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PROPERTY SALES REGISTER AS A TOOL TO IMPROVE THE QUALITY OF VALUATION AND MARKET RESEARCH LESSONS LEARNED FROM SELECTED COUNTRIES

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ABSTRACT

This article examines the significance of property sales data. Case studies about sales (price) registers in eight European countries which differ in terms of their development paths and experiences are used as examples. The issues of administration, accessibility, etc. are examined in the context of the quality of valuation and market analysis. However, a well-functioning sales register does not contribute to the development of property markets via professional services alone. The main concepts of property market – efficiency, transparency and maturity – are largely based on market information from raw data, including the prices in sales registers. The main conclusions are related to restrictions and limits on public access to sales data, which is generally the exception; to free access to sales data which provide new opportunities and support the development of property markets; and the data reliability issue, which cannot be an obstacle to the introduction of a sales register. Experience and lessons learned in selected countries can be useful to improve market data gathering and registration systems, especially in countries willing to introduce and improve their sales registers.

KEY WORDS

property sales register, quality of valuation and market analysis

INTRODUCTION

This article provides case studies of the sales (price) registers in selected European countries. Traditionally, property sales and other ownership transfers have been recorded in public registers for the last few centuries. The purpose of these registers has been related to the protection of ownership rights, property taxation, mortgaging and more. Despite centuries of history, sales registers linked to price data are relatively new. There are various names for databases which record the characteristics of property sales and rents. This is complicated in the international context because of the language issue: the English translation is unlikely to convey all of the nuances. Some examples of the names of these registers and databases in English are:

- Database of Transactions (Estonia)
- Market Data Register (Azerbaijan)
- Property Market Register (Slovenia)
- Real Estate Market Database (Latvia)
- Real Estate Price Register (Finland)
- Real Property Transactions Database (Lithuania)
- Registry for Prices and Leases (Macedonia)
- (Residential) Sales Price Register (Ireland)
- Sales Price Register (Sweden, Serbia)

However, there is no reason to overvalue the name itself. ‘Sales register’ as a neutral expression is used throughout this article.

The article includes case studies from eight European countries. Information is mainly based on semi-structured interviews conducted via e-mail in the period December 2015- January 2016. The same topics – including the main features of development, data specifications and main users – are covered in every country. Estonia was the first to be used as a sample to test the questionnaire; later, all other countries (except Finland which was partly based on Peltola (2013)) followed on the same basis. In some cases e-mail or Skype were used to clarify the details. The article covers Finland, Sweden, Estonia, Latvia, Lithuania, Macedonia, Serbia and Slovenia in greater detail, with a few examples from some other countries as part of the analysis. The article is based on the inductive approach i.e. specific cases are used to describe general phenomena. Comparison between the countries enables country-specific issues and common features to be distinguished. The countries were selected based on their stage of development: some cases represent countries which have developed their systems over a period of decades; others are ‘beginners’ representing best practice from the recent past. Although the article focuses on country-specific features, some international comparisons are also included. As the introduction of public sales registers is not the only solution, a brief digression into alternative solutions like private initiatives is included. The aims of

the article are to provide an overview of the current situation, to describe the features of development and to explain the main obstacles and challenges.

Finland and Sweden are countries which introduced sales registers more than 20 years ago. These countries are similar by location and political stability during relatively long time period.

Estonia, Latvia and Lithuania represent countries which introduced sales registers 15-20 years ago. These countries are similar by location (being known collectively as the Baltic States), historical background (having regained their independence from the Soviet Union in 1991) and recent developments, including joining the EU, NATO and the Eurozone. Their pathways, which share at least some peculiarities, guide us towards a better understanding of features of development over a remarkably long period of time.

The third group of countries comprising Macedonia, Serbia and Slovenia can be characterized by similarities between their location and history (all of them having formed part of the Federal Republic of Yugoslavia). Sales registers have been introduced in all of these countries in the last decade. Development started earlier (2007) in Slovenia, but the other two countries have followed the same path in recent years. These cases are especially valuable because of their freshness. All of these countries initiated the introduction of sales registers before the first steps in mass valuation.

1. SIGNIFICANCE OF SALES REGISTERS: THE WIDER BACKGROUND

The issue of property market data has attracted an increasing amount of attention. Market data are needed to understand the performance of property markets. There are at least three widely used concepts in this context:

- efficiency;
- transparency; and
- maturity.

An 'efficient' market was defined for the first time by E.F. Fama in his landmark empirical analysis of stock market prices which concluded that they follow a random (Fama, 1965, cited in Sewell 2011, 3-4). This is also known as the efficient markets hypothesis (EMH). The concept of market efficiency which includes the aspects of allocation and informational efficiency was developed by Fama (1970) to examine efficiency on financial markets. According to Fama (1970, 383) an efficient market is "a market in which prices provide accurate signals for resource allocation: that is a market in which firms can make production-investment decisions, and investors can choose among the securities that represent ownership of firms' activities under the assumption that security prices at any time 'fully reflect' available information". Devaney et al. (2011) refer to authors who prefer to call this a definition of 'informational efficiency' in the context of asset markets, because it leaves resource allocation rather unspecified. Schindler (2006)

recognizes that efficiency on housing markets is of great importance to professional real estate investors and mortgage bankers, as well as for homeowners, but the number of empirical studies on this topic has been limited – while at the same time there have been innumerable studies of the efficiency of stock, bond and other markets. Different views about the efficiency of property markets exist: Evans (1995, 5) states that the real estate market is better regarded as an inefficient rather than an efficient market; while Kauko & d’Amato (2008, 284) emphasize that the property market is traditionally defined as inefficient. Characterizing the peculiarities of the property market, Kauko & d’Amato (2008, 284) report issues related to heterogeneity, high information costs, infrequency of trade, dispersed markets and unavailability of information; Evans (2004) points out the issues of heterogeneity, location, pricing and trading; and Schindler (2010) mentions high transaction costs, low turnover volumes, carrying costs, specific tax issues, asymmetric information and unstandardized, heterogeneous commodities. Arvanitidis (2015) summarizes that the property market is notorious for its imperfections.

The word ‘transparency’ is widely used in the context of property markets, but the concept in more detail is not as well known. JLL (2010) provides an explanation of a transparent property market which can be characterized by the following:

- free flow of high-quality market information;
- robust regulatory enforcement; and
- fair transaction processes.

Although the explanation above has been given for characterizing transparency on the commercial property market, it is universal. In the context of the significance of sales prices, just the first item (free flow of high-quality market information) should be highlighted. Voss (2011, 2) indicates market transparency as a fundamental element of a well-functioning market that guides us towards the model of a free market economy, which ideally suggests complete and fully available information for all actors on the market. Considering that the well-functioning performance of the market indicates its high degree of efficiency, it is understandable that transparency contributes quite a lot to the efficiency of the property market.

There is at least one further concept in addition to transparency and efficiency: property market maturity. Lee (2005) points out a strong correlation between maturity and transparency: markets with high maturity can be characterized by high transparency, and vice versa, markets with low maturity have typically low transparency. At the same time, it is still necessary to distinguish between these two concepts. Property market maturity can be defined according to Keogh and D’Arcy (1994) as a set of market features including:

- accommodation of full range of use and investment objectives;
- flexible market adjustment in both the short and long term;

- existence of a sophisticated property profession with its associated institutions and networks;
- extensive information flows and research activity;
- market openness in spatial, functional and sectoral terms; and
- standardization of property rights and market prices.

Gordon (2010) and JLL (2010) describe the Global Real Estate Transparency Index (GRETI) introduced by JLL in 1999. GRETI provides a good picture of transparency on commercial property markets. The index, from 1 to 5, enables international comparison. Based on GRETI (JLL, 2014) the highest scores in 2014 were for the UK (1.25) and the USA (1.34), followed by Australia (1.36) and New Zealand (1.44). The index includes 102 markets worldwide. Some of the countries included in current research are well covered by GRETI. JLL (JLL, 2014) covers many European countries, including Finland and Sweden, with scores of 1.69 (highly transparent) and 1.79 (transparent) respectively, while Slovenia and Serbia have scores of 3.5 (low transparency). The other selected countries (Estonia, Latvia, Lithuania and Macedonia) are not included.

Property market maturity, similarly compared to transparency and efficiency, includes the feature of information flows. This way the concepts of transparency, efficiency and maturity are strongly related to market information. Sales price data contribute to development, property markets become more transparent and thus increase their efficiency and maturity. However, all of these concepts are rather relative in nature. Chin & Dent (2005, 356-357) and Kauko & d'Amato (2008, 285-286) indicate that maturity on emerging markets has a typically different meaning compared to markets with high maturity, and any efficient market may be temporarily and spatially in disequilibrium. This means that maturity is rather relative in nature.

Kauko & d'Amato (2008, 282) criticize the approach based on the assumption that methods and data sets reflect an equally efficient and inefficient market context: great variety in data infrastructure circumstances is a reality and needs to be dealt with not only at a conceptual, but also at an operational level of value determination. There is no principal difference whether we handle mass valuation, individual valuation or market analysis in this context. To improve understanding of market behavior, reliable market information is needed: market analysis and property valuation are information-driven and more specifically based on prices. Sales registers cover only sales but in the wider context rental data should be considered part of the same data set.

2. CASE STUDIES

Finland

According to Peltola (2013), the Real Estate Price Register (hereinafter REPR) was introduced by the National Land Survey (hereinafter NLS) in 1980. The main purpose of the REPR is related to valuation.

The REPR is accessible through the NLS website and several commercial websites. There is a query system which makes data selection quite simple. Because of the peculiarities of the Finnish legal system, sales of flats in condominiums (which are not real estate units in legal terms) are not covered by the REPR. In addition, the REPR does not cover the sales of commercial properties if these only form part of the property in legal terms; sales of single-family houses on leased land are also excluded. Sales of flats in condominiums are significant as these represent the biggest part of residential properties in Finland. Fortunately, these data are covered by another database (maintained by the Ministry of Environment and Housing) which is based on data collected by real estate agents. Depending on the city, 50-75% of sales are covered by this database. Despite the weaknesses, this database has dramatically increased public access to sales data. This is an example of cooperation between the private and public sectors, as the data source is completely private but the database is kept by a public authority. The Ministry of Environment and Housing also offers data on rental agreements regarding residential units. The database covers the country's eight largest cities (Helsinki, Espoo, Vantaa, Tampere, Oulu, Turku, Jyväskylä and Lahti). The same type of rental information is also gathered by KTI Property Information Ltd, which represents the IPD network in Finland. However, they specialize in corporate owners (big rental houses) and their main activity remains related to commercial property. The data in the REPR are publicly accessible, but issues regarding sensitive personal data have come under discussion. Based on the EU Directive on data protection, sales data cannot be published without permission being given by the owner, but in reality sales data remain open. The REPR has full coverage of sales which represent the types of properties included in the register. The sales data have been widely used for valuations for compensation, indexation is another purpose and has a high degree of significance in this context (Peltola, 2013).

Sweden

According to Söderblom (2016) the Swedish Mapping, Cadastral and Land Registration Authority (Lantmäteriet) is the holder of the Sales Price Register (hereinafter the SPR). The initiative to create such a register in Sweden arose from a project between different authorities in the early 1990s. They were the former authority responsible for Land Register Information, Statistics Sweden, the Tax Agency and Lantmäteriet. The main task for the SPR initially was to support the process of the taxation of properties and also to secure statistical information on sales. The first version of the SPR is thought to have been established in 1994. An important migration of the SPR was made in October 2014 due to a new version of the system for Land Registration. The most important task of the SPR is to secure information on transactions of ownership (not real estate property information). The SPR only covers sales of whole properties. Transactions made on parts of properties, like subdivisions are not stored in the SPR. This information is only stored in the Property Register. The information/data in the SPR is, as mentioned above,

distributed to Statistics Sweden on a regular basis. It is also used internally by Lantmäteriet in preparatory work for General Assessments. In this preparatory work sales also are quality-assured regarding the information/data. Information/data for public use is distributed via a retail system. Lantmäteriet has contracts with various retailers who buy information/data on sales. The retailer can then distribute the information to such users as newspapers, banks and private companies. The retailers often develop different systems for self-use or for the distribution of sales data services. Lantmäteriet's expenditure on the system as the authority maintaining the SPR must of course be financed, but this is more of a self-cost that the retailer pays to gain access to the information (Söderblom, 2016).

Estonia

According to Eerik (2015), the Database of Transactions (hereinafter the DT) was introduced by the Estonian Land Board (hereinafter the ELB) in 1996. Its early development (1997-2000) can be characterized by sales data coverage of around 65-70%, which was mainly affected by the weaknesses of the legal background. However, the situation changed dramatically in 2001, and in 2002 only around 10% of sales data were submitted to the DT. During the first few years of development, sales data were only submitted to ELB if the state or municipality had a right of pre-emption. After changes in legislation, this pre-emption right became exceptional, and as there was no other motivation for notaries to submit sales data to the ELB they stopped doing so (except in cases where the state and municipalities still had the right of pre-emption). It took longer than expected to resume regular data collection. Coverage in 2003 was around 55%; in 2004 around 94%; and since 2005 it has always been over 99%. The sales data cover the main characteristics of properties and property transfers. All transaction data are submitted electronically using the e-Notary system; the ELB is responsible for administration and supervision. The system has a direct link to the cadastral map (GIS) which enables the use of queries and statistical tools based on location. There is also a connection to the Building Register, but these data are only available to the ELB, i.e. all other users have to use Building Register data for this purpose. A simple fee system based on units (transactions) is used; there are no discounts for corporate clients. The users having access to the sales data are strictly limited: only certified valuers with a special licence from the ELB are entitled to obtain the data. The quality of the data has improved year by year, with the changes being more rapid during the early part of development. The biggest change was a result of the dramatic increase in mortgage lending in the late 1990s. As commercial banks were strict in fixing their rights, there was no longer any room for underdeclared prices. However, not all transactions correspond to free market conditions, and in certain cases over- or underdeclared prices remain. Sales data have been used by both the public and private sectors. They are not available to everybody, which means that only private valuers have used them for market analysis and valuation. The ELB has used the data for market analysis: the market overviews they publish

periodically are freely accessible on the ELB website. The ELB has developed a query of real property price statistics which allows basic statistics based on type of use, location, etc. to be compiled. This is also available to anyone interested on the ELB website. Property indices have also been produced by the ELB which form a product based on DT. The ELB does not produce any individual valuation reports itself, but market data have been used for the estimation of initial prices when state land has been sold at auction. The sales data have been used by other public authorities like Statistics Estonia and the Bank of Estonia. The data have also been used in mass valuation, but the last revaluation was in 2001 and there has been no further use in this context in the last 14 years (Eerik, 2015).

Latvia

According to Pētersone (2015), the Real Estate Market Database (hereinafter the REMD) was introduced by the State Land Service (hereinafter SLS) in 1998. There were certain problems with data coverage in the early period of development: until 2005 coverage was around 70%; from 2006-2007 80-90%; and since 2008 there has been nearly full coverage. From a technical point of view the biggest steps were made in 2004 when the Central Database (Oracle) and automated data processing systems were introduced. The REMD covers the main characteristics of properties and property transfers. Property transaction contracts are registered in the Land Register and then all transactions are automatically transferred to the REMD using web servers (parties, their status, property and price). All physical characteristics are obtained from the Cadastral Register. There is a direct link to the cadastral map (GIS) and geographical coordinates are available. As the Cadastral Register covers more than just land, all of the required data about buildings can also be obtained. The fee system regarding the sales data is based on queries, which means that the system is oriented towards corporate clients. There is a standard fee based on a subscription, and according to the number sets, some extra fees are added. The use of sales data is not restricted: everybody enjoys access. The stamp duty for natural persons who are not relatives and for legal persons is rather high: 2% of the value of the real estate (in certain cases it can even be up to 3%). The notary fee is below 1% in the case of lower price levels and 0.1-0.5% if the price level is higher. The stamp duty and notary fee are limited to a certain amount in the case of extremely high transaction prices. The sales data are used by both the public and private sectors. The SLS uses the sales data for mass valuation and market research. Market overviews are published on a regular basis and are available on their website for everybody to read. The SLS has developed a query system which is available on their website. It allows basic statistics based on type of use, location, etc. to be compiled. This is available to everybody free of charge. The sales data are used for other public authorities like Statistics Latvia and the Bank of Latvia (Pētersone, 2015).

Lithuania

According to Aleksienė (2015), the Real Property Transaction Database (hereinafter the RPTD) was introduced by the Centre of Registers in 1998. As the Centre of Registers is responsible for all kinds of public registers and all the data needed for the RPTD is in their hands, there has been 100% coverage of sales from the very beginning. Transaction data are submitted by notaries using NETSVEP (the Public Electronic Service for Real Property Transactions). Data about property transactions come to the Centre of Registers over the Internet within 24 hours of the approval of real property transactions. All land parcels and the majority of buildings, with the exception of some parts of rural dwellings and farmstead buildings, are linked to the GIS. The RPTD combines Real Property Register, GIS and real property transaction data and some mass valuation results, elements and attributes. The RPTD contains the price data and the date of the transaction, as well as available rental data. The RPTD is closely integrated with the other registers held by the Centre of Registers. There are web applications for mass valuation analysis and for statistical analysis of the data, programs for selection of real property transactions. Notary and registration fees are relatively low - less than 1% of sales prices. The mortgage finance is widely used and supports correctness of declared prices (Aleksienė, 2015).

Macedonia

Based on Crvenkovski (2016), the Registry for Prices and Leases (hereinafter the RPL) was introduced by the Agency for Real Estate Cadastre (hereinafter the AREC) in March 2015. The RPL is based on the Law for Real Estate Cadastre of 2013. This Law also stipulated the establishment and maintenance of a system for mass valuation. A feasibility study regarding the introduction of the RPL was completed by D. Mitrović from Slovenia at the end of 2013. The Law for Real Estate Cadastre was amended in August 2014 and AREC became responsible for the introduction and maintenance of the RPL. The statute related to the RPL was adopted in March 2015, when the RPL started functioning throughout the country. In April 2015 transactions were made available in the GIS portal of AREC. The RPL includes the main characteristics of transactions and properties. AREC is connected to every notary in the country using an electronic system called e-kat. Through this system the notaries submit and receive all required documents. This system is based on the e-signature; the same system is used by municipalities, valuers, geodetic companies, executors etc. Data collection for the RPL can be handled as part of the cadastral procedure: the sales contract can be drafted by either a notary or a lawyer; the required certificates related to different legal issues can be obtained electronically; the seller should apply for assessment from the municipality; and, after paying the tax, the parties can sign the contract in a notary's office and all required information about the property transfer is provided by the notary to AREC using the e-kat system. All transactions are linked to the GIS portal of AREC, and all parcels have geographical coordinates. The RPL is a part of the e-kat,

and in this way all required data about the buildings are also included in the RPL. Everybody has free access to the GIS web-portal of AREC. Transactions are published with a limited amount of information (date, macro location, type of property, area of property, price and currency). Access to more detailed information is only available to professional users (valuators, executors, notaries, municipalities, etc.) via e-kat; this is free of charge (Crvenkovski, 2016).

Serbia

According to Rašković (2015), the Republic Geodetic Authority (RGA), which gained responsibility for mass valuation in 2011, initiated the development of the Sales Price Register (hereinafter the SPR). The first steps in the introduction of the SPR were made much earlier, in 2007, when the RGA, together with the Swedish International Development Agency (SIDA), started developing an appropriate IT system. However, problems with property identification arose and even further manual checking did not produce the required level of quality. The SPR became fully operational at the beginning of 2014 and contains data going back to April 2012. As such, 2012 can be considered as the year of introduction of the SPR (Rašković, 2015).

According to Rašković (2016), the submission of contracts to the RGA and registration in the SPR were stopped in January 2013; partial registration commenced again in October 2013 and full registration at the beginning of 2014. The SPR includes all of the main characteristics of property including different identifiers, legal rights and data related to the property transfer. The agreements must be submitted electronically and on paper; selected data are also submitted electronically. The authorities responsible for contract verification are the Basic Courts, but in September 2014 Serbia started introducing a notary system. However, there remains no full coverage throughout the country. Verification is performed by notaries if they are available; the remainder of the country is still covered by the Basic Courts. These courts deliver contracts on paper; notaries (with a number of exceptions) deliver scanned copies of contracts to Local Cadastral Offices via e-mail. Notaries started to submit data electronically using a web application running on an Internet network at the beginning of 2016. The SPR does not include the GIS or (geographical) coordinates, but data exported from the SPR are linked to internal systems: the Digital Cadastre Plan, the Address Register and the Register of Spatial Units. Links with internal systems ensure UTM coordinates for all transactions. For the purpose of public disposal, the UTM coordinates are transformed to geographical coordinates. Data on buildings and parts of buildings (apartments, business premises, etc.) form part of the Real Estate Cadastre (REC) and there is a direct link between the SPR and REC via REC web services. So-called transaction reports are available for a fee. Every report contains a maximum of 15 transactions selected according to criteria, including the time period, type of property and location. However, it is possible for everybody to obtain limited sales data including the type of sale from the market

perspective (whether it based on free market circumstances or not), the type of property transfer, the area, the date and the price. The sales prices declared in contracts were problematic for a relatively long period of time. This issue was most recently recognized during the pilot projects in 2007, when sales data from 2005 were used. The situation started to change and the pilot projects in 2012 showed much better results. The first positive reactions in terms of reliability were based on rapidly growing mortgage lending on the residential market. This market sector today can be characterized by the normal distribution of sales prices. Much the same happened with agricultural land, where prices were completely underdeclared in 2005-2006: the situation in 2014 can be characterized by higher homogeneity and distribution which is skewed to the right. The positive influence on the reliability of prices has been related to changes in the transfer fee from 5% to 2.5% in 2007 and also the change in capital gain tax from 10% to 15% in 2012. The main purpose of the SPR is mass valuation. The RGA prepares reports about market volume as of 2014; price statistics will be added in 2016. The Statistical Office of the Republic of Serbia uses SPR data on dwellings for experimental price indexes and agriculture sales prices by municipality for DevInfo Serbia – a database system for monitoring human development and for planning and reporting purposes. Private real estate companies started making requests for market data in 2015 (Rašković, 2016).

Slovenia

Based on Mitrović (2016), the Property Market Register (PMR) in Slovenia was introduced in 2007. Full coverage of price data is obtained because official statistics of property market activity come under the Surveying and Mapping Authority (SMA) and their Valuation Office (VO) provides the Statistical Office of the Republic of Slovenia, the National Bank of Slovenia and the Macroeconomic Office of Slovenia with all sales and rent data. Unlike in many other countries, the PMR has also covered rental data since 2013. Collection of rental data is based on the Law on Mass Valuation of 2012. Data are provided by private and public companies (web applications and web services) and physical persons (digital certificates, e-mail or manual post). Data about sales and rent include the main characteristics of properties and transactions. Data are provided by the Taxation Authority or by companies when Value Added Tax should be paid. All of the data are linked to the GIS, geographical coordinates are available and there is a direct link to building data. Since the SMA is fully financed by the state, all data are free of charge and publicly available online. Marginal fees covering administration costs must be paid to obtain the data. Transfer and notary fees have a minimum effect on the declared sale/rent contract price, since the capital gain tax is progressive from 5-30% over 30 years. The market – especially buyers and lessees – is strongly ‘motivated’ to declare the real market price/rent, since they do not know when they will be in a position to sell the property and have to face a much higher capital gain tax (property transfer tax being 2%). Sales data are widely used by the

public and private sectors, including for mass valuation, indexation, individual valuation and market research for different purposes and national statistics (Mitrović, 2016).

3. COMPARISON AND ANALYSIS

The gathering of market data differs from country to country: some have had remarkable success in introducing a systematic approach to market data collection and establishing property sales registers, while others have been rather inactive in this respect. The markets are relatively different, although the existence of a public sales register is not the only remarkable milestone in this context. All of the sales registers examined as part of the case studies have been introduced in the last ca 35 years and most of those have been influenced by the needs of mass valuation. At the same time, the data have much wider use, including the needs of the private sector, securing of information on transactions of ownership, indexation, market analysis and statistics. Adding comments from a country outside of the case study sample, the Irish case can be examined. According to the Property Services Regulatory Authority (2016) the Residential Property Price Register in Ireland was introduced by the Property Services Regulatory Authority (PSRA) in 2012. TheJournal.ie (2012), an Irish news website, states that “there have been calls for a database of national property prices for several years in order to provide open information on a notoriously secretive area.” The Irish Time (2015) recently informed of a new mobile app which makes Property Price Register information more accessible. This does not mean that sales data are not needed for property taxation, but the idea behind the Property Price Register was rather different compared to property taxation.

There are various systems from the point of view of data availability and accessibility. In some countries sales data are available, but use is somehow limited in the context of available characteristics. The Irish case can be given as an example here: sales data are available to everybody free of charge, but at the same time you can only obtain a limited number of characteristics about a certain sale (mainly the price and certain identifiers). In some countries, sales data are public in nature but their use is limited by relatively high fees. The Finnish case – with a fee level of 2.50 EUR per transaction (there being another fee system for corporate clients) – represents this approach. The fee level is not too high in the case of real needs, but at the same time it is clear that access is more limited compared to cases where the fee level is very low or there is no fee at all. In some countries the use of sales data is restricted and data are only available to limited groups of people. The Estonian case can be used as an example: sales data can be used by certified valuers only. It is convenient to hide behind sensitive personal data and restrict access to sales data, but from the point of view of the main concepts of the property market like efficiency, transparency and maturity this does not seem reasonable. The remaining countries examined in the case studies are rather more liberal. However, the issue of sensitive personal data is not something which is related to Estonia only. Typically there are no personal data in sales registers, but as the properties are identified by address,

cadastral code, etc. then the personal data of owners can be easily linked to it. This is one of the main reasons (at least formally) why the use of sales data is restricted in some countries. This can be affected for different reasons, including cultural and historical peculiarities, but very different solutions still exist. From the point of view of market transparency there is no reason to have any restrictions, and in this context most of the countries in the case study can be presented as good examples.

Almy (2015) provides a glimpse into the USA. There is no national register, and in most states the registers are maintained by local governments responsible for deed recording, property taxation or both, according to the laws of the state and the practices of local authorities. Deed registration is mostly a function of county governments, of which there are more than 3000. Around 13,000 governments are responsible for property tax administration. In some states, sales information is freely available; in others (such as Pennsylvania) it is available for purchase; and in yet others (such as Texas) sales information is regarded as confidential (although once acquired, a company can sell it) (Almy, 2015).

As such, the USA represents, similarly to Europe, quite different solutions.

Based on Eurostat (2013, 115) residential property indices can be used as an example. In the EU, national statistical offices have been cooperating to develop residential property price indices that are based on broadly harmonized statistical approaches. Although quite a lot has been done in terms of methodology, comparability between indices can be very limited as a result of the different data sources – mortgage versus cash purchases, valuations versus advertised prices versus initial offer prices versus final transaction prices, etc. This means that published indices can in practice measure different aspects of price development (Eurostat 2013, 115).

According to Almy & Tomson (2014) and Tomson (2014) the main challenge in terms of mass valuation pilot projects in Turkey (2013-2014) and Azerbaijan (2014-2015) was not related to the valuation methodology or the collection of attribute data. Although there were no appropriate sales registers before the pilot projects, it was not even the lack of sales data, as these were available using other data sources. The main issue was related to data reliability, as in both countries a remarkable proportion of sale prices were underdeclared. The reason for using other data instead of actual price data is usually caused by the problems with reliability or absence of actual price data. All alternative values differ from one another and from actual sales prices. In the context of valuation results it is necessary to consider the valuation level; the same is related to any 'expert' opinion which is quite the same in its essence; and probably the same issue is related to asking prices, which usually differ from actual prices. There is no reason to undervalue the meaning of different types of indicators of value, but in context of market value, price indices and other market-based output, actual prices still have the most important position. Even if alternative data are used

in analysis, actual price data are still needed to gain at least an understanding of how these data are related to actual price data (Almy & Tomson, 2014; Tomson, 2014).

Data reliability is more difficult to observe. Some brief views on data reliability and ways of improving it are given in the case studies. There are no serious problems, but some countries have reported on the steps they have taken to improve the quality of sales data. Sometimes these changes have been made for other purposes, of course. Relatively high tax on capital gains in Slovenia; the lowering of transaction costs in Slovenia and Serbia; and the development of a mortgage system in Serbia, Estonia and Latvia can be given as examples. Since in this context a questionnaire was not detailed enough, it is clear that these examples do not present the full picture. Although all of those tools can be found in classical textbooks covering such topics as land law, land policy and property taxation, surprisingly these have not been taken into account in many countries.

There is at least one more topic which should be handled in this context: whether it makes sense to launch sales data collection in circumstances which indicate weaknesses regarding the reliability of declared sales prices. Many countries have used certain tools (like lowering transaction costs, increasing tax on capital gains and developing a mortgage system) to improve data quality, but at the same time public access to sales data is also a way of improving quality.

In summary, in almost all countries there are certain restrictions or limitations, i.e. there is no system which can be simultaneously characterized by full coverage, a remarkably large number of characteristics and free access in the sense of payments. The sales registers maintained by public authorities generally cannot be regarded as a kind of business. Peltola (2013) reports that in Finland the annual cost of the sales register (the REPR) is around 1,000,000 EUR and at the same time only around 200,000 EUR can be earned from its data. There are no comparable data from other countries, but this is not all that important, as in most cases it is not the business which creates the money. Quite often that is why there is no private initiative. The costs in the context of public administration are still important, but issues related to accessibility in the most common sense are much more important.

CONCLUSIONS

The main conclusions are as follows:

- Sales registers differ in terms of their development paths and experiences. There are differences in data availability – restricted or free access, limited or nearly unlimited data, free of charge or fee-based. However, the situation is changing, and restrictions and limits are becoming the exception. This is especially the case in countries which have recently introduced sales registers.

- Sales registers are quite often introduced taking into account the needs of property valuation and taxation; sales price data are much more widely used today. The significance of sales data is not related to specific use: free access provides new opportunities and supports the development of property markets.
- Data reliability can be an issue but is not an obstacle to introducing a sales register. Tools for improving data quality exist, and public access itself contributes to the betterment of data quality.

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