THE EUROPEAN GROUP OF VALUERS' ASSOCIATIONS

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EVS 6

Automated Valuation Models (AVMs)

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European Valuation Standard 6

AVMs cannot be used to produce a valuation report that complies with EVS independently of a valuation process founded, inter alia, on inspection of the property by the valuer and the application of valuation judgment by the valuer.

Where used, an AVM is never more than a tool contributing to the valuer's estimation of value, for which he remains responsible.

1. Definition

1.1 AVMs are statistically-based computer programmes which use property information to generate property-related values or suggested values.

1.2 A statistical method of valuation seeks to arrive at the value of a property directly through the application of a mathematical algorithm to a data base of transaction prices and property characteristics whilst omitting:

i) an explicit traditional valuation, such as a comparative or income based approach valuation

and

ii) a professional valuer's qualitative assessment of the value.

Hence, in the context of real estate valuation, an AVM is simply the mechanical application of an algorithmic procedure to the data presented to it, without taking into account a valuer’s opinion as to other relevant information, without a physical inspection of the property and ignoring the weighting a valuer would place on the relevant information.

1.3 An AVM is not a valuation. It can serve as a starting point for some buyers and sellers in considering a property’s value. It can be used by the qualified valuer as one input in his comprehensive analysis of the market provided he is satisfied with his knowledge of the AVM’s input data and model (see EVGN 11 “The Valuer’s Use of Statistical Tools”).

2. Introduction

2.1 Used as a tool for valuing properties quickly and at low cost, AVMs have intrinsic limitations:

- They can only work from the figures for the transactions reported without information or insight into their context
- There is no inspection of the property. They must rely on an implicit assumption that the property is in marketable condition
- A limited ability to account for external influences
- Limited coverage of relevant data in some areas
- Limited coverage of relevant recent data for some properties
- A limited ability to reflect any unique characteristics of the property
- They are unlikely to be relevant for specialist properties

There is little hard impartial evidence in the public domain or independent evaluation of the accuracy of AVMs for individual properties as European AVM manufacturers are reluctant to release details and the underlying data or the construction of the algorithms are not made available for analysis.[1]

2.2 Those limitations have less potential negative consequences concerning the standard uses of AVMs in considering properties collectively, as for:

- Banks identifying property that needs revaluation
- In-arrears assessment in banks
- Identification of fraudulent activity in banks
- Full valuation audits in banks
- Determining capital adequacy ratios in banks
- Mark-to-Market portfolio of properties in banks
- Mass Appraisal for local taxes by government
- Estimating relocation compensation by government
- Cost/Benefit analysis for potential public expenditure

2.3 In recent years, AVMs have become much more widespread as a result of a drive towards rationalisation in the property and financial sector. Abusive use of AVMs was one of the reasons for the financial crisis, as was stated in the final report of the parliamentary committee of inquiry of 27 January 2016 regarding the **Irish banking crisis**[2]:

> *"More widely, however, the demand for asset valuations increased significantly as the property boom took hold and reliance on informal valuation standards, such as 'desktop' and 'drive-by' valuations, became more prevalent. These did not involve any physical inspection of the property, but were a limited (and sometimes fully automated or computer generated) process of estimating value. A Central Bank review of financial institutions found that many used these informal valuations as if they were formal valuations. [74 – Central Bank Report, Valuation Processes in the Banking Crisis – Lessons Learned – Guiding the Future, 18 December 2012, PUB00252-008] A number of developers gave evidence that they continued to rely on professional valuations.*
>
> *Valuations exert significant impact on a financial institution's credit risk management. As mitigation against risk, it is imperative that the valuation process is robust and that the value attributed to the underlying assets can be relied upon when fully assessing the risk of a credit decision or the ongoing management of the loan. For that reason a reliable valuation document is central to the credit risk decision. [75 – Central Bank Report, Valuation Processes in the Banking Crisis – Lessons Learned – Guiding the Future, 18 December 2012, PUB00252-016]"*

2.4 As they can only work by projecting forward from past data, they are likely to be pro-cyclical in effect at points where the relevant market is turning.

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1 http://www.tegova.org/data/bin/a591190c05b2c3_Geoge_Matysiak_Valuation_Report.pdf

2 https://inquiries.oireachtas.ie/banking/wp-content/uploads/2016/01/02106-HOI-BE-Report-Volume1.pdf.

2.5 These intrinsic drawbacks and their contribution to the financial crisis inspired the restrictions on use of AVMs laid down by the EU legislator.

3. The European legal framework

3.1 The effect of Article 19 of the Mortgage Credit Directive and Article 229(1) of the Capital Requirements Regulation is that AVMs cannot be used to provide property valuations independently of professionally competent internal and external valuers. The opinions and guidelines of the European Banking Authority (EBA) and the Financial Stability Board (FSB) both mirror and justify this requirement.

3.1.1 The Mortgage Credit Directive

3.1.1.1 The Mortgage Credit Directive has a primary emphasis on consumer protection for borrowers coupled with the aim to guarantee financial market stability.

3.1.1.2 The Mortgage Credit Directive does not address AVMs as such. The limitations on their use follow from the Directive's insistence on the use of reliable valuation standards by "professionally competent internal and external appraisers" (Article 19).

3.1.2 The Capital Requirements Regulation

3.1.2.1 The Capital Requirements Regulation constitutes, together with the Capital Requirements Directive, the legal framework governing the access to the activity, the supervisory framework and the prudential rules for credit institutions and investment firms.

3.1.2.2 In order to strengthen the financial system and ensure a level playing field within the internal market, the CRR ensures a maximum harmonisation of credit institutions' prudential requirements. In this context, the CRR is very clear that property valuation needs to be done by a qualified valuer:

> *"Institutions may use statistical methods to monitor the value of the property and to identify property that needs revaluation." CRR Article 208(3), last sentence*

3.1.2.3 According to that provision, the application of statistical methods (including the use of AVMs) can only be engaged to monitor the value of the property and to identify property that needs revaluation. The use of such methods is not allowed for the actual valuation of the immovable property. This applies *a fortiori* to the original or first-time valuations where no value has yet been established and can be monitored.

3.1.3 The "*good practices*" issued by the European Banking Authority

3.1.3.1 Issued on 1 July 2015 in response to the Mortgage Credit Directive[3], the EBA's good practices underline that it is very important to determine the correct value of the immovable property when using or establishing the loan-to-value ratio. According to the EBA, this value is to be determined on the basis of "a robust and prudent approach to property appraisals":

> *"Good practice 10: Where national frameworks specify controls, standards or incentives on LTV (loan-to-value) ratios, it is good practice to ensure that creditors satisfy themselves that the LTV ratio takes into consideration the 'real value' of the available equity, which could be calculated on the basis of (i) <u>a robust and prudent approach to property appraisals</u> [10 – The prudential interest in a robust approach to collateral management is addressed in detail in FSB Principle 4]; ..."*

3.1.3.2 The EBA's opinion as regards the robust and prudent property valuation explicitly refers to the **Principles on Sound Residential Mortgage Underwriting Practices issued by the FSB** in 2012[4]. Part 4 of these principles gives additional guidance on how the risks inherently associated to collateral management can be controlled or avoided:

> *"**4.1 Jurisdictions should ensure that lenders adopt and adhere to adequate internal risk management and collateral management processes, which include sound appraisal processes.** <u>Proper collateral management should include onsite inspections by lenders or appraisers</u>; but onsite inspections could be exempted if the lender or appraiser is able to demonstrate that the risk posed has been adequately assessed through the overall collateral management process.*
>
> *For example, a flat or an apartment in a multi-family building which had recently undergone an on-site inspection could be exempted."*

4. Commentary

4.1 "AVMs cannot be used to produce a valuation report that complies with EVS independently of a valuation process founded, inter alia, on inspection of the property by the valuer and the application of valuation judgment by the valuer.

Where used, an AVM is never more than a tool contributing to the valuer's estimation of value, for which he remains responsible."

4.1.1 The use of AVMs otherwise than as support for a qualified valuer undertaking a valuation report is excluded for the actual valuation of an individual immovable property.

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[3] https://www.eba.europa.eu/documents/10180/983359/EBA-Op-2015-09+Opinion+on+good+practices+for+mortgages.pdf.

[4] http://www.fsb.org/wp-content/uploads/r_120418.pdf?page_moved=1.

4.1.2 This applies *a fortiori* to the original or first-time valuation where no value has yet been established and can be monitored.

4.1.3 This is a consequence of the fact that the prime concern in the valuation of an individual property is the accuracy that those relying on it need to conduct their business with confidence, whether as the buyer, owner or other party, or mortgage debtor, not the bank. Protection of the individual consumer requires a valuation report by a qualified valuer to ensure maximum accuracy concerning what is often the most important transaction in a person's existence.

4.1.4 Where used, an AVM figure must never be more than one element of the panoply of inputs that the valuer uses and reconciles in reaching his estimation of value. However, even as one comparative element or benchmark, use of the AVM requires that the valuer be aware of and satisfied with the AVM's input data (for instance sales prices as opposed to asking prices) and how they are used, in making a sound professional judgment of the degree of proficiency and reliability underlying the AVM calculation.

4.2. AVMs may be used without inspection of the property in the cases of banks monitoring the values of their property portfolios or identifying property that needs revaluation.

4.2.1. Banks (and owners of large real estate portfolios) review vast numbers of properties constituting their real estate collateral. It is part of their obligations under EU banking supervision legislation and under the Asset Quality Review of the ECB. As to the deployment of statistical techniques, these measures serve to ascertain the solvency of banks and can thus safely be based on averages for which the output from AVMs may often be relevant. This use has no consequences for mortgage debtors in terms of the value of their individual properties serving as collateral.