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PROPERTY VALUATION AND TAXATION FOR FISCAL SUSTAINABILITY AND IMPROVED LOCAL GOVERNANCE: CASE STUDIES FROM THE ECA REGION

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ABSTRACT

Today, many countries of the Europe and Central Asia (ECA) region have advanced land administration systems and can focus on next generation solutions making advanced use of their cadastre and land registry records. There is a need to consolidate the cross sectorial knowledge on spatial (land) records, property valuation and taxation applications, taxation policies, and municipal financing in order to provide best practise responses to this growing demand. In this light, this paper presents early findings of a study of ECA countries that have sought to introduce value-based recurrent property taxes through mass valuation. The four countries covered by the paper represent a different level of maturity and development of their systems. Lithuania has a well-developed system of mass valuations with periodic revaluations using different models for the various types of property. Moldova has a partially completed system that does not cover all types of property and has no regular revaluations. Serbia has not yet developed mass valuation systems but has developed a Sales Price Register, and Turkey has been undertaking mass valuation pilot studies. The paper notes that value-based recurrent property taxes have features that make them particularly suitable as local taxes and they can have a high impact to the level of local services and governance. With increasing dependence on inter-government fiscal transfers to support locally-delivered services, such as education, healthcare and social support, developing fair and efficient recurrent property taxes also has consequences for national tax systems. The paper presents evidence on the mass valuation systems' evolution and challenges, and their application to value-based property taxation. Mass valuation systems can substantially reduce the cost per assessment for property taxes, but their efficiency reflects the comprehensiveness and quality of land records and the level of valuation infrastructure and capacities in the country.

KEYWORDS

Property taxes, property valuation, mass valuation, transition economies

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1. INTRODUCTION

The World Bank and the Food and Agriculture Organization of the United Nations (FAO) have supported land reform, land administration, and land management projects in the Europe and Central Asia region (ECA) since the early 1990s. The region comprises the 15 countries of the former Soviet Union, the former socialist countries of Central and Eastern Europe, and Turkey. The 1991 dissolutions of the Soviet Union, Republic of Yugoslavia, and other socialist regimes catalysed unprecedented political, economic, and social changes in ECA. The dissolutions and resulting economic transition launched a wave of massive reforms in economic systems—from command to market-based economies—transforming institutions, processes, attitudes, and fundamental concepts of individual and organizational behaviour across the region. Both the privatization of land and property assets and their efficient management and mobilization in the credit markets have been at the centre of the transitional reforms to date. During this period, the World Bank has funded 42 land projects in 24 ECA countries in support of reforms—in land, land administration, and land management. Today, many ECA countries have advanced land administration systems (see Figure 1) and focus on next generation solutions making advanced use of their cadastre and land registry records.

Doing Business Index 2014; Registering Property

1	Georgia	11	Estonia
2	New Zealand	12	Kyrgyz Republic
3	Belarus	13	Iceland
	United Arab		
4	Emirates	14	Bahrain
5	Norway	15	Azerbaijan
6	Lithuania	16	Kazakhstan
			Russian
7	Armenia	17	Federation
8	Denmark	18	Portugal
9	Rwanda	19	Saudi Arabia
10	Slovak Republic	20	Guatemala

Figure 1. Nine of the 20 the most efficient real estate registration systems are in ECA countries.

Recently, the World Bank and FAO land administration teams have faced growing interest by ECA countries to increase local revenues, enhance state land management practises and define state asset values accurately. World Bank operations to enhance property valuation systems have been completed in Slovenia, Russia and Moldova; are on-going in varying forms in Azerbaijan, Turkey and Kazakhstan, and under preparation in Serbia, Albania and Uzbekistan. Property taxation reforms are supported at least in Croatia and Kazakhstan. There is a need to consolidate the cross sectorial knowledge on spatial (land) records, property valuation and taxation applications, taxation policies and municipal financing and provide best practise responses to this growing demand.

Consequently, this paper has been prepared under a joint Property Valuation and Taxation for Improving Local Governance initiative¹ by the World Bank, FAO and the Lithuanian Centre of Registers. The initiative aims to improve understanding of property valuation and taxation systems in the ECA region including challenges, impact, and ability to improve municipal financing and local governance. Case studies on Croatia, Lithuania, Moldova, Turkey, Serbia, Kazakhstan and the Netherlands have been commissioned, and a study on Russia is being initiated, representing the evolution of value-based property taxation systems from the stage of initial consideration (such as in Croatia) to strong, well-established property valuation and taxation systems (such as in the Netherlands). The case studies will be featured in a regional conference on June 3 – 6, 2015 in Vilnius Lithuania and considered for an upcoming thematic edition of the Land Tenure Journal². The initiative will conclude with a best practice publication on property valuation and taxation due in the autumn of 2015.

This paper will start with the theory and practise of property taxation and property valuation systems before featuring early findings of the first four case studies (Lithuania, Moldova, Turkey and Serbia) and ending in conclusions that stem from the case studies.

2. PROPERTY TAXATION: SOME KEY ISSUES

Property taxes can broadly be divided into two groups: annual or recurrent taxes in which the taxpayer pays a levy each year; and sporadic taxes, such as property transfer, inheritance, and capital gains taxes, which result in one-off payments triggered by an event such as the sale of a property, inheritance, or gifts. Typically, but not in all situations, recurrent property taxes are levied by local governments. They are likely to set the rate of tax, often within limits set by central government, collect the tax, and may have responsibility for assessment, though in some cases this is under the oversight of a central body. Sporadic taxes tend to be levied by central government, though there may be revenue sharing arrangements with local governments. The focus of this study is recurrent taxes. It is concerned with how assessments of property can be made on the basis of market values so that recurrent property taxes can be value-based (ad valorem) taxes based on value rather than being specific taxes based upon area or other physical characteristics.

There are important links between recurrent and sporadic taxes, so that changes in the efficiency with which one type of tax is levied can impact on the yields of other types of property taxes. For example, some countries have a problem with tax evasion of sporadic taxes due to under-declaration of sales prices. Improved valuation for recurrent taxes, so that market values are used as the basis for these, makes it more difficult for taxpayers to get away with a false declaration of price. The indirect effect can be an improvement in the yield from sporadic taxes. Value-based property taxes require assessors to have good information about market prices achieved in property transactions. An efficient system for collecting actual transaction prices can produce a comprehensive database of prices achieved in sales of comparable properties. Since registration systems are often associated with the collection of property transfer and other sporadic taxes and fees, improving the accuracy of declared prices can also have the effect of enhancing the quality of valuations for recurrent taxes. Improving the accuracy of valuations for recurrent and sporadic property taxes may be mutually reinforcing, even though the taxes may be

¹ The initiative is financed by the World Bank ECA region's Programmatic Trust Fund for Public Finance Management.

² <http://www.fao.org/nr/tenure/land-tenure-journal/index.php/LTJ>

the responsibility of different tiers of government, with beneficial impacts on tax yields and the fairness with which the taxes are levied.

a. Theory and Nature of Property Taxes

It has long been recognised that recurrent property taxes have features that make them particularly suitable for local taxation. The tax base is clearly delineated geographically so it is obvious whether the taxable object is located within a particular jurisdiction or not. This enables them to be used even when there are multiple tiers of government, each with different responsibilities. They do not suffer from the leakage of tax revenues across jurisdictional boundaries to the same extent as sales, income, profits, and capital gain taxes. As they fall on tangible and immovable objects, they are difficult to evade. It is certainly much easier to keep track of immobile properties than highly mobile people, particularly in urban areas. The owners and occupiers of real estate benefit from the public services provided by local governments, whilst ownership or occupancy of these assets demonstrates that taxpayers have the ability to contribute to the costs of providing these. There has also been the argument since the writings of David Ricardo (1817) and Henry George (1879) that property taxes can have particular economic advantages. Land and natural resources are endowments that man can do little to increase. Taxes that fall on the earnings from these cannot be passed on to others through increasing prices. They can be argued therefore to be neutral and not distort incentives. The reality is more nuanced, as Ricardo recognised, since landlords typically also supply fixed capital, such as drainage, as well as the land itself. Although it is a reasonable approximation that the total supply of land is fixed, this may not apply to a specific land use because of the possibility of a change of use within what is permitted by town planning and zoning (Evans, 2004). Once the restrictive assumptions are dropped, it is possible for a landlord to increase rents to a greater or lesser extent in response to a tax increase, thereby shifting a part of the tax burden into the capital, labour, and final goods market. Under such circumstances, there can be some distortions of incentives even from property taxes. Nonetheless, there can be increases in property values resulting from economic and demographic growth rather than improvements invested in by landlords.

There are also some well-known disadvantages with recurrent property taxes. There should be economies of scale in their assessment and collection, but they are expensive and complex to set up. They require specialist skills, such as property valuation, which may be in limited supply. They fall upon wealth and assets. There are issues about the liquidity of the taxpayer and their ability to raise the cash to meet tax demands when they are due. Sporadic taxes on property are generally transaction based and payable when the taxpayer either has liquid assets or can acquire cash, although they do not have the same stability and certainty of revenue of recurrent taxes. Liquidity of taxpayers is a particular issue in the ECA region. Many of the countries are transition countries and have moved from being centrally planned economies, with collective ownership of significant property assets and minimal permitted trading of property, to market economies, in which significant property rights are in private ownership. Many of those who now own valuable properties did not acquire them through the normal market processes of purchase but did so through of restitution or privatisation. In privatisation they may have paid nominal prices for the housing they occupy. One can argue that companies who lack the liquidity to meet tax demands should adjust their portfolios to reflect their ability to pay by selling assets and relocating to more affordable premises. It is a more difficult social issue with low income households, such as pensioners, who now find themselves in possession of properties whose value does not reflect their current or lifetime incomes. Value-based recurrent property taxes are likely to produce significant numbers of households who lack the liquidity to meet their tax obligations. Policies will be needed to deal with this situation, for example, through tax reductions that match their payments to their incomes rather than their wealth or which permit deferring tax liabilities until the households have liquidity, such

as when the property is sold or the owner dies. Similarly, transition arrangements may be needed for businesses to allow them time to adjust their portfolios.

b. Global Application of Property Taxes

Countries tend to fall into two main groups with respect to recurrent taxes as Figure 2 illustrates. There are a minority of countries which raise significant amounts in recurrent property taxes as a proportion of their gross domestic products but a majority in which the yield from recurrent taxes is relatively low. The average proportion of GDP raised through recurrent property taxes amongst the OECD countries is 1.1% but 20 of the 34 countries produce less than this. In just seven countries do recurrent property taxes yield 2% or more of GDP whilst in 12 countries they generated 0.5% or less of GDP. The transition countries, with the exception of Poland, generated proportions of GDP from recurrent property taxes that were below the OECD average. Of our case study countries, Turkey raises 0.2% of GDP from recurrent property taxes, Moldova 0.16%, and Serbia 0.6%, and in Lithuania taxes on property raise 0.5% GDP. An important issue for this study is whether the low yield from recurrent property taxes matters and, if so, what are the reasons for it and how they can be addressed.

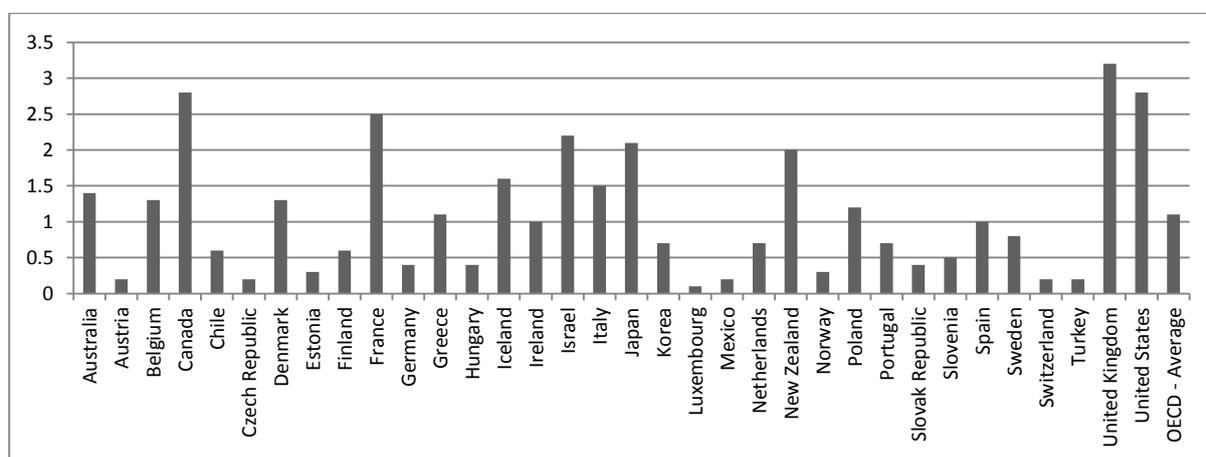


Figure 2 Recurrent Taxes on Immovable Property as a Percentage of Gross Domestic Product in OECD countries, 2012³

c. Rationale, Incentives and Challenges of Property Taxes

Governments have choices as to how they raise taxation. In doing so they must take into consideration the fairness and efficiency of the tax system as a whole and not just the impact of individual taxes. These choices include the extent to which they oblige (or will permit) local governments to raise revenue through recurrent property taxes. Inter-governmental fiscal transfers are an important part of the expenditure of central government in many countries and of the budgets of local governments. They allow central government to substitute national taxes, like income and sales taxes, for local taxes like recurrent property taxes. Similarly revenue sharing arrangements for national taxes and the use of national taxes collected for the use of local governments transfer resources from central to local government and, by implication, substitute one form of taxation for another. The effect is that locally raised finance in general, and recurrent property taxes in particular, may account for only a small part of local governments' revenues. For example, in Moldova the property tax provided 8% of local government revenues in 2013 whilst central government grants accounted for 44%. In Lithuania taxes

³ Source: OECD (2015) Dataset Revenue Statistics – Comparative tables, 4100 Recurrent taxes on immovable property, <http://stats.oecd.org/viewhtml.aspx?datasetcode=REV&lang=en> (accessed on March 5, 2015)

on property provide 10% of local tax revenues but 55% of revenue is in the form of grants from central government. In Turkey annual property taxes provide 15% of the revenue for district and town municipalities, 5% for cities and nothing for metropolitan municipalities compared with 40%, 50% and 68% respectively coming in the form of fiscal transfers from central government.

Inter-governmental fiscal transfers from central to local government mean that the deficits and debts of the various parts of the public sector are linked as central government may increase its borrowing to enable higher expenditure by local governments. If the government needs to reduce a fiscal deficit or an unsustainable level of public borrowing, then it is inevitable that it will seek to reduce local government expenditure and inter-governmental fiscal transfers, and to encourage local governments to meet more of their expenditure from their own resources. Whilst the sovereign debt rating of some countries seems to be immune to the financial problems and defaults by local governments, in many other countries there is an explicit or implicit government guarantee of local governments' debts.

Governments may wish to increase local governments' reliance on their own resources for reasons of fiscal efficiency. A problem that governments in the ECA region face is that the costs of providing certain locally-delivered services has been rising at rates which exceed the growth in local tax revenues. This is in part due to the ageing population in ECA countries, which impacts in particular the local revenues and expenses of rural communities and remote towns that lose working age population to cities and overseas. This is particularly the case with education, health and social care, with central government transferring resources to local governments to compensate for lack of buoyancy in local tax revenues. However, the existence of inter-government fiscal transfers and revenue sharing agreements can weaken incentives for local governments to maximise the generation of their own revenues. It is understandable if local politicians prefer to blame a distant central government for lack of resources rather than to impose higher taxes on their own citizens. Transfer mechanisms have to be very carefully designed with inbuilt assumptions about the level of local tax revenue that local governments can be expected to raise if they are to achieve their objective of ensuring that citizens from areas of high need and poor tax bases receive a minimum standard of public services. Alongside this, central government has a clear incentive to ensure that local governments are not losing opportunities to raise local taxes. This means ensuring that all properties that should be taxed by recurrent property taxes are actually taxed, that billed taxes are actually collected, and that property tax assessments are based on market values (and therefore, subject to the earlier caveats, ability to pay) and not on historic or artificial values. A great deal can be done in some countries to improve tax yields through improving billing and collection systems. These are one-off gains that move local finances to the maximum revenue under current assessments. Ways also need to be found of creating greater buoyancy in local tax revenues and thereby placing them on a more sustainable footing. This can be achieved by assessing recurrent property taxes on market values with periodic revaluations within the limits of affordability.

A problem that many countries face is that globalisation has exposed some national taxes to the same type of leakage outside of their jurisdiction that local governments have experienced. High net worth individuals can minimise their exposure to income, capital gains and inheritance taxes by living in tax havens. Yields from profits taxes on multinational companies have come under particular pressure. Multinational companies are able to exploit the potential offered by transfer pricing to shift profits from high to low tax rate countries. For example, a subsidiary in a low tax country can sell inputs to one in a high tax rate country so that there is a tax deductible cost in the latter and the profits are, in effect, shifted to the low tax country. They can take advantage of differences between national tax codes, for example, by ensuring that the legal ownership of intellectual property rights like brands is with a company domiciled in a country that has a particularly favourable treatment of earnings from them and subsidiaries in other countries paying royalties for their use. Scientific research may be located in

countries which have favourable patent regulations. Subsidiaries in high tax countries which permit interest to be treated as an allowable business expense can borrow debt from those located in tax havens. Governments need alternative sources of revenue that are not vulnerable to such pressures. As recurrent property taxes fall on immobile assets, they can be used as a way of plugging revenue lost through transfer pricing. Although royalties for using brands can be channelled into a low tax country, coffee shops are immobile. Governments can tax the homes of wealthy expatriates and their business assets. Recurrent property taxes can play a useful role in securing stability in tax revenues. Even if they are imposed by local governments, central government can still recoup the losses to its tax base by adjusting inter-governmental fiscal transfers.

Improving the quality of valuation of recurrent property taxes can improve the fairness of taxation. Inaccurate valuations are inherently unfair since they result in tax assessments being unrelated to ability to pay. Improved valuations can result in greater transparency and thereby increase public confidence in the tax system. The beneficiaries of recurrent property taxes not being based on market values may well include the wealthy. They are likely to be the shareholders in companies that are taxed not on the market value of their assets but on historic book values. Corruption in taxation valuation may contribute to this. If for example housing is taxed on an assessment per square metre, it is likely to be the more wealthy who benefit from the assessments failing adequately to reflect location and characteristic features that produce a higher market price. New luxury housing may be unregistered, because, for example, it has been built on farmland or in state forests and therefore is omitted from tax rolls. It should not be assumed that the properties missing from tax rolls consist only of illegal housing for the poor. Properties that are missing or undervalued may be because their owners have connections. Recurrent property taxes have a role to play in securing greater equity in taxation between generations so that the young do not pay an excessive burden by being taxed on their income whilst the older generation avoid being taxed on their wealth. Recurrent property taxes can be used to reduce disincentives on work, investment and enterprise by reducing taxes on income.

Recurrent property taxes can play an important role in local public finances, in particular in permitting decisions about public expenditure and the balance between taxation and public services to be devolved close to communities. An important element of good governance is subsidiarity, namely that service provision and the resolution of issues should be dealt with at the most local level consistent with efficient and cost-effective delivery (FAO, 2007; Voluntary Guidelines, 2012, 19.2). This requires that local governments have the necessary financial resources to do so and recurrent property taxes are an effective means of achieving this. The interdependence between central and local government finances as a result of inter-governmental fiscal transfers means that the use of recurrent property taxes has implications for national finances, even where recurrent property taxes are the responsibility of local governments. They can play an important role in achieving a balanced and more equitable tax system, including between taxing incomes and wealth and in closing loopholes that would otherwise enable some to avoid the payment of taxes, thereby increasing the burden on those without such opportunities. The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests indicates the global consensus that the taxation of tenure rights can be used to achieve broader social, economic and environmental objectives and to encourage investment and prevent socially undesirable impacts (19.1). Moreover, States should administer taxes efficiently and transparently, including using objectively assessed values (19.3). This paper examines the extent to which these principles are being achieved in the case study countries.

3. CASE STUDY COUNTRIES

The first four case study countries of the initiative; Lithuania, Moldova, Serbia, and Turkey produce a sample of countries at different stages of maturity in terms of their property valuation and taxation systems producing a representative cross section. The following presents preliminary findings of these case studies.

a. Lithuania

Lithuania has the most developed value-based recurrent property taxation system of the countries in our sample. Restitution and privatisation programmes began in 1992 and mortgages first became available in 1994. The banking crisis of 1996 was a major stimulus for change, particularly in valuation standards. By 2000, 1.1 million citizens owned property out of a population of approximately three million. Alongside the development of private ownership of property and a property market, a property valuation profession also developed, with the Lithuanian Association of Property Valuers being formed in 1994, General Property Valuation Principles that provided a framework for specifying the skills required of valuers being approved by the government in 1995, and the certifying of valuers by the Ministry of Finance's Property Valuation Oversight Agency.

Lithuania has separate taxes on land and buildings, first introduced in 1990 and 1995 respectively. The long-standing goal of a unified real estate tax based on market values has not yet been realised (the current plan is to unify the taxes in 2016). The land tax was initially levied on privately-owned agricultural land but not forests. Liability was based on the cadastral value, which reflected the productivity of the soil and production costs. The former Soviet Union, of which Lithuania (and Moldova) had been part, had a system of paying agricultural producers different prices for their product according to the fertility of the land so that the more fertile areas received higher prices than less favourable ones. The notion of an implicit land rent based on the productivity of the land was therefore embodied in the Soviet central planning system (Nove, 1980). Urban land was brought into the tax base in 1992. As urban land had a low agricultural value and would consequently have received a low cadastral valuation, the cadastral values were adjusted to reflect infrastructure and municipal population. The tax was set at 1.5% of the cadastral value and produced 0.2% of government revenues. Administrative costs per taxpayer exceeded average revenues. In 2013 land began to be valued on its market value with revaluations every five years and a transitional arrangement by which the higher values are to be phased in over a four-year period. Municipalities can determine the rates to be applied based on land use and location.

The tax on buildings and immovable property, introduced in 1995, was initially on property owned by enterprises. It was assessed on the book values of property of enterprises belonging to legal persons and on the Soviet-era inventory values where the enterprises belonged to physical persons. Changes in 2002 resulted in assessments being based on estimated replacement costs with adjustments for location, the aim being to bring average assessed values into line with average sales prices. In 2006 the buildings and immovable property owned by persons became taxable, though with exemptions, particularly for dwellings. The basis became the market value derived from mass valuation. Owners could seek an individual valuation where they contended that the value of their property differed by more than 20% from the market value. The rate set for properties belonging to physical persons is 1% but municipalities can set a rate on properties owned by legal persons of between 0.3% and 1%.

Valuation for property taxation is undertaken by the Centre of Registers, a State Owned Enterprise vested under the Ministry of Justice. Property tax-related work is funded by the Ministry of Finance. The Real Property Valuation Department employs 40 certified valuers. Two valuers, a programmer and

two GIS specialists are based in Vilnius and are responsible for work planning, methodological guidance, coordination, and control. The remainder are in branch offices and are responsible for the valuation of land and buildings in a county. The Department also carries out commercial valuations. The decentralised structure of the Department means that valuation is in the hands of those who have detailed knowledge of a local property market. In 2001 costs were estimated at 14% of yields for the land tax and 1.5% for immovable property. In 2015 the cost per valuation using mass valuation was estimated at 1 euro per property compared with €100 for an individual valuation. The State Tax Inspectorate maintains the register of taxpayers. Taxpayers submit annual returns, including for land and immovable property. Revenue is collected by the 10 County Tax Inspectorates, with the receipts being transferred to municipalities.

The Ministry of Finance began to provide funding to the Centre of Registers to develop its valuation system in 2002. It started with a pilot mass valuation of apartments to demonstrate feasibility and then, at the request of the Ministry of Agriculture in 2003, was extended to land [models]. The system was considered operational in 2005. The General Property Valuation Principles provide a detailed but flexible framework so that appropriate methodologies can be applied to different types of property and locations. Where there are sufficient sales, the preferred methodology is to use multivariate statistical models. A key part of the system is to collect data on market transactions and the properties involved in a standardised format, which reduces the potential for errors and random factors influencing valuations. Price data began to be collected in 1998 and the Centre of Registers records property prices, building costs, rents, and yields on real estate investments. Data on transactions come from notaries when the owner's rights are registered. Declared prices are believed to be substantially accurate. Notary and registration fees are only about 1% of value so there is little incentive to under-declare and there is widespread use of mortgages encouraging accurate declarations of collateral. The existence of a capital gains tax means that it is not in the buyer's interest to under-declare prices as this exposes them to the risk of having to pay higher capital gains tax on a future sale. Transaction prices are cleaned before they are used in analysis, for example, excluding transfers between related parties. Recently new cost manuals have been developed for use in the depreciated replacement cost method to remove reliance on book values and Soviet-era manuals. Special efforts are required to collect rents and operating expenses for use in the income capitalisation method.

Initially the only attribute data on properties was that contained in technical inventories of buildings and in records of agricultural holdings. This included information on size, layout and construction but not locational or qualitative features, such as condition and the quality of construction and finishes. The problem is that location and qualitative factors have been shown in studies in other countries to play a significant role in determining market prices. Moreover, the existing data was not well maintained or had been computerised when the process started. Location information has now identified 1,200 market areas or value zones and properties are geo-referenced by location and by floor. The Centre of Registers draws on the real estate register and cadastre and its market database, which records information about the property, the transaction, and when it took place. Values are updated annually and value zone boundaries reviewed and adjusted, even though values for tax purposes are valid for five years. This is so that the base information can be used for other valuation purposes. The sharing of information, so that it can be used for different forms of valuation, is efficient though it should be recognised that valuation for other purposes is based on different assumptions from those used in taxation. The most recent revaluation for tax purposes was 2011, though valuations for other purposes can be updated daily. The main method used is the sales comparison approach and this is used for residential property. The depreciated replacement cost method is used for industrial buildings, warehouses, and infrastructure.

The income capitalisation approach can be used for healthcare buildings, office, and hotels and similar service properties. Location adjustments are applied to the values derived from these.

Land has been valued since 2003 using mass valuation models based on the sales comparison approach rather than soil productivity. The valuations for tax purposes are valid for five years, the most recent revaluation being in 2013. The main factors used in the models are location, size, land use, and land productivity with multiple regression and correlation being used to identify the significant factors. The valuations disregard certain factors including mineral resources, restrictions on economic activity, structures, prospective changes in land use, restrictions due to debt, and contamination so that they are based on a common set of assumptions. Coefficients used to adjust values include ones for recreational use, conservation, forest, productivity, small land parcel size, swamps, and communications, and power line corridors.

Lithuania has been able to build an impressive mass valuation system. It did so only after it had taken significant steps to create a valuation infrastructure. This meant that it had the necessary capacity, including human capital, to create and maintain the system. Centralised control of the system maintains quality whilst the input of local offices into assessments means that they are produced by those with knowledge of local markets. Although the recurrent property tax generates revenue for municipalities, its assessment and collection is in the hands of central government bodies. There are a large number of models which should mean that they accurately reflect sub-markets, whether by property type or area. There are concerns that the property tax might be avoided by not registering ownership or interest in a property. The two recurrent property taxes on land and immovable property have not been unified (planned for 2016) and have different design principles and valuation methodology. Qualitative data is not used in the mass valuation models and how location is included might not be defensible. However, Lithuania demonstrates that a value-based recurrent tax system based on mass valuation can successfully be created in the ECA region's transition economies.

b. Moldova

Moldova introduced taxes on immovable property only once the privatisation of property had been introduced. Most apartments were privatised between 1993 and 1995 and industrial and commercial buildings between 1994 and 1998. Trade in land began after the passing of a law on land purchase and sale in 1997. Initially the property tax system for land was based upon the surface area of the parcel adjusted for its fertility. Residential buildings were taxed on their inventory value and buildings used by businesses on their book value. Essentially, buildings were valued at their depreciated replacement cost using depreciation norms according to how the buildings were constructed. The resulting valuation did not take into account the location of the property. In order to avoid the problem of a residential property built in the same way and of the same size being given the same valuation in Chisinau (the capital) as in a remote rural settlement, coefficients were applied to the valuation according to the type of settlement. These did not fully reflect market differences or how location affects values within urban areas. The depreciation norms did not reflect how suitable the building was in meeting current production requirements and consumer expectations as distinct from the process of wearing out. As a result, the method used is unlikely to have produced the same valuation as if the depreciated replacement cost method was carried out in accordance with internationally-recognised valuation standards. The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests calls for States to apply national valuation standards consistent with relevant international ones (18.4). By the mid 1990s, it was clear that these methods of valuing property for tax purposes were failing to reflect market values and, therefore, that assessment methods needed to be improved.

In 2000 a tax code was approved by Parliament which described a new value-based tax assessment method. Mass property valuation was introduced in 2004 and the implementation of the new value-based assessment method started in 2007. The plan was for a new type of property to be added to the system each year rather than to produce mass valuation models for all types of property at once. The mass valuation models were developed by the Cadastre State Enterprise Head office by licensed valuers with the same model being used throughout Moldova for each property type. Information about individual properties, the gathering of market data, value calculations, and notifications of assessments is undertaken by valuers in the territorial cadastre offices. Ten valuers are employed in the head office and 50 in the territorial cadastral offices. Valuation takes place on June 1 of the year in which a particular type of property is to be valued and then forms the basis for tax liability in the next year. Although assessment is undertaken through a central agency, property tax collection is the responsibility of local governments. The system relies on the cadastre for information about properties and taxpayers and this is continuously updated to reflect changes applied for by the property owner or changes of use or property characteristics that local governments are obliged to report.

The Tax Code does not precisely define the appraised value used in taxation but implies that it is the market value of a property in its current use. The valuation model used follows internationally-recognised valuation standards for arriving at market values in its assumptions, namely that property is available for sale, rental terms are standard ones, and the assessment is based on the price that a typical buyer would pay rather than that which might be offered by a special purchaser, such as the current owner or occupier. Measurement standards define how the area of a property is to be computed. Usually the direct sales comparison method of valuation is used in assessment but the income capitalisation or depreciated replacement cost methods can be followed for more complex commercial or industrial properties. The mass valuation models made use of prices in registered sales contracts, auction prices, asking prices, and price data from valuers and agents. The use of a variety of sources of price data to derive the dependent variable was necessary as registered contract prices were often understated. The mass valuation models were developed using a variety of methods to check and verify them. The tolerance should be within $\pm 25\%$ for urban property but can be as high as $\pm 35-40\%$ in rural areas because of the undeveloped nature of property markets.

The new valuation system has not been completed, with only certain types of property being covered by the new mass valuation system. They include apartments and single family residences in urban areas and industrial and commercial buildings, but not agricultural land, residential property in rural areas, property in public ownership, and infrastructure and networks. The result is that only 12.5% of properties are covered by the new mass valuation system with the rest continuing to be assessed under the old method. The confinement of mass valuation primarily to urban areas is significant as Moldova is a predominantly rural country with only 47% of the population living in urban areas. The reasons for the stalling of assessment on a value-based basis can be ascribed to three factors. Mass valuation is funded out of the national budget so that there is discontinuity between the apparent beneficiaries of the new system (local governments) and the body meeting the costs. Central government does not appear to appreciate the benefits to the national budget of improving revenues from recurrent property taxes. A particular obstacle is the lack of funds to register rural housing, public properties, and infrastructure and networks in the cadastre. The second factor is the impact that the new tax regime is likely to have on agricultural land, which accounts for 70% of the property in Moldova. It is currently assessed by area rather than market value. The market value of much of this land is very low and revaluation may well result in a significant reductions in assessment and cause a loss of revenue. Such a loss could only be made good by a significant increase in the rate at which the tax is levied. The third problem is that the methodological problems of registering and valuing infrastructure and networks have not been

resolved. These have a value as complete networks but there are technical problems as to how to value the parts that lie within a specific local government area. It is difficult to, say, value a railway station and 10 kilometres of track and signalling when this only has a value through being part of a network. These are universal problems and not specific to Moldova. Some countries resolve them by putting a value on the network as a whole and then apportioning it between the various local governments through whose jurisdiction it passes. A further problem that has developed is that there have been no revaluations, although the Tax Code requires this to be done every three years. The result is that there are significant differences emerging between tax and market values, particularly for residential properties in urban areas where the assessments were made in 2004 and 2005. The failure to carry out regular revaluations undermined horizontal and vertical equity for taxpayers.

In spite of the problems encountered, there have been significant benefits from mass valuation. Revenues for local governments have increased, though the impact of this has been limited by exemptions that certain bodies and individuals enjoy and the discounts given for early payment of the tax. The tax base has been improved with up to 30% of properties in some regions being added to the cadastre and becoming taxed as a result of mass cadastral surveys. Equity has been improved with owners of more valuable properties having to pay increased property taxes. Taxpayer confidence in the system has increased. Still, the current lack of attention to the mass valuation system and the failure to carry out periodic revaluations means that a well-designed system is in danger of being undermined.

c. **Serbia**

Having started the development of value-based property taxes and mass valuations in 2007, Serbia is at an earlier stage in their development than Lithuania and Moldova. The result is that the private sector is smaller than in the transition countries that have joined the EU. It has also followed a different route in the development of its real estate market. Privatisation and restitution have played an important part in this, though the restitution process is still partially on-going. However, although buildings were privatised, the land under them was not sold at the same time. Whilst the process of converting land under residential buildings into private ownership has not been problematic, the conversion of land under industrial and commercial buildings has been difficult so that privately-owned commercial buildings stand on state land and, until 2014, an annual urban land use fee was paid to local governments for the use of the land.

The annual property tax is levied by local governments, who are also responsible for its assessment. Serbia has a problem of fiscal imbalances. In 2013 the general government deficit was 5% of GDP and gross government debt was 63% of GDP. Whilst these figures are not high by the standards of many western European countries since 2008, they are above the levels set in the European Union's Growth and Stability Pact and Serbia is a borrower from the International Monetary Fund. The IMF (2013, p22) has identified the gap between spending by local governments and the revenue they raise from their own resources as being a particular problem, resulting in weaker expenditure discipline. Serbia has revenue sharing by local governments of income raised by certain national taxes, including personal income tax from business and real estate, 80% of that from wages, inheritance tax, and the property transfer tax. Revenue from these constitutes a significant part of the budgets for local governments. Transfers of personal income tax in 2010 provided 26% of local government revenue in Belgrade and 33% elsewhere, whilst the annual property tax and urban land use fee raised 18% and 13% respectively. In addition, central government directly pays some significant costs of locally delivered public services, such as the salaries of teachers and primary healthcare workers. There is evidence of weaknesses in the efficiency with which recurrent property taxes are levied. It has been estimated 14% of apartments, 22% of family houses, and 15% of commercial premises are unregistered, and 37% of municipalities believe

the level of unregistered properties to be between 20% and 40%. Collection rates are also relatively low at 85% for legal entities and 75% for physical persons (Arsić et. al, 2012).

A further problem has been the use by local governments of “shadow” property taxes to make good deficiencies in revenues. The urban land use fee was until the end of 2013 charged on land that had not been converted into private ownership. As households could do this easily and at nominal cost, this was, in effect, a tax on business premises and probably raised a similar amount of revenue to the annual property tax. A development fee is charged for infrastructure when development takes place. It is believed that the fee does not reflect the actual costs of infrastructure but has been used as a device for value capture when development consent is granted. Until 2012 local governments charged a range of communal fees, including on business signs, gambling and local business taxes. These shadow taxes could have a distorting effect on investment and economic activity.

The various shadow taxes appear to be a response not just to fiscal weaknesses but also to the way in which the annual property tax was assessed on business premises owned by corporate bodies. The tax base was the book value. These were the historic costs of creating or acquiring assets, which had been reduced through depreciation. In most cases, they probably have little relationship to current market values. In 2014 the basis of the tax was changed to fair value (as defined by international accounting standards) rather than the book value, though it is not clear whether capacity exists to produce fair value balance sheets for businesses. The change in valuation method was compensated by the ending of the urban land use fee in 2014. The problem is that one source of revenue was abolished without any guarantee that the annual property tax assessments on business premises would be increased.

Responsibility for the annual property tax passed in 2007-08 from central government to local governments. This was done without support from central government and without the staff responsible for its collection being transferred. Local governments were faced with having to find assessors and collectors at a time when the Ministry of Finance placed a maximum limit on the amount that could be spent on salaries. They were obliged to transfer employees from other activities or to find ways of hiring in new staff. Some recruited former central government employees and were able to retain their knowledge and experience. Serbia has 22 cities and 168 municipalities for a population of 7.1 million and all are unitary authorities responsible for the entire range of local services. There are questions as to whether all the local governments have the capacity to undertake value-based property tax assessments. The assessment methods used by local governments are not transparent, although the implication of the legislation is that market values should be used. There is a valuation rule book but some local governments use their own data and there have been reports that they have difficulties in accessing the data they are supposed to use. Unlike Lithuania, there are no officially adopted valuation standards or principles though in 2014 the Ministry of Finance formed a commission for the development of a legal framework for the valuation profession. The only licensed valuers are court experts licensed by the Ministry of Justice for mortgage valuations, who have construction rather than valuation qualifications and are not required to follow any internationally-recognised valuation standards.

The Republic Geodetic Authority (RGA) became responsible for mass valuation in 2011. It started capacity building for mass valuation with aid from the Swedish International Development Agency in 2007. A key element of this has been the creation of a Sales Price Register. The IT system for this was completed in 2012. Mass valuation requires transaction prices from a sample of properties whose characteristics are known. RGA received information on 685,000 transactions for the period 2007-2011 from the Tax Authority’s property transfer tax database. However, there were problems with identifying the properties in the transactions, particularly parts of buildings, like apartments and business premises,

as roughly half the records were missing information on the municipality and address, and 40% of parcels had no parcel number. In any case, the cadastre records parcels and not buildings or occupancy units within buildings. There is a major task to be undertaken to compile a comprehensive buildings register which records each address and unit of occupancy. Some local authorities have undertaken this but the records are incomplete for most areas. There was a problem in obtaining good quality data about the properties. The only available data on real estate for market analysis, apart from the price, purchase date and surface area, was that from the Real Estate Cadastre. Matching the property with the REC data provided additional information: for land – the type of land; for agriculture land – cadastre cultivation and class; and for apartments – the number of floors in building, usage, structure and floor. A great deal of work was needed to link the property transfer tax and cadastre data but with limited results. It was concluded that there was insufficient data or quality of information in the records to carry out mass valuation so a different approach was adopted, namely reliance on the Sales Price Register.

The Register became fully operational at the beginning of 2014. RGA maintains records on prices and rents derived from verified contracts obtained initially from courts and, latterly, from notaries. The rule book on mass valuation defines the system: procedures and organization for data collection, data analysis, model design, determining value, and real estate classification, and the publication of data from the Sales Price Register. RGA has received around 71,000 contracts for transactions in 2012-2013 and 111,000 in 2014. Of these 75% are sales and the rest are mainly gifts, but also exchanges, leases and other transfers. At the end of 2014 additional data about properties were being completed by the parties to the transaction when they came to the local cadastre offices to register transfer of title. The Basic Sales Price Register data is available via the internet. The data from the Sales Price Register should improve the quality of market data available as well as providing the basis for mass valuation. The yield from the annual property tax could be increased by ensuring that all properties on which there is a liability to pay the tax are actually assessed and the revenue due collected and by assessing properties on their actual market value. This could contribute to resolving the fiscal crisis Serbia faces.

d. Turkey

Turkey, unlike the former Socialist countries in the ECA region, is not a transition country. Its presence enables exploration of the extent to which the issues in improving recurrent property taxation are a legacy of transition as distinct from those that are likely to be faced by any emerging economy. The first Turkish Civil Code adopted in 1926 confirmed that everyone has the right to own and inherit property. Property ownership rights had been valid since the latter part of the Ottoman Empire.

The valuation profession in Turkey, though, is of relatively recent origin. When the law on Real Estate Investment Companies was adopted in 1992, it was not envisaged that there would be private valuers working in Turkey. Rather, these companies were to have their assets periodically revalued by two state-owned companies (Çelen, 2009, p. 190). During the 1990s private professional valuation companies were established and professional bodies for valuers were formed. They gained recognition from The European Group of Valuers' Associations, but have subsequently withered away. The Capital Markets Board was established in 1981 and in 2001 set out minimum qualifications for valuers. Since 2003 real estate valuers have been amongst the market professionals who require a license in order to be employed at intermediaries or other capital market institutions, such as mortgage finance institutions, housing and asset finance funds, and asset management companies. Valuers require a license to carry out residential and commercial mortgages and other forms of residential and commercial valuation. Licensed valuers are to be members of the Association of Appraisal Experts of Turkey (Türkiye Değerleme Uzmanları Birliği or TUDB), which is responsible for standards, education, licensing, and disciplinary matters. The standards adopted follow those of the International Valuation Standards

Council. The 2012 Capital Markets Law requires licensed valuers to send to TUDB information about the valuations they make in connection with housing finance.

The annual property tax was first introduced in 1972. Before 2002 taxpayers completed a property tax report every four years in which they declared the value of their property. It is believed that the values declared were often underestimates. In 2002 this declarative approach was replaced by an information system one. Taxpayers provide information about their immovable properties, including any change that may have resulted in a 25% increase or decrease in value, such as additions, changes of use, and changes in building services. The tax is imposed, assessed and collected by local governments, except metropolitan municipalities. Valuations are undertaken every four years by local commissions who value land and buildings separately. In urban areas the valuations of land should take into account transportation, distance to commercial areas, municipal services, zoning, topography, and position. In rural lands the valuations are determined by the land type and are largely a function of size. Building valuations are derived using the cost approach, assuming that the construction follows a standard method. The valuation of each property is the sum of the building and land valuations. Valuations are increased between revaluations to reflect inflation. The local valuation commissions do not include professional valuers, though they can request expert advice. Valuations can be outsourced to the private sector. In principle, accurate market land valuations together with the valuation of buildings on a depreciated replacement cost basis could produce reasonably accurate value-based tax assessments. However, this does not seem to be the case, with tax assessments being below market prices. The problem appears to be that valuations in urban areas do not adequately reflect the factors that influence value because the commissions apply a single rate per square metre to whole streets or groups of streets. The method for carrying out the depreciated replacement cost valuation does not produce market values as to do so requires that building costs reflect current construction costs and that the rates used for depreciation and obsolescence reflect occupiers' assessments of the suitability of the premises.

Local governments do not control the rates at which the property tax is imposed. These vary according to whether the property is in a metropolitan or non-metropolitan municipality. For urban lands the rates are 0.3% and 0.6% respectively; for rural lands 0.1% and 0.2%; for residential property 0.1% and 0.2%; and for other buildings 0.2% and 0.4%. There are a number of exemptions, including for public buildings and certain types of buildings, such as religious facilities, if they are not rented out. There are also temporary exemptions, such as 25% of the value of new residential buildings, certain buildings for tourism, and industrial facilities in backward areas, which all apply for the first five years, and buildings constructed after natural disasters, which are exempt for ten years. Afforested areas are exempt for 50 years and reclaimed areas for 10 years. There are reductions for certain groups such as those on low incomes, the disabled, and veterans. In addition to the property tax there is a participation charge that beneficiaries of the construction or renovation of roads, water or sewage systems must pay. This is a sporadic charge of up to 2% of the tax value.

Turkey has one of the lowest levels of sub-national government expenditure as a proportion of GDP in Europe as education, healthcare, and social protection are funded by central government. Therefore the low yield from the property tax should not be problematic, although it could be argued that this results in imbalance in national taxation. However, Turkey is faced with rapid urbanisation, which requires investment in infrastructure in anticipation of urban growth. An effective property tax system could provide the means by which borrowings to finance can be serviced out of taxes that capture the rising value of land resulting from urban growth. This requires value based property taxes that are revalued periodically. Metropolitan municipalities do not have the power to impose property taxes but instead rely on revenues from enterprises, and the sale and renting of land and buildings. Developing a local tax base for these would be desirable.

Tapu ve Kadastro Genel Müdürlüğü (TKGM), the Turkish cadastre and land registry, has undertaken pilot studies to establish the feasibility of value-based recurrent property taxes using mass valuation (Yildiz, Güneş and Almy, 2014; Güneş and Yildiz, 2015; Yildiz and Güneş, 2015). The pilots were undertaken in 2014 in two areas, Fatih Municipality in Istanbul and Mamak Municipality in Ankara. The main variables examined were parcel details, such as type, location, street width, and parking, zoning details, distances from features such as metros, hospitals, and universities, building details, such as number of floors, age, and construction, and details of the specific property, such as the number of rooms, surface areas, the floor, heating system, and whether it has a balcony. In all, 80 characteristics of each property were collected. Since many of these do not form part of the cadastral record, it was necessary to collect data through fieldwork and research in municipal archives into building plans.

Both pilot areas had active property markets but the problem was to obtain reliable price data. The buyer and seller of a property must declare the price when the transfer is registered but many of the declared prices are understated. Land registry fees are 4% of the declared price and there is no risk to the buyer of capital gains tax from an under-declaration. In the pilot studies, it was also necessary to make use of asking prices, valuations from TDUB members for mortgages, and interviews with buyers and sellers. These sources also presented problems, such as the different measurement standards that mortgage banks require valuers to use. The data enabled a variety of statistical approaches to mass valuation to be tested. Problems were encountered in developing models for non-residential properties due to the relatively small number of sales in the pilot areas. TKGM have therefore decided to undertake in 2015 a third pilot study specifically of commercial properties in three districts in central Ankara. The pilot studies in Fatih and Mamak found that the assessed values for the recurrent property tax should be increased by three times to reflect market values so that the effective tax rate was 0.065% rather than the nominal 0.2%, and assessments for the property tax would need to be increased by 2.5 times so that the effective tax rate was only 1.5% compared with a nominal rate of 4%. Mass valuation offers the potential for replacing the valuations produced by local commissions with ones that more closely reflect market values. As well as providing a fairer and more buoyant way of raising local revenue, the valuations could allow property transfer fees to be lowered, which could produce a higher yield through reducing incentives and opportunities for evasion.

4. CONCLUSIONS

Recurrent property taxes have features that make them particularly suitable to be local taxes. They also can help produce a more balanced tax system by reducing the burden on incomes and profits, and the consequential disincentives for work, enterprise, and investment. The use of inter-government fiscal transfers means that failure to adopt value-based recurrent property taxes affects national public finances. Although much can be done to improve yields from recurrent property taxes through ensuring that all properties are assessed and that billed amounts are actually collected, buoyancy in revenues requires regular revaluations to capture value increases that result from changing economic and social circumstances rather than investment by property owners.

Mass valuation can substantially reduce the cost per assessment for property taxes. The evidence from the case studies suggests that mass valuation systems are challenging to establish and mass valuation is more effective when a suitable valuation infrastructure and capacity is already in place. In any case, the creation of such an infrastructure is highly desirable in order to improve the efficiency with which property markets function and to increase investment potential. Value-based property taxes are fairer and can enable governments to reduce tax rates and at the same time increase the revenues they receive.

Although the focus of this paper has been on recurrent property taxes, improved valuation also improves the yield and fairness of sporadic property taxes and enables government to set tax rates that do not discourage beneficial economic activity. Improved valuation systems can enable better management of state and public sector assets and fairer systems of compulsory purchase compensation.

Mass valuation system efficiency reflects the comprehensiveness and quality of land records as mass valuation requires an accurate dependent variable in the form of prices achieved in transactions. Accurate transaction prices, freely available to interested persons and organisations, serve to increase the efficiency of property and investment markets and can be regarded as a public good that benefits all. The benefits of creating systems for accurately recording and disseminating property prices are far-reaching, going beyond improvements in the tax system. Property markets that are not transparent and do not have good data about prices are more risky, so that investment is discouraged, banks cannot rely on the collateral they are offered for loans, and the potential for releasing capital from property diminished. Mass valuations for value-based property taxes are an important part of creating a virtuous circle in which investors have access to reliable property market data, banks are willing to release capital tied up in property, and taxpayers recognise the legitimacy of the taxes they are required to pay.

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