

European Valuer



Professor Ewa Kucharska-Stasiak explores the limits of statistics and AVMs in valuing individual properties

I am of the opinion that the subject of discussions on the application of statistical

methods in valuation should not be:

- the technical possibility of applying statistical methods in property valuation
- concern for the job prospects of valuers, which would be significantly reduced if computer valuation methods using statistical methods are adopted.

The discussion should focus on seeking answers to the following questions:

- does the value determined by statistical methods correctly reflect the concept of market value set on the basis of the most

advantageous use, the characteristics of the valued property, the terms of transaction, the complexity of the real estate market, the competitive position of the property on the market and the behaviour of buyers? In other words, is trust in statistical methods justified and does their application ensure the adequate credibility of the result?

- are the results of estimations made using statistical methods understandable for the recipient?

Seeking answers to these questions, we will look at valuation both as a process of reaching a value, and as the result of this process. The paper is based on a critical

analysis of the literature and includes a case study.

The usefulness of statistical methods for the valuation of real estate

Traditional valuation methods evolved in a period characterised by a significantly lower availability of statistical data than today. This was determined by the smaller number of transactions and reduced market transparency. Today, the availability of multiple sources of competent data is greater, especially in urban areas. However, the problem remains of the small number of

... continued on page 2, column 1

Chairman's message



Dear Colleagues,

European Valuer chronicles emerging valuation challenges, and there are few so existential for the profession as the

increasing misuse of Automated Valuation Models (AVMs). That's why the last issue headlined the new European Valuation Standard on AVMs and the new EVS Guidance Note on The Valuer's Use of Statistical Tools, and the July 2017 issue explored the European Banking Authority's limits on use of statistical methods in valuation, as well as the seminal report by Professor George Matysiak challenging the accuracy and transparency of AVMs in Europe. Widespread misunderstanding of

AVMs – and the misperception that tools developed for mass appraisal can be safely and successfully adapted to the valuation of individual properties – are why TEGoVA works with the European Parliament and Commission to ensure that EU law limiting the use of stand-alone AVMs for mortgage lending valuations and revaluations is respected by member states of the Union, the EEA and all EU candidate countries.

But TEGoVA, its 71-member associations and 70.000 valuers need to do much better than ensure compliance with the law. We need to ensure that decision makers and society at large understand its *ratio legis* – to protect mortgage borrowers and the financial system from the fundamental inefficiency of stand-alone AVMs in arriving at market value of individual properties.

In our headline article *The limits of statistics and AVMs in valuing individual properties*, Professor Ewa Kucharska-Stasiak addresses the issue head on. This ground-

breaking article, itself an offshoot from a longer paper setting AVM theory and practice against the backdrop of overly mathematical approaches to economic theory, is truly seminal in that it is sure to provoke much welcome debate about the essence of valuation work. Just one example – too often we hear out of context that AVMs suffer from lack of transaction input, as if that were the only problem or benchmark of accuracy and as if comparison of transaction prices were the be-all and end-all of valuation practice. Professor Kucharska builds on her theoretical and practical experience to take a more holistic and penetrating view of valuation practice and explains the far more complex relationship between valuation methodology and an increasingly complex real estate environment. ●

Krzysztof Grzesik is Chairman of TEGoVA.

... continued from page 1, column 3

transactions – although they cover the entire population – especially for rare, unique properties.

The value estimated in the valuation process should reflect not only the technical, economic and legal characteristics of the property, but also the valued property as a component of the real estate market, and therefore the importance of these features in the eyes of market participants, the reflection of these features in property prices, the market potential of the valued property, if it exists, its competitive position, and also the strength of the market, which determines the risk of investing.

The subject of the valuation is very individualised, not only in terms of physical features, but also the economic and legal characteristics. The correct application of statistical methods would require firstly acquiring a large amount of information on the transaction prices of very similar properties, which would correctly reflect the impact of legal, physical and economic characteristics in property prices, and secondly the acquired data meeting the definitional conditions of market value, relating not only to the conditions of concluded transactions, but also the time of their conclusion (in accordance with the principle of anticipation, transactions from the distant past cannot be used, because they do not reflect the expectations of investors regarding the future).

However, meeting these conditions on the real estate market is difficult, even impossible. This is determined by several factors:

- the **diversity of properties**, which significantly impedes the isolation of data sets with the appropriate number of similar properties on local markets
- the **low efficiency of the real estate market**, which means that prices on the market do not reflect all changes taking place in the environment, and therefore, prices on the market cannot be the only basis for determining value
- and the **low awareness of real estate market participants of the influence of individual characteristics**, such as the floor layout, the storey, the age of the building, the view and the transferable rights (ownership, or ownership rights to the premises), on the price paid.

Market participants know little about this – **they are unaware of the prices of property characteristics.** Evans doubts whether statistical surveys provide such knowledge. In many cases, price distributions will be

curved rather than linear. Furthermore, mutual influences occur between the features, which affect the prices – for example, central heating costs depend not only on the floor surface, but also the height of the room, the square footage and the number of storeys. Evans argues that there is no evidence that improvements in the statistical methods used would produce significant increases in accuracy (*Evans 2004, chapter IV*).

“The average price cannot be the basis for determining the market value. Not only does it not reflect the most probable price, but above all, it does not reflect the current competitive position of this property on the market.”

Not only do doubts exist regarding whether statistical methods allow property features to be effectively reflected in the price, but even greater doubts arise at the level of reflection of the market and the behaviour of its participants, because:

- statistical models are based on the distribution of numerical data according to the normal distribution. The distribution of market data regarding transaction prices from the investment market or the rental market (rental rates) does not resemble a bell curve. The distribution of data on the real estate market is skewed to the left or right. This calls into question the construction of statistical considerations based on a normal distribution
- the use of statistical methods requires a large amount of data to be obtained. When using statistical methods, property valuers either take dissimilar properties as the basis for determining values or they adopt an unreasonably long observation period (often ten years). Since the valuation model is an investor model, meaning that the value, in accordance with the principle of anticipation, must reflect the expectations of today’s investors regarding the future, the adoption of a long observation period is erroneous, because changes occurring in the economy – in the economic, legal and political spheres as well as in the real estate market – cause a shift in investors’ expectations. Old market information does not reflect the expectations of today’s investors regarding the future
- the use of statistical methods also does not allow the reflection of many other economic principles that are important in the process of value creation, such as

the principle of change, the principle of competition, the principle of external balance (the balance between the capital invested in the property and the quality of the surroundings and neighbourhood), the principle of internal balance (the ratio of the value of the land to the value of its constituent elements), and the principle of the most advantageous method of use, which has been deemed the heart of the valuation. **This means that the closer we are to the acceptance of statistical methods in property valuation, the further we are from the economic principles of valuation.** And yet, property valuers entering the field of valuation are entering the field of economics (*Ministry of Internal Affairs 2007, p. 32*).

This means that the stage of attaining the value requires **an individualised approach** – reflecting the market potential of the property and its market competitiveness in the eyes of investors. This stage should reflect the typical expectations of investors. Applying statistics at this stage would appear to be a fantasy – statistical models poorly simulate the way of thinking of market participants (*Wilson 1995*).

One of the great opponents of these methods is Dell, who prefers statistical methods in property valuation in the field of market analysis.

Dell equates the use of Automated Valuation Models (AVMs) to a black box with a funnel at the top. *“You put the data into the funnel, the box rattles and buzzes, and the output is ‘respect’, which is not an estimate of value”* (*Dell 2004, p. 13 after: Lorenz 2006, p. 165*). The basis for such severe criticism of advanced methods, including AVMs, is the fact that they do not observe *“the subject of the valuation, its conditions and threats, the usability of the plot, traffic conditions, and so on [...] They work poorly for unique properties and mixed housing estates and can be highly erroneous in any direction”* (*Lorenz 2006, p. 165*). These methods lead to the determination of an average transaction price. The average price cannot be the basis for determining the market value. Not only does it not reflect the most probable price, but above all, it does not reflect the current competitive position of this property on the market.

A major drawback to the use of the AVM is the elimination of the involvement of a qualified property valuer: *“The estimation of the average price is done from behind a desk, without inspecting the property being valued...”* (*Grzesik 2017, p. 39*). **Lorenz**

... continued on page 3, column 1

... continued from page 2, column 1

claims that the group of alternative methods should not be called valuation methods – instead, they should be thought of as data analysis methods, or tools to support the decisions of real estate valuers (Lorenz 2006, p. 164).

The dominant belief is that traditional methods are better suited for the valuation of individual properties, while advanced methods are more useful for mass valuations (Lorenz 2006, p. 164). The collective behaviour of market participants can be reflected using traditional methods. They therefore reveal the market experiences of participants who do not think via the prism of mathematical formulas. Mathematical formulas are perceived by investors as a modern form of alchemy. In the words of Bogle, *“Too much complexity, too little simplicity”* (Bogle 2009).

Conclusions

Statistical methods can be helpful at the market analysis stage (ex-post analysis). However, this awareness is not sufficient to transform a price into value. Transforming prices into value on the real estate market is particularly difficult. This being a low-efficiency market, the prices do not reflect all the changes occurring in the environment. Prices on the real estate market do not fully reflect the current state of the real estate market - they often reflect historical price levels (on the investment market and on the rental market) and not the expectations of market participants today. An external consideration of these methods is necessary for the assessment of the competitiveness of the valued property and for its individualisation to be revealed. The specificity of the property and the specificity of the real estate market mean that the process of individual property

valuation is and should remain a craft-based process. I am convinced that future progress in valuation methodology should not rely on improving statistical methods but on discovering the relationships between market participants and the increasingly complex environment, and their impact on value. To answer this call, valuation methodology should open up to the accomplishments of behavioural economics. Unfortunately, combating the abuse or misuse of mathematics and statistics in economics is difficult, because someone who has become, or thinks they have become, a master of a particular analytical method will be the last one to notice its weaknesses. ●

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Silvia Cappelli explains how TEGoVA members have contributed to the regulation of non-performing loans in Italy



All over Europe, the amount of non-performing or uncollectable loans (NPLs) has increased during the years in which the economic crisis has impacted upon companies and households.

This particular issue has been tackled by the European Central Bank (ECB), which, publishing its *“Guidance to banks on non-performing loans”*, has put financial institutions under the spotlight. In particular, the NPL issue is extremely relevant for Italian banks, given that, at the end of 2016, it equated to 173 billion Euros – 9.4% of the overall loans. The NPL ratio at European level accounts for 5.7% of on-balance loans, whereas in Italy this figure reached 17% (March 2016)¹. In this respect, the Italian institutions and authorities enforced new regulations and best practices to address NPL reduction, which are giving their initial results. Indeed, according to the Italian Banking Association (ABI), the amount of Italian banks' NPLs fell, in the last year, to 25.8%, reaching 64.4 billion Euro. Accordingly, the reduction was equal to 24.5 billion Euro, compared to the highest level reached in 2015.

However, the management of the NPL issue is still ongoing and entails several issues concerning the estimation of value of real estate assets, as outlined in the ECB after

the 2014 Asset Quality Review. Therefore, after this test, ECB issued the Guidelines for NPLs, encompassing a specific chapter on the real estate collateral valuation, as proof of the relevance of this topic for the stability of the financial system. If we incorporate this into Italian jurisdiction, the very first element to take into account while valuing NPLs is the calculation of the market value, if the collateral is not marketed or is not through an auction. An additional factor of complexity is the wide range of variability among different Italian courts.

Among the variety of initiatives carried out to manage the remarkable amount of the NPL, ABI decided to promote and coordinate a specific working group to establish best practice at the national level on valuation issues, aiming to improve the efficiency of NPL management.

“The first part of the Guidelines is focused on the requirements of competence and professionalism that a valuer must have. In this regard, an important role is attributed to TEGoVA’s European Valuation Standards (EVS).”

ASSOVIB and TEGoVA, together with other sector associations and professional orders, have actively contributed to this initiative, providing their qualified expertise to the working group. Other TEGoVA Italian member Associations that contributed to

this project were the National Council of Surveyors, E-Valuations and Is.I.V.I. This joint effort has led to the publication of the **“Guidelines for Valuation of Real Estates as Collaterals of NPL Loans”**, a self-regulatory protocol that provides important support for a more efficient management of debt recovery. In particular, the purpose of the Guidelines is to provide operational guidance to valuers and all the players involved in foreclosure proceedings, establishing principles in favour of transparency, accuracy and reliability to guarantee uncollectible loans, providing standardised definitions and approaches.

The first part of the Guidelines is focused on the requirements of competence and professionalism that a valuer must have. In this regard, an important role is attributed to TEGoVA’s European Valuation Standards (EVS). As evidence of their relevance, Recognised European Valuer (REV) status is the standard whereby valuers demonstrate their competence and experience. ASSOVI, together with the other Italian TEGoVA members, have translated EVS 2016 to facilitate a wider adoption of these requirements.

One of the most relevant innovations introduced by the Guidelines focuses on the conditions that are actually encountered during the foreclosure proceedings. In this respect, there is a considerable difference

... continued on page 4, column 1

... continued from page 3, column 3

among the conditions whereby a property is sold in the event of an auction or through the free market. Such conditions might include the possibilities at least that:

- the access to the property is often denied or factually impossible for the potential buyer
- the conditions of the credit offer are limited, if compared to a **“traditional”** property purchase on the free market
- the timescales whereby the new owner actually takes possession of the property are still not determined, because the tenant often creates obstacles in order to postpone the sale of the property
- the seller/debtor is not always willing to dispose of the property
- the valuation is often carried out with a considerable advance compared to the actual disposal date.

Considering such hurdles and peculiarities

of the disposal during a foreclosure procedure, the Guidelines use as definition of value the **“market value with assumptions”**. The Guidelines also describe the Valuation Certificate, a document that was envisaged for the very first time by EVS 2016 (Chapter 5, 4.4). The EVS Valuation Certificate has been introduced as best practice, to promote a better access to information for the purpose of property advertising and to provide a standardised information document guaranteeing NPL assets throughout Italy. The Valuation Certificate consists of a summary of the main contents of the assessment report. It can be a separate document or may be included in the valuation report, to which, however, it refers for a full understanding. Finally, the Guidelines give relevance to a series of activities and technical studies on due diligence, special assets valuations and notes on real estate leasing.

Guidelines on Valuation of NPL Real

Estate Collateral are the latest milestone in property market regulation in Italy. Indeed, in 2010, ABI promoted the Guidelines on property valuations, which are considered to be the first protocol for valuations in the banking sector. Also in this respect, ASSOIB gave its valuable contribution, steering in the direction of ensuring that Italian property valuation is market compliant with international and European valuation standards. In conclusion, a consistent step was made in 2016, with the adoption in Italy of the Mortgage Credit Directive, which confirms the crucial role of property valuations at regulatory level. ●

Footnote:

¹ <https://www.eba.europa.eu/documents/10180/1360107/EBA+Report+on+NPLs.pdf>

Silvia Cappelli is a TEGoVA Board Member and Vice President of Italian property valuation association ASSOIB.

Nino Beraia turns the TEGoVA focus on Georgia



The Independent Valuers Society of Georgia (IVSG) has been a member of TEGoVA for over four years. IVSG is still a relatively young organisation, founded in 2013 – aiming to

promote the valuation profession in Georgia and what is equally important, promoting the ethical rules and principles governing valuation activity.

The organisation is based on voluntary membership, and members of our association together comprise around 80% of the valuation services market in Georgia, delivering the whole spectrum of valuation services. We also organise seminars and training for professional valuers, promoting and facilitating continuous education. In Georgia, IVSG is the only valuers’ association that has organised two international conferences, attracting guests and presenters from 12 countries.

Until now, one of the challenges of IVSG was to increase public awareness, as professional valuers are often confused with auditors and mystical **“experts”**! The profession of valuer is not regulated in Georgia and needs to be properly perceived and recognised.

When, in 2016, the law on audit and accounting in Georgia introduced a paragraph laying down the requirement for all valuations to be carried out by a certified valuer on the basis of reliable standards, it was considered to be a breakthrough. Recently, the government of Georgia declared that the law regulating the valuation profession should be prepared very soon, and IVSG is actively participating in the process. The law will define a set of standards, the minimal educational requirements for valuers, the certification process, registration and quality control.

“We understand that regulating the valuation profession is quite a complicated task for any government, though, and this is where the experience of TEGoVA members from all over Europe should not be underestimated.”

Increasing political, economic and financial integration within the EU necessitates a high level of valuation standards and qualifications. Remembering the lessons learnt from cases surrounding the world financial crisis, the vision of IVSG is that valuation should become the pillar of security for the financial and real estate market in Georgia, not just a component of systemic risk. We understand that regulating the valuation profession is quite a complicated task for any government, though, and this is where the experience of TEGoVA members from all over Europe

should not be underestimated.

Considering the Georgia/EU integration and systems harmonisation (including bank systems), the IVSG Board firmly believes that EVS standards should be referred to in the law, together with IVS standards. Along with other events, in June 2017, the IVSG organised a **“round table”** event, hosting members of the working group, which included the Deputy Ministers of Finance, Economics and Sustainable Development and the Vice President of the National Bank of Georgia, Mr George Badescu, member of the Standards and Membership Committee of IVSC, Krzysztof Grzesik, TEGoVA President and Dana Ababei, a member of the European Valuation Practice and Methodology Board (EVPMB). It was agreed to continue close cooperation in the preparation of the law of Georgia, when regulating the valuation profession.

We would like to express our deepest gratitude to TEGoVA’s board, ANEVAR, PFSRM, NUPS and LIVA for the generous support in providing their expertise in this particular subject. We also hope that the new law will help to raise the profile of the valuation profession, improving the transparency of the market and the quality of services. ●

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