution No. 1303 (24 November 2004). Assessment of immovable property for taxation is undertaken based on the object registration data in the immovable property cadastre and includes the following steps:

- Form groups of similar objects of immovable property,
- Establish factors that influence the value of each group of objects,
- Create a series of object models for calculating the value of immovable properties,
- Develop models of immovable property assessment,
- Develop maps of valuation zones for each type of immovable property,

- Assess all objects of immovable property,
- Enter assessed values into the immovable property register,
- Notify owners and holders of rights in immovable property of the assessed value,
- Submit valuation lists to tax authorities.

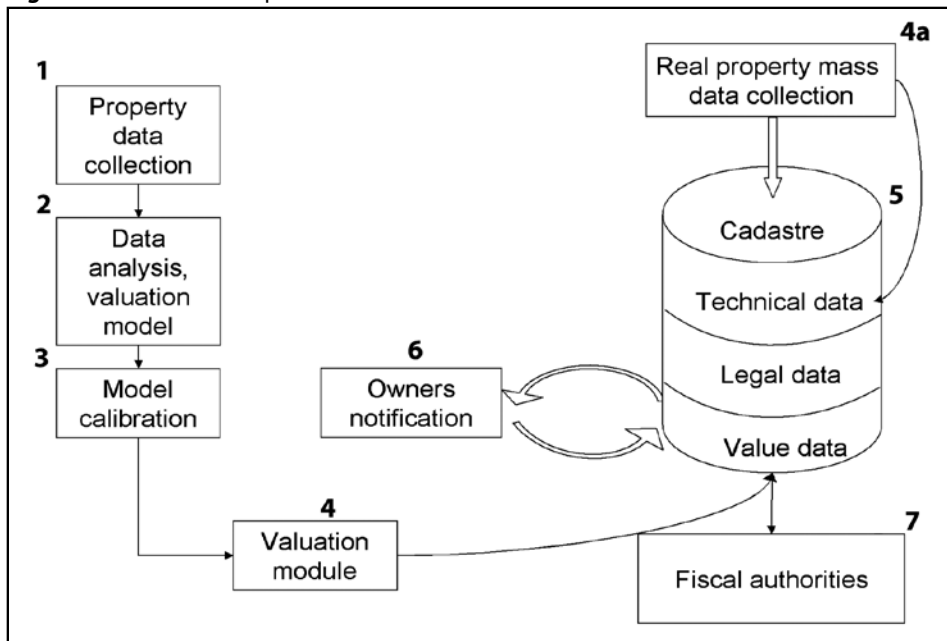
Most of these steps are computerised. For example,

- Real property identification and value zone assignment uses geographic information system (GIS) data.
- Mass value estimation uses the ValueCad program (Swedesurvey 2004).
- Data transmission to the Central State Tax Inspectorate uses the FisCad database developed by the Cadastre State Enterprise.

The process of mass valuation is presented in figure 1.

Immovable property valuation is conducted solely by the Cadastre State

**Figure 1.** Mass valuation process



Source: Compiled by authors



Enterprise which performs the property market analysis and applies the appropriate quantitative methods of valuation. Assessors within territorial cadastre offices are responsible for the collection of market information on real property objects, mass capture of property characteristic data for entry into the online cadastre database, value zone mapping, calculation of individual assessed values, and handling inquiries from owners of real property objects.

### Valuation Approaches

#### *Individual Apartments in Multistorey Residential Properties*

The valuation of apartment units began with the analysis of transaction data and the development of value zones. Each town was divided into zones in which the value of similar objects was the same. An adjustment factor was developed for each zone to reflect the advantages and disadvantages of an object's location within that particular area.

A multiplicative model of assessment was applied to apartments in all cities and towns in Moldova. Market analysis indicated a number of factors that had an influence on the value of these objects. The assessment model is as follows:

$$EV_{\text{apt}} = K1 \times K2 \times K3 \times \dots \times K8 \times K9 \times K10 \times Vb1m^2 \times Stot$$

where

$EV_{\text{apt}}$  = estimated value of apartment unit

$K1$  = the location of an object in a particular value zone in a certain municipality. A map of value zones was developed for each city and town with the assistance of local assessors and cadastre engineers. Those value zone maps were then approved by local authorities. For example, the capital of Moldova was divided into 19 value zones whereas for smaller towns, 3 to 8 zones were deemed sufficient. The  $K1$  factor shows to what

extent the location of an immovable property in a certain zone is better or worse than that of the same object in the standard zone. For Moldova's capital,  $K1$  varied between 1.44 (in the historic centre) to 0.79 (in areas outside the city centre);

$K2$  = factor reflecting the type of structure (multistorey residential housing or nonresidential building);

$K3$  = exterior wall materials;

$K4$  = year of construction (reflects indirectly the technical state and physical depreciation of a building);

$K5, K6, K7,$  and  $K8$  = type of heating, water supply, sewer service, and gas supply;

$K9$  = floor on which an apartment is located;

$K10$  = location of an apartment within a building (for example, in the middle of the building or at a corner). Statistical analysis of apartment transactions in Chisinau showed that for apartments located at a corner of a building (those having two outside walls), the adjustment factor was 0.96. In other cities and towns, this factor had little effect and was close to 1;

$Vb1m^2$  = the market value of 1 square metre of the base object (object model) determined for a particular town;

$Stot$  = total area of an apartment in square metres.

Computation of all factors of the model and the  $1m^2$  base value relied on the idea of a standard object of immovable property. This standard object implies the most typical apartment type in an urban area. For example, statistical analysis of apartments in Chisinau demonstrated that the most prevalent apartment (i.e., the standard type) was two rooms with a floor area of 55 square metres; was lo-

cated on the middle storey of a five-storey residential building; was built between 1975 and 1980; had exterior walls made of local building material (i.e., limestone or shell rock); and had central heating, municipal water and sewer connections, and gas and electric service.

### *Individual Dwelling Houses in Urban Areas*

The valuation of individual dwelling houses presented a much more complicated task than that of apartments. In this case, it was necessary to determine the value of the plot of land, the value of the main structure (the house), and that of secondary and auxiliary structures located on the plot. For a dwelling house valuation, the following three models of assessment were applied:

- Model for plot value,
- Model for main-structure value,
- Model for value of secondary and auxiliary structures located on the plot of land.

Each of these models of value contained multiplicative factors reflecting the influence of a limited number of characteristics. The assessed value of a dwelling house was calculated as the sum of assessed values of the plot, the main building, and any secondary and auxiliary structures.

The methodology applied to the land value was the base/standard-plot approach (IAAO [International Association of Assessing Officers] 1990) which determines the value of a base/standard plot and then adjusts the value of neighbouring plots to reflect important differences. Such differences could include the value zone; availability of an access road; and provision of water, sewer, and gas service connections. If the subject plot area is different from the base/standard plot, then an adjustment factor is applied. For example, if the standard size of plots of land containing

dwelling houses is between 500 and 700 square metres, then a plot between 700 and 1,200 square metres would receive a downward adjustment of 0.92 while for a plot of more than 1,200 square metres, the adjustment factor would be 0.81.

The valuation model for the main structure (house) is:

$$EV_{dh} = K1 \times K2 \times K3 \times \dots \times K8 \times K9 \times \dots \times K25 \times Vb1m^2 \times Stot$$

where

EV<sub>dh</sub> = estimated value of dwelling house,

K1–K25 = adjustment factors reflecting the various characteristics of the structure,

Vb1m<sup>2</sup> = value of 1 square metre of the total floor area of the standard dwelling house for a given locality based on the analysis of market transactions,

Stot = total floor area of the structure in square metres.

For a dwelling house, the adjustment factors include the location within a certain value zone, number of storeys, type of heating system (central, autonomous, or stove heating), architectural style, type of construction, year of construction, exterior wall material, roofing material, and the building's current condition.

As a rule, auxiliary and secondary structures are assessed by applying a simplified model of valuation and using a minimal set of characteristics reflecting the type of wall construction and year of construction. All the other essential characteristics have been taken into account when assessing the plot of land on which the dwelling house and other structures are located.

Figure 2 illustrates the value zones for the town of Orhei (with approximately 35,000 residents) situated about 45 kilometres away from the capital. The town is divided into 6 value zones. The

standard zone is the urban core where the majority of houses are located. The analysis of house transactions indicated that for houses in the other zones, location had a negative influence on value and resulted in adjustment factors varying from 0.79 to 0.88.

The standard dwelling house in Orhei was built between 1966 and 1975, is located in the urban centre, has an average floor area of 500 to 700 square metres, and is connected to the urban water supply and sewer system. The house is of detached construction and was built

**Figure 2.** Dwelling-house value zones in Orhei



Source: Agency for Land Relations and Cadastre

in a conventional architectural style with a rubble stone exterior. All deviations from the standard dwelling house were reflected in the adjustment factors. Where there were sufficient transactions, these factors were determined by multiple regression analysis. In those smaller towns where the number of transactions was limited, simplified methods utilising indirect information and paired sales comparison were employed to calculate the adjustments.

### ***Valuation of Commercial and Industrial Properties***

Commercial and industrial property assessment took approximately 4 years to complete due primarily to difficulties in identifying the owners of these properties. Only about 60 percent of commercial and industrial properties were registered in the cadastral system. The previous property tax system did not require the identification of real property belonging to an enterprise because the amount of immovable property tax due was calculated based on the total book value of all real property objects owned.

Information on all commercial and industrial properties only became available following a decision by the Ministry of Finance to require all business enterprises to submit details on the property they owned. Unregistered objects were identified when a comparison was made between the list supplied by the enterprises and the existing entries in the property cadastre.

The assessment of commercial and industrial properties involved the creation of three broad categories of complexity: simple, medium, and complex. Included within the simple category were the relatively common commercial properties within multistorey residential blocks or standard nonresidential buildings. The valuation approach was similar to that used to value residential apartments. The valuation of buildings of medium complexity (i.e., buildings of standard design located on a plot of land with sec-

ondary and auxiliary structures) involved the comparative method of assessment. The greatest difficulties were encountered with the assessment of complex/compound buildings which were either of unique design and/or included a large number of buildings and other structures. For properties of this type, all three valuation methods were employed. The general approach was to identify value influencing characteristics and incorporate these within the standard methods of valuation.

### **Implementation Costs and Remaining Issues**

Although the assessment of immovable property for property tax purposes commenced in Moldova in 2004, certain property sectors must still be valued. These sectors include dwelling houses in rural areas and agricultural land for which limited transaction data is available to develop market values. In both instances, the old property tax methods are being applied. For dwellings, the normative/inventory value is used and for agricultural land, the value is based on the area and the use of the land.

The implementation costs of the new system of immovable property taxation have been significant (see table 3). By far the greatest costs were incurred in developing processes and systems to collect the data required for assessment. A large part of these data-collection costs were related to the time involved in identifying the owners of property, particularly of dachas/summer houses.

### **Current State of Property Taxation**

There are two property tax systems currently being applied in Moldova, the old system with a tax on land and a tax on immovable property (i.e., structures) and the new tax system with a tax on immovable property which is land plus structures. Under the new property taxation system, tax rates can be set by both central and local government. The cen-

**Table 3.** Total cost of immovable property assessment

Types of Objects	Date of Assessment (year)	Number of Objects	Total Cost of Assessment (in MDL*)	Including	
				Data Collection (%)	Assessment and Implementation (%)
Individual apartment units	2004	325,000	2,343,000	54	42
Dwelling houses in urban areas	2005	180,000	3,635,000	68	38
Parking spaces in garage-building cooperatives	2007	50,000	4,864,000	73	21
Dacha (summer house) lots	2007	80,000	8,962,000	73	21
Commercial and industrial objects	2009	90,000	15,715,000	60	33
Total		725,000	35,519,000		

Source: Compiled by authors from data provided by Agency for Land Relations and Cadastre

\* 1 Moldovan Leu (MDL) = US\$ 0.085 as of 2 May 2012

tral government has the responsibility for setting rates on immovable property owned by businesses and commercial enterprises as well as establishing maximum and minimum tax rates for property owned by individuals. The *Tax Code* (1997, art. 280(a)) specifies maximum and minimum rates of tax for residential property, parking spaces in garage-building cooperatives, and garden plots with or without structures. The minimum rate of tax is set at 0.02 percent of assessed value whilst the maximum tax rate is 0.25 percent. Local authorities determine the specific rate which can vary annually depending on economic circumstances and local budgetary requirements, but the rate must be set within the legislatively prescribed limits.

For commercial and industrial property owned by economic agents (businesses), the *Tax Code* (1997, art. 280(b)) imposes a flat tax rate of 0.1 percent on the assessed value of a single property.

Currently, the old system of property taxation is still being applied to property that is not registered in the cadastral system nor assessed by any of the mass valuation methods. Under the old system, all tax rates are assigned at the central level. When the total floor area of a dwelling house is 100 square metres or

more, the tax rate is adjusted by applying the following indices:

100m<sup>2</sup>–150m<sup>2</sup> = index of 1.5,

150m<sup>2</sup>–200m<sup>2</sup> = index of 2,

200m<sup>2</sup>–300m<sup>2</sup> = index of 10,

Greater than 300m<sup>2</sup> = index of 15.

For properties belonging to businesses, the tax rate is 0.1 percent of book value (*Law on the Implementation of Title VI of the Tax Code 2000*, annex 2). For parcels of land, the tax rate depends on the use and the availability of data on fertility and grade quality (see table 4).

The effects of the transition from the old property tax system to the new system are illustrated in table 5 which highlights the differences in the tax burden for three major property types in the capital city of Chisinau. The tax-computation examples demonstrate that owners of all types of immovable property in Chisinau are likely to pay more tax under the new system. The increase in tax on residential properties, however, can be regulated by local authorities. To minimise tax increases under the new system, central government introduced a transition measure that provided that from 2007–2010, only the minimum legislated tax rate would be applied to

**Table 4.** Land tax rates for properties under old property tax system

Type of Land	Purpose	Tax Rates
Plots of land for agricultural use	Arable land, orchards, vineyards	Known soil quality: 1.5 MDL* per grade per hectare Unknown soil quality: 110 MDL per hectare
	Hayland and pastures	With yield class known: 0.75 MDL per grade per hectare With yield class not known: 55 MDL per hectare
Plots of land in rural communities	Occupied by dwelling houses, garages	1 MDL per 100m <sup>2</sup>
Plots of land in urban areas	Occupied by industrial and commercial objects not valued under the new assessment system	10 MDL per 100m <sup>2</sup>
Plots of land within large municipalities	Occupied by industrial and commercial objects not valued under the new assessment system	30 MDL per 100m <sup>2</sup>
Plots of land located beyond locality boundaries	Occupied by industrial and commercial objects not valued under the new assessment system	70 MDL per hectare

Source: Law on the Implementation of Title VI of the Tax Code (2000, annex 1)

\* 1 Moldovan Leu (MDL) = US\$ 0.085 as of 2 May 2012

**Table 5.** Comparative analysis of the new and old system of immovable property taxation in Chisinau

Type of Object	Total m <sup>2</sup>	Value (in MDL*)	Old Tax System (in MDL)	New Tax System (in MDL)	Comments
Apartment units	75	Taxable value (old system): 20,000  Assessed value (new system): 280,000	Tax on immovable property: $0.3\% \times 20,000 = 60$	Tax on immovable property  Minimum: $0.02\% \times 280,000 = 56$  Maximum: $0.25\% \times 280,000 = 700$	If the minimum tax rate is applied, the tax decreases by 6.5%.  If the maximum rate is applied, the tax increases by 1,166%.
Individual dwelling house	Lot: 600  Structure: 150	Assessed value of land: 960,000  Taxable value of house: 45,000  Assessed value of house: 1,200,000	Land tax: $6 \times 10^{\dagger} = 60$  Tax on immovable property: $0.3\% \times 45,000 = 135$  Total: 195	Tax on immovable property  Minimum: $0.02\% \times (960,000 + 1,200,000) = 432$  Maximum: $0.25\% \times (960,000 + 1,200,000) = 5,400$	If the minimum tax rate is applied, the tax increases by 221%.  If the maximum rate is applied, the tax increases by 2,769%.
Commercial object—shop	Lot: 1000  Structure: 200	Assessed value of land: 1,600,000  Book value of buildings: ** 400,000  Assessed value of buildings: 1,700,000	Land tax: $10 \times 30^{\dagger\dagger} = 300$  Tax on immovable property: $0.1\% \times 400,000 = 400$  Total: 700	Tax on immovable property: $(1,600,000 + 1,700,000) \times 0.1\% = 3,300$	Increase of tax from the old system to the new system is 470%.

Source: Examples compiled by authors

\* 1 Moldovan Leu (MDL) = US\$ 0.085 as of 2 May 2012

\*\* The book value of a structure is as specified in the business' financial reporting documents. It is the cost of acquisition or building cost with an allowance for depreciation but no adjustment for time. This value in the majority of cases is significantly less than the market value.

† 10 MDL is the fixed amount of tax per 100 square metres of residential land.

†† 30 MDL is the fixed amount of tax per 100 square metres of land in commercial use.

all residential property owned by individuals in Chisinau. However, in small towns in Moldova, the transition to the new property tax could require tax rates considerably higher than the prescribed minimum (that is, in the 0.04–0.08 percent range) in order to maintain the pre-reform level of tax revenue.

### Revenue Potential of the Property Tax

The results of real property taxation from 2005 through 2010 (at the national and local levels) are presented in table 6. As the table shows, the property tax is an important revenue source for local government, accounting for 10 to 14 percent of total tax revenue.

Table 6 reflects tax revenue from both the old and the new systems of immovable property taxation. Given that both systems are still in place, it is very difficult to distinguish between the separate revenues.

In 2010, 76.5 million MDL or 27 percent of the total proceeds from immovable property taxation were taxes paid on the assessed value of real property. The amount of subsidiary tax revenue—from the transition of industrial and commercial objects, garages, and personal holdings to the new system of taxation—was 44 million MDL in 2010 representing a 17.5 percent increase in revenue from real property tax payments compared to the 2009 level.

Because the ad valorem system of taxation on industrial and commercial real property had just begun in 2010, it is somewhat premature to draw any conclusions as to how efficient it is. However, the efficiency of the new system of taxation can be considered by examining the results for apartments and dwelling houses in urban areas. The new system of using assessed market values for these objects went into effect in 2007. The results are shown in table 7.

The overall cost of implementation of the new system for apartments and dwelling houses in urban areas was 5.978 million MDL (table 3). The increase in property tax revenue in 2007, the first year under the new system, was 4.2 million MDL (table 7), which in effect covered 70 percent of the initial valuation cost. In 2008, the increase in revenue represented approximately 2.4 times the cost of valuation. Looking at the total increase in revenue from 2007 through 2010, the cost of valuation is covered 8 times.

It is important to note that the level of compliance for the property tax under the new system has been increasing annually. In 2007, the compliance rate was 70 percent. It rose to 82.8 percent in 2008, 84.0 percent in 2009, and 84.7 percent in 2010. To some extent, this level of compliance is a good indicator of how well the new system has been accepted by taxpayers as well as a measure of the perceived fairness of the system.

**Table 6.** Actual revenue collected from immovable property taxation

Indicators	2005	2006	2007	2008	2009	2010
Land tax revenue (million MDL*)	196.0	191.9	174.2	197.8	183.0	192.9
Immovable property tax revenue (million MDL)	36.5	40.7	52.0	64.3	69.7	96.3
Total property tax revenue (million MDL)	232.5	232.7	226.3	262.1	252.7	289.2
Total tax revenue to central government (million MDL)	6,957.7	8,750.6	10,733.2	12,616.0	10,382.0	11,491.6
Property tax revenue as percentage of total tax revenue to central government (%)	3.3	2.6	2.1	2.1	2.4	2.5
Total tax revenue to local government (million MDL)	1,731.0	2,164.8	2,546.7	2,348.0	2,177.0	2,079.6
Property tax revenue as percentage of local tax revenue (%)	13.4	10.7	8.9	11.1	11.6	13.9

Source: Compiled by authors from data obtained from Central State Tax Inspectorate

\* 1,000,000 Moldovan Leu (MDL) = US\$ 84,962 as of 2 May 2012

**Table 7.** Results of implementation of new real property taxation system for residential properties

Indicators	2006 Old system of property taxation	2007 Implementation of new system	2008	2009	2010
Total tax revenue	17.74	21.94	32.08	32.49	32.52
From residential property in urban areas (million MDL*)		—	—	—	—
Land tax					
Tax on immovable property (structures)	3.60 14.14				
Growth rate (% from 2006)		23.6%	80.9%	83.1%	83.3%
Increase in local budget revenue under new system (million MDL)	—	4.20	14.34	14.75	14.78

Source: Compiled by authors from data obtained from the Central State Tax Inspectorate

\* 1,000,000 Moldovan Leu (MDL) = US\$ 84,962 as of 2 May 2012

Evaluation of the revenue performance of the new method of commercial and industrial property taxation has not been possible at this point since those properties only became liable to the new tax in 2010. However, throughout the country, the annual growth in income in local budgets from taxation of commercial and industrial property totaled 26.6 million MDL in 2010 which covered 90 percent of all expenses required for the initial identification, registration, and assessment of commercial and industrial property. In addition, reappraisal of immovable property objects is prescribed at every 3 years (*Tax Code* Title VI, art. 279). If tax revenue from commercial and industrial property were to remain constant at 26.6 million MDL, then over the 3-year period, total tax proceeds would amount to some 79.8 million MDL. If total expenses for identifying objects, conducting the reassessment, working with taxpayers, and collecting the tax approximated the initial implementation cost estimated by the Agency for Land Relations and Cadastre at 30 million MDL, then this revenue source would add net proceeds of 49.8 million MDL to local budgets.

## Conclusions

This article has presented an in-depth

analysis of the new property tax system that was introduced in the Republic of Moldova in 2007. Moldova represents the first of the former Soviet republics in the Commonwealth of Independent States to have implemented a new system of real property taxation on a national scale. A key objective of the Moldovan government was to ensure that the new system of property taxation in terms of policy and assessment was similar to that in developed countries. Thus far, commercial and industrial property, dwelling houses, and apartments in urban areas are taxed on the basis of assessed (market) value.

The old system of property taxation created anomalies that resulted in an inequitable and generally unfair system. For example, the amount of tax payable for dwelling houses located in prestigious urban districts was similar to that paid for dwellings located in remote villages with poorly developed infrastructure. However, one of the main drivers of reform was that the actual revenue generated from the old system was, in many ways, insignificant and rather symbolic. This was the result of a tax base founded on inventory value of buildings and structures based on historic costs and values. The tax base reflected the replacement cost of buildings but did not account for



new design concepts and construction materials, did not apply current building costs, and did not reflect any allowance for time.

Going forward, there are several issues that will need to be addressed: provisions for updating cadastral data, organisation of regular property monitoring, and adoption of procedures for real property reassessment. Assessed values for immovable properties can rapidly become dated. For example, following the valuation of residential property in 2005, prices have generally doubled across Moldova. On the other hand, the effect of the global financial and economic crisis has caused a significant decline in market prices for industrial property. Over the period 2009–2011, transaction prices of industrial property fell by 45 percent while prices for warehouses dropped by 55 percent. Therefore, it is essential that reassessments occur frequently enough to enable assessments to properly reflect shifts in property values. In addition, it is important that all properties are recorded in the cadastral system and that the transition from the old system to the new property tax system be implemented in a timely way. Processes and procedures need to be developed to ensure efficiencies can occur between central government agencies and corresponding local government bodies in identification of real property and its owners.

Moldova has made significant progress with the implementation of a value-based property tax. The sustainability of this tax will be important going forward not only in terms of revenue generation but also for the maintenance of those systems required for data collection and mass valuation.

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